## Undergraduate Catalog 2011-2012

There are those who seek knowledge for the sake of knowledge, that is curiosity.

There are those who seek knowledge to be known by others, that is vanity.

There are those who seek knowledge in order to serve,
that is love.

## Taylor University

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Information in this catalog, while current at the time of printing, is subject to change based on enrollment, faculty availability, and other considerations. Taylor University reserves the right to withdraw a course or program or to limit its enrollment when, for any reason, it becomes impractical to offer it as previously scheduled.

While Taylor University publishes program information and materials and assigns academic advisors, the student is ultimately responsible to ensure his or her academic program fulfills all graduation requirements. The University reserves the right to withdraw a previously awarded degree if the University subsequently determines that the degree requirements were not met appropriately.

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## Our Heritage, Mission, and Life Together

The year 2011 marks the $165^{\text {th }}$ anniversary of the founding of Taylor University. During the year of 1846, the United States annexed New Mexico as a territory; admitted lowa as the $29^{\text {th }}$ state in the Union; and declared war on Mexico. Electric arc lighting was introduced in Paris; Elias Howe patented the sewing machine in America; John Deere constructed the first plow with a steel moldboard; and American dentist W. T. Morton introduced ether as an anesthetic, all in the same year. In the literary world, Henry Wadsworth Longfellow published "The Belfry of Bruges" and Herman Melville published "Typee." In London, Charles Dickens introduced the first cheap English newspaper, the Daily News, and the Evangelical Alliance was founded. In Ireland the failure of the potato crop caused a famine, which would send thousands of Irish immigrants to America. Also in 1846, the Smithsonian Institute was established in Washington D.C., and certain political and religious movements in America gained momentum in advocating the emancipation of black slaves and promoting expanded rights for women.

Forged in the fire of intense religious beliefs, Taylor University was destined to become one of the oldest evangelical Christian colleges in America. Conceptualized with the conviction that women as well as men should have an opportunity for higher education, Taylor University began as Fort Wayne Female College in Fort Wayne, Indiana, and then became Fort Wayne College. Following the example of Oberlin College (which became the first coeducational college in America and the first to award college degrees to women in I84I), Fort Wayne College became coeducational in 1855. In 1890, the school merged with the Fort Wayne College of Medicine and changed its name to Taylor University in honor of Bishop William Taylor, an energetic missionary evangelist possessed with unusual vitality of commitment and devotion.

Bishop William Taylor became a symbol of the values and ideals of the college. His voluminous writings including many books on preaching and missions and extensive worldwide missionary endeavors resulted in his being the first lay pastor to be named a bishop of the Methodist Church. In 1893 because of the population boom in the central part of the state, Taylor University moved to Upland, Indiana. Nearly 100 years later in 1992, Taylor University reestablished its presence in Fort Wayne by acquiring Summit Christian College. (Summit had started in 1895 with the sponsorship of the Missionary Church Association and the spiritual leadership of Joseph P. Ramseyer and Daniel Y. Schultz.) In 2009, undergraduate programs at Taylor University Fort Wayne (TUFW) were discontinued and consolidated on the main campus in Upland.

With this heritage, Taylor University entered the twentieth century. Taylor University's historian Dr. William Ringenberg noted, "The intellectual revolution at the turn of the century cracked the spiritual foundations of major universities" in America by challenging the role of the Christian worldview. "This, coupled with the dehumanizing of education" and the unrest caused by "the inability of secular education to guide students in their quest for meaning" helped to further shape, strengthen, and define Taylor's Christian educational mission. For over 165 years, Taylor has been faithful to that mission.

Taylor University trustees, administrators, faculty, staff, and students stand committed to our heritage of Christian commitment and academic excellence.

## Implementation of Mission - A Christian Liberal Arts College

Taylor University is an evangelical, independent, interdenominational Christian liberal arts university in which all programs are shaped by a biblical, Christian worldview and the integration of faith, learning and living within a community of intentional Christian nurture and relationships.

Taylor is distinctive in its commitment to both spiritual and intellectual development as symbolized by the twin spires of the Rice Bell Tower. Academic pursuits at Taylor are rigorous, demanding imagination, dedication and integrity from both students and faculty. As a Christian institution, Taylor University has highly capable, supportive faculty who recognize that all truth has its source in God. Students' quests for truth begin with this conviction and relate to all aspects of the liberal arts curriculum.

Taylor University carries out its mission and purposes primarily by offering undergraduate programs in its residential campus setting. Within this environment, curricular and co-curricular programs advance the holistic development of students expressed through servant leadership, global and civic engagement, service, and life-long learning. These programs engage students through collaborative faculty-student research, experiential and service learning, internships, and international study

The University offers focused graduate programs that expand and complement curricular and institutional strengths. Taylor University Online offers select undergraduate and graduate courses, including summer school opportunities, and programs for students who are not in residence.

The University employs dedicated faculty, professional, and support services personnel who align with its mission and enable outstanding programs within a culture of continuous quality improvement.

Taylor's campus reflects a vision of physical facilities that combines aesthetics, functionality, and timely maintenance.
The University's location in the pastoral, small town environment of Upland, Indiana, seventy miles north of Indianapolis and fifty miles south of Fort Wayne, complements a commitment to foster interpersonal relationships that edify, enrich, and value all members of the University community. The proximity to metropolitan areas provides numerous benefits, including access to specialized healthcare and cultural and entertainment opportunities including music, theater, art, professional athletics and commerce. There are also several nature preserves, state parks and outdoor recreational areas reachable within two hours or less.

## Mission, Purposes, and Anchor Points

The mission of Taylor University is to develop servant leaders marked with a passion to minister Christ's redemptive love and truth to a world in need.

In order to advance this mission, Taylor University is committed to the following purposes:

- To provide whole-person education, involving students in learning experiences imbued with a vital Christian interpretation of truth and life which foster their intellectual, emotional, physical, vocational, social, and spiritual development.
- To offer liberal arts, professional, and lifelong education based upon the conviction that all truth has its source in God, and that being biblically anchored, the Christian faith should permeate all learning leading to a consistent life of worship, servant leadership, stewardship, and world outreach.
- To create specific experiences wherein the integrative focus of a Christian liberal arts education is clarified, personalized, and applied.
- To contribute to the advancement of human knowledge and understanding and serve the evangelical Christian church and the larger (public) community for the glory of God.
- To foster a biblical model of relationships that acknowledges both unity and diversity of the followers of Christ within a covenant community and which can be evidenced in a continuing lifestyle of service to and concern for others.
- To maintain and foster appropriate and effective support services that enable maximum program effectiveness throughout the University.


## Anchor Points

| - Biblically Anchored | - World Engaging |  |
| :--- | :--- | :--- |
| - Christ Centered | - Whole Person Focused |  |
| - Faith Learning Integrated | - $\quad$ Servant Leader Motivated |  |
| - Liberal Arts Grounded |  |  |

## Statement of Faith

To more explicitly define the meaning of Christian higher education as used in the Articles of Incorporation, and the methods and policies by which the proposed results are to be achieved through the University or any affiliated educational institution under the control of the University, the following statements of belief and practice are set forth:

Taylor University is firmly committed to the lordship of Jesus Christ and evangelical Christianity. To ensure the central place of Christian principles in the philosophy and life of the University, the trustees, administration, faculty, and staff believe:

- There is one God, eternally existent in three persons-Father, Son, and Holy Spirit-the ultimate Creator and Sustainer of all things in heaven and on earth.
- The Holy Bible is the only inspired, authoritative written word of God, progressively revealing God's will for humankind.
- Jesus Christ is the living Word of God who made known and carried out God's plan of redemption through His virgin birth, sinless life, atoning death, bodily resurrection, and ascension, and who will return in power and glory.
- The Holy Spirit is present in the life of the believer, testifying to the lordship of Christ and enabling the believer to live a godly life.
- Humankind, though uniquely created in God's image, rebelled and stands in need of redemption.
- God graciously extends salvation to anyone who comes to Christ by faith.
- The Church is the community of believers who express their unity in Christ by loving and serving Him, each other, and all people.


## The Life Together Covenant

Taylor University is a community of Christians intentionally joined together for academic progress, personal development, and spiritual growth. We seek "to develop servant leaders marked with a passion to minister Christ's redemptive love and truth to a world in need." Together we seek to honor Him by integrating biblical faith and learning while our hearts and lives embrace the process of maturing in Christ.

The Taylor community consists of those who, in furtherance of our mission, are living together in intentional, voluntary fellowship, aware that we are called to live our lives before a watching world. Although primarily centered on the Upland campus, this community is not defined by geography, but rather by active engagement in the Taylor educational mission.

The Life Together Covenant (LTC) identifies the expectations for living in community as we seek to fulfill our mission. It is impossible to create a community with expectations totally acceptable to every member. Nevertheless, certain responsibilities and expectations must be specified to assure orderly community life. When individuals join the Taylor community, they freely and willingly choose to take upon themselves the responsibilities and expectations outlined in this covenant. The University Expectations are not intended to measure spirituality or to promote legalism. Nevertheless, Galatians 5:I3-14 reminds us that while we were called to be free, our freedom is best used when we serve one another in love. (Romans 14; I Corinthians 8; 10:23-33)

A foundational support for the Life Together Covenant is the Taylor University Statement of Faith. The Statement of Faith affirms that the Bible is the inspired and authoritative word of God, and it provides the essential teachings and principles for personal and community conduct. The Statement of Faith also affirms the presence of the Holy Spirit in every believer; God, through the Holy Spirit, places in every believer the inner resources and attributes to minister to others through supportive relationships.

## Biblical Responsibilities

## Responsibilities for Loving God, Others, and Self

We glorify God by loving and obeying Him. Because we are commanded to love one another, relationships and behaviors which reflect such love confirm our allegiance to God and are glorifying to Him. (Matthew 22:36-40; John 15:/I-14; Romans 15:5-6)

Living in daily fellowship with other Christians is a privilege and an expression of God's will and grace. In recognition of this privilege, great value is placed on the quality of relationships in our community. We acknowledge that we are living in a fellowship where we are dependent on and accountable to one another. The New Testament word for fellowship is koinonia, which is translated as a close mutual relationship, participation, sharing, partnership, contribution, or gift. Members, therefore, are encouraged to seek opportunities to demonstrate koinonia. (I Corinthians 12:12-31; Ephesians 4:I-6)

All persons are created in the image of God, and each person is known by God and knit together in the womb with intentional design. God's attention to creative detail is uniquely applied in each person in whom is given the capacity to love God with heart, soul, mind, and strength. The commandment to love our neighbor as ourselves reminds us of our potential to minister to others while at the same time recognizing our own need for care and support. (Psalm 139:13-14; Mark 12:29-3I; I Corinthians 6:19)

## Responsibilities for Community

Within our community the greatest expression of fellowship and the highest principle for relationships is love. Since God first loved us, we ought to demonstrate love toward one another. (I John 3:II, I6, 18; 4:7-2I)

For the purpose of our community, we have identified the following specific expressions of love as being among the most desirable:

## - Building Up One Another

We expect each member of the community to strive consciously to maintain relationships that support, encourage, and build up one another. (Romans 15:I-2)

- Making Allowance for One Another

Because of our fallenness, difficulties in relationships do occur. In such cases we are to respond with compassion, kindness, humility, gentleness, and patience, making allowance for each other and forgiving one another. (Colossians 3:12-13)

- Caring for One Another

We are responsible to come alongside those experiencing grief, discouragement, illness, tragedy, or other personal trials. Expressions of bearing one another's burdens include comfort, encouragement, consolation, and intercession. (Galatians 6:2)

- Respecting One Another

Because of the God-given worth and dignity of persons, each member of the community is expected to be sensitive to the image of God created in every person. Therefore, discrimination against others on the basis of race, national origin, age, gender, or disability is not acceptable. Any kind of demeaning gesture, symbol, communication, threat, or act of violence directed toward another person will not be tolerated. (Colossians 3:II-14; I John 3:14-18)

## - Speaking the Truth in Love

A community such as ours can be strengthened by speaking the truth to each other with love. Problems in relationships and behavior can be resolved constructively by confronting one another in an appropriate spirit. If the welfare of the one being confronted is paramount and if the confronter is motivated by and acting in love, the process can produce growth. (Ephesians 4:15)

- Reconciliation, Restoration, and Restitution

Healing broken relationships is necessary for a healthy community. When relationships have been harmed, regardless of the reason, individuals are expected to reach out to one another, forgive one another, restore relationships, and make restitution. (Matthew 5:2324; 18:15-I7)

## Responsibilities for Individual Attitudes and Behavior

- Attributes of the Heart

Scripture gives us mandates for daily living through the Ten Commandments and the Sermon on the Mount. (Exodus 20:2-17; Matthew 5-7) In addition, Scripture teaches that certain attributes are available to individuals through the Holy Spirit. These attributes include: "love, joy, peace, patience, kindness, goodness, faithfulness, gentleness, and self-control. Against such things there is no law." (Galatians 5:22-24 NIV) This "fruit of the Spirit" is to be sought, encouraged, and demonstrated in our relationships. We are also called to live lives characterized by peace and holiness. (Hebrews 12:14)

In contrast to encouraging these positive attributes of the heart, Scripture condemns injustice and attitudes such as greed, jealousy, pride, lust, prejudice, and hatred. Although these attitudes are sometimes difficult to discern, they can hinder relationships with God and others and lead to unacceptable behavior. (Galatians 5:19-21; Ephesians 4:31; Micah 6:8)

- Prohibited Behaviors

Certain behaviors are expressly prohibited in Scripture and therefore are to be avoided by all members of the community. They include theft, lying, dishonesty, gossip, slander, backbiting, profanity, vulgarity, crude language, sexual immorality (including adultery, homosexual behavior, premarital sex, and involvement with pornography in any form), drunkenness, immodesty of dress, and occult practice. (Mark 7:20-23; Romans I3:I2-14; I Corinthians 6:9-II)

- Academic Integrity and Truthfulness

As a Christ-centered University community we apply biblical responsibilities for honesty to all forms of academic integrity. Plagiarism is forbidden; we expect truthfulness and fidelity to be expressed in every learning context. (Luke 16:10; Ephesians 4:25)

## - Submission to Civil Authority

In keeping with scriptural admonitions to bring ourselves under the authority of government, members of the Taylor community are expected to uphold the laws of the local community, the state, and the nation. An exception would be those rare occasions in which obedience to civil authorities would require behavior that conflicts with the teaching of Scripture. On such occasions, each individual would submit voluntarily to the penalty for his or her behavior. (Romans I3:I-7)

Behavior resulting in arrest on or off campus is subject to review within the University's disciplinary procedures.

## University Expectations

In addition to subscribing to the section on Biblical Responsibilities, members of the Taylor University community voluntarily commit themselves to the following expectations of behavior. This commitment results from the conviction that these expectations serve the common good of the individual and the institution. These expectations are not set forth as an index of Christian spirituality, but rather as values and standards of the Taylor community and guidelines that serve to preserve the ethos of the campus communities.

Furthermore, they reflect our commitment to helping each member of the community grow in maturity and in the ability to make wise choices. Because of the importance of trust and responsibility to one another, violations of these expectations are regarded as a serious breach of integrity within the community. The following expectations apply to all members of the campus communities-the faculty, staff, and students of Taylor University:

- Worship

Corporate worship, prayer, fellowship, and instruction are essential for our community. Therefore, students, faculty, and administrators are expected to attend chapel. Faithful participation is understood as a mature response to our community goals. We expect that individual honor and commitment to the Taylor community will motivate us to attend chapel. In addition, members of the community are encouraged to participate in the life of a local church.

- Lord's Day

Members of the community are to observe this day as a day set apart primarily for worship, fellowship, ministry, and rest. While activities such as recreation, exercise, and study may be a part of the day, "business as usual" relative to University programs and services will not be sanctioned or encouraged.

- Respect for the Property of Others

Members of the community are expected to respect the property of others, including University property, private property on and off campus, and public property. The intellectual property of others is also to be respected.

## - Illegal and Legal Substances

Taylor University prohibits the possession, use, or distribution of illegal substances and the abuse or illegal use of legal substances, including prescription and over-the-counter medication

- Tobacco

Recognizing that the use of tobacco is injurious to one's physical health, members of the campus communities will not possess, use, or distribute tobacco in any form on or off campus. In addition, our campuses are smoke free.

## - Alcoholic Beverages

The community recognizes the potential risk to one's physical and psychological well-being in the use of alcoholic beverages. It also recognizes that use of alcoholic beverages can significantly and negatively impact the community. Accordingly, faculty, staff, and students will refrain from the use of alcoholic beverages. Alcoholic beverages are not served at any University functions or programs on or off campus.

- Gambling

Gambling (the exchange of money or goods by betting or wagering) is viewed as an unwise use of God-given resources and is not acceptable in any form.

## - Entertainment and Recreation

The University expects its members to use discretion and discernment in their choices of entertainment and recreation (some examples include media, Internet usage, and games). Social dancing is not permitted on or away from campus. However, acceptable forms of expression may include sanctioned folk dances, dances that are designed to worship God, dancing at weddings, and the use of choreography in drama, musical productions, and athletic events. Activities and entertainment that are of questionable value or diminish a person's moral sensitivity should be avoided. Consideration for others and standards of good taste are important, and all activities should be guided by this principle.

## - Policies and Procedures

Compliance with day-to-day policies and procedures of the community is expected from members. These routine items are listed in the Student Life Handbook, the Administrative and Staff Handbook, and the University catalog.

## Application

The University affirms that the Biblical Responsibilities and University Expectations outlined herein lead to responsible citizenship and a positive and healthy lifestyle, and they support the fulfillment of the University mission.

While members of the community are encouraged to follow the principles of this LTC throughout the year, it is specifically applicable for students while they are actively engaged in the educational mission (Fall Semester, Interterm, Spring Semester, and Summer Term, including Thanksgiving and spring breaks) or are representing Taylor in any off-campus events. For employees, it is specifically applicable during the periods of their service or employment contracts.

## Conclusion

The book of Colossians provides an appropriate summary of the goals for our community:
"Therefore, as God's chosen people, holy and dearly loved, clothe yourselves with compassion, kindness, humility, gentleness, and patience. Bear with each other and forgive one another if any of you has a grievance against someone. Forgive as the Lord forgave you. And over all these virtues put on love, which binds them all together in perfect unity. Let the peace of Christ rule in your hearts, since as members of one body you were called to peace. And be thankful. Let the message of Christ dwell among you richly as you teach and admonish one another.....And whatever you do, whether in word or deed, do it all in the name of the Lord Jesus, giving thanks to God the Father through him." (Colossians 3:I2-I7 TNIV)

## Accreditation and Memberships

In its academic programs, Taylor University is accredited by The Higher Learning Commission (AQIP participant) and is a member of the North Central Association of Colleges and Schools (http://www.ncahlc.org, 3I2-263-0456). The University is also accredited by the Council on Social Work Education, the National Council for Accreditation of Teacher Education, and the Indiana Professional Standards Board. Taylor's music program is accredited by the National Association of Schools of Music and programs in Computer Engineering and Engineering Physics are accredited by the Engineering Accreditation Commission of ABET. In addition, Taylor is seeking accreditation by the Association of Collegiate Business Schools and Programs. All accreditation documents are maintained in the Office of the Provost.

Taylor University memberships include:

- American Association for the Advancement of Sustainability in Higher Education
- American Association of Colleges for Teacher Education
- American Association of Collegiate Registrars and Admissions Officers
- American Association of University Women
- American Council on Education
- American Society for Quality
- Association of American Colleges and Universities
- Christian College Consortium
- Christian Leadership Alliance
- College Board
- Council for Christian Colleges and Universities
- Council for Higher Education Accreditation
- Council for Undergraduate Research
- Council of Independent Colleges
- Council on Law in Higher Education
- Evangelical Council for Financial Accountability
- Independent Colleges and Universities of Indiana
- Indiana Campus Compact
- Indiana Commission for Higher Education
- Indiana Consortium for International Programs
- Indiana Network for Higher Educational Ministries
- Institute of International Education
- National Association of College and University Business Officers
- National Association of Evangelicals
- National Association of Intercollegiate Athletics
- National Association of Independent Colleges and Universities
- National Association of Student Financial Aid Administrators
- NAFSA: Association of International Educators
- Scholarship America
- Society for College and University Planning
- U.S. Green Building Commission


## Christian College Consortium

To provide a variety of professional and academic experiences for faculty and students, Taylor maintains membership in the Christian College Consortium uniting thirteen Christian liberal arts colleges with programs similar to those of Taylor. Of special interest to Taylor students are the opportunities for semester visiting-student options on the other campuses and cooperative off-campus/international programs. The following institutions are included in the consortium:

- Asbury University
- Bethel University
- George Fox University
- Gordon College
- Greenville College
- Houghton College
- Malone University
- Messiah College
- Seattle Pacific University
- Trinity International University
- Westmont College
- Wheaton College


## Council for Christian Colleges and Universities

Taylor University is one of over 100 colleges and universities that comprise the Council for Christian Colleges and Universities, a Washington, D.C.-based organization founded in 1976. The CCCU's primary focus is to help its member institutions pursue excellence through the effective integration of biblical faith, scholarship, and service. The council sponsors semester programs for qualified students from its member schools. These offerings include:

- American Studies Program (Washington, D.C.)
- Australia Studies Centre
- China Studies Program (Xiamen, China)
- $\quad$ Contemporary Music Center (Nashville, TN)
- India Studies Program (Coimbatore, India)
- Latin American Studies Program (San Jose, Costa Rica)
- Los Angeles Film Studies Center
- Middle East Studies Program (Cairo, Egypt)
- Scholars' Semester in Oxford (Oxford, England)
- Uganda Studies Program
- Washington Journalism Center (Washington, D.C.)


## Campus Location and Facilities

## Campus Highlights

Taylor University is nestled in the rural gentleness of Upland, Indiana, population 3,845 ( 2010 census). Taylor's quiet location adds to its charm, yet Upland's central location, just four miles from Interstate 69 between Indiana's two largest cities (Indianapolis and Fort Wayne), gives students quick access to the cultural diversity of larger communities.

Taylor's borders are as wholesome as the setting itself including residential areas, the Upland Health and Diagnostic Center, and the Avis Corporation, along with many natural settings such as Taylor Lake spanning eight acres, the Avis-Taylor Prairie Restoration Project, and the 680acre beautifully preserved Arboretum. The University also owns 668 acres northeast of campus which have added an additional 80 acres of arboretum space. The remainder of land is currently being reviewed for potential uses.

The campus is spacious and scenic with many points of interest. In the heart of the campus rests the Zondervan Library, housing the Engstrom Galleria, a bright and open walk-through frequently used to host receptions and to display traveling works of art, and the University archives. The archives is home to much of Taylor's history as well as the Edwin W. Brown Collection featuring the life and works of C.S. Lewis, George MacDonald, Dorothy L. Sayers, Charles Williams, and Owen Barfield.

Upon leaving the north entrance of the library, the Rice Bell Tower is visible immediately north, symbolizing our commitment to spiritual integrity and academic quality. A brief stroll north from the bell tower will reveal the Samuel Morris statues. Designed by Ken Ryden and erected in October 1995, these statues symbolize the process of enlightenment Morris experienced as he journeyed from being a tribal prince to a slave, to a student in America with a burden to share the message of God's grace. Through Ryden's work, Samuel Morris continues to inspire the Taylor community. The statues adjoin the Modelle Metcalf Visual Arts and Rupp Communication Arts Centers (housing the 320-seat Mitchell theaterTaylor's theatrical history includes classics as well as original productions written by Taylor alumni and students), and the Smith-Hermanson Music building.

Also in the center of campus is the Rediger Chapel/Auditorium, home for our great chapel program. Just south of Zondervan Library is our Memorial Prayer Chapel.

To the north are more residence halls including Samuel Morris Hall, Swallow Robin Hall, the more recently added Wolgemuth Hall ( 35,970 square feet of apartment-style units for 92 students), and Campbell Hall ( 19,167 square feet of apartment space for 60 student beds). The Freimuth Administration building is the home of several administrative functions for students and staff alike. The historic quad houses Helena Hall (home of our President, Provost, and Admissions functions), Sickler Hall, and Ayres Memorial Hall. Also in the north part of campus is "the dome," housing various student development functions as well as the campus store and a campus favorite, "the Jumping Bean," the Taylor University coffee shop.

On the east side of campus is the Nussbaum Center, our original home for the sciences. Perched atop the Nussbaum Science Center is the observatory featuring two new reflecting telescopes: a 10 -inch Celestron and an 8 -inch Meade. Both have motor mounts for all-night star tracking. The Euler Science Complex (approximately 137,000 square feet of new science program space to be open in the fall of 2012) is being added to the north side of the Nussbaum Center. The Reade Liberal Arts building houses many of our core general education programs.

The south side of campus is known for housing and serving our students via Wengatz Hall, Olson Hall, English Hall, Gerig Hall, and Bergwall Hallall student resident spaces. Attached to Bergwall Hall is the Hodson Dining Commons, which has recently undergone transformation in food serving centers. All these facilities have undergone or will be undergoing major renovations!

To the west lies our athletic fields (baseball, football, track and field, softball, and soccer). Odle Arena is our competition floor and attached is our wonderful Kesler Student Activities Center (KSAC). The recently completed addition to KSAC, the Eichling Aquatics Wing, houses the indoor lap pool and the academic Physical Education and Human Performance program.

Prayer is an important feature of our campus life and facilities. In the heart of campus is the Memorial Prayer Chapel that honors the lives of students and staff from Taylor University. On the southwest corner of campus, students seeking solitude may wish to visit the prayer deck. Secluded among the greenery of Taylor Lake and overlooking the water, the prayer deck is a popular spot for meditation and Bible study. A prayer chapel, presented by the graduates of 1950 and class sponsor Milo A. Rediger, is located on the northeast side of campus in Sickler Hall and offers a spiritual respite.

Students taking a slight detour from campus will earn a very sweet reward—lvanhoe's, offering over 100 different ice cream sundaes, shakes, and treats. This hometown eatery has been an Upland attraction since 1965.

## Academic Facilities

The Academic Enrichment Center located in the southwest wing of the library has personnel and technology to provide individual instruction for improving reading comprehension, writing, and math computation skills, and individual help for achieving academic success. All students are encouraged to visit the AEC.

Services for students with disabilities are provided by Academic Support Services located within the Academic Enrichment Center. Services may include assistance with note taking, alternative testing, books on tape, or other accommodations deemed reasonable and necessary by qualified professionals. To receive these services, a student must provide documentation of his or her disability. Academic Enrichment personnel also coordinate the peer-tutoring program available to the general student body.

The Archives collect University records documenting the heritage of Taylor University since its inception as Fort Wayne Female College in 1846. University records include yearbooks, campus newspapers, committee minutes, faculty papers, and photographs. The archives promote the research of Taylor's history by students, faculty, alumni, and other interested persons. Furthermore, the archives encourage an awareness of Taylor's history through exhibits and publications.

The Atterbury Building has served multiple purposes throughout its history, currently housing Information Technology offices and technical services, which supports technology on campus. It is named for Camp Atterbury, where it was originally located before it found a permanent home on the campus of Taylor University.

The Ayres Alumni Memorial Building, newly remodeled in 2005, is a 19,000-square-foot facility housing the Center for Research and Innovation (CR\&I), the Center for Teaching \& Learning Excellence (CTLE) and the Spencer Centre for Global Engagement (SCGE). It was named for Burt W. Ayres who served Taylor as professor and administrator for nearly 50 years. The CR\&l is located in the Kenyon Educational Center on the lower level, along with the University's telecommunications network and staff; the CTLE and SCGE share the main level which includes a faculty seminar room, and the offices for the directors and staff. One large state-of-the-art classroom and two smaller classrooms are also located on the main floor. Six faculty offices and a reception area are located on the third floor.

Located in the KSAC, the Eichling Aquatics Wing houses the indoor lap pool and the Physical Education and Human Performance program.
Euler Science Complex is scheduled for completion in Summer 2012. This newest addition to the Taylor campus is a 137,000 -square-foot science building with four stories, including a lower level, a green roof, a 9,175 -square-foot atrium, and space for science offices, classrooms, and labs. The building is projected to be LEED silver certified and utilizes wind turbines and solar array for green power as well as a heliostat for natural lighting.

Modelle Metcalf Visual Arts Center opened in February 2003. The 38,000-square-foot center provides specialized art studio and classroom space, a state-of-the-art computer graphic arts lab and audio-visual classrooms, and a secure gallery adjacent to the Mitchell Theatre. The Tyndale Galleria provides space for students to display creative work. This new building features dedicated spaces specifically designed and outfitted for instruction in painting, sculpture, ceramics, printmaking, metals, photography, drawing, and graphics. In addition, an outdoor sculpture garden is planned to enhance the campus on the north side of the building. Along with the Zondervan Library, the entire fine arts complex occupies the center of campus, signifying Taylor University's commitment to the fine arts as a central component of a Christian liberal arts college.

Nussbaum Science Center is named for Dr. Elmer N. Nussbaum, professor of physics for 31 years at Taylor. The science building has been recently updated with new heating, ventilation, air conditioning, lighting, telecommunications, and ceiling systems. This 45,000 -square-foot structure houses biology, chemistry, computer science, math, and physics classrooms; laboratories; the observatory; faculty lounges; and computer information services for the University.

Randall Environmental Studies Center is a state-of-the-art teaching and research facility located at the west edge of campus on the grounds of the University arboretum. It was constructed in 1992 and named for Dr. Walter Randall, a Taylor trustee and former medical professor. The 20,000-square-foot structure serves the needs of the environmental science department with specialized laboratories equipped for biotic analysis, satellite image retrieval, computer mapping, soil analysis, and plant systematics. A trail system, a natural history museum, and greenhouse facilities are also a part of this center. The nearby Avis-Taylor Prairie Restoration Project provides additional teaching and research opportunities.

Reade Memorial Liberal Arts Center, named for Thaddeus C. Reade, president of Taylor University (I89I-I902), is a 35,000-square-foot facility containing the social work and sociology departments, classrooms, a computer lab, faculty offices, and the Educational Technology Center.

Rupp Communication Arts Center was completed in 1994 and named for Taylor benefactors Ora and Herma Rupp of Archbold, Ohio. This 45,000 -square-foot facility houses the communication arts department offices and classrooms, the 320 -seat Mitchell Theatre, television and radio studios, journalism lab, and offices for the campus newspaper and yearbook.

The Ruth Flood Room is equipped to provide high-technology audiovisual presentations.
Smith-Hermanson Music Center, a 23,000-square-foot structure, is a sound-proof facility. Named for Nellie Scudder Smith, a friend of Taylor University, and for former professor of music Edward Hermanson and his wife Dr. Louella Hermanson (also a musician), the building houses teaching studios, classrooms, rehearsal rooms, practice rooms, faculty offices, conference rooms, and faculty and student lounges. The 250 -seat Butz-Carruth Recital Hall boasts a Boesendorfer grand and Steinway pianos and is designed to provide the best possible acoustical qualities.

The Writing Center, located adjacent to the Learning Commons, serves all students in all classes at Taylor, providing one-on-one and small group writing consultations.

## Zondervan Library

The Zondervan Library, which opened in 1986, sits in the center of campus, representing its centrality to the mission of the University and the success of academic pursuits. This 61,000 -square-foot building offers a variety of research and study settings while also housing over 205,000 physical items. The library, which is open 95 hours per week, provides information resources, services, and connections for students, faculty, and staff while striving to support curricular needs, to nurture intellectual curiosity, and to promote spiritual development. In addition to books, periodicals, CDs, and VHS/DVD collections within the library's walls, it provides thousands of electronic resources, including full-text journal databases, eBooks, and indexes to journal and other periodical literature. Nearly all of these electronic resources are available both on- and offcampus to anyone with a valid Taylor network username and password.

One of the goals of library faculty is to teach students skills in locating and evaluating information, as these will prove useful in every career and serve as a foundation for life-long learning. This happens through classroom instruction about information research strategies and specific tools for course-related assignments, as well as through small group and individual encounters. The Information Desk, situated directly inside the library's main entrance, is staffed approximately 70 hours a week by librarians and assistants who are happy to help library users with any type of research or information resource question. Librarians can also be reached by email via the Ask-a-Librarian form on the website and by phone at x8-HELP or (765) 998-4357.

Zondervan Library is connected to thousands of libraries around the world in order to provide even more resources to our users. By requesting materials through Interlibrary Loan (forms to do this are linked from the library's home page), our users can get access to nearly any book or article needed, usually within a week or two.

The library provides over 20 computer stations for research, writing, web browsing, and email. In addition, the library provides a collection of 10 laptop computers available for checkout. The Collaboration Commons, on the main level of the library, provides facilities, configurations, and technologies to promote collaborative learning with a variety of computer and display technologies available amid varied and flexible seating. The Commons provides another dozen computers for student and faculty access. The Flood Lab, adjacent to the Collaboration Commons, offers 24 stationary laptop computers equipped with Microsoft Office and other software for academic purposes.

One of the special collections located in the library is The Center for the Study of C.S. Lewis and Friends which includes the Edwin W. Brown Collection, consisting of first editions, manuscripts, photographs, and other materials relating to the life and works of C.S. Lewis, George MacDonald, Dorothy L. Sayers, Charles Williams, and Owen Barfield. The University Archives which preserves and makes accessible resources from the history of Taylor is located off of the Engstrom Galleria, just outside the library's main doors.

The library's website, http://www.taylor.edu/library, attempts to organize the various databases, library catalog, and other electronic resources in a usable manner to facilitate easy access. In addition to these resources, we have links to the library's hours, a web-based form called Ask-a-Librarian that allows direct interaction with librarians, and forms for Interlibrary Loan requests. The library encourages user feedback through an online "Comments and/or Suggestions" form, and provides a means to request a resource for the library to purchase with the "Request a Resource Be Added" form.

## Student Residences

Bergwall Hall was named for Evan Bergwall, Sr., president of Taylor University (195I-I959). It was first occupied during the fall semester of I989 and currently houses 195 students-women on the third and fourth floors and men on the first and second floors. Each floor has a lounge and study facilities, and each room has a private bath.

Campbell Hall, constructed in 2008 and located on the north edge of campus, consists of fifteen apartments housing 60 students desiring offcampus housing experiences in an apartment-style setting. The apartments are named in honor of Walt and Mary Campbell.

English Hall, a women's residence hall housing 224 students, was opened in 1975 and named for Mary Tower English, wife of one of Taylor's most distinguished graduates. English Hall provides private living room areas as rooms are arranged around a suite that is shared by $8-12$ women. This residence is located on the south side of the campus near several other residences.

Gerig Hall is a four-story residence hall for 96 students. Constructed in 1971, this hall is arranged in a suite style that provides a level of intimacy within the setting of interacting with a larger group of students. The first floor has lounge and office areas; women are housed on the second and third floors and men on the fourth floor. Gerig Hall is named for Lester Gerig, a long-time trustee and Taylor University benefactor.

Grace Olson Hall was constructed in 1966 and is the largest residence hall, housing 300 women. Olson Hall underwent major renovations in 2006 and 2008. Rooms are arranged along a typical corridor and share a common bath. The hall is named for Grace D. Olson, distinguished history professor at Taylor.

Haakonsen Hall was constructed as the student health center in 1975. The building is named after Lily Haakonsen who provided medical care for the students of Taylor University. Now 35 years later it has been repurposed to provide housing for 16 upperclassmen.

Morris Hall opened in 1998 and accommodates 286 men. This residence hall was designed and built to service the needs of students with such amenities as air conditioning, laundry facilities, study lounges, social lounges, bicycle storage, and an area for off-season storage. Morris Hall is named for Samuel Morris, a former student from Africa whose life story is told in the film "Angel in Ebony."

Swallow Robin Hall is a residence hall accommodating 72 students. This historic building first occupied in 1917 was remodeled and restored in the fall of 1990. Silas C. Swallow and his wife, whose maiden name was Robin, financed a major portion of the original construction cost for the building and asked that it be named in honor of their mothers.

Wengatz Hall, constructed in 1965 with major renovations in 2005 and 2007, houses 266 men and includes several lounges and a recreation room. It was named in honor of Dr. John Wengatz, outstanding Taylor University graduate and pioneer missionary to Africa.

Wolgemuth Hall, constructed in 2011 and located on the north edge of campus, consists of 23 apartments housing 92 students desiring off-campus housing experiences in an apartment-style setting. The apartments are named in honor of Sam and Grace Wolgemuth.

## Service and Non-Academic Facilities

The campus Bookstore is located in the Student Union. It is owned and operated by Taylor University and provides textbooks and other classroom needs. Many other items are available such as clothing, greeting cards, and gifts. The bookstore is also the drop-off and pick-up point for film developing and dry-cleaning services.

The Boyd Building and Grounds Complex, built in 1995, is the center of operations for general and vehicle maintenance, housekeeping, building and grounds, and recycling services.

Campus Police, built in 1989, serves as the center for emergency communication, the police department, campus vehicle registration, and the campus motor pool program.

Hodson Dining Commons, named for Arthur and Mary Hodson, Upland philanthropists, serves as the main dining hall for students. Built in 1972 and expanded in 2000, the facility is located on the southwest corner of the campus overlooking Taylor Lake. With the addition of the Nelle Alspaugh Hodson Banquet Facility, the Isely, Heritage, and Braden rooms provide space for special and private group dining.

Located in the Student Union, the Jumping Bean is the campus coffee shop offering the finest gourmet hot and cold beverages, specializing in coffees, blended teas, and other custom drinks.

Memorial Prayer Chapel, constructed in 2008, honors those lost in a tragic accident on April 26, 2008, as well as other students and staff who entered eternity while attending or serving Taylor University. This 2,300 -square-foot facility has room for corporate prayer for seventy individuals, as well as two ante-rooms that allow for private or small group prayer.

The campus Post Office is located in the building directly behind the Freimuth Administration Building. The postal service is for the convenience of the University and not part of the U.S. postal operation.

Adjoining the post office is the University Press serving off-set printing, desktop publishing, xerographic, and binding needs. Both publishing and outsourcing of specialized projects are provided.

Rediger Chapel/Auditorium, named in honor of Dr. Milo A. Rediger, former professor, dean, and president of Taylor University, was completed in 1976. This I,500-seat facility, formerly Maytag Gymnasium, was remodeled through the generosity of many alumni and friends of the University. In addition to its spacious and beautiful auditorium, this building houses the Center for Student Development, which includes Campus Ministries and the Counseling Center.

Sickler Hall, the oldest of three remaining original buildings on the Taylor University campus, was built in 1902 with a gift from the estate of Christopher Sickler, an early Taylor trustee. Originally, the building was a residence hall that provided free housing for the children of ministers and missionaries. Later, it served as a science hall and education department center; more recently, it was the location of the communication arts department. Remodeled in 1995, Sickler Hall currently houses the William Taylor Foundation, professional writing department, and alumni relations and includes conference room facilities. A campus prayer chapel is located on the main floor and is open 24 hours a day for meditation and prayer.

The Student Union, a dome-shaped facility, provides space for student activities, the Grille snack bar, and campus bookstore. The student activities portion, a 100 -foot diameter circular area, provides lounge, reading, listening, and recreational space and accommodates the Offices of Career Development, Leadership Development and Student Programs, Taylor Student Organization, Student Activities and Student Services Councils, Multicultural Student Organization, Taylor World Outreach, and Lighthouse.

Taylor Lake, a picturesque eight acres on the Taylor campus, provides swimming opportunities in summer and ice-skating facilities in winter. Part of the lake is used for studies in ecology, and nearby is a wooded picnic area, beach volleyball court, and prayer deck.

## Administrative Buildings

Ferdinand Freimuth Administration Building, a 14,000-square-foot structure, was first remodeled during 1972. The first floor houses the Offices of the Bursar, Controller, Financial Aid, Human Resources, Registrar, and University Relations. The Deans of Schools and University Advancement are located on the second floor. The initial remodeling of this building was made possible by a gift from Ferdinand Freimuth, a Fort Wayne philanthropist.

Helena Memorial Hall, built in I91I, is a 10,000 -square-foot structure that serves as the University welcome center. The building was remodeled in 1987 and houses the Offices of the President, Provost, and Admissions. Formerly a music building, then an art and theatre building, this structure was named for Mrs. Helena Gehman, an early benefactress of the University.

## Athletic, Physical Education, and Recreation Facilities

The Baseball and Softball Fields, with turface and brickdust infields, respectively, are centrally located in the heart of Taylor's campus (baseball) and on the west-central part of campus (softball) and are maintained for intercollegiate competition.

The Cross Country Course is a 5.2-mile route that covers the entire campus. It begins west of the softball field and takes runners up and over hills, across paved roads, and through scenic wooded areas.

The Escape to Reality Challenge Course/Ropes Course, nestled in a beautifully wooded portion of campus adjacent to Taylor Lake, offers ground initiatives and low ropes activities along with 12 high course elements. The goal is to provide groups with a unique outdoor experience where they will grow together through self-discovery, physical challenges, and group interactions in a safe and supportive environment. Taylor students have the opportunity to experience the course for themselves; and if they so desire, may train to be course facilitators. Escape to Reality is open to all Taylor groups, as well as any outside groups who are interested in team-building experiences.

The Field House is a steel-paneled building providing additional opportunities for physical education and athletics. The football locker room; Pete Carlson Intercollegiate Athletic weight room; two batting cages for baseball, softball, and golf; classrooms; and football staff offices are contained in this facility.

The George Glass Track and Field Complex, dedicated in 1998 to George Glass, Taylor's athletic director and coach of cross country and track for 26 years, has a 440-yard, rubberized, all-weather surface and facilities for field events.

The Kesler Student Activities Center opened in the fall of 2004. This 87,000 -square-foot facility is named in honor of Dr. Jay Kesler, president emeritus of Taylor University, and his wife Janie. The KSAC contains four college-sized basketball courts (one with a wood floor and three with multipurpose playing surfaces which can facilitate volleyball, basketball, tennis, and badminton), "The Well" fitness center, locker rooms, and a 200meter indoor competition-level track with Mondo flooring. Eichling Aquatics Wing houses the indoor lap pool and the academic Physical Education and Human Performance program.

Odle Gymnasium was completed in 1975 and named for the late Don J. Odle, coach and professor of physical education, and his wife Bonnie. This 45,000 -square-foot facility contains two racquetball courts, an all-purpose room, a newly constructed conference room overlooking the basketball court, classrooms, faculty/coaches offices, and a collegiate basketball and volleyball maple parquet floor court with three cross courts.

The Game Soccer Field includes dugouts, a regulation field, bleachers, and restroom facilities. Practice Soccer Fields are located east and west of the game field.

The Tennis Complex features nine lighted, hard-surface courts and bleachers.
The Jim Wheeler Memorial Stadium, which has a seating capacity of 4,000 and a natural grass playing surface, has been the home of the Trojans for the past 28 seasons. It was built in 1980 with funds donated by John Wheeler (Taylor '54) in memory of his son, Jim Wheeler, who died of cancer shortly after his graduation in 1979.

## Computer and Technology Resources

Taylor University strives to keep current in the technology it provides to students, faculty, and staff. Upon enrollment, every student is provided a network account and personal file storage space, along with an electronic portfolio that can be developed over four years and fine-tuned prior to graduation.

Students can login to the myTAYLOR portal (from on or off campus) to access their email, campus announcements, news, weather, sports, class schedules, financial aid, billing information, grades, and transcripts, as well as links to all of their courses. Nearly every professor uses the Blackboard course management system to supplement class activities and provide resources students can access online at any time.

A high priority has been placed on providing technology for teaching and learning. Every classroom is equipped with a projector and multimedia computer technology, providing ready access to presentation software and online resources. All buildings have wireless internet access for students using laptops and mobile devices. The Zondervan Library offers the latest in online research capabilities. General-purpose computer labs are available for students from early morning to late at night.

The Educational Technology Center, located in the heart of the campus, is the support hub for academic technology. The ETC provides students access to an amazing set of resources including matting, lamination, media duplication, computer scanning and high-quality printing, digital audio and video editing, as well as a professionally-equipped recording studio. Students can purchase supplies, as well as check out (for free!) digital and video cameras, projectors, and a wide range of computer and $A V$ equipment.

Taylor University is primarily a PC-campus, although specialty areas such as art, media communication, and music use Apple computers. The network runs on the Windows operating system, as do most University-owned desktops. Microsoft Office is the standard application suite.

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## Academic Calendar

Taylor University's academic year consists of fall and spring semesters, as well as optional January interterm and summer sessions. The typical class period is 50 minutes per credit hour.

Under this schedule, fall-semester activities including examinations are concluded prior to the Christmas recess. Classes are conducted each semester for a period of 15 weeks including a 4-day examination period.

The optional January interterm provides students an intensive period of study in a single course or opportunities to study in off-campus centers in the United States and international locations.

Additionally, three summer sessions are available to enhance and supplement students' educational programs and meet special program requirements.

The academic calendar is available online at http://www.taylor.edu/academics/registrar/academic-calendar.shtml. Students are responsible for complying with published academic deadlines and regulations as stated in the University schedule of classes, academic calendar, and catalog.

## Academic Policies and Regulations

Academic policies and regulations are developed and approved by the faculty of Taylor University and are administered by the Schools and the Registrar. Intended to be rigorous and challenging, these policies and regulations are administered with individualized attention and concern for the educational advantage and well-being of each student.

## Academic Advisors

The purpose of Academic Advising at Taylor University is to assist students in developing educational and career goals that are compatible with their perceived life calling; empower students to accept responsibility and leadership in developing their own educational plans; and aid students in their professional, emotional, and spiritual development.

Students are assigned an advisor from their academic department(s). Students that have not declared a major are assigned an advisor in the Academic Advising Office. The Academic Advising Office advisors also serve as a secondary advisor to students that have declared a major. The Registrar's Office with the assistance of the academic departments and the Academic Advising Office will oversee advisor assignments.

All students are required to meet with their advisor prior to registering for courses each semester. Students are expected to be prepared for advising sessions and to be aware of published deadlines and regulations as stated in the University schedule of classes, academic calendar, and catalog.

While Taylor University publishes program information and materials and assigns advisors, each student is solely responsible for ensuring that his or her academic program complies with the policies of the University. Any advice that is at variance with established policy must be confirmed by the Registrar's Office.

## Academic Integrity

As a Christ-centered intentional community, everything we do and say reflects our identity in Christ and our position as a part of this community; thus, integrity in all areas of life is critical to our own spiritual life and is equally critical to the life of the Taylor community.

Academic dishonesty constitutes a serious violation of academic integrity and scholarship standards at Taylor that can result in substantial penalties, at the sole discretion of the University, including, but not limited to, denial of credit in a course as well as dismissal from the University. Any act that involves misrepresentation regarding the student's academic work or that abridges the rights of other students to fair academic competition is forbidden. Academic dishonesty includes, but is not limited to, cheating on assignments or exams, plagiarizing, submitting the same (or substantially the same) paper in more than one course without prior consent of all instructors concerned, depriving others of necessary academic sources, sabotaging another student's work, and using without attribution a computer algorithm or program. In short, a student violates academic integrity when he or she claims credit for any work not his or her own (words, ideas, answers, data, program codes, music, etc.) or when a student misrepresents any academic performance. All major acts of academic dishonesty, as defined herein, must be reported by the faculty member to their School Dean and the Office of Student Development. Departments or professors may have discipline- or course-specific policies.

## Plagiarism

Definition: In an instructional setting, plagiarism occurs when a person presents or turns in work that includes someone else's ideas, language, or other (not common-knowledge') material without giving appropriate credit to the source. ${ }^{2}$

Taylor distinguishes between major and minor plagiarism infractions. Examples of minor infractions include inappropriate or inadequate citing or not crediting ideas from class readings. Examples of major infractions include taking significant portions of text from any source with no attribution or having a peer help write the paper. Taylor also distinguishes between collaboration, writer's feedback, and plagiarism. Collaboration and getting feedback on one's own writing are essential parts of the writing process; however, having a text altered for the writer is not. The level of appropriate collaboration on individual writing assignments is up to each professor; and each professor should make it clear to his or her students what level of collaboration is appropriate for each writing assignment (e.g., brainstorming with other classmates for ideas). Writer's feedback means having a peer or a Writing Center tutor work with the student to provide suggestions for revision in ways that allow the student author to maintain ownership; this is not plagiarism. However, having a peer make changes to the organization, ideas, paragraphs, or sentences for the student demonstrates a level of ownership over the work; thus, these acts would be considered plagiarism.

Plagiarism Policy: All major acts of plagiarism must be reported by the faculty member to the appropriate academic School Dean and Student Development. The student and faculty member involved will receive a copy of the completed plagiarism incident report. All incident reports will be archived in both the academic School and Student Development and will be viewed and used solely by the deans of these offices to track plagiarism incidents in order to catch patterns of behavior. This tracking will affect student consequences for any additional plagiarism incidents reported and may affect recommendations for off-campus student activity participation. Plagiarism records in the academic School office and Student Development will be destroyed along with all other student records according to their respective policies.
' Common knowledge means any knowledge or facts that could be found in multiple places or as defined by a discipline, department, or faculty member.
${ }^{2}$ Adapted from the Writing Program Administrators' "Defining and Avoiding Plagiarism: The WPA Statement on Best Practices." http://www.wpacouncil.org

## Academic Exceptions

Students requesting exceptions to approved academic policy must submit an academic petition to the Office of the Registrar. The student must state his or her request and rationale for the petition and obtain the approval signatures of the academic advisor, instructor, and department chairs, if applicable, before submission to the Registrar's Office. The Registrar and Academic Dean will review the petition before action is taken by the Academic Policies Committee, if necessary.

Academic petition forms are available online at http://www.taylor.edu/academics/registrar/forms.shtml.

## Academic Grievance

To ensure an open atmosphere in academic endeavors, procedures have been established to provide fair process of any academic complaint registered by a student. The procedures are part of the University commitment to maintaining a climate of openness and justice in all areas of academic life. The objective is to provide fair treatment to any student who registers an academic complaint and any faculty member, or any other academic staff member, who is accused of unfairness toward a student.

The first step for students who believe unfair treatment has occurred in their academic experience is to make an appointment and meet and discuss the issue with the respective faculty member or academic staff person. Then, if necessary, the student should discuss, by appointment, the issue with the faculty member's department chair (or the School Dean, if the faculty member involved is a department chair) or the supervisor of the academic staff member. If necessary, a third informal step that can be taken by the student is a conference with the School Dean. If the issue is still not resolved, a formal grievance process can be initiated as prescribed in the policy statement available from the School Dean.

## Academic Progress Policy

A student who meets the minimal GPA requirements as indicated in the chart below is considered to be a student in good academic standing. A student who falls below the minimum required GPA is placed on academic probation and enters a special advisement program under the direction of the Academic Enrichment Center and the academic advisor. Notification of academic standing will be sent by the Registrar to students and their advisors through email, and letters will be mailed to students' permanent addresses within one week following submission of final grades by faculty.

| Cumulative Earned Hours | Minimum Required GPA |
| :--- | :--- |
| $00.00-12.99$ | 1.60 |
| $13.00-30.99$ | 1.70 |
| $31.00-44.99$ | 1.80 |
| $45.00-60.99$ | 1.90 |
| $61.00+$ | 2.00 |

The faculty, staff, and administration of Taylor University are committed to helping students be successful in their personal, spiritual and intellectual lives. As such, the GPA of each student is reviewed twice annually at the end of the fall and spring semesters to determine whether action needs to be taken with respect to probationary status.

Students placed on probation have one semester in which to meet good academic standing as indicated in the chart above. Reevaluation does not take place after January or summer terms. Failure to reach the minimum requirements in the following semester results in suspension from the University, unless during that semester the student achieves a term GPA of 2.30 . Students who earn a 2.30 term GPA may be placed on extended probation and allowed to remain at the institution for the subsequent semester. Students on extended probation are not eligible to receive financial aid and are required to enter a special advisement program under the direction of the Academic Enrichment Center and the academic advisor.

First-time suspension is for one academic semester; a second-time suspension is for one academic year (consecutive fall and spring semesters). Students may apply for readmission following the applicable suspension period. Readmission is not automatic and requires the approval of several offices on campus, starting with the Office of Admissions. Students must present evidence that they are academically prepared to return to Taylor. Additionally, readmitted students will be placed on extended probation requiring reentrance to the special advisement program under the director of the Academic Enrichment Center and the academic advisor and are not eligible for financial aid during the return semester.

Academic probation and suspension carry additional related consequences:

- Eligibility for financial aid is affected by academic standing. Probationary and suspended students should check with the Office of Financial Aid regarding academic progress regulations pertaining to their financial aid.
- No student on academic probation may apply for any off-campus study programs.
- No student on academic probation may enroll in distance learning or independent study courses unless repeating a course.
- No academically suspended student may enroll in any Taylor courses, including those offered by Taylor University Online (TU Online).
- In some cases, it may be advisable for a suspended student to enroll in courses at another institution in order to demonstrate that he or she is prepared to achieve better academic work prior to readmission to Taylor. Students should consult with the Registrar in advance of such enrollment.

Contact the Office of the Registrar for additional information regarding academic progress.

## Academic Load

## Fall/Spring Semesters

Registration for $12+$ credit hours during the fall or spring semesters constitutes full-time enrollment status. A normal academic course load is 14 16 hours per term. Students with a minimum grade point average (GPA) of 2.00 may carry 17 credit hours.

An academic load greater than 17 hours requires a minimum GPA and authorization from the Office of the Registrar. A minimum GPA of 3.00 is necessary to carry 18 hours; 3.30 GPA for 19 hours; and 3.60 GPA for 20 hours (the maximum load permitted). An additional tuition charge will be assessed per credit hour above 17 hours per term.

## Interterm

Registration for $3-4$ hours is considered a normal load for January interterm; the maximum load is 5 hours and requires a minimum GPA of 3.00 and authorization from the Office of the Registrar. An additional tuition charge is assessed for the fifth hour.

Summer Terms
A normal academic load during the May-June summer term (I8 days) is $3-4$ credit hours; the maximum load is 5 hours and requires a minimum GPA of 3.00 and authorization from the Office of the Registrar.

A normal course load during the June-July summer term ( 24 days) is $3-6$ credit hours. Carrying 7 credit hours requires a minimum GPA of 3.00 and authorization from the Office of the Registrar; the maximum load is 8 hours which requires a minimum GPA of 3.60 and authorization from the Office of the Registrar.

The maximum course load for all summer terms combined is 12 credit hours which includes all transfer credit, Taylor University Online (TU Online), and correspondence courses, as well as Taylor University courses. Registration for 12 credit hours of Taylor courses constitutes fulltime enrollment status for summer.

Experiential education (e.g., practicum, internship, field and travel studies) and directed research courses are only offered during the 12 -week full summer term.

Candidates for summer graduation may participate in May Commencement provided they have submitted an approved plan with no more than 8 credit hours remaining to be completed by the official summer graduation dates.

## Advanced Placement and Credit by Examination

Students may qualify for advanced placement and college credit by satisfying the standards set by individual departments to pass the College Board Advanced Placement Examinations (AP), the College Level Examination Program (CLEP), the International Baccalaureate (IB) credit at the higher level, and Cambridge General Certificate of Education Advanced Level Examinations (GCE A-Level).

Students may be eligible for placement at the next level of the college sequence and may receive college credit if the overall quality of their performance merits such recognition. A maximum of 30 hours of advanced placement and credit by examination may be applied to meet graduation requirements. Score levels vary between subjects; score levels considered passing may be obtained by visiting http://www.taylor.edu/academics/academic-testing-and-placement

For additional information regarding advanced placement and credit by examination, contact the Offices of the Registrar and Academic Assessment.

## Advanced Placement Examinations (AP) and College Level Examination Program (CLEP)

Prior to entering Taylor, students interested in AP or CLEP testing credit should contact the Office of Academic Assessment to request information regarding testing policies, fees, deadlines, and limitations.

AP credit must be elected and the transcript posting fee paid in the student's first semester at Taylor. CLEP exams must be taken and credit elected prior to reaching senior status at Taylor

Refer to page 40 for specific policies, procedures, and deadlines related to AP/CLEP credit for ENG IIO Expository Writing. Refer to page 35 for information regarding CLEP credit for intermediate language.

## International Baccalaureate (IB)

IB is a rigorous pre-university course of study that leads to examinations. For a student to obtain IB credit, the courses must be at the higher level $(\mathrm{HL})$; scores must be 5 or higher; courses for the major are subject to departmental review. Official transcripts must be requested from the IB office, not the high school; syllabi may be required if the course subject has not been previously reviewed.

## Cambridge General Certificate of Education Advanced Level Examinations (GCE A-Level)

GCE A-Level credit may be awarded with a grade of $D$ or higher. Students must submit a certified copy of the examination certificate and examination syllabus to the Office of the Registrar. Credit will not be awarded on the basis of a results slip. Academic departments must approve credit for exams.

## Class Attendance

Students are expected to attend all sessions of classes for which they are registered. The student is responsible for requesting and providing required documentation to Academic Affairs. Individual excused absences (with permission to make up work) will only be granted in the case of: (I) admittance to a hospital or illness verified by medical doctor or TU health center [requires documentation from healthcare provider stating specific dates student needs to miss]; (2) serious emotional illness [verified by the Dean of Student Development]; (3) death or hospitalization of an immediate family member [mother, father, brother, sister, grandparent, spouse, or child]; (4) graduate school interviews; (5) Taylor Universitysponsored job fairs; (6) job interviews [total of 2 allowed senior year, I junior year]; or (7) very unusual circumstances as evaluated by the professor and/or Academic Affairs.

It is also possible for students to be excused from class due to approved group absences (class field trips, official athletic events, and other approved educational activities). The faculty/sponsor of each group is responsible for initiating group absence requests through Academic Affairs. Student athletes and musical ensemble participants, because of their potentially more frequent class absences, may not be allowed the usual one unexcused absence per credit hour in each course. Students involved in these activities should check with their coach or professor for specific policies. Students are responsible for course material missed due to any excused absence. Prior to any absence, students should personally contact the professors of classes to be missed to make arrangements for making up all assigned work/activities. The student should evaluate current class standing when anticipating absences. Loss of instruction and the consequent possibility of a lower grade are the results of absence. In any type of class requiring active participation (laboratories, seminars, etc.), grade reductions are inevitable.

Unexcused absences (without permission to make up work) must not exceed one per credit hour of the course. The penalty for excessive absences is communicated in each course syllabus. Students are responsible for obtaining and understanding the attendance policies for each of their courses. The absences are designated for such reasons as travel difficulties, bad weather, conflicting schedules, oversleeping, job interviews (beyond the allotted number), minor sickness, or doctor and dentist appointments. When courses are added after the first class meeting, any class sessions that have already been missed may be counted as unexcused absences.

## Classification of Students

Matriculated students are those students who have fully met all requirements for admission and have enrolled in courses to meet undergraduate degree requirements. Matriculated students are classified as follows:

| Cumulative Earned <br> Credit Hours | Class |
| :--- | :--- |
| $0.00-30.99$ | Freshman |
| $31.00-60.99$ | Sophomore |
| $61.00-94.99$ | Junior |
| $95.00+$ | Senior |

## Dean's List

Full-time students are named to the Dean's List when they have earned a 3.60 or better GPA for the term and when at least I 2 credit hours carry quality point values.

## Distance Learning Policy

No more than 12 hours of distance learning may be taken to fulfill degree requirements. The total maximum of distance learning and independent study is 16 hours.

The guidelines listed below for accepting transfer credit are also used in evaluating distance learning courses taken at other accredited universities. After enrolling at Taylor, students must complete a transfer credit course approval form signed by the student's academic advisor, course department chair, and the Registrar prior to enrolling in the course. The major or minor department chair's signature may be required if the course is a major/minor requirement. Upon completion of the course, students should request their transcripts be sent directly to the Office of the Registrar at Taylor before the next enrollment period.

Courses taken through Taylor University Online (TU Online) require the completion of the TU Online course approval form which includes the approvals stated above. Grades earned affect the student's GPA and are recorded on the student's transcript. Normally, these online courses are not considered part of the academic load for enrollment verification or financial aid purposes. Students on institutional academic probation are not permitted to register for courses through TU Online unless repeating the course. No academically suspended student may be enrolled in any Taylor courses, including those offered by TU Online. Candidates for graduation must complete all distance learning course work and exams so that final grades are submitted by the dates specified by the Office of the Registrar.

TU Online course approval forms are available online at http://www.taylor.edu/academics/registrar/forms.shtml.

## Eligibility for Intercollegiate Athletics

For participation in intercollegiate athletics, students must be enrolled full time, carrying at least 12 credit hours. In addition, they must meet the eligibility regulations and academic progress rules of the National Association of Intercollegiate Athletics (NAIA) and the National Christian College Athletic Association (NCCAA).

## Grade Changes

All requests for change of grade (except from an INC or NR) are initiated by the student with the professor of record and then must be approved by the School Dean. Questions regarding the grade should be directed to the instructor within two weeks after being posted on TOWER. Such a change is permitted only before the end of the next term after the original grade was awarded.

Acceptance of late or missing assignments after the end of a term does not qualify for a change of grade.

## Grades for Repeated Courses

Any course may be repeated at Taylor University. All attempts in a course are reflected on the student's academic transcript; the cumulative GPA will reflect the most recent grade in the repeated course, even if the new grade is lower than the original attempt.
Grades of W (withdrawn), WP (withdrawn/passing), or AUD (audit) will not replace previously earned grades of A-F, WF (withdrawn/failing), or NC (no credit) in the GPA calculation. Duplicate credit hours are not awarded when repeating a course.

See Transfer Credit Policy on pages 27-28 for information about courses taken from another college.

## Grade Reports

Students may view midterm and final grades through TOWER (Taylor Online Web Enabled Records). Midterm grades are entered only if they are below C-. Midterm grades are not recorded on the student's permanent record in any way. Allow approximately one week after the last final exam for calculating and posting of final grades. Grade reports will not be mailed. For information on accessing TOWER, students should visit http://www.taylor.edu/academics/registrar/tower.shtml.

## Grading System

The following grades and quality points are assigned to undergraduate students at Taylor University in calculating the GPA:

| Grade Meaning | Quality Points | Calculated in GPA |
| :--- | :--- | :--- |
| A Superior | 4.00 | Yes |
| A- | 3.67 | Yes |
| B+ | 3.33 | Yes |
| B Good | 3.00 | Yes |
| B- | 2.67 | Yes |
| C+ | 2.33 | Yes |
| C Satisfactory | 2.00 | Yes |
| C- | 1.67 | Yes |
| D+ | 1.33 | Yes |
| D Minimally acceptable | 1.00 | Yes |
| D- | .67 | Yes |
| F Failing | 0 | Yes |
| P Pass (C- or above) | 0 | No |
| CR Credit | 0 | No |
| W Withdrawn | 0 | No |
| WP Withdrawn/passing | 0 | No |
| WF Withdrawn/failing | 0 | Yes |
| INC Incomplete | 0 | No |
| NR Grade not reported | 0 | No |
| NC No Credit/failing | 0 | Yes |
| AUD Audit | 0 | No |

The unit of credit is the semester hour. Grade point average (GPA) is calculated by dividing quality points by GPA hours and is truncated at two decimal places. Grade point hours include only Taylor University courses taken for a grade as outlined above.

## Incomplete and Not Reported Grades

All work for credit is expected to be completed within the term it is attempted including independent studies, tutorials, and experiential education. An incomplete grade (INC) may be given when an emergency prevents a student who has been passing the course from completing some crucial portion of the required work, but not to complete late or missing assignments or extra work to raise a grade.

Incompletes should be initiated by the instructor of record prior to the final exam week and must be authorized by the appropriate School Dean before they are submitted to the Office of the Registrar. Incompletes should be converted to grades and reported to the Registrar by the date approved. The last possible date for completion is the week before final exams of the following full term.

The Registrar will record an NR (grade not reported) when grades are unavailable, such as receipt of transcripts for off-campus study programs or faculty emergencies. If no change has been made by the instructor by the approved due date, the Registrar is authorized to change the INC or NR to a grade of F .

## Independent Study Policy

Independent studies are individualized, directed studies taken without classroom instruction or regular interaction with a faculty member. The student is required to plan with the professor an individualized schedule of reading, research, and study. Assignments, papers, tests, and other means of assessment may be completed by appointment, mail, email, remote proctors, Internet, etc.

Students and faculty alike are encouraged to schedule independent studies during the summer session when the calendar and personal schedules of students and faculty are more flexible. The shortened academic calendar makes independent studies impractical for the January interterm. During the fall and spring semesters, independent studies are considered exceptions due to faculty workload limitations, but may be approved under certain circumstances, such as:
I. To complete a graduation requirement without which the student's graduation would be unreasonably delayed. (A student's desire to graduate in less than four years, to double-major, add a minor, etc., does not meet this requirement.)
2. To resolve scheduling conflicts beyond the student's control involving required courses which cannot be taken in a later semester or summer term without negative impacts on the student's program of study.
3. To provide a scheduling efficiency or convenience to the University, such as offering the independent study as an alternative to a lowenrollment class section, deviating from regular course offering schedules, etc.
4. To offer both the student and supervising faculty member the opportunity to expand their Taylor experiences with special/advanced topic courses that may serve special needs such as specific career goals, graduate school prerequisites, etc. An additional independent study fee may be assessed by the Academic Dean for these requests.

No student who is on academic probation may register for an independent study unless it is to repeat a course. No student may complete more than 12 hours of independent study. The total maximum of independent study and distance learning is 16 hours.

All other academic policies in this catalog apply to independent studies (e.g., criteria for requesting incomplete grades, deadlines for registration).
Tuition for independent studies completed during the summer is at the standard summer session credit hour rate. Check with the Financial Aid Office to inquire about possible assistance for the summer term.

Registration forms for independent study are available online at http://www.taylor.edu/academics/registrar/forms.shtml. For additional information, please refer to the Registration section of this catalog, pages 29-33.

## Final Examinations

Students must take their final examinations at the assigned hours listed on the final exam schedule. Exceptions are made only due to serious illness or death of an immediate member of the family. Reasons such as plane schedules, availability of flights, and rides leaving early are not acceptable exceptions.

Students scheduled to take more than two final exams on the same day may, with written permission from the instructor, reschedule an exam(s) to maintain a maximum of two exams per day. Students must contact the Office of the Registrar to begin the rescheduling process. Rescheduling must be approved at least IO days prior to the last class day of the semester.

For courses with "TBA" class days, the instructor will announce the exam time. Should the announced time conflict with another scheduled exam, the professor who announced the exam time will make the accommodation. Should two scheduled exams conflict, students must contact the Office of the Registrar to begin the rescheduling process.

Refer to the final exam schedules posted at http://www.taylor.edu/academics/registrar/exams for respective fall and spring semester dates.

## TOWER Online Access System

Taylor Online Web Enabled Records (TOWER) provides students secure online access to their academic and financial records, including course registration, transcripts, grades, and billing statements. Additional information on accessing TOWER is available online at http://www.taylor.edu/academics/registrar/tower.shtml.

## Transcript of Academic Record

In accordance with the Family Educational Rights and Privacy Act of 1974 (FERPA), transcripts may not be released without the written consent of the student. Students should submit a "Transcript Request Form" available online or from the Office of the Registrar, have the request form approved by the Bursar, and return the completed form to the Registrar's Office for processing. Transcripts may not be released unless all financial obligations to the University have been fulfilled according to an agreement with the Office of the Bursar.
Students may view an unofficial copy of their academic transcript via their TOWER accounts, provided all financial obligations to the University have been fulfilled. This abstract is useful to students and academic advisors only; it is not an official transcript of academic record. Official transcripts must be requested from the Office of the Registrar.

Additional transcript information and instructions are available at http://www.taylor.edu/academics/registrar/transcripts.shtml.

## TU Alert Emergency Messaging System

The TU Alert emergency messaging system will allow Taylor University to immediately notify students and employees of impending life-threatening or life-altering situations including rapidly-developing, life-threatening criminal activity on campus and imminent severe weather activity. The system utilizes Wireless Emergency Notification System (WENS) technology and can send text messages to cell phones and email messages to accounts of Taylor's students and employees. TU Alert will never be used for advertising or spam.

Students may sign up for TU Alert at http://entry.inspironlogistics.com/taylor/wens.cfm?ep_id=student. Employees may sign up for TU Alert at http://entry.inspironlogistics.com/taylor/wens.cfm?ep id=employee.

## Experiential Education

Experiential education includes practicum experiences, internships, and field and travel studies providing students with the opportunity to integrate theoretical learning in a major field of study with actual work experience in a variety of non-classroom settings. Students should consult with academic departments and supervising faculty for departmental policies, guidelines, and responsibilities.

Tuition for experiential education completed during the summer is at the standard summer session credit hour rate. Check with the Financial Aid Office to inquire about possible assistance for the summer term. Experiential education courses are not eligible for audit credit.

Registration forms for experiential education are available online at http://www.taylor.edu/academics/registrar/forms.shtml. For additional information, please refer to the Registration section of this catalog, pages 29-33.

## Practicum

Usually completed during the summer, a practicum course is a significant applied-learning experience with a meaningful, supporting component that enables students to observe, apply, and better understand previously studied theory.

An individual practicum can be done for l-4 hours of credit; a maximum of eight hours of credit can be earned through practicum experiences for degree requirements, subject to departmental requirements. Completed under the direction of a faculty advisor and an employer supervisor, students are required to complete a minimum of 40 clock hours of work experience for each academic credit earned. Academic departments may require additional work hours to meet curriculum requirements within the major program; students should consult with academic departments and supervising faculty for departmental policies, guidelines, and responsibilities.
Students generally arrange their own practicum assignment with guidance from and the approval of the supervising instructor. Registration for a practicum should take place before the term in which the practicum credit is to be given. Enrollment in a practicum requires the consent of the instructor and the approvals of the academic advisor and course department chair.

Academic credit is given for the practicum; therefore, the cost of a practicum is the same as for a regular course and is based on the number of credit hours. Tuition for a practicum completed during the summer is billed at the standard summer session credit hour rate.

## Internship

An internship is an advanced-level, discipline-related, culminating field experience directed toward preparing students for professional licensure or entry-level positions. Internship placements should be substantive, new, and educationally rewarding, rather than a continuation of a prior work experience.

Completed under the direction of a faculty advisor and an employer supervisor, students are required to complete a minimum of 40 clock hours of work experience for each academic credit earned. Academic departments may require additional work hours to meet curriculum requirements within the major program; students should consult with academic departments and supervising faculty for departmental policies, guidelines, and responsibilities. Students may earn a maximum of 16 hours of credit, subject to departmental restrictions, toward graduation requirements through the internship experience.

Internships are usually completed during a regular semester and require students to devote their full time, effort, and attention to completing requirements. Therefore, it is recommended that students not enroll in additional courses during the term when internships are being completed.

Academic credit is given for the internship; therefore, the cost of an internship is the same as for a regular course and is based on the number of credit hours. Tuition for an internship completed during the summer is billed at the standard summer session credit hour rate.

## Field and Travel Study

Field and travel study experiences are usually a component of a regular course and provide students opportunities to learn, observe, and assist professionals with selected tasks in an off-campus setting related to a career or program goal. Students are placed, supervised, and evaluated by the faculty responsible for the course. Assignments related to field experiences become part of the overall course evaluation.

Academic credit is given for field and travel studies; therefore, the cost of a field or travel study is the same as for a regular course and is based on the number of credit hours. Tuition for a field or travel study completed during the summer is billed at the standard summer session credit hour rate.

## Tutorials

A tutorial course is classroom-based, individualized instruction scheduled to meet on campus at a time that is mutually convenient for the student and the professor. The contact hours for this course must meet the standard set by the appropriate School Dean. Any course listed in the catalog may be taught as a tutorial course with the consent of the instructor and approval of the advisor, course department chair, and dean.

Tuition for tutorials completed during the summer is at the standard summer session credit hour rate. Check with the Financial Aid Office to inquire about possible assistance for the summer term.

Registration forms for tutorials are available online at http://www.taylor.edu/academics/registrar/forms.shtml. For additional information, please refer to the Registration section, pages 29-33.

## University Communication Policy

Taylor University uses @TAYLOR.EDU student email addresses to communicate directives relating to academic progress, advising, registration, billing, housing, financial aid, etc. to students, faculty, and staff.

Students are responsible for checking their Taylor email accounts regularly and complying with correspondence received from advisors, professors, and University administrators.

## Transfer Credit Policy

New Students
To receive credit for course work earned at other accredited universities, new students should request that college transcripts be sent directly to the Office of Admissions at Taylor University. These transcripts are then forwarded to the Office of the Registrar for transfer credit evaluation; a copy of the evaluation is sent to the student. The Registrar evaluates courses for general education and elective credit and confers with the appropriate department chair to have major or minor courses evaluated for transfer credit. Course descriptions and syllabi may be required in order to evaluate transfer courses.

## Current Students

After enrolling at Taylor, students who plan to take a course at another university during the summer or during a semester's absence, and wish to transfer credit to apply toward a degree, must complete a transfer credit course approval form signed by the student's academic advisor, course department chair, and the Registrar prior to enrolling in the course. The major or minor department chair's signature may be required if the course is a major/minor requirement. Upon completion of the course, students should request that transcripts be sent directly to the Office of the Registrar at Taylor.

The guidelines for accepting transfer credit are as follows:

- Taylor University reserves the right to accept or reject courses for transfer credit. Remedial or vocational courses are not transferable.
- Accepting courses for transfer credit and applying them toward degree requirements are separate considerations. Courses that transfer as elective credit may not be applicable to specific requirements.
- Only course work with a grade of C- or better will be accepted. Courses taken for a grade mode of pass, credit or satisfactory do not transfer unless the transcript indicates that the grade is equivalent to at least a C-. Although a minimum grade is required, grades do not transfer. The student's GPA is computed only on work offered by or through Taylor University.
- Transfer credit will not be accepted and duplicate hours will not be awarded for equivalent courses previously earned with a grade of D- or better at Taylor. However, the grade on the transfer institution's transcript will be used to validate completion of the course to meet a curriculum requirement with the required grade. Students attempting to raise their cumulative GPAs must repeat the respective course(s) at Taylor.
- A maximum of 64 hours of credit may be transferred from an accredited two-year college.
- Credits transferred from an accredited four-year college may be accepted for transfer credit; however, lower-division (100-/200level) or upper-division (300-/400-level) credit will be awarded based upon the Taylor equivalency course level.
- The Director of Teacher Certification must approve courses that apply toward teacher certification.
- Credit by examination (e.g., AP, CLEP, IB) recorded for a specific course on an official transcript must meet Taylor standards in order to be accepted as transfer credit. Procedures for acceptance of credit may be obtained from the Office of Academic Assessment. Departmental challenge exams from other institutions are not transferable.
- Graduation honors are computed only on Taylor University course work.
- Degree residency requirements: (I) students must complete 50 percent of the minimum degree hours at Taylor University [e.g., 64 of the minimum 128 hours required for the baccalaureate degree; 32 of the minimum 64 hours required for the associate degree]; (2) students must complete 50 percent of the major or minor hours at Taylor University; and (3) at least 22 of the last 30 hours must be taken at Taylor University

Transfer credit course approval forms are available online at http://www.taylor.edu/academics/registrar/forms.shtml.

## Transfer Credit Policy for Non-Taylor University Off-Campus/Study-Abroad Programs

Taylor University invests considerable time, effort, and resources for the creation of off-campus/study-abroad programs consistent with the standards and educational objectives of the University and the needs of its students. Students wishing to receive credit from a study-abroad/off-campus program not offered through Taylor University are responsible for initiating the approval process prior to program application to ensure approval of the program and appropriate transfer of credits.

Taylor University will not enter into a consortium agreement with any foreign or domestic college/university or study-abroad/off-campus agency for nonTaylor programs. No financial aid (federal, state, or institutional) will be awarded to students participating in non-Taylor programs.

Students must be in good academic standing and meet the following policies as they plan for and participate in any non-Taylor University study-abroad/offcampus program:

- Taylor University recommends that students begin the program and course approval process one year prior to the anticipated enrollment in any non-Taylor studyabroad or off-campus program. Students should schedule an appointment with the Registrar to initiate the application process to meet all deadlines.
- The study-abroad/off-campus program must be sponsored by other regionally accredited colleges or universities.
- Transfer credit will be accepted only if prior approval has been granted by the academic department, Director of General Education, and Registrar. All course approvals must be finalized by March I, for the following summer or fall semester, and October I, for the following spring.
- Course offerings and schedules are subject to change; Taylor University cannot guarantee that course changes will be accepted without the appropriate approvals prior to attending the program.
- The sponsoring college/university must grant the credit and grade for each course. Upon completion of the approved course(s), an official transcript from the sponsoring college/university should be sent to the Office of the Registrar.
- No more than 17 credit hours will be approved for semester-long programs.
- No more than 12 hours (8 hours for graduating seniors) will be approved for a summer term.
- Twenty-two (22) of the last 30 credit hours must be completed through Taylor University.
- Fifty percent of the degree hours must be completed at Taylor University.
- Fifty percent of the major/minor hours must be completed at Taylor University.

Additional information concerning transfer credit policies is available from the Office of the Registrar.

## University Withdrawal

Students with no intent to return to Taylor for the next term must apply for formal withdrawal through the Office of Student Development before leaving campus (prior to exam week).

Students who decide they cannot attend Taylor after enrollment in courses for the next term and prior to the start of that term must notify the Office of Student Development. Students failing to request withdrawal from the University risk receiving failing grades in their courses and being financially responsible for tuition fees (summer courses included).

Students who find it necessary to withdraw from all credit classes after the semester begins must apply for formal withdrawal through the Office of Student Development. If a student withdraws from the University after the first week of classes (first five class days), he/she will receive a withdrawal grade (W, WP, WF) for the appropriate withdrawal deadline. If this procedure is not followed, failing grades may be assigned. Failure to complete the term does not cancel the student's obligation to pay tuition and other charges. For specific details on refunds and adjustments, refer to the Finance section of this catalog on pages 233-234.

Students withdrawing with the intent to return to Taylor must initiate the withdrawal process through the Office of Student Development and apply for readmission through the Office of Admissions. Students planning to take courses at another institution during their time away from Taylor University should submit transfer credit request forms to the Office of the Registrar before registering for courses at the other university to ensure proper credit will be granted by Taylor.

## Registration

It is the responsibility of each student to follow directives published annually relating to registration, housing, billing, payment of bills, financial aid, etc. While Taylor University publishes program information and materials and assigns academic advisors, students are solely responsible for ensuring their academic programs comply with University policies. Any advice that is at variance with established policy must be verified and confirmed by the Registrar.

Course offerings (including changes in time, day, and the assignment of instructors) may be added to, amended, or canceled by the decision of a department or the University.

Registration deadlines, directives, and regulations are published each semester in the online academic calendar and schedule of classes available at http://www.taylor.edu/academics/registrar/registration.shtml.

## Advance Registration

Advance registration provides an opportunity for degree-seeking students to register via TOWER for courses for the upcoming semester(s). Registration priority is determined by cumulative earned credit hours with priority given to students with the most hours. Students who fail to register during their assigned advance registration period will lose their priority position during the registration process.

To ensure correct billing and certification of enrollment status for state and federal financial aid, scholarships, loan deferments, NAIA athletic eligibility, etc., students must be enrolled for $12+$ credit hours by the end of each advance registration period.

Readmitted students will be contacted by the Registrar's Office regarding registration procedures and will be required to meet with their academic advisors to pre-approve their upcoming schedules. The advisor must submit the approved class schedule to the Registrar by the published deadline in order to receive priority registration.

Guest students are not eligible for advance priority registration

## Audit Registration

Audit registration requires the approvals of the academic advisor and instructor and is subject to the following guidelines:

- Courses taken for audit receive no academic credit or grade.
- The audit option must be declared during the first week of classes (first five class days of fall or spring semester classes).
- Students must attend at least 50 percent of the class meetings as verified by the instructor in order for the course to appear on the academic transcript.
- At the discretion of the instructor, students may be required to complete course assignments, projects, etc., in order to participate in a course taken for audit credit.
- Audit registration occurs after all students requesting credit for the course have been given priority registration.
- Some courses are not available for audit registration such as private music lessons, music ensembles, laboratory courses, experiential education (e.g., practicum, internship, and field and travel studies), studio art courses, physical education courses, offcampus program courses, and distance education courses (e.g., Blackboard, online, independent study, and correspondence).
- Language courses required for the BA degree may not be taken for audit credit.
- Audit hours will be charged if the student's registration is under 12 hours or exceeds 17 hours for the enrollment term.
- Students should not register for the audit course. Upon approval, the Office of the Registrar will add the course to the student's schedule at the end of the advance registration period.
- The "Audit Registration" form must be pre-approved by the academic advisor and instructor before submission to the Registrar.

Registration forms for audit courses are available online at http://www.taylor.edu/academics/registrar/forms.shtml.

## Holds on Registration

The University uses several methods in the registration process to ensure that students are eligible to enroll in courses:

## Bursar

- If a student fails to meet payment requirements by the due date, the Bursar may place a hold on the student's records and course registration until the problem is resolved.
- The student will not be permitted to register for a subsequent term and will lose his or her priority registration position. Graduating seniors are not exempt from registration holds.
- It is the student's responsibility to view his or her account on both TOWER and the secure billing site to remain informed of his or her financial status.
- It is extremely important that each student communicates with the Bursar about unresolved account balances.


## Health Center

- If a student fails to submit complete health forms, immunization records, certification of physical examination, etc., the Office of Student Development may place a hold on the student's records and course registration until the issue is resolved.
- The student will not be permitted to register for a subsequent term and will lose his or her priority registration position.
- The Health Center or Office of Student Development should send the student notification of such a hold prior to the advance registration period.


## Registrar

- The Registrar may place a hold on a student's registration due to, but not limited to, academic standing, athletic eligibility, graduation progress, placement results, proficiency requirements, and repeat registration.

Students should contact the respective office who initiated the registration hold well in advance of the advance registration period. Until the hold is removed from the student's record, he or she will not be permitted to register for a subsequent term and will lose his or her priority registration position. Contact the Office of the Registrar for additional details regarding course registration.

## Music Lesson Registration

All students-music majors, minors, and those taking lessons to meet general education participation in the arts-are encouraged to register for private music lessons via TOWER during the advance registration period. Lesson days/times will be arranged using TOWER class schedules during the first week of the semester. Students will receive email notifications of their lesson days/times and instructor assignments. The music department will also post lesson times and teacher assignments at the music office SHMC 169 at the end of the first week of the semester. No changes of schedule for music lessons will be permitted after that time.

Contact the music coordinators (Dr. Patricia Robertson—Voice; Dr. Leon Harshenin—Piano (Keyboard); Lisa Royal—Instrumental) for additional assistance with private music lessons.

## Non-Music Majors

Non-music majors may register for a $1 / 2$-hour lesson (l credit hour) via TOWER during the advance registration period. Lessons are designed for nonmusic majors for personal enrichment and development of musical talent and to meet the general education participation in the arts requirement. Private instruction content will be determined by contract with instructors at the beginning of the semester.

| MUS I05B | Applied Lesson-Brass | Credit Hours: I (lower division) <br> Lesson: $1 / 2$ hour |
| :---: | :---: | :---: |
| MUS I05G | Applied Lesson-Guitar |  |
| MUS I05K | Applied Lesson-Piano (Keyboard) |  |
| MUS I05N | Applied Lesson-Organ |  |
| MUS I05P | Applied Lesson-Percussion |  |
| MUS 105S | Applied Lesson-Strings |  |
| MUS I05V | Applied Lesson-Voice |  |
| MUS I05W | Applied Lesson-Woodwind |  |

Music majors and minors may register for $1 / 2$-hour or I-hour lessons (l-4 credit hours) via TOWER during the advance registration period. Lessons are designed for music majors and minors learning practice methods, building good techniques, acquiring sufficient repertoire, gaining a broad knowledge of literature and composers, and achieving performance skills.

Music minors will need to contact the respective music coordinators (Dr. Patricia Robertson-Voice; Dr. Leon Harshenin-Piano (Keyboard); Lisa Royal-Instrumental) for 'MAJOR' overrides in order to register online. Overrides do not automatically enroll students in their private lessons/courses; overrides are electronic approvals permitting students to register online.

| MUS IOOB | Applied Lesson-Brass | Credit Hours: I (lower division) <br> Lesson: $1 / 2$ or I hour |
| :---: | :---: | :---: |
| MUS I00G | Applied Lesson-Guitar |  |
| MUS 100K | Applied Lesson-Piano (Keyboard) |  |
| MUS IOON | Applied Lesson-Organ |  |
| MUS IOOP | Applied Lesson-Percussion |  |
| MUS IOOS | Applied Lesson-Strings |  |
| MUS I00V | Applied Lesson-Voice |  |
| MUS I00W | Applied Lesson-Woodwind |  |


| MUS 200B | Applied Lesson-Brass |  |
| :--- | :--- | :--- |
| MUS 200G | Applied Lesson—Guitar |  |
| MUS 200K | Applied Lesson—Piano (Keyboard) |  |
| MUS 200N | Applied Lesson—Organ | Cesit Hours: 2 (lower division) |
| MUS 200P | Applied Lesson—Percussion |  |
| MUS 200S | Applied Lesson—Strings |  |
| MUS 200V | Applied Lesson—Voice |  |
| MUS 200W | Applied Lesson-Woodwind |  |


| MUS 300B | Applied Lesson-Brass | Credit Hours: I (upper division) <br> Lesson: I hour |
| :---: | :---: | :---: |
| MUS 300G | Applied Lesson-Guitar |  |
| MUS 300K | Applied Lesson-Piano (Keyboard) |  |
| MUS 300N | Applied Lesson-Organ |  |
| MUS 300P | Applied Lesson-Percussion |  |
| MUS 300S | Applied Lesson-Strings |  |
| MUS 300V | Applied Lesson-Voice |  |
| MUS 300W | Applied Lesson-Woodwind |  |


| MUS 400B | Applied Lesson-Brass |  |
| :--- | :--- | :--- |
| MUS 400G | Applied Lesson-Guitar |  |
| MUS 400K | Applied Lesson—Piano (Keyboard) | Credit Hours: 2-4 (upper division) |
| MUS 400N | Applied Lesson-Organ |  |
| MUS 400P | Applied Lesson-Percussion |  |
| MUS 400S | Applied Lesson-Strings |  |
| MUS 400V | Applied Lesson-Voice |  |
| MUS 400W | Applied Lesson-Woodwind |  |

## Overrides

Departmental requirements on course restrictions are firm; however, a student may merit an exception based upon individual circumstances. Students must contact the course instructor for an override approval. Registration overrides are possible for the following restrictions:

- Academic Load (Registrar authorization required)
- Prerequisite
- Closed Section
- Class
- Major/Minor
- Instructor Permission
- Test Score
- Time Conflict (both instructors must enter overrides for their respective courses)

Instructors are to enter required section overrides in TOWER. Upon entering the required override, the instructor should notify and remind the student of the student's responsibility to then register for the course. An override is an authorization to enroll in a course-not a registration request or schedule adjustment. Students are solely responsible for registering for courses after an override has been entered by the instructor.

## Pass/Fail Registration

The pass/fail option requires the approvals of the academic advisor and instructor and is subject to the following guidelines:

- A pass grade represents work completed at C- or above.
- The pass/fail option is open only to second-term sophomores or above with a minimum 2.30 GPA. (The exception being the practicum which is open to all qualified students.)
- No course needed for teacher certification may be taken pass/fail.
- No course in the major, minor, or concentration field (except the practicum) and no general education course may be taken pass/fail until all requirements in those areas are met.
- Language courses required for the BA degree are not eligible for the pass/fail option.
- The pass/fail option must be declared during the first week of classes (first five class days of fall or spring semester classes).
- Pass/fail courses do not affect the cumulative GPA if passed; however, they do affect the GPA if failed.
- Pass/fail courses are limited to one course per term.
- Pass/fail courses are limited to a total of I3 hours; courses offered only on a pass/fail basis are not included in this total.
- The student is responsible for registering for the course. Upon approval, the Office of the Registrar will change the grade mode from normal to pass/fail.
- The "Pass/Fail Registration" form must be pre-approved by the academic advisor and instructor before submission to the Registrar.

Registration forms for pass/fail courses are available online at http://www.taylor.edu/academics/registrar/forms.shtml.

## Pre-Registration Advising

Students must meet with their academic advisors during the pre-registration advising period to receive their registration access code (RAC) information sheets. A student with double majors in different disciplines should be advised by both the primary and secondary advisors; the RAC sheet will be retained with the advisor of the primary major.

While Taylor University publishes program information and materials and assigns academic advisors, students are solely responsible for ensuring that their academic programs comply with the policies of the University. Any advice that is at variance with established policy must be verified and confirmed by the Registrar.

## Repeat Registration

Any course may be repeated at Taylor University. All attempts in a course are reflected on the student's academic transcript; the cumulative GPA will reflect the most recent grade in the repeated course, even if the new grade is lower than the original attempt.

Grades of W (withdrawn), WP (withdrawn/passing), or AUD (audit) will not replace previously earned grades of A-F, WF (withdrawn/failing), or NC (no credit) in the GPA calculation. Duplicate credit hours are not awarded when repeating a course.

## Specific Registration

Specific registration forms are required for the following courses:

- Audit
- Departmental Honors
- Directed Research
- Field Study
- Independent Study
- Internship
- Pass/Fail
- Practicum
- Selected Topics
- TU Online
- Tutorial

Registration forms are available online at http://www.taylor.edu/academics/registrar/forms.shtml. Completed forms must be pre-approved with signatures of the instructor, academic advisor, and major and course department chairs (if applicable) before submission to the Registrar for evaluation and registration.

## Schedule Adjustments

Students are solely responsible for each course in which they register and for notifying their advisors of any schedule adjustments. Students must verify their official TOWER schedules prior to the first day of classes and the last day to drop/add courses to confirm their registration. Students are not authorized to attend classes for which they are not officially enrolled.

Courses may be added during the first week of classes (first five class days of fall/spring semesters); however, each class missed that week counts as an unexcused absence. After the first week of classes, no additional coursework may be added or changed. Courses may be dropped during the first five class days via TOWER (if enabled); if TOWER is disabled, students must initiate registration changes through the Office of the Registrar. Specific add/drop deadlines apply to summer, January, and partial-term courses; refer to the academic calendar for the respective term.

After the first week of classes (first five class days of fall/spring semesters), withdrawing from a course requires submission of a course withdrawal form available from the Office of the Registrar. It is the student's responsibility to formally withdraw from courses. Discontinuance of attendance does not automatically constitute withdrawal from a course. Students failing to file proper withdrawal forms by the appropriate deadline must complete classes for which they are registered or receive an automatic grade of F . Withdrawing from courses during the second and third weeks of the semester appears on the student's transcript with a grade of withdrawn (W). Students withdrawing from a course after this period and up to one week after midterm receive either a grade of withdrawn/passing (WP) or withdrawn/failing (WF). When a student withdraws from a course later than one week beyond midterm, the grade is automatically WF. The effect of WF on the GPA carries the same weight as that of a full-term failing grade. Course withdrawals are not permitted during the week of final exams.

The official process of withdrawing from a course (after the last day to drop a class without a transcript entry) begins in the Registrar's Office; notifying instructors and advisors of intent to withdraw from a course does not automatically constitute course withdrawal. Students are solely responsible for formally withdrawing from a course. Neither failure to pay nor failure to attend will automatically remove a student from a course. Students failing to properly withdraw from a course risk owing the University all tuition and fees, repayment of financial aid, and failing grades in those courses.

## Drop from Full- to Part-Time Hours

A full refund will be given to students dropping from full-time to part-time by the last date to drop a class without a transcript entry. There is no refund for dropped hours after this date as outlined in the academic calendar.

## Drop of Overload/Audit Hours

After the last day to drop a class without a transcript entry, students registered for 18 hours or more will not have the amount of their fees reduced if they withdraw from a course (including private lessons, ensembles, and audit). Students are solely responsible for adhering to the registration deadlines outlined in the academic calendar, registration procedures, and catalog.

## Academic Program Objectives

Taylor University's academic programs:

- Require students to demonstrate depth of learning in an academic major.
- Structure the general education experience for the dissemination of the liberal arts heritage.
- Foster the capacity for making sensitive, value-oriented judgments.
- Engage students and faculty in and encourage research.
- Prepare students for conscientious and creative leadership in a technological world.
- Establish foundations for graduate study.
- Share intellectual expertise with the larger geographical, scholarly, and faith communities.
- Anchor specific career preparation for a variety of professions in a foundation of appropriate academic experiences, cultural breadth, and Christian perspectives.
- Prepare students to meet external certification and licensing requirements.
- Provide pre-professional preparation.


## Degree Requirements

Taylor University offers programs leading to the degrees of bachelor of arts, bachelor of science, bachelor of music, or associate of arts.
All degrees require students to fulfill general education, major field, and elective courses. Students must declare a major by the time they reach junior status (6I hours). Students must also demonstrate proficiency in the essential skill areas: reading, math, and writing.

In view of occasional curricular changes, continuously attending students may elect to meet the graduation requirements that were in effect at the time they entered Taylor University. They may also elect to declare a subsequent year's catalog requirements. In situations where curricular changes must be made in compliance with new licensing or credential requirements, students will be required to comply with new requirements.

While there is no official time limit for the completion of a degree for continuously attending students, those students who interrupt their enrollment for more than two full semesters must apply for readmission through the Office of Admissions and are required to meet the degree requirements current at the time of readmission.

## Baccalaureate Degree Requirements

A baccalaureate degree is an award that requires the completion of at least four academic years of college-level work or the equivalent in an academic field of study and that meets the institutional standards for satisfying the requirements of this degree level. Only one degree is awarded for each major.

The bachelor of arts degree centers on courses of study in the arts and sciences. It is likely to include more elective courses in the major field of study. Candidates for the bachelor of arts degree must demonstrate the equivalent of two years of sequential college-level study in one foreign language.

The bachelor of science degree requires more upper-division courses, fewer electives, and a practicum or internship experience. Bachelor of science degrees are often awarded to students preparing for professional fields. Students usually specialize more in the natural and social sciences than in the humanities. Most bachelor of science degree programs are available only when combined with curriculum requirements in education or systems analysis.

The bachelor of music degree is the initial professional baccalaureate degree in music. Its primary emphasis is on development of skills, concepts, and sensitivity essential to the professional life of a musician. The degree may be combined with curriculum requirements in education.

Students must make application and receive approval of both departments before adding concurrent majors/minors; adding a third major or minor requires approval of the three department chairs, the Academic Policy Committee, and the Registrar.

The following requirements apply to the baccalaureate program:

- Minimum of 128 semester hours.
- The residency requirement for the awarding of a Taylor University degree is fifty percent of the minimum degree requirement.
- At least 22 of the last 30 hours earned toward the degree must be taken in residence at Taylor University.
- Completion of all general education requirements.
- Demonstration of proficiency in reading and mathematics.
- Cumulative GPA of 2.00. Higher GPAs are required in certain curricula (e.g., social work).
- Passing grade in all hours for graduation.
- Grade of C- or better for all major, minor, and systems requirements.
- Minimum of 42 semester hours of upper-division (300-/400level) courses.
- Students desiring to complete the requirements for two degrees (e.g., BA, BM, BS) must make application and receive approval from both departments, the Academic Policy Committee, and the Registrar.
- Candidates for two degrees (e.g., BA, BM, BS) must complete a minimum of 158 semester hours and meet requirements for two different majors.


## Language Requirement for Bachelor of Arts Degree

Candidates for the bachelor of arts (BA) degree must demonstrate the equivalent of two years of sequential college-level study in one foreign language for graduation from Taylor University. Taylor offers language instruction in French, Spanish, New Testament Greek, and Old Testament Hebrew. Language courses required for the BA degree must be completed for a grade and are not eligible for the pass/fail option or for audit credit.

For additional information regarding language proficiency, contact Dr. Dan Treber, department of modern languages chair, at (765) 998-5249 or email DNTREBER@TAYLOR.EDU.

## French and Spanish

Students who have had two full years of high school French or Spanish and intend to continue in the respective language should register for FRE IOI or SPA IOI. Students who have had three full years of high school French or Spanish and intend to continue in the respective language should register for FRE 102 or SPA 102. Students who have had four full years of high school French or Spanish and intend to continue in the respective language should register for FRE 20I or SPA 201.
Students who have transferred in French or Spanish college credit should continue with the next sequential course.
Any placement outside of these guidelines requires taking the language placement exam as administered by the department of modern languages.
Students who place into French or Spanish 202 may receive credit for 201 by taking and successfully completing 202 with a minimum grade of B-. The fee for posting credit to the transcript should be paid at the time of notification. Students who place beyond 202 have various options:
I. To fulfill the language proficiency requirement and receive no credit, students need not take any additional language course.
2. To fulfill the language requirement and receive six hours of credit for 201 and 202, students may take the CLEP exam by the end of their first year at Taylor. If the student passes the exam, the fee for posting credit to the transcript should be paid at the time of notification.
3. To fulfill the language requirement and receive six hours of credit for 201 and 202 , students may take and successfully complete an advanced Taylor course in the language with a minimum grade of B-. The fee for posting credit to the transcript should be paid at the time of notification.
Students who take and pass the AP exam in French or Spanish with a score of 4 will have met the language proficiency for the BA degree and may receive credit for 201 and 202 . The fee for posting credit to the transcript should be paid at the time of notification. These exams must be taken prior to enrollment at Taylor.

## Greek and Hebrew

Placement exams for New Testament Greek and Old Testament Hebrew are currently not available. Students interested in completing Greek or Hebrew to meet the language requirement for the BA degree should contact the biblical studies, Christian education, and philosophy department for details. It is recommended that students with no previous study in Greek or Hebrew attain sophomore status before enrolling in Greek or Hebrew.

## English

International students who apply to Taylor University as non-native English speakers may request that English be considered as their "foreign" language for purposes of the bachelor of arts degree requirements under the following circumstances:
I. Documented attainment of a score of 550 or higher on the Test of English as a Foreign Language (TOEFL); or
2. Documented attainment of a score on another English language proficiency examination acceptable to the University (e.g., the International English Language Testing System (IELTS)); or
3. Successful completion of Taylor University's English as a Second Language (ESL) program with a written recommendation from the ESL program director.

Non-native English-speaking international students who enter after successful completion of Taylor University's ESL program will automatically receive six hours of credit toward their degree without a transcript fee.

Students who enter with TOEFL scores of 550 or above, but who are not graduates of Taylor University's ESL program, may also receive six hours of credit by notifying the Registrar of their desire to do so, and by paying the applicable transcript fee. This option should be taken during the first semester of their degree program.

This process is administered through Taylor University's Institute for English Language Studies, a program of the Spencer Centre for Global Engagement.

## Chinese, German, Italian, and Japanese AP Exams

AP exams are offered in Chinese, German, Italian, and Japanese. Any student scoring a 4 for these languages will have met the language proficiency for the BA degree. No credits will be given for these languages. If a student scores below 4 and wishes to pursue one of these language options, the student must meet with the department of modern languages chair. Any approved arrangement for meeting proficiency must be through a regionally accredited U.S. college or university and would not include transfer of credits from those institutions. Since AP is for high school students, these exams must be taken prior to enrollment at Taylor.

## Russian and Other Languages

For Russian and other languages not administered by AP, the student must meet with the department of modern languages chair. Any approved arrangement for meeting proficiency must be through a regionally accredited U.S. college or university and would not include transfer of credits from those institutions.

## American Sign Language

American Sign Language is not approved as an alternative language option and does not meet the BA language requirement.

## Systems for Bachelor of Science Degree

Program Director, Professor F. Aguilar
The systems curriculum distinguishes Taylor University from other liberal arts colleges because students can study the major they love and successfully compete for a great job after graduation. The curriculum complements almost every major by adding courses that sharpen students' analytical skills, introduce students to technology, teach how world class enterprises achieve quality, and provide insights into managing organizations and people. The goal of the curriculum is to help students recognize that the world is filled with systems (like educational systems, distribution systems, and manufacturing systems) and that it is the processes inhabiting these systems that produce value. World class organizations are the ones that can hone processes to achieve high performance. Our graduates are enjoying careers at enterprises of all sizes and in all segments of the economy including global consulting companies.

The four major themes of the curriculum are analysis, technology, quality, and management. The curriculum is taught primarily by faculty from the computer science and engineering department. However the systems curriculum is not a minor in computer science. A goal of the curriculum is to give students an in-depth exposure to system development, because this experience is essential for future system analysts, managers, and anyone who will work in a world class organization. Most systems analysts will never write a line of computer code in their professional careers. But they will undoubtedly manage projects involving application software, and so first-hand knowledge of software development and implementation is vitally important. (Some students do discover they actually are very good programmers and do look for programming opportunities upon graduation.)

Successful systems students are problem solvers and are analytically minded. These general traits may and do describe many in the liberal arts: artists, musicians, historians, theologians, philosophers, and writers to name a few. That is why the systems curriculum may be combined with any baccalaureate major. The skills acquired in the curriculum are not only applicable to almost any professional endeavor but also to living life: rational decision making, human relations, and problem solving. Graduates have used what they have learned in systems in a variety of arenas, beyond a career in systems analysis. For example, anyone aspiring for an MBA will be very well prepared upon graduating Taylor. Psychologists and sociologists have used what they learned to conduct studies regarding human behavior.

All courses required by the systems curriculum must be completed with a grade of C- or better.
See computer science and engineering on page 184 for descriptions of systems courses.

## Systems Requirements

## Systems Curriculum Requirements

| COS 120 | 4 | Introduction to Computational Problem Solving |
| :--- | :--- | :--- |
| IAS 330 | 3 | Human Relations in Organizations |
| MAT 151 | 4 | Calculus I |
| SYS 101 | 3 | Introduction to Systems |
| SYS 390 | 3 | Information Systems Analysis |
| SYS 392 | I | Systems Seminar |
| SYS 394 | 4 | Information Systems Design |
| SYS 403 | 3 | Operations Management |

## Systems Electives

Select at least three hours of electives ${ }^{\dagger}$, in addition to those required in the major or systems:
MAT 3823 Advanced Statistical Methods
SYS 2143 Principles of Human Computer Interaction
SYS 3103 E-Commerce
*SYS 40I 3 Operations Research
*SYS 4023 Modeling and Simulation
*Courses in both areas may count only once.
†Selection may depend on major.

Select one course ${ }^{\dagger}$ from the following:
COS $121 \quad 4 \quad$ Foundations of Computer Science
COS 1433 Interactive Webpage Design

Select one course ${ }^{\dagger}$ from the following:
MAT 2104 Introductory Statistics
MAT 3524 Mathematical Statistics

Select one course ${ }^{\dagger}$ from the following:
*SYS 40I 3 Operations Research
*SYS 4023 Modeling and Simulation
Select one course ${ }^{\dagger}$ from the following:
SYS 393 3-4 Practicum

|  | 393 | $3-4$ |
| :--- | :--- | :--- |

The systems curriculum course requirements are the same for all majors with very few exceptions. Some system elective courses may be required by a major. See academic departments (pages 62-228) for specific curriculum requirements.

## Associate of Arts Degree

An associate of arts degree is an award that requires the completion of at least two academic years of college-level work, or the equivalent, in an academic or occupationally specific field of study and meets institutional standards for satisfying the requirements for this degree level.

The associate of arts degree requires general education and major area courses, along with demonstrated proficiency in essential skill areas. At Taylor University, most of the degree programs are designed to prepare students for occupational-specific fields, as well as for matriculation to baccalaureate degree programs. An associate of arts degree must be completed and awarded one calendar year before a baccalaureate degree from the same department can be awarded. The associate of arts in liberal arts is not to be taken with or awarded with any baccalaureate degree.

The following requirements apply to the associate's degree:

- Minimum of 64 semester hours.
- The residency requirement for the awarding of a Taylor degree is fifty percent of the minimum degree requirement.
- At least 22 of the last 30 hours must be taken in residence at Taylor University.
- Cumulative GPA of 2.00 .
- The following general education courses: IAS IOI; IIO; ENG IIO; CAS 110 or 120; PHP 100 and 200x; BIB 110 and 210; COS 104 or 106; one social science or history course; HUM 230 or a literature course from ENG 230, 233, 240, or 250; and one science or math course. The AA degree in liberal arts is a final degree and requires: HUM 230, a literature course, and one science or one math course in addition to the courses listed above.
- Demonstrated proficiency in writing, mathematics, and reading.
- Fulfillment of all major area requirements. (Refer to Early Childhood Education and Liberal Arts within academic departments for detailed listings.)
- This degree does not allow for more than one major area of study.


## General Education

All students at Taylor University share certain common educational requirements. Known as general education, this program grows out of the purpose of the University as expressed in its Christian beliefs, mission statement, and academic objectives.

In seeking to integrate faith and learning in the Christian university environment, the general education program recognizes that all truth is God's truth in the special revelation of the inspired Scriptures and in the accumulated knowledge of human experience. The Christian faith permeates all learning. This idea means that: (I) faith is the foundation for our learning in the academic disciplines; and (2) the academic disciplines are important for informing our faith and transforming our world.

Christian worldview assumptions provide the foundation for the learning process and infuse the liberal arts and the academic majors with direction, meaning, and motive for application. Such interaction of faith and learning transforms general education courses in terms of subject selection, interpretation of information, the search for meaning in information, the application of knowledge, a model for living and learning, and an enthusiastic appreciation for knowledge. The liberal arts enhance the study of the student's major and support preparation for the world of work as well as civic, social, and personal responsibilities.

Representing nearly half of the baccalaureate programs, general education is liberating education in that it frees Christians to think and deal with the entire range of knowledge. The faculty of Taylor University affirms that general education is intended to develop students who evidence the following characteristics of mature and intellectual Christians:

## - Spiritual Activity

Students who are spiritually active have developed an intellectual and experiential understanding of the Christian heritage enacted in a consistent lifestyle of study, worship, service, stewardship, and world outreach.

## - Critical Thinking

Students who are critical thinkers have learned the intellectually disciplined process of conceptualizing, quantifying, analyzing, synthesizing, and evaluating information gathered from or generated by observation, experience, reflection, reason, or communication as a guide for action or belief.

## - Competent Communication

Students who are competent communicators have developed understanding and skill in the nature and practice of private and public discourse as instruments for creating, interpreting, and evaluating beliefs, attitudes, policies, and values in the context of various communities.

## - Scientific Literacy

Students who are scientifically literate have understood and employed the scientific method as a means of inquiry, are familiar with basic subject matter in representative areas of the natural and applied sciences, understand foundational connections among the various areas of science and mathematics, and are able to relate scientific principles to human affairs.

- Aesthetic Literacy

Students who are aesthetically literate have developed knowledge of the unique epistemology represented by the arts including a discerning awareness of the language and literature of diverse art forms.

## - Civic Mindedness

Students who are civic-minded have attained systematic knowledge of the structure and processes of domestic and international cultural, economic, political, and social systems and value participation in those structures and processes.

- Responsible Stewardship

Students who are responsible stewards have developed an understanding of God's command to be good caretakers of His creation and practice individual accountability in managing spiritual, intellectual, personal, physical, and economic resources.

- Lifelong Learning

Students who are lifelong learners are committed to learning as a means of continuous growth and development, expressing itself in ministry and reverence toward God in an ever-changing world.

General Education Curriculum Requirements
No single general education course may meet two separate general education requirements (except CC, WR, SP).

| Orientation (I) |  |  |
| :---: | :---: | :---: |
| IAS 101 | 1 | New Student Orientation |
| Spiritual Foundation (6) |  |  |
| IAS 110 | 3 | Foundations of Christian Thought |
| BIB 110 | 3 | Biblical Literature I |
| BIB 210 | 3 | Biblical Literature II |
| REL 313 | 3 | Historic Christian Belief |
| PHI 413 | 3 | Contemporary Christian Belief |
| IAS 495 | 1 | Senior Seminar |
| Stewardship of the Body (2) |  |  |
| PHP 100* | 2 | Fitness for Life |
| Select one* of the following: |  |  |
| PHP 200x | 1 | General Physical Education |
| PHP 250 | 2 | Elementary School Health and Physical Education |
| PHP 300 |  | Basic Swimming Skills |
| PHP 302 | 2 | Lifeguard Training |
| PHP 333 | 2 | Water Safety Instructor |
| PHP 334 | I | Lifeguard Training Instructor |
| PHP 345 |  | Challenge Course Facilitator Certification |
| PHP 393 |  | Practicum (approved by department) |
| *Students completing PHP 100 for I credit must select two hours to total 3 credit ho |  |  |
| Fine Arts (2) |  |  |
| Select one of the following: |  |  |
| HUM 230 |  | Art as Experience |
| HUM 330 |  | Arts and Ideas |
| Select one of the following: |  |  |
| ART xxx | 3 | Art Studio Course |
| HUM 250x |  | Participation in the Arts |
| MCM 332 |  | Layout and Design |
| MUS xxx | I | Music Ensemble |
| MUS xxx |  | Music Lesson (private or class) |
| Speaking (1) |  |  |
| Select one of the following: |  |  |
| CAS 110 |  | Public Speaking |
| CAS 120 |  | Interpersonal Communication |
| Note: Some majors require a specific course to meet this requirement. |  |  |
| Writing (I) |  |  |
| ENG 110 |  | Expository Writing |
| History (I) |  |  |
| Select one history* course (3-5 credit hours). |  |  |
| HIS xxx | 3-5 |  |
| *HIS I30, 250, 360, 393, 480, 490 will not meet general education requirement. |  |  |
| *HIS I70, 270, 370 require departmental approval to meet general education requirement. |  |  |
| Computer Science (1) |  |  |
| COS 104 | 2 | Computing and Culture - Applications and Context |
| COS 106 | 2 | Computing and Culture - Applications and Context |
| Mathematics (I) |  |  |
| Select one of the following: |  |  |
| MAT 110 | 3 | Finite Mathematics |
| MAT 120 | 3 | Investigations in Mathematics |
| MAT 140 | 3 | Fundamental Calculus for Applications |
| MAT 145 | 3 | Introduction to Functions and Calculus |
| MAT 151 | 4 | Calculus I |
| MAT 180 | 3 | Problem Solving |
| MAT 210 | 4 | Introductory Statistics |
| MAT 220 | 4 | Ways of Knowing |
| SOC 355 | 3 | Applied Social Statistics |
| Literature (I) |  |  |
| Select one of | follow |  |
| CAT 200 | 3 | Performing Literature |
| ENG 230 | 3 | World Literature |
| ENG 240 | 3 | American Literature |
| ENG 250 | 3 | British Literature |

Science (2)
Select two lab science courses totaling at least seven credit hours from two different areas:

| (1) Life Science |  |  |
| :---: | :---: | :---: |
| BIO 100 | 4 | General Biology |
| BIO 101 | 4 | Principles of Cell Biology |
| BIO 103 | 3 | Introductory Plant Biology |
| BIO 104 | 3 | Introductory Animal Biology |
| BIO 200 | 4 | Human Nutrition |
| BIO 205 | 4 | Human Biology |
| BIO 243 | 5 | Human Anatomy and Physiology |
| BIO 244 | 4 | Human Anatomy and Physiology I |
| \#CHE 120 | 4 | Forensic Science |
| ENS 200 | 3 | Environment and Society |
| ENS 231 | 4 | Introduction to Environmental Science |
| ( II) Physical Science |  |  |
| CHE 100 | 4 | Chemistry for Living |
| $\ddagger$ CHE 120 | 4 | Forensic Science |
| CHE 201 | 4 | General, Organic, and Biochemistry I |
| CHE 211 | 4 | College Chemistry 1 |
| PHY 120 | 4 | Experiences in Physical Science |
| PHY 203 | 4 | General Physics I |
| PHY 211 | 4 | University Physics I |
| ( III) Earth Science |  |  |
| ENP 345 | 3 | Fundamentals of Space Systems |
| ENS 241 | 4 | Physical Geology |
| ENS 242 | 4 | Geology of Indiana |
| GEO 210 | 4 | Physical Geography |
| GEO 240 | 3 | Introduction to Geology |
| PHY 201 | 3-4 | Introductory Astronomy |

$\ddagger$ Based upon course section selected, CHE 120 will meet either a life or physical science requirement.
Social Science (2)
Select two courses from two different departments. At least one selection must be a civic engagement course.
( 1 ) Civic Engagement
ECO $190 \quad 3 \quad$ Issues in Economics
ECO $201 \quad 4 \quad$ Principles of Microeconomics
ECO 2023 Principles of Macroeconomics
GEO 2303 Political Geography
POS $100 \quad 3 \quad$ American Politics
POS $150 \quad 3 \quad$ World Politics
POS 2133 International Political Economy
POS 331 3 Public Policy
SOC $100 \quad 3 \quad$ Introduction to Sociology
SOC 1103 Introduction to Global Societies
SOC $210 \quad 3 \quad$ Contemporary Social Issues
SOC $220 \quad 3 \quad$ Ethnic and Minority Issues
SOC $410 \quad 3 \quad$ Community and Urban Affairs
SWK 2003 Explorations in Social Work
SWK $320 \quad 3$ Unleashing the Oppressed
( II) General Social Science
GEO $220 \quad 4 \quad$ Regional Geography
HIS 2II/3II 4 History and Geography of Latin America
HIS 212/3I2 4 History and Geography of East Asia
HIS 2I $3 / 3134$ History and Geography of Africa
HIS 215/315 3 History and Geography of South Asia
IAS $330 \quad 3 \quad$ Human Relations in Organizations
POS $222 \quad 3 \quad$ Comparative Politics
POS $312 \quad 3 \quad$ Political Behavior
PSY IIO 3 Foundations of Psychology
PSY 2003 Introduction to Psychology
PSY $240 \quad 3 \quad$ Child Psychology
PSY $250 \quad 3 \quad$ Life Span Development
PSY $340 \quad 3 \quad$ Adolescent Psychology
PSY $350 \quad 3 \quad$ Child and Adolescent Psychology
SOC $310 \quad 3 \quad$ Religion and Society
SOC $330 \quad 3 \quad$ Social Change and Social Movements
SOC $361 \quad 3 \quad$ History of Social Thought
SOC 381 3 Marriage and Family Systems
Integrated Requirements (5)
Selected courses are designed and attributed to meet these requirements.
Complete one designated cross-cultural course (CC).
Complete two speaking courses (SP).
Complete two writing courses (WR).

## Writing Placement

In order to ensure writing success at Taylor, all students will place into the freshman writing course that best meets their needs as college writers:

- ENG IOI Fundamentals of Writing
- ENG IIO Expository Writing

Most students' writing placement is determined by using SAT Critical Reading or ACT English test scores and the high school GPA. Students whose combined scores are high will be placed into ENG IIO (unless they choose to attempt CLEP or AP credit); students whose combined scores are very low will be placed into ENG 101 . Students whose combined scores are in a middle range will need to complete their reading proficiency test before being placed into their writing course. We will use their reading proficiency test score to help us make the best placement.

After receiving his or her placement, if a student believes that he or she has been placed into the wrong writing course-either at too high or too low of a level-the student should contact the Advising Office. The student will be given an online writing test to complete. Then, the chair of the English department and the writing center director will evaluate this writing sample, along with the SAT/ACT test scores, high school GPA, and reading proficiency score, in order to determine if the writing placement should be changed. The student will receive an email within two weeks of completing the writing test notifying him or her of the final writing placement. In order to have the writing placement altered, the writing test must be completed by June I. Students admitted after June I may not have their placements altered.

Students who do not have SAT/ACT scores must also complete a writing test to help determine writing placement. Placement will be decided based on the writing test and the high school GPA. Students should contact the Office of Academic Assessment to receive the writing test.

## Writing Requirements

Taylor University believes that writing plays a significant role in both learning and communication; thus, Taylor has several writing requirements. First, all students in their freshman year take ENG IIO Expository Writing, with some students taking ENG IOI Fundamentals of Writing prior to Expository Writing. These writing courses set the foundation for the college-level writing that will be expected at Taylor. These freshman writing courses help to prepare students for later writing in general education and major courses: a large number of Taylor courses incorporate a variety of writing assignments, from short in-class writing to substantial 40 -page papers. Taylor University students write a lot across their four years.

All new students, both first-time freshmen and transfer students, are expected to complete ENG IIO Expository Writing by the end of their first year.

## Transfer Credit for ENG IIO

Writing courses transferred from other institutions to meet ENG IIO must represent the total writing requirement at that college or university (the last course in a sequence if more than one semester is offered). The course should include process writing, finished essays, and a research paper. The Registrar's Office (in consultation with the English department at Taylor) must approve transfer courses.

## AP Credit for ENG IIO

An AP score of 5 qualifies for credit, while a score of 4 requires evaluation of the essay by the English department at Taylor University. If a score of 4 is received, it is the student's responsibility to request that AP send the essay to Taylor by September 15 (for fall enrollment) or March 15 (for spring enrollment). The AP process must be completed with the Office of Academic Assessment before October 15 , for students entering in the fall semester, or March I5, for those entering in the spring semester.

## CLEP Credit for ENG IIO

Students wishing to attempt CLEP credit must have scores at or above 660 in SAT Critical Reading or 27 in ACT English. A scaled score of 50 or higher on the CLEP College Composition Module exam qualifies a student to write an essay evaluated by the department of English. The CLEP exam must be taken and passed by October 15 for students entering in the fall semester and March 15 for students entering in the spring semester. Students not completing all requirements by the appropriate date must register for ENG IIO in their second semester at Taylor.

If the AP or CLEP exam for ENG IIO Expository Writing is passed and approved by the Office of Academic Assessment, the fee for posting credit to the transcript must be paid by November I, for those entering in the fall semester, and April I, for those entering in the spring semester. Students are solely responsible for verifying that their scores are received in the Office of Academic Assessment.

## Reading and Math Proficiencies

All new students, both first-time freshmen and transfer students, must demonstrate proficiency in reading and mathematics. The purpose of these proficiency requirements is to ensure that all students are prepared to successfully complete coursework at Taylor. Proficiency tests are administered at student orientations during the summer, Welcome Weekend, and the first week of the fall and spring semesters.

All students must fulfill the reading and math proficiency requirements according to the following guidelines:

## Reading

Students with SAT Verbal scores of 540 or above or ACT English scores of 23 or above are considered to have met the reading proficiency requirement.
Students with SAT Verbal scores below 540 or ACT English scores below 23 will be registered for IAS I80 Applied Learning Techniques-Verbal. Students will have the opportunity to test out of IAS 180 during Summer Orientation sessions or Welcome Weekend by passing the reading proficiency exam with a score of at least I3.0. Failure to pass the exam as part of the course will require re-enrollment in IAS I80 for the following term.

## Math

Students with SAT math scores of 550 or above or ACT math scores of 24 or above are considered to have met the math proficiency requirement.
Students with SAT math scores below 550 or ACT math scores below 24 are required to attain a passing score of at least 35 on the math proficiency exam. Students in this group who do not pass the proficiency exam will be enrolled in MAT 100 Mathematics Fundamentals. Failure to pass the exam as part of the course will require re-enrollment in MAT 100 for the following term.

Other math courses, including Taylor or transfer credit, will not meet the math proficiency requirement.

## Majors and Minors

## Major

The major is the principal field of study usually consisting of 25 percent or more of the total hours required in an undergraduate curriculum. At Taylor University, typical fields of study require students to earn a minimum of 30 hours of credit. The following requirements apply to the major:

- A 2.30 GPA in the major field is required. Higher GPAs are required in certain curricula (e.g., social work).
- Only courses with a grade of C- or better will count in satisfying major requirements.
- The major GPA is calculated to include all courses that could be counted toward the major, including courses in which a grade below C- is earned. This includes courses taken in concentrations, cognates, tracks, supporting areas, etc.
- If a major course is normally taken for a letter grade (A-F), the course cannot be counted in the major if taken pass/fail.
- Fifty percent of the hours in the major field must be earned at Taylor University.
- A comprehensive examination, paper, or project in each major field of study must be successfully completed.
- Students must make application and receive approval of both departments before adding concurrent majors; adding a third major requires approval of department chairs, the Curriculum Management Committee, and Registrar.


## Concentration

A concentration is an intensive study of a subject within a major field of study consisting of at least 30 percent of the major requirements. At Taylor University, concentrations are specialized areas within the major field and include tracks, application fields, supporting areas, and areas of emphasis. There is a range of required hours determined by standards within the field, along with requirements established by the department

## Bachelor of Arts (BA) Degree Majors

## School of Liberal Arts

Art
Select one required concentration:
Graphic Design
Photography
Three-Dimensional Studio
Two-Dimensional Studio
Biblical Literature
Christian Educational Ministries
Communication Studies
Select one required concentration:
Corporate Communication
Relational Communication
English
Select one required concentration:
Creative Writing
Literature
Film and Media Production
Geography
Goal-Oriented
History
International Studies
Select one required concentration:
African, Asian, and Latin American Studies
Cross-Cultural Ministries
European Studies
French Language and Literature
Middle East Studies
Peace, Reconciliation, and Justice
Spanish Language and Literature
World Literature
World Politics and Economics
Media Production
Audio (optional)
Media Writing
Music
Philosophy
Political Science
Psychology
Pre-Medicine (optional)
Public Relations
Sociology
Select one required concentration:
Family Studies
Policy Studies
Sociological Studies
Urban Studies
Spanish
Theatre Arts
Web Communication

School of Natural and Applied Sciences
Biology
Pre-Medicine (optional)
Chemistry
Biochemistry (optional)
Pre-Medicine (optional)
Computer Science
Select one required concentration:
Graphics
Intelligent Systems
Scientific Computing
Software Studio
Computer Science-New Media
Mathematics
Physics

School of Professional Studies
Elementary Education
Exercise Science
Select one required concentration:
Exercise and Fitness
Pre-Professional
Social Work
Sport Management

## School of Business

## Accounting

Developmental Economics
Economics
International Business
Management
Marketing

## Bachelor of Music (BM) Degree Majors

School of Liberal Arts
Music
Select one required concentration
Composition
Performance
Music Education

## Bachelor of Science (BS) Degree Majors

## School of Liberal Arts

Art Education
Art/Systems
Select one required concentration
Graphic Design
Photography
Three-Dimensional Studio
Two-Dimensional Studio
Biblical Literature/Systems
Christian Educational Ministries/Systems
Communication Studies/Systems
Select one required concentration
Corporate Communication
Relational Communication
English Education
English/Systems
Select one required concentration:
Creative Writing
Literature
Film and Media Production/Systems
Goal-Oriented
Goal-Oriented/Systems
History/Systems
International Studies/Systems
Select one required concentration:
African, Asian, and Latin American Studies
Cross-Cultural Ministries
European Studies
French Language and Literature
Middle East Studies
Peace, Reconciliation, and Justice
Spanish Language and Literature
World Literature
World Politics and Economics
Media Production/Systems
Audio (optional)
Media Writing/Systems
Music
Select one required concentration
Church Music Ministries
Management
Marketing
Theatre Arts
Philosophy/Systems
Political Science/Systems
Psychology/Systems
Pre-Medicine (optional)
Public Relations/Systems
Social Studies Education
Select one required concentration:
Geographical Perspectives
Government and Citizenship
Select one optional concentration:
Economics
Psychology
Sociology
Sociology/Systems
Select one required concentration:
Family Studies
Policy Studies
Sociological Studies
Urban Studies
Spanish/Systems
Spanish Education
Theatre Arts/Systems
Web Communication/Systems

## School of Natural and Applied Sciences

Pre-Medicine (optional)
Biology Science Education
Biology/Systems
Pre-Medicine (optional)
Chemistry
Chemistry-Environmental Science
Chemistry Education
Chemistry/Systems
Pre-Medicine (optional)
Computer Engineering
Computer Science
Select one required concentration
Graphics
ntelligent Systems
Scientific Computing
Software Studio
Computer Science/Systems
Select one required concentration:
Business Information Systems
Graphics
ntelligent Systems
Scientific Computing
Software Studio
Computer Science-New Media/Systems
Engineering Physics
Environmental Engineering
Environmental Science
Select one required concentration
Biology
Earth and Physical Science
Mathematics Education
Mathematics-Interdisciplinary
Select minor or 2nd major:
Accounting
Biology
Chemistry
Computer Engineering
Computer Science
Economics
Engineering Physics
Environmental Science
Environm
Physics
Mathematics/Systems
Natural Science
Pre-Medical Technology
Physical Science Education
Select one required concentration:
Chemistry
Physics
Physics
Physics/Mathematics Education
Physics Science Education

School of Professional Studies
Educational Studies
Elementary Education
Exercise Science
Select one required concentration:
Exercise and Fitness
Pre-Professional
Health and Physical Education
Professional Writing
Social Work
Sport Management

## School of Business

Accounting
Accounting/Systems
Developmental Economics/Systems
Economics/Systems
Finance
International Business/Systems
Management/Systems
Marketing/Systems

## Associate of Arts (AA) Degree Majors

## Minor

Minors are intended to complement the major or provide a greater breadth to liberal arts education. The minor normally consists of 15 percent or more of the total hours required in an undergraduate curriculum and generally involves a course of study equivalent to about 50 percent of a major at Taylor University. The following requirements apply to the minor:

- A 2.30 GPA in the minor field is required.
- Only courses with a grade of C- or better will count in satisfying minor requirements.
- The minor GPA is calculated to include all courses that could be counted toward the minor, including courses in which a grade below C - is earned.
- If a minor course is normally taken for a letter grade (A-F), the course cannot be counted in the minor if taken pass/fail.
- Fifty percent of the hours in the minor must be earned at Taylor University.
- Students must make application and receive approval of both departments before adding concurrent minors; adding a third minor requires approval of department chairs, the Curriculum Management Committee, and Registrar.

| Baccalaureate Minors |  |  |  |
| :--- | :--- | :--- | :--- |
| Accounting | Corporate Communication | Human Resource Management | Psychology |
| Applied Missions $\dagger$ | Creative Writing | Intercultural Studies/Missions | Public Relations |
| Applied Music | Developmental Economics | International Studies | Relational Communication |
| Biblical Languages | Economics | Keyboard Pedagogy | Sociology |
| Biblical Literature | English | Literature | Spanish |
| Biology | Entrepreneurship | Management | Sport Management |
| Business as Mission | Environmental Law and Policy | Marketing | Studio Art |
| Chemistry | Environmental Science | Mathematics | TESOL (Teaching English to Speakers |
| Christian Educational Ministries | Environmental Studies | Music Composition | of Other Languages) |
| Church Music Ministries | Ethics | Philosophy | Theatre Arts |
| Coaching | Finance | Physics | Youth Ministry |
| Communication Studies | Geography | Political Science |  |
| Computer Science | Pre-Law |  |  |

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## Graduation

## Application for Graduation and Graduation Agreement

Candidates for graduation must complete and submit an application for graduation and graduation agreement at least one year prior to the anticipated graduation date. The graduation application begins the degree audit process.

The Office of Registrar will conduct degree audits on behalf of the student. If deficiencies are discovered, the student will be removed as a candidate for completion and participation in Commencement; it is the student's responsibility to notify his or her family of the change. If a new definitive plan is submitted addressing and correcting the deficiencies, the student may be reinstated as a graduation candidate.

Prior to the senior year, students should check the schedule of classes and registration procedures to determine the deadlines for submitting the application for graduation. Students are solely responsible for ensuring that their academic programs comply with the policies of the University and meet all graduation requirements.

Visit http://www.taylor.edu/academics/registrar/graduation.shtml for details regarding the application for graduation and graduation agreement.

## Commencement and Diplomas

Effective with December 2006 Graduates
A student may complete graduation requirements at the end of any Taylor University instructional terms concluding in December, January, May, June, July, or August. However, the Commencement ceremony is held only in May at the end of the spring term. Attendance at Commencement is expected; however, if a graduate is unable to participate, written notification of in absentia should be submitted to the Office of the Registrar.

Summer graduation candidates may participate in Commencement if they have no more than 8 credit hours remaining and have submitted a plan to complete these hours by the respective official summer graduation date.

December and January graduates are eligible to participate in the ceremony following their official graduation.

Diplomas will be mailed to graduates within three weeks of the conferral date following submission of final grades and completion of the final degree audit by the Office of the Registrar. Graduates must fulfill all financial obligations to the University before he or she receives a diploma.

## Academic Honors

Effective with December 2006 Graduates
In recognition of superior scholarship, the University awards three levels of honors at graduation: cum laude, magna cum laude, and summa cum laude. Cum laude is awarded to those students with a GPA of at least 3.50. Magna cum laude is awarded to those students with a minimum GPA of 3.70. Summa cum laude is awarded to those with a minimum GPA of 3.90 .

Final graduation honors placed on diplomas and transcripts are designated for those students who have fully completed all course work and requirements for their baccalaureate degrees. Graduation honors are computed on Taylor University credit hours only; fifty percent of the minimum degree hours must be completed at Taylor University. Associate degrees are not eligible to receive honors.

For commencement ceremony purposes only, honors will be announced and appropriate honors regalia worn using the GPA calculated after January interterm.

## Major/Minor GPA Calculation

## Effective with December 2005 Graduates

Only courses with a grade of C- or better will count in satisfying major/minor credit hour requirements. However, the institutional ("default") methodology for computing the major or minor GPA will be to include all courses that could be counted toward the major/minor, including courses in which a grade below C - is earned. This includes courses taken in cognates, tracks, supporting areas, etc.

All major and minor programs will continue to have a 2.30 major and minor GPA requirement with the exception of social work which requires a 2.50 major GPA. Individual programs may have circumstances unique to the discipline that would suggest that major or minor GPA requirements might be more appropriately computed in a specific manner.

## Senior Comprehensive Examination/Paper/Project

A candidate for a baccalaureate degree must successfully complete a comprehensive examination, project, or paper in the major field of study. This examination is given during the senior year. A student is allowed a maximum of three attempts to pass the comprehensive examination in any single major. If a student intends to graduate with more than one major, a comprehensive examination, project, or paper is required for each major. The examinations, projects, or papers are to be marked superior, pass, or fail.

## Academic Enrichment Center Academic Support Services

## Dr. Scott E. Gaier, Coordinator, Academic Enrichment Center <br> Dr. R. Edwin Welch, Coordinator, Academic Support Services

The Academic Enrichment Center (AEC) is housed in the southwest wing of the Zondervan Library. In keeping with Taylor University's mission statement, the AEC serves as a compassionate outreach to all students by providing academic study support so that all students may reach their academic potential.

Services provided by the Academic Enrichment Center include: academic skills courses, study counseling, tutoring, disabled student services, Writing Center, academic support for students on academic probation, and academic support for provisionally accepted students. In coordination with the Office of Academic Assessment, the AEC offers academic support for students who are unable to meet proficiencies required by the University, including the math, reading, and writing proficiencies.

The learning-assistance services and programs in support of the Taylor University mission statement collaborate to assist and encourage all students to become active and independent learners. The specific goals of the Academic Enrichment Center are to:

- Make students the central focus of the program.
- Assist members of the campus community in achieving their personal potential for learning.
- Provide instruction and services that address the cognitive, affective, and sociocultural dimensions of learning
- Introduce students to the expectations of faculty and the culture of higher education.
- Help students develop positive attitudes toward learning and confidence in their abilities to learn
- Foster personal responsibility and accountability for one's own learning.
- Provide a variety of instructional approaches that are appropriate for the level of skills and learning styles of the student population.
- Assist students in transferring previously learned skills and strategies to their academic work.
- Provide services and resources to faculty, staff, and administrators that enhance and support classroom instruction and professional development.
- Support the academic standard and requirements of the University.

The Academic Enrichment Center offers the following courses intended to assist students in learning effective time management, efficient reading techniques, meaningful note taking strategies, excellent study models for test preparation and taking, and math knowledge for college success. Courses are provided to help students meet the math and reading proficiency levels as outlined in the degree requirements for the University.

IAS 140
Academic Reading
An exploration and application of reading strategies to help students engage academic reading for more effective reading rate, comprehension and retention. The course will help students establish appropriate reading skills for academic success in college. Students taking IAS 140 to meet the reading proficiency required by the university must pass the reading proficiency test in order to pass IAS 140.
IAS 170 I hour
Selected Topics
Course offered on a subject of interest but not listed as a regular course
offering. May count toward the departmental major and general education requirements.

## IAS 180 I hour <br> Applied Learning Techniques-Verbal

Emphasizes techniques for the improvement of study skills, listening and note taking, reading and comprehension. The course meets two hours a week, with the third hour reserved for extra assignments. Work is completed in a lab setting and may be repeated one time only. Pass/fail only.

## IAS $185 \quad 1$ hour <br> Applied Learning Techniques-Math

Emphasizes techniques for the improvement of math study skills, listening and note taking and mathematics skills. The course meets two hours a week, with a third hour reserved for make-up or extra assignments. May be repeated one time only. Pass/fail only.

IAS 280 I hour
Applied Learning Techniques-Verbal
Emphasizes techniques for the improvement of study skills, listening and note taking, reading and comprehension. The course meets two hours a week, with the third hour reserved for extra assignments. Work is completed in a lab setting and may be repeated one time only. Pass/fail only.
IAS 285 I hour
Applied Learning Techniques-Math

Emphasizes techniques for the improvement of math study skills, listening and note taking and mathematics skills. The course meets two hours a week, with a third hour reserved for make-up or extra assignments. May be repeated one time only. Pass/fail only.

IAS 410 I hour
Speed Reading
Emphasis on speed reading techniques and effective comprehension. Meets two hours a week. Prerequisite: $13^{\text {th }}$ grade-level reading; not open to freshmen. Pass/fail only.

IAS 440 I hour
Advanced Test Preparation
Individualized instruction and review of both quantitative and verbal materials in preparation for passing exams such as the GRE, GMAT, LSAT, and MCAT. Meets twice a week for seven weeks. Pass/fail only.

## English as a Second Language (ESL)

## Dr. Chin Chang, Associate Professor of Modern Languages Jack Peterson, Curriculum Coordinator, Assistant Professor of English Language Studies

Through its Institute for English Language Studies, Taylor University offers a variety of programs to non-native English speakers who wish to improve their English proficiency either for entrance to an English-based academic program, or for general proficiency.

Students who are planning to study at the associate, baccalaureate, or graduate level in English can enroll in the intensive English program which is comprised of one, two, or three semesters depending on the entry level of proficiency and rate of progress. This program provides gradual transitions to regular college classes through coursework in the "American classroom," as well as through structured class observations to better understand faculty-student interaction in the Western context.
The Institute also offers one-semester and one-year visitor programs for students at foreign universities who wish to improve their proficiency and to experience university life in America. These students will generally take a combination of ESL courses specific to their entry level and objectives, and regular university courses for credit to transfer back to their home university programs.

For students who wish to earn a certificate in Teaching English to Speakers of Other Languages (TESOL), the Institute provides a joint curriculum with the TESOL program. Students who have completed the ESL program at a level sufficient for matriculation into the university's degree programs can obtain the TESOL certificate in one year of additional study. This option provides the credential often required to teach English in their home countries.

Lastly, the Institute offers a summer non-credit English camp experience for non-native English speakers who are interested in improving their conversational English as opposed to preparing for an academic program. Youth and adults alike from many different cultures and countries join together for this English camp called ALECS (Acquiring Language, Engaging Culture, and Serving). Participants enjoy great fellowship cross-culturally, travel to a variety of Midwest destinations, and practice their English in a fun and effective program.

## ESL 061

## 2 hours

This course integrates classroom grammar instruction with meaningful, individualized grammar practice in an independent lab setting.

## ESL 062

## 2 hours

Service Learning Project
Students work on community-based service projects to learn more about American culture and to interact with English speakers in a variety of contexts. Specific learning outcomes are pursued through a series of assignments and reflective writings.

## ESL 063 <br> 2 hours

Classroom Observation
English students who are near their transition to full-time degree-seeking status in an English-based curriculum are given the opportunity to sit in on a variety of regular classes. Through a series of assignments, they study how faculty and students interact, interpret faculty assignments, and become familiar with small group work and other traditional American classroom pedagogy.

## ESL 064 <br> I hour

Independent TOEFL Preparation
A supervised independent study to assist students who are preparing to take the standardized Test of English as a Foreign Language (TOEFL). Each component of the examination is reviewed. Strategies for maximizing performance on each component and the composite test are introduced. Several practice examinations are completed under actual testtaking conditions. Instructor approval required.

## ESL 065

2 hours

## TOEFL Preparation

This course provides students with the skills and strategies needed to succeed on the Test of English as a Foreign Language (TOEFL) through test simulations, vocabulary building, and four-skill instruction and practice.

## ESL 066

## 3 hours

Class Audit
This course, to be taken in the semester immediately preceding admittance to a degree-seeking Taylor University program, gives students extended exposure to a Taylor University class of their choosing. Students will learn the content of the course as well as gain insight into the linguistic and cultural demands of an American university.

## ESL 067

## 2 hours

## Advanced Vocabulary

For English students who have attained their desired level of English proficiency, but who are planning to enter graduate or professional schools where the curriculum will be taught in English, this course provides a supplemental vocabulary pertaining to activities and subjects commonly encountered in these programs (e.g., research terminology).

## ESL $068 \quad 2$ hours <br> English Pronunciation

Non-native English speakers typically have particular sounds that are troublesome depending on their native language. This course provides instruction in clearly and correctly pronouncing these sounds that are important to communicating effectively in English.

## ESL 072

## 4 hours

Academic Reading and Writing
Through this course, students will be introduced to the world of academic reading and writing in an American university. Students will learn reading skills necessary to comprehend a text as well as strategies to manage a typical reading load for a university student. Students will also receive practice and instruction in composing many different forms of writing assignments found in American classrooms.

## ESL 082

## 4 hours

Academic Listening and Speaking
This course provides students with the tools necessary to thrive in an American university, in and out of the classroom. Students will gain focused instruction and experience in speaking skills and listening skills through practical assignments that tailor the classroom experience to fit each student's academic interests and needs. Students will learn and practice classroom communication, group work, presentation skills, note-taking strategies, classroom lecture comprehension, and conversational listening.

## ESL 091

3 hours
The American Classroom
This course prepares advanced students for the university classroom through content-based instruction that closely follows the curriculum format of Taylor University classrooms. Students will gain a broad perspective of historical, religious, and societal influences on American educational culture through lectures, class discussions, and practical assignments.

## ESL 093 <br> 3 hours

Advanced Academic Language Skills
This integrated skills course ensures that English Language Learners are equipped with the linguistic tools necessary to meet the demands of an American academic environment. Students will receive focused instruction and practice in advanced academic speaking, listening, reading, and writing through college-level books, lectures, film, and other forms of academic media.

# Off-Campus/International Studies Programs 

Jeff Miller, Assistant Director, Spencer Centre for Global Engagement

One of Taylor University's objectives is to prepare students for a variety of professions on a foundation of appropriate academic experiences, cultural breadth, and Christian perspectives. Off-campus study programs challenge values and stimulate critical thinking, whether they take place in the United States or abroad. Many students return home from their off-campus experience with new perspectives, new questions, and a deeper hunger to learn more about their own society. In order to keep within its mission, Taylor University offers many opportunities for students to earn undergraduate credit for a semester, January interterm, or summer in an environment of total academic and cultural immersion.

The following policies apply to off-campus/international studies programs:

- Applicants must have completed one semester in residence on campus prior to applying to any off-campus program, with the exception being programs specifically designed for a select group of students (e.g., freshmen, transfers).
- A minimum GPA of 2.75 is required for application to off-campus programs. Certain programs may require a higher GPA for participation.
- Students must maintain full-time status (I2-I7 hours) during off-campus program participation, except in the case where the program is specifically designed for 18 credit hours.
- Overload hours, independent study courses (offered by Taylor professors), and online distance learning courses are not permitted without prior approval during off-campus program semesters.
- All off-campus program courses must be taken for a grade-not pass/fail or audit.
- Upper-division and lower-division credit is attributed to the off-campus program course number or course-level standard. In most cases, course equivalencies are offered at the same level; however, there are exceptions: If a program's upper-division course is approved to meet a lower-division Taylor course, upper-division credit will be awarded; if a program's lower-division course is approved to meet an upper-division Taylor course, lower-division credit will be awarded.
- Grades from all approved off-campus programs will be attributed to the student's transcript and factored into the GPA.
- Within two weeks of the start of a semester, each student must provide the Department of Off-Campus Programs with a confirmed schedule for the semester along with syllabi for all enrolled courses.

Acceptance to off-campus study programs is two-fold and requires: (1) Taylor University approval; and (2) Program approval. In order to participate in any semester off-campus program, students must obtain approval from their academic advisors and the Offices of Off-Campus Programs, Student Development, the Bursar, and the Registrar. Students interested in participating in off-campus/international studies programs should consult with the Department of Off-Campus Programs.

Since most off-campus programs are independent organizations or universities not operated by Taylor University, students should understand that not every course will fulfill a Taylor requirement, and due to international registration procedures some students may not receive every class for which they make a request.

Applicability of credits earned while participating in an off-campus program to major, minor, general education, or general elective degree requirements are determined in advance (usually after Taylor University approval and acceptance by the program) in coordination with the appropriate department(s). Upon their return, students are responsible for any graduation requirements missed during their time off campus.

Billing for off-campus programs is facilitated through the student account of Taylor University based on the formula of: Taylor University tuition (or the program's, if higher); an off-campus study program fee; applicable on-campus fees including insurance coverage through CISI; plus the program's room, board, and other fees. If not included in whole or in part in the program's fees, travel to and from the off-campus study program is the responsibility of the student. Students approved and accepted to off-campus study programs attend several pre-departure orientation sessions in the semester prior to program participation. Topics covered include on-campus logistics (registration, housing, etc.), health and safety, cultural adjustment, and growing spiritual faith.

For additional information and a link to the online application, refer to the Off-Campus Study website at http://www.taylor.edu/academics/studyabroad or contact the Department of Off-Campus Programs (OCP@TAYLOR.EDU) in the Spencer Centre for Global Engagement.

## Academic Program in France

The department of modern languages participates in the Academic Year Abroad program of Bowling Green State University. Through this participation, students have the opportunity to earn up to 17 hours of credit while studying for a semester in France. The program provides study in Paris in September, followed by study at the highly respected Institut de Touraine in Tours, France. Students live with carefully selected French families while in Tours.

Until confirmed schedules are received, students will be enrolled in the following course:

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SIF xxx
17 hours
Study in France
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## American Studies Program

The American Studies Program (ASP), located in Washington, D.C., is designed for juniors and seniors and is sponsored by the Council for Christian Colleges and Universities. ASP is an intensive fall or spring semester, blending seminars and hands-on internships. Combining theory with practice, each of the three seminar classes focuses on specific domestic and international policy topics. Creative internships are individually arranged to be pre-career work experiences to accommodate diverse majors or areas of interest. The curriculum allows students to choose either the Public Policy Track or Global Development Track. Students may earn 15-16 hours of credit through this interdisciplinary program.

## Practicum Courses

## ASP $305 \quad 3$ hours

Topics in Leadership and Vocation
The Topics in Leadership \& Vocation course spans the entire semester and is divided into three sections including 1) Identity and Responsibility, 2) The Centrality of Hope and God's Kingdom, and 3) Calling and Career. With respect to identity, personal narratives will be explored to find one's fullest expression and deepest sense of true place when we yield to God's calling (vocation) to embed who we are and what we do within the larger Biblical narrative. Responsibility will be examined in light of desire to live Biblically coherent lives. Properly deciphering personal responsibilities requires the hard work of using the Bible authentically and connecting knowing with doing. The role of narrative as a framework for analysis when unpacking critical questions will be used. Alternative worldview narratives are also considered in light of the biblical narrative. In particular, the modern Western culture's claim that we must personalize all normative concerns will be examined. Responsibilities are viewed as being shaped by the institutional settings (through roles and responsibilities) that normatively structure the places where we learn, work, play, and worship. The centrality of Hope and God's Kingdom is explored as motivations to be intentional actors of hopes is compared with obstructions or distractions from living Biblically coherent lives. Attention is given to view of hope as being justified and efforts not made in vain (in the reality of the Kingdom and Holy Spirit) amidst a fallen world marked by brokenness, disappointment, and suffering.

## Public Policy Track

## ASP 315

## 3 hours

Policy Analysis and Advocacy Seminar
The Policy Analysis \& Advocacy Seminar provides a detailed survey of the public policy issue of international migration. International migration refers to the movement-both emigration and immigration-of people across international borders. International migration patterns always carry important political implications for both the sending and receiving countries. Its study provides opportunity for learners to address critical questions pertaining to contemporary citizenship, democratic practice, equality, freedom, globalization, and liberalism. In this course, ASP faculty equips students through course lectures with the conceptual and analytical tools required to design a research agenda for a Washington, D.C. audience. Area experts and practitioners deliver professional briefings to introduce the myriad institutions and policy positions that animate three key public debates on migration-economics/social welfare, security, and national identity. Early in the course, students choose a salient topic within the issue area. The research proposal-the course's final project-presents a literature review on the migration topic, a preliminary assessment of how competing public arguments on the selected topic resonate you're your own (bourgeoning) understanding of what biblical justice requires in this matter, and a strategy for engaging leading institutions and individuals in Washington, D.C. through future field work.

## ASP 330 <br> I hour

## Professional Mentorship

This optional course matches students with an experienced professional engaged in vocational service relevant to one's own vocational aspirations. Monthly group meetings-consisting of 2 to 3 students sharing common professional interestsprovide opportunities for you to explore further matters of both professional development and callings in your field. Meetings are structured, in part, around discussions a Supplemental Mentorship Text. The professional mentor selects the text, which is typically a novel or (auto)biography. The book serves as a basis of inquiry and insight into the challenges of weaving together our understandings of calling and career. Students submit a Mentorship Write-Up after each meeting, which includes notes from and reflections on the meeting. The first meeting between mentor and student is organized by ASP, scheduled to take place within the first three weeks of the semester. Mentors will schedule all additional meetings.

## ASP 390

2 hours
Internship I
The American Studies Program internship is a service learning opportunity involving both action and reflection. The purpose of the course is to provide students opportunities to serve in the marketplace and to reflect on that work to deepen faith, facilitate learning, and know more fully how God is calling them.

ASP 393
4 hours
Internship II
The American Studies Program internship is a service learning opportunity involving both action and reflection. The purpose of the course is to provide students opportunities to serve in the marketplace and to reflect on that work to deepen faith, facilitate learning, and know more fully how God is calling them.

## Global Development Track

## ASP $320 \quad 3$ hours Entrepreneurship \& Human Development Seminar

The Entrepreneurship \& Human Development Seminar provides students with a detailed introduction to the unique community of partnerships emerging in Washington, D.C. among commercial, governmental, and non-governmental organizations. ASP faculty and guest practitioners provide a comparative analysis of different approaches to the design and management of these types of collaborations as they pertain to the global development issue of hunger/food security. Students are required to reflect on the biblical demands of justice as they pertain to food security, and how these demands ought to be translated across the different institutional roles and responsibilities that comprise these partnerships. Students participate in lectures, briefings from guest experts, and facilitated discussions that equip them with the conceptual and analytical tools required to design and execute a research effort resulting in a written and oral deliverable suitable for a Washington, D.C. audience. Area experts and practitioners deliver professional briefings to introduce the growing number of commercial, humanitarian and governmental institutions that are collaboratively engaged in national and international efforts to address the global problem of hunger and food security. Both national and international dimensions of the issue are considered.

## ASP $327 \quad 3$ hours

## Global Development Partnership Exercise

In the Global Development Partnership Exercise students participate in key aspects of a research and development project designed to support strategic collaboration among stakeholders whose shared mission is to address a specific development problem or opportunity related to hunger and food security. Working as members of a project team, and in consultation with client organizations, students contribute to the development and delivery of a report and briefing (outlined in Project Description) to the client and selected project evaluators. The report and briefing features an analysis of specific food security problem, competing solutions to the problem and recommendations for collaborative action on the part of the client and its partners. The team project will be based upon selected components of research conducted by individual students in the Entrepreneurship and Human Development course. Criteria includes a requirement for the research team to position its analysis, strategy, recommendations on the responsibilities of collaborating institutions, and preferred outcomes within the framework of biblical justice as it pertains to food security.

## AuSable Institute of Environmental Studies

Taylor's School of Natural and Applied Sciences is affiliated with the AuSable Trails Institute of Environmental Studies in Mancelona, Michigan. Students may take summer courses for credit at AuSable to fulfill departmental major/minor requirements. Students may also complete requirements for certification as naturalists, environmental analysts, or land or water resources analysts; however, certification will not be reflected on the Taylor transcript.

Refer to the department of biology (pages 165-170) for a list of courses.

## Australia Studies Centre

The Australia Studies Centre (ASC) is a partner program through the Council for Christian Colleges and Universities. ASC students are encouraged to think through their role as kingdom builders in a Western world that is increasingly secular-both intellectually and culturally. Designed to provide undergraduates of all majors and career interests with opportunities to participate in Sydney's art culture, the program educates students in Indigenous affairs and Australia's role as a global economic power. Students engage in courses and chapel at Wesley Institute, regularly participate in service projects in conjunction with Wesley Mission, travel throughout Australia to parks and population centers that influence public discourse in the country, and reside in the Drummoyne area, near Sydney's harbor.

Until confirmed schedules are received, students will be enrolled in the following course:
ASC xxx
17 hours
Study in Australia
The program is comprised of two required culture classes (described below) designed especially for ASC students and three or four discipline classes chosen from Wesley Institute's list of courses.

## INB $203 \quad 3$ hours

The View from Australia: Issues in Religion, Politics, Economics \& Cultural Values
The emphasis of this course is on historical and current local and world issues which affect Australia, as interpreted from an Australian perspective. Through examination of Australians' reactions to and handling of these matters, students should develop a basic understanding of the Australian culture and worldview and be able to articulate, appreciate and critique the orienting values of Australian society. Students will also compare, contrast and critique their own cultural value structures through Biblical reflection exercises, and begin to distinguish these cultural virtues from Christian truth.

## INB 204 <br> 3 hours

Indigenous History, Cultures \& Identity
This course will focus on the history of the Indigenous people of Australia and will include a trip "out bush" as part of the course. Students will also spend time with a Maori community in New Zealand learning about their culture and history.

## China Studies Program

Students are offered an opportunity to discover the richness of China through a unique living/learning semester abroad sponsored by the Council for Christian Colleges and Universities. The China Studies Program (CSP) encourages students to wrestle with the critical issues facing China in the light of biblical truth. Students explore the complex past of one of the world's oldest cultures; experience the economic, political, and social realities of contemporary China; and study China's challenges as a rapidly emerging world power. Students live in the beautiful seaside port of Xiamen, and the curriculum incorporates travel and visits to well-known sites throughout the country such as Beijing, Fujian, Shanghai, Xi'an, and Hong Kong.

In addition to the core courses listed below, students select courses to fulfill a concentration area in China Studies or Business.

## CSP $310 \quad 3$ hours <br> Chinese History I

This seminar course covers the history of China from its earliest beginnings up to the present. In addition to reading the course text, each student will read and make a class presentation on a book that goes into more detail about a major person, event, or aspect of Chinese history and culture.

## CSP $314 \quad 3$ hours

## Intercultural Communication

This required course covers issues intended to help students understand and adjust to Chinese culture. Topics include culture and basic values, culture shock, introductory linguistics, contextualization, and factors involved in successful cross-cultural interaction. Students will write case studies based on personal experiences in China.

CSP 3163 hours
Contemporary Society: Public Policy \& Economic Development
This course covers two key interrelated aspects of modern China: government policy and economic development. Public policy covers the structure of the Chinese government, legal system, and issues such as ethnic minorities, family planning, and education. Economic development covers the government policies from 1949 to present, from the commune system to the current mark-oriented reforms. Other topics include foreign investment, pollution and the environment, and the World Trade Organization.

In addition to core coursework (9 hours), China Studies Concentration students also take CSP IOI (3 hours); select an additional 4-5 hours for a total of 16-17 credit hours.
CSP IOI 3 hours
Chinese I
This course in introductory Chinese focuses on acquiring survival fluency in
spoken and written Chinese. The emphasis is on the spoken form of
Mandarin Chinese, the national language of China. Enrollment limited to China
Studes Coner

CSP 102
3 hours
Chinese II
This course focuses on acquiring low-intermediate fluency in spoken and written Chinese. The emphasis is on the spoken form of Mandarin Chinese, the national language of China. There will also be lectures on Chinese dialects, simplified vs. traditional characters, and word radicals.

CSP 315

## 3 hours

## Eastern Philosophy and Religions

This seminar course introduces the basic teachings, history, and development of Confucianism, Taoism, Buddhism, and folk religion, as well as their roles in China today. The course will examine topics from a Christian perspective, seeing to what extent they are compatible with Christian doctrine. Field trips to relevant sites will occur throughout the program.

## CSP 317 <br> 3 hours

## Dimensions of East Asian Culture

This elective course introduces students to Chinese visual, physical, medical and culinary arts. Each component consists primarily of hands-on practice. In Chinese Painting, students learning how to hold a brush, mix pigments and paint water-colors in the Chinese style. Instruction about Chinese cooking \& cuisines will guide how students prepare and cook ingredients into meals. For Tai Chi, students will practice for 90 -minutes a day, three weeks in a row, to learn a standard Tai Chi routine, as well as some practice in martial arts. Lectures on Traditional Chinese Medicine are not hands-on, though you will see and (if you like) experience TCM treatment such as acupuncture. Students will also have several lectures on the unifying Chinese philosophy that underlies these dimensions of Chinese culture.

## CSP 320

I hour
Chinese Painting
Students are introduced to the regional folk art of China through presentations by various artisans. Students gain exposure to Chinese painting, opera, calligraphy, self confidence, cooking, and painting through field trips to different artistic venues.

CSP 32I I hour
Tai Chi
This course emphasizes traditional Chinese forms of stylized self-defense, which tones the body and concentrates the mind.

## Business Concentration

In addition to core coursework (9 hours), Business Concentration students also take CSP 100 (2 hours), CSP 355 ( 3 hours), and CSP 390 ( 3 hours) for a total of I7 credit hours.

## CSP 100 <br> 2 hours

## Chinese I

This course in introductory Chinese focuses on acquiring survival fluency in spoken and written Chinese. The emphasis is on the spoken form of Mandarin Chinese, the national language of China. Enrollment limited to Business Concentration students.

## CSP 355 <br> 3 hours

## International Business in China

Current issues such as fair and ethical business practices and the factors involved in out-sourcing jobs to China are presented by Christians who have done business in China for years. Students will be introduced to expectations in dealing with business in China and how to meet with business leaders in Shanghai. The overall goal is for students to understand the personal costs involved in approaching business overseas-not simply as an investment, but as a calling.

CSP $390 \quad 3$ hours
China Business Internship
Students are provided meaningful work experience with a Western or Chinese company for three weeks.

## Christian College Consortium

The Christian College Consortium's Student Visitor Program is designed to enrich the participant's educational experience by making the resources of other Consortium colleges available as part of the undergraduate program. Through the Student Visitor Program, one semester or its equivalent can be spent on one of the Consortium campuses without completing lengthy enrollment forms. Credits with grades are transferable to Taylor. Consortium Colleges include: Asbury College, Bethel University, George Fox University, Gordon College, Greenville College, Houghton College, Malone University, Messiah College, Seattle Pacific University, Taylor University, Trinity International University, Westmont College, and Wheaton College.

Until confirmed schedules/official transcripts are received, students will be enrolled in the following course:

## Contemporary Music Center

This Council for Christian Colleges and Universities' off-campus study program, located in Nashville, Tennessee, provides a curriculum and community designed to speak to the heads, hearts, and souls of young musicians and aspiring music executives. In addition to seminars, lectures, and practicum experiences, great attention is given to the actual creation and marketing of original music. Designed as an artists' community, the program seeks to develop artists and music executives with a Christ-centered vision for music content, production, and delivery.
In addition to core courses listed below, students select courses from the Artist Track, Executive Track, or Technical Track to earn 16 hours of credit.
CMC 301 3 hours
Inside the Music Industry
Through readings, lectures, and seminars delivered by leading industry figures,
the course will give up-to-the-minute insight into the inner workings of the
music industry. Emphasis will be given to career possibilities and the gifts and
skills required to succeed in each of the major areas. Students will gain an
understanding of the structure and methodologies of a typical U.S. record
company.

## CMC 300 <br> 3 hours

nside the Music Industry
Through readings, lectures, and seminars delivered by leading industry figures, and skills required to succeed in each of the major areas. Students will gain an company.

Faith, Music and Culture
The purpose of this course is to help students develop a Christian approach to the creation, marketing, and consumption of contemporary music. While engaging in studies of theory, history, and criticism, students explore the concept of culture and the nature of popular culture. Students examine popular art and music in contemporary aesthetic, social, cultural, and industrial contexts, and explore the issues involved in relating faith and worldview to the production and criticism of commercial music.

## CMC 302

I hour
Practicum
Each student will participate in an intensive week-long road trip to a major music market. Briefings, tours, and meetings will be arranged with leading record companies, artist management firms, booking agencies, recording studios, concert promoters, writers, producers, and artists in various cities.

## Artist Track

| CMC 40I | CMC 400 |
| :--- | :--- |
| Studio Recording | Essentials of Songwriting |
| Artists will work via both the classroom and lab with faculty, other students, | Artists will receive classroom instruction, participate in directed study with |
| and visiting experts to learn how to produce, record, mix, and edit recordings | staff, and work in collaboration with other students to develop their use of <br> in a professional multi-track studio. |
|  | form, melody, harmony, rhythm, and lyric. Emphasis will be placed on the <br> song as the vehicle for the artist's creative exploration and public <br> communication. |

## CMC 4023 hours <br> Performance

In consultation with staff and executive track students, artists will develop a live concert presentation that best utilizes their gifts as musicians, entertainers, and communicators. Both informal and public performances will be presented throughout the semester.

Essentials of Songwriting
Artists will receive classroom instruction, participate in directed study with staff, and work in collaboration with other students to develop their use of song as the vehicle for the artist's creative exploration and public communication.

Executive Track

| CMC 403 | CMC 405 |
| :--- | :--- |
| Artist Management | CMOurs |
| Through lecture, text, and visiting music industry experts, executive track | Music, Marketing, and Sales |
| students will gain an understanding of the economic, creative, and spiritual | Through classroom instruction and presentations by visiting industry experts, |
| elements critical to a career in contemporary music. Students identify their | executive track students will become familiar with the role of packaging, retail |
| gifts and develop a long-term career plan. Students prepare materials | point-of-purchase materials, publicity, advertising, radio and video promotion, <br> necessary to pitch an artist to a record company and negotiate a mock |
| and  <br> recording contract. recorded music. Students will develop comprehensive marketing plans for |  |
| each semester's artist recordings. |  |

## CMC 404

Executive track students will learn how to: (1) create a label business plan; (2) analyze and forecast trends in popular music; (3) assemble a successful artist roster; and, in tandem with the artists, (4) plan, budget, and produce recording sessions.

## Music, Marketing, and Sales

Through classroom instruction and presentations by visiting industry experts, executive track students will become familiar with the role of packaging, retail and Internet marketing and recorded music. Students will develop comprehensive marketing plans for each semester's artist recordings.

## Ecuador Semester Program

The Ecuador semester program is a partnership with the Verbo Church and the Universidad del Azuayin Cuenca, Ecuador. This multi-disciplinary program incorporates culture and language study, departmental courses, and practicum experience in the students' respective areas of specialization. Academic departments currently participating in pilot programs include Biology, Business, and Christian Educational Ministries. The Ecuador program is a full immersion semester with students living in home-stays facilitated through the Verbo Church.

## Focus Leadership Institute

Focus Leadership Institute, commissioned by Focus on the Family in Colorado Springs, Colorado, provides a unique Christian educational community that nurtures passionate and persuasive leaders who are committed to Jesus Christ. Students are equipped to promote healthy families, vibrant churches, and a civil society. The curriculum is composed of four core courses, a practicum experience, and an integrative research project This semester study program crosses academic and professional disciplines. Interaction with various national and international leaders and experts is also provided.

## FFI 393 <br> Focus on the Family Institut

The pra students' academic and professional interests. Students are mentored by and exposed to committed Christian professionals within both Focus on the Family and the Rocky Mountain Region.

## FFI 426

3 hours
Christian Worldview Studies
This course is designed to help students look more deeply at their own faith, the ideas around them and their culture. Students develop more fully their own biblically based Christian worldview, and learn what other players are at the cultural table vying for people's minds and hearts. Students learn how they may counter those forces.

## FFI 427 <br> 3 hours

Family, Church and Society Studies
Students will be challenged to pursue a life of personal and social transformation. As students engage a number of our culture's most pressing social issues, including a pro-life outreach on a local university campus, students will gain both the knowledge and experience that provides the confidence and motivation to make a radical difference in our world.

## FFI 453

Marriage and Family Studies
This course explores four essentials for building a lasting marriage: understanding God's design, recognizing the difficulties, building connection and preparing responsibly, so that students will be deeply motivated and practically equipped to build a marriage that lasts a lifetime. Students study the biblical principles, read current authors, work practical exercises and write a personal philosophy/preparation plan.

## FFI 454

Family Life Studies
This course practically guides our students through the land mines that attack the modern family such as abortion, homosexuality, pornography, eating disorders, dating and relationships. While the meat of the course discusses parenting issues, this class is not simply a study in child development. Students learn how their own family of origin affects their future ability to parent while confronting their own brokenness along the way

## FFI 457

## 3 hours

Gender and Leadership Studies
This course is designed to explore the issues of gender and leadership and the relationship between the two. One primary confusion that the world has perpetrated on young Christian leaders is their identity as a man after "God's own heart" or a young lady seeking to become a godly woman. In addition to this confusion, this has led to a stark lack of clarity when it comes to young people taking leadership roles. Many young people find themselves paralyzed in their roles. This course is designed to bring together teaching on the Biblical nature of gender as well as the practical manifestation of that identity in the student's future leadership roles in the family, church, and society.

## Greece Study Tour

The department of biblical studies sponsors a 3-week trip to Greece and Italy or Greece and Turkey during January interterm. The trip focuses on biblical developments of the New Testament era and includes visits to key biblical sites. Special emphasis is placed on the life and journeys of the apostle Paul.

## BIB 203 hours

In the Footsteps of Paul
A study of the biblical background and contemporary significance of cities Paul visited and wrote to in Greece and Turkey or Greece and Italy. This course may count for BIB 210 or a departmental elective. Meets the general education cross-cultural requirement. Offered January interterm.

## Handong Global University

An articulation agreement with Handong Global University (HGU) allows Taylor University students with a minimum GPA of 3.30 an opportunity to spend a fall or spring semester studying in South Korea. While living in the International House dormitory alongside many English-speaking students with vastly different backgrounds, participants can earn 12 hours of course credit. This program may appeal especially to students in the areas of Engineering Physics, TESOL, International Law, Political Science and International Relations, and Business.

Until confirmed schedules are received, students will be enrolled in the following course:

## HEART Program

The HEART Program is offered during January interterm for those desiring to serve in developing third world countries. Students live and learn in a simulated third world village. Emphasis is on technical skill learning in agriculture (animals and horticulture), appropriate technology, cross-cultural communication and community development, nutrition/food preparation, and primary healthcare. Students receive three hours of cross-cultural credit for this program, which takes place at the Heart Institute in Lake Wales, Florida.

HEA 370
3 hours
Heart Institute
Meets general education cross-cultural requirement. Offered January interterm.

## Hong Kong Baptist University

A consortium agreement with Hong Kong Baptist University (HKBU) allows junior and senior students at Taylor University an opportunity to spend a fall or spring semester studying at HKBU, the only Christian university in the People's Republic of China. While living in campus dormitories with Chinese students, participants can earn 12-I7 hours of course credit in classes taught in English. Premier programs include business, music, journalism, physical science, social sciences, English-Chinese translation, and the humanities.

Until confirmed schedules are received, students will be enrolled in the following course:
HKB xxx $\quad 17$ hours
Study in Hong Kong

## Irish Studies Program

The Irish Studies Program of Taylor University is designed to help students expand cultural and spiritual awareness by studying and experiencing the history and culture of Ireland. With an emphasis on the integration of faith, learning, and living, the program seeks to develop an understanding of Ireland and its people through curricular and co-curricular activities. Students earn 16-17 hours of credit. Located outside the capital city of Dublin, the program provides students with a safe and pleasant community.

## ISP 200 Hill Climbing

This course is designed to introduce students to a variety of basic techniques and principles necessary for a safe and enjoyable hiking experience, as well as to promote lifelong activity that aids in developing a healthy lifestyle. Particular areas of content include gear selection, basic land navigation skills, hiking technique, trip planning, "Leave No Trace" ethic and first aid. Students complete a variety of reading assignments and keep a journal of their hiking experiences. Prerequisite: PHP 100. Meets general education PHP200x requirement.

## ISP 220

## 3 hours

mporary Ireland
This course entails an investigation into the theory and application of contemporary Irish society. It includes a study of the geographic, social, cultural, political, artistic and religious aspects of Ireland. Attention will also be paid to an understanding of historical conflict and reconciliation, especially as it is currently being played out in Northern Ireland, and its effects on the people in the Republic. Exploration of these topics occurs through involvement with Irish people, engagement in cultural activities, studying the history, culture, geography and literature of Ireland, conversations with one another and personal journaling. Meets the general education social science-civic engagement requirement.

## ISP 225

## 3 hours

History of Ireland
This course deals with the different people who became permanent settlers in Ireland over the centuries and the contribution that each has made to the development of an Irish society and economy, as well as a distinctive Irish artistic and political life. The early lectures consider the Celts, Vikings and Anglo-Normans, but the principal focus is on the modern centuries, with a detailed treatment of English and Scottish Protestant settlements in Ireland and the interaction of these settlers and their descendants with the Catholic population. Special attention is given to the major conflicts that occurred, especially those of 1642-52, the 1790s, and the current conflict in Northern Ireland. Finally, consideration is given to the Anglo-Irish War of Independence and the Irish Civil War. Meets the general education history requirement. History majors who have already fulfilled the general education requirement may take the course for upper-division credit, by approval of the instructor.

## ISP 230 <br> Irish Literature

This course concentrates upon literature written by Irish writers within Irish contexts and landscapes-intellectual and emotional when not physical Assignments exploit unique opportunities available while studying in Ireland itself, adjacent to England. More complicated is the colonial influence upon Ireland, the island's currently divided space, "the troubles," and the connection between high art and popular expression. Thus, a focus of the course will be how the search for a literary voice not only parallels, but indeed facilitates the search for a national Irish identity. Acknowledging writers' interest in Gaelic language and culture, students read works in English. Noting the role of musical performances in pubs and the rhetoric of the public sphere, the course concentrates upon fiction, poetry, and drama. Meets the general education literature requirement. English majors who have already fulfilled the general education requirement may take the course for upper-division credit, by approval of the instructor.

## ISP 250 <br> I hour

## Participation in the Arts

This course introduces the student to part of the Irish cultural heritage through dance and music. Students learn the basics of Irish dancing and playing the bodhran drum. Meets the general education participation in the arts requirement.

## ISP 320

## 2 hours

Living Cross Culturally
This course helps students reflect on their values, attitudes and behaviors and those of their home culture in comparison to the Irish culture. Students are encouraged to develop understanding of and adaptation to a different culture, as well as empathize with persons from that culture. Personal development through this process is emphasized. Meets the general education cross-cultural requirement.

ISP 325 hours
History of Ireland
See ISP 225.

## ISP 330 <br> Irish Literature

4 hours
See ISP 230.

ISP 355
3 hours
Celtic Christianity
A survey of Christian belief as developed during the history of the Church with a special focus on Medieval Christianity in Ireland. May substitute for REL 313 as a general education requirement.

## International Business Study Tour

The School of Business sponsors this business study tour during January interterm or in the summer. Students visit various international sites and use these locations as their classroom to study trade, economics, and other business topics.

ITB 381 3-4 hours
International Business Study Tour
This study tour of selected international locations focuses on regional trade, economics, and other business topics. Issues of cultural differences, conflicts, compromises, and international cooperation are examined. Throughout, the cultural dimension of international business dealings is emphasized. Instructor permission required. Prerequisites: MKT 23I; ECO 202 or 190; and sophomore standing within a business major/minor. Offered January interterm or summer.

## Jerusalem University College

Jerusalem University College (JUC) offers an opportunity for fall or spring semester studies in the ancient city of Jerusalem. A choice of several course offerings is available, particularly in the area of biblical studies. Students have the opportunity to study Scripture in context, view biblical sites, understand the Arab-Israeli conflict, and experience modern and ancient cultures. This program provides a basic understanding of the land and people of the Bible and of the Middle East. Availability of the program is dependent upon review of current security conditions.

Until confirmed schedules are received, students will be enrolled in the following course:
JUC xxx
17 hours

Holy Land Studies/Israel

## Latin American Studies Program

This semester program based in San José, Costa Rica, is offered through the Council for Christian Colleges and Universities.
In addition to the standard program of language and seminars (both semesters), the Latin American Studies Program (LAS) offers four concentrations: Advanced Language and Literature (offered both semesters); Environmental Science (offered spring semester); International Business (offered fall semester); and Latin American Studies (offered both semesters). All students study the Spanish language and become immersed in the rich culture and history of the Latin American people. Students reside in the homes of Costa Rican families, engage in service projects, and travel within Central America.

In addition to core courses listed below, students select a concentration area in either Advanced Language and Literature, Environmental Science, International Business, or Latin American Studies.

## LAS $300 \quad 6$ hours

Spanish Language Study
Students participating in LAS study grammar, conversation and literature in a Spanish class that is determined by the student's level of proficiency.

## LAS 315 <br> 3 hours

Perspectives on Latin American History and Contemporary Issues
This seminar introduces the social, historical, political, economic, philosophical and theological currents that constitute Latin American society and culture. The course includes personal discussions with Latinos and field trips to various sites designed to introduce students to the: (I) historical development of Latin America, including selected case studies; (2) variety of analytical perspectives from which the Latin American reality is explained and understood; (3) character, past and present, of the U.S. policy in the region; and (4) nature and influence of the economic reality in the region.

## LAS 318 <br> I hour

Regional Study Travel
The LAS group travels to several countries in Central America during the semester. The travel practicum component is not a vacation trip; it is an integral part of the learning process. Among other assignments, students will be required to attend conferences and maintain a journal of ideas and perceptions developed throughout the trips.

## Advanced Language and Literature Concentration

This concentration focuses on the social, cultural, political, economic, and religious issues of Latin America in the target language. Students examine how Latin Americans view their neighbors to the north and around the world through conversations, conferences, and related literature. This concentration is designed to: (I) expand students' Spanish language skills through a seminar taught exclusively in Spanish, a practicum with a Latin American organization, and the daily use of Spanish while living with a Costa Rican host family; (2) examine Latin America through its literature, using it as a means to examine society and culture; (3) meet and interact with prominent literary figures in the region; (4) take part in work/service opportunities; and (5) attend local theatrical and film productions.

| LAS 350 | LAS 355 |
| :--- | :--- |
| Language and Literature Seminar | Community Immersion/Internship |

## Environmental Science Concentration

Participants in this concentration explore the natural sciences in a tropical setting and study their influence on the process of sustainability. Students are immersed in a variety of ecosystems: dry forests, lowland rain forests, mountain cloud forests, volcanic regions, and beautiful reefs. Costa Rica serves as a natural laboratory. Students of the Environmental Science concentration will: (I) aid in longitudinal research projects ranging from ecology to ecotourism; (2) examine sustainable development and management of Costa Rica's protected natural areas; (3) investigate the general ecology of several tropical biomes, including highland cloud forests, mangrove forests, coral reefs, lowland rain forests, and dry forests; and (4) study from the perspective of an informed Christian steward of the Creation.

LAS 340
Environmental Science Seminar

LAS 345
2 hours

## International Business Concentration

Business concentration students spend an intense five weeks addressing the fundamentals and application of international business. Business concentration students are exposed firsthand to the political, social, and economic realities of Latin America and must constantly answer the question: "What should the role of Christians be in the face of these realities?" Throughout this concentration, students will: (I) meet Latin American business and government leaders; ( 2 ) visit plantations, cooperatives, maquilas, and the Bolsa de Valores [the Costa Rican stock exchange]; and (3) participate in a hands-on case study project.

| LAS 330 | 3 hours |
| :--- | :--- |
| Business Seminar | LAS 335 |
| ITB Community Immersion/Internship |  |

## Latin American Studies Concentration

This concentration is interdisciplinary by design. Students are challenged in a seminar that includes diverse perspectives, broad readings, and group presentations that respond to scenarios drawn from the contemporary scene. Participants also gain valuable first-hand experience in related service opportunities. In recent semesters, these have been organized in neighboring countries throughout Latin America. Entitled "Uniting Faith and Practice in Latin America," the concentration is designed to: (I) introduce students to several perspectives on faith and practice in the context of Latin America; (2) consider the historical development and current character of multiple religious perspectives in Latin America [Protestant, Catholic, Maya, etc.] and the major issues the Christian church now confronts, including liberation theologies; (3) help students gain an understanding of the approaches to Third World development and the associated policies, especially those of para-church agencies; and (4) challenge students to reflect biblically on the above-mentioned faith perspectives and development theories in order to more fully develop their own Christian approaches to the dilemmas of Latin America. Course content is adapted to changes in Latin American society.

| 3 hours <br> LAS 320 |  |  |  | LAS 325 | 3 hours |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Responses to Third World Reality Seminar | LAS Community Immersion/Internship |  |  |  |  |

## Lighthouse Projects

Since 1972 the Lighthouse program has been engaging students in carefully chosen international service-learning projects as they minister Christ's redemptive love and truth to a world in need. The program enables students to step out of the familiar in faith, study and build relationships in other cultures, develop and exercise their gifts and abilities, expand their global perspective, and explore vocational calling. As servant learners, teams partner with on-field ministries helping to implement their long-term ministry goals. Teams are selected in the spring for service projects the following January.

Students take a one-credit-hour fall course in cross-cultural ministry and team building. In January, students earn three cross-cultural credits while engaging in work projects, compassionate ministries, community development, teaching English, performing arts, medical missions, evangelism, discipleship, and other ministries under the direction of faculty sponsors and field leaders. Lighthouse is a ministry of Taylor World Outreach-see page 240.

IAS 120
Introduction to Internation
To prepare for Lighthouse projects, students study the concept of culture, American cultural distinctives and the cultural, religious and historical characteristics of Lighthouse host nations. Students examine the components of effective intercultural ministry and communicating faith in Christ cross-culturally. Attention is given to personal character, spiritual life, commitment and teamwork essential for effective service. Enrollment by permission of instructor. Grade only. Offered fall semester.

## IAS 320

Cross-Cultural Outreach
Students are immersed in another culture and provide needed service to gain cross-cultural understanding, interpersonal and skill development and spiritual growth. Emphasis is given to reflection on God's global purposes, intercultural relationships and life stewardship. Prerequisite: IAS 120 or permission of instructor. Meets general education cross-cultural requirement. Offered January interterm.

## Literary London

A study of literature and culture is offered in England annually by the English department during January interterm. Students may receive credit in general education, literature, or cross-cultural studies. The group focuses its activities in central London with field trips to surrounding areas such as Stratford-upon-Avon, Canterbury, Oxford, Dover, and Salisbury. Students are encouraged to attend plays and musicals and to participate in British life.

## ENG 233

3 hours
Literary London
A study-tour conducted each January in England, combining study of selected major British authors with extensive sightseeing in London and surrounding counties. Enrollment by permission of instructor. Meets general education literature and cross-cultural (CC) requirements. Offered January interterm.

## LCC International University

LCC International University, formerly Lithuania Christian College, is located in the beautiful port city of Klaipeda, Lithuania. This one-semester program is available during the fall or spring semester. Students live in an urban European setting with roommates from throughout Europe, and study with students from over 20 countries. The semester includes programmed travel to Russia, Latvia, Estonia, and various sites in Lithuania.

The program allows Taylor students to enroll in 12-I7 credit hours of university courses, including subjects in business, English, psychology, sociology, and biblical studies. A wide variety of courses fulfilling general education requirements are also available.

Until confirmed schedules are received, students will be enrolled in the following course:
LCC xxx

## 17 hours

Lithuania International University

## Los Angeles Film Studies Center

The Los Angeles Film Studies Center (LAFSC), located adjacent to Burbank, California, provides a values-based education for skills acquisition and on-the-job training for students interested in the various aspects of the film industry. Serving as a fall or spring semester extension campus for the Council for Christian Colleges and Universities member colleges, the LAFSC incorporates a semester-study program with internship experiences to equip students to be positive Christian presences in the film industry. Students take four courses: FSC 305, 332, and 492; one elective course is chosen from: FSC 3I2, 327, 340, or 360. Applicability to a major must be determined in advance by the department.

## FSC 305 <br> 4 hours <br> Hollywood Production Workshop

Students work collaboratively in groups to create a festival-ready piece including all the legal documentation and rights to enable the finished production to qualify for festival submission. The course offers students the opportunity to make a motion picture production using Hollywood locations, resources and protocol All students participate in at least one key role in the production process. Designed to meet the needs of both novice and experienced students, this course is taught by professional, experienced Christian filmmakers with credits in the Hollywood industry.

## FSC 312 <br> 3 hours

Professional Screenwriting
This course offers an introduction to contemporary screenwriting including an understanding of dramatic structure, character and dialog development and the writing process. Students complete a full-length screenplay for a feature film or "movie-of-the-week." Emphasis is given to the role of Christian faith and values as they relate to script content.

## FSC 327 <br> 3 hours

## Narrative Storytelling

Concentrating on the art form of narrative storytelling, the course places special emphasis on the visual aspect of the discipline. Two tracks are offered in the course. The Structural track covers topics ranging from the history of story in culture and film to the mechanics of story creation to the development of storywriting skills. Instruction in the Technical Story track focuses on advanced methods of cinematography and post-production and how those techniques can be used to improve visual storytelling. After the core instructional period in each track, students from both tracks are reunited and will have the opportunity to hone their narrative analysis skills, participate in workshop style labs and make two short films that demonstrate their ability to utilize storytelling theory on screen.

## FSC 332

Faith \& Artistic Development in Film
This course focuses on the integration of faith and learning as well as developing the necessary skills for analysis of the culture of Hollywood. The first section of the class emphasizes the eye: discovering your own identity, looking at film's historical impact, spiritual impact, audience trends, the auteur movement, and vision in film, as well as providing a basis for heart preparation for production. The second section of the course emphasizes the heart: ethics, relationships and communication, passion and art. The last section of the course emphasizes the hand, exploring the collaborative process in Hollywood Production Workshop and Motion Picture Production: roles and aspects of production, the production process, relationships on set, and communication. All students participate in a team-taught lecture seminar led by the faculty of The Los Angeles Film Studies Center.

## FSC 340

3 hours
Professional Acting for the Camera
An advanced workshop in the practice and process of acting for the camera aimed at students who have a desire to pursue acting as a career. Instruction includes an overview of current camera acting techniques and thorough discussion of the art of acting. The class primarily consists of acting scene work with all scenes being filmed and critiqued on the big screen. Students will also be required to pursue roles in student and independent films. Several class sessions throughout the course will be devoted to the business of acting for film and television in the Hollywood entertainment industry with an emphasis given to developing the materials and relationships necessary for a successful career.

## FSC 360

Independent Study
This course may be set up by special request and arrangement. In order to be considered, students may submit a portfolio and a project proposal. Students with approved projects will be appointed a mentor who is a professional in the Hollywood industry to supervise the project. The number of independent studies offered each semester will be determined by LAFSC faculty, the availability of a suitable mentor and approval from the home school's film/communications department head. Projects could include further development of a portfolio or reel, critical research, or a senior thesis project.

## FSC 492 <br> 6 hours

Internship: Inside Hollywood
Students complete an unpaid internship in some aspect of the Hollywood entertainment industry. Real-life exposure is provided to the business through placement with major Hollywood companies.

## Los Angeles Term

A consortium agreement with Azusa Pacific University allows Taylor University students to participate in this fall or spring semester program. Azusa Pacific University's LA Term is a residential study and service semester in the heart of Los Angeles. It aims to equip undergraduate students to live out their faith and values in postmodern urban culture. Dependent on public transportation during the semester, students live with homestay families in Los Angeles, complete an internship at a local community or government organization, and take classes at the LA Regional Center in Koreatown.

## LAT 315 <br> 3 hours

Urban Explorations
This course connects students with the urban processes, peoples, problems and prospects of greater Los Angeles. The aim is to promote the application of global perspectives, the exchange of knowledge, clarification of local problems and collaborative exploration of solutions.

## LAT 330

## 6 hours

Community Organization and Social Change
The course aims to help students understand the organization of urban, multicultural communities, while encouraging the development of a lifelong service ethic through a semester-long public service project. The course involves students in the formal and experiential study of select areas in central Los Angeles through a combination of directed reading, neighborhood "mapping" projects, service practicum and group discussions. Meets the general education civic engagement requirement.

LAT 345

## 3 hours

## Urban Religious Movements

This course aims to survey the variety of religious movements in Los Angeles, including Islam, Buddhism, Christianity, Judaism, and new religious movements. Emphasis is placed on the vernacular character of these faiths, embodied and expressed in the beliefs, attitudes, practices and rituals of specific social and cultural situations. Learning activities include participant-observation at religious services, informant interviewing, directed reading and group discussion.

## LAT 359 <br> 3 hours

Immigrant LA
This course focuses on the social dimensions of immigration into Southern California. In-depth stories of immigrants and various site visits contribute to students' experiential learning on the subject.

## Middle East Studies Program

The Council for Christian Colleges and Universities sponsors a Middle East Studies Program (MES) in Cairo, Egypt. Junior and senior students are exposed to the vast resources of Cairo during the 15 -week fall or spring semester. Students are exposed to the complex issues behind regional conflict, gain an awareness of the people and culture of the Middle East, and are educated on the global dimension of the Islamic faith. The program includes travel to Israel/Palestine, Lebanon, Jordan, Syria, and Turkey, dependent upon regional conditions. Involvement in a local service project is an important component of the program. This program has been temporarily suspended for the Fall 2011 semester due to current security conditions.

## MES 100 <br> Introduction to Arabic Language

This course helps students acquire basic skills in Egyptian Arabic, a dialect widely understood in the Arab world. The course emphasizes the practical use of the language, encouraging interaction with the locals through assignments and service projects. Students are provided with solid introduction to the colloquial grammar and a substantial vocabulary as students take more than 50 hours of instruction.

MES 310

## 4 hours

People and Cultures of the Middle East
This course seeks to acquaint students to the variety of peoples and cultures found in the Middle East. Literature, music, dance, and food are integrated into the learning experience. Students also learn about pressing issues, from gender to war to economic development, that currently animate the many religious and political communities they visit. The course examines the basic structure of historical and contemporary societies and cultures with special emphasis on those found in Egypt, Jordan, Syria, and Turkey.

## MES 312 <br> 4 hours

Conflict and Change in the Middle East
The purpose of this course is to help students understand the historical, political and religious transformations that have occurred in the last century The Arab-Israeli conflict will receive special emphasis with the goal of helping students understand the complexity of the issues surrounding the current attempts to establish a lasting peace. The course includes an extended travel component throughout the region.

## MES 322

## 4 hours

slamic Thought and Practice
An emphasis on contemporary expressions of Islam in the Middle East.
This course examines many dimensions of Islamic faith-historical, legal, doctrinal, popular, and behavioral-from early times to the present. While emphasis is on the early period and its influence on latter events and people, it also attempts to relate these early developments to contemporary issues in the Middle East like the impact of colonialism, gender equality, modernization, development, and democracy.

## Orvieto Semester

The Orvieto Semester through Gordon College takes an "interdisciplinary approach to the study of art, art history, history, and theology" in the historic and picturesque setting of Orvieto, Italy. The program is housed in the historic monastery of San Paolo.

All students take the interdisciplinary course in the cultural history of the early Italian Renaissance and then select three of six courses offered in the arts, creative writing, history, and literature. In addition, students with no background in the Italian language will be expected to take a 2 -credit tutorial-based course in Beginning Italian. Students earn up to 18 hours of course credit.

Curriculum changes occur each year. In addition to ORV 241 , students select courses offered in the visual arts, creative writing, history, and literature. Until confirmed schedules are received, students will be enrolled in the following course:


## Scholars' Semester in Oxford

The Scholars' Semester in Oxford (SSO) is a partnership with the Council for Christian Colleges and Universities. SSO presents an opportunity to learn about literature, the classics, history, theology, philosophy, and more in this city dedicated to scholarship. Through work with academic tutors, students hone their skills and delve into the areas that interest them most. As a visiting student of Oxford University, participants earn 17 credit hours as a member of Wycliffe Hall. Due to Oxford's intense academic environment, a minimum GPA of 3.50 is required.

SSO 300
The British Landscapes
Students study how the British landscape was formed and reformed by societies which successively conquered and settled in it, looking at the dialectic relationship between culture (the economic, social, intellectual, religious, and artistic aspects of each group) and landscape (the natural landscape and the human imprint on that landscape). The aim is to enable students to 'read' and understand a long settled landscape through a sound knowledge of British culture, past and present. SSO recommends that credit be allocated in one or more of several disciplines, including literature, religion, philosophy, politics, history, and history of art.

## SSO 310

## 4 hours

Integrative Seminar
Seminar integrates both the tutorial work and participation in Oxford faculty lectures that pertain to the student's field of study. Students reflect on key methodological issues within their concentration, are encouraged to learn from each other as well as from the tutor, and submit term papers rather than weekly essays. This course concludes with an integrative exam that allows students to draw upon main themes of their course of study. Integrative seminars are available in: Classics, English and Literature, Theology, Philosophy and History.

SSO 320
Primary Tutorial
This course, chosen in the same field of study as the integrative seminar, is typically one-on-one, supplemented by Oxford faculty lectures. The tutorial is usually based on the presentation of one short essay responding to an assigned question, and is carried out as a conversation between the tutor and the student. Offered tutorials cover a range of topics.

## SSO 330

## 3 hours

Secondary Tutorial
Similar in structure to the primary tutorial, the secondary tutorial covers a different subject matter. Tutorials offered in a broad range of topics.

## Oxford Study Program

The Taylor Oxford Study Program offers an alternative approach to major study during January interterm. Learning is facilitated by a tutorial method at England's Oxford University. The program consists of various group meetings to assimilate British culture. Each Taylor student meets weekly with an Oxford tutor on a topic of the student's choice for Taylor credit. Students are hosted in homes of British church families.

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OSP }37
3 hours
Oxford Special Topics
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## Semester in Spain

The department of modern languages participates in the Semester in Spain program of Trinity Christian College. In this program, students earn up to 16 hours of credit while studying with faculty members who are natives of Spain. Living with families in Seville also enhances language and cultural understanding. The city's theatres, galleries, museums, and 400 -year-old university provide many opportunities for cultural activities. Students also visit Córdoba, Toledo, Granada, the small pueblos outside Seville.

Until confirmed schedules are received, students will be enrolled in the following course:
SIS xxx
17 hours
Study in Spain

## Students International-Dominican Republic Program

This academic program is designed to provide students an opportunity to improve their ability to communicate in Spanish, participate in the Hispanic Caribbean culture, develop an understanding of the connections between community ministry and community development, and integrate experiential learning with formal academic study. The program is located in Jarabacoa, a city in the heart of the Cordillera Central Mountain Range, where students will live with host families.

Until confirmed schedules are received, students will be enrolled in the following course:

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DRP xxx
17 hours
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Study in Dominican Republic

## Uganda Studies Program

The Uganda Studies Program (USP) is a partner program through the Council for Christian Colleges and Universities. Set on the outskirts of the capital city Kampala, this rapidly growing institution brings USP students together with the Uganda Christian University Honours College. Courses taught by local faculty in the English tutorial tradition immerse students in a uniquely African education. Topics such as African Literature, East African Politics, Understanding Worldviews, African Traditional Religions, Law and Christian Political Thought, and Reading the New Testament in Africa will present many insights into African life because of the guidance of faculty who live in and love Uganda and East Africa. Home stays, travel, service learning, and daily interaction with Honours College students form the backbone of the USP experience. Students apply to the Uganda Studies Emphasis (USE); the Intercultural Ministry and Missions Emphasis (IMME); or the Social Work Emphasis (SWE). In addition to the core experiential course, students will choose from an approved selection of courses from the UCU Honours College to earn up to 16 hours of credit

Until confirmed schedules are received, students will be enrolled in the following course:
USP xxx 16 hours
Study in Uganda
In addition to the core course listed below, students select courses from
the Uganda Studies Emphasis (USE), Intercultural Ministry and Missions
Emphasis (IMME), or Social Work Emphasis (SWE).

## USP $300 \quad 4$ hours <br> Faith \& Action in the Ugandan Context

This course combines a traditional classroom component (consisting of reading, discussion, small group processing, and lecture) with a broad spectrum of experiential learning (e.g., living and studying with Ugandan students; home stays with Ugandan families; travel to various regions of Uganda \& Rwanda; and exposure to both missionaries and Ugandans involved in various social services).

## Washington Journalism Center

The Washington Journalism Center (WJC) is a semester-long study program in Washington, D.C., created for Council for Christian Colleges and Universities' students interested in the field of journalism. While in Washington, students earn 16 hours of credit focusing on their personal writing skills and on the history and future of the media and how it relates to the public. These classes, combined with an internship at a top news publication, help students learn to integrate their faith in a journalism career. Students also participate in service learning opportunities as part of the WJC experience.

WJC 305

## 4 hours

Foundations for Media Involvement
Modern media are at a crossroads and many professionals would even say that the news industry is in crisis. This class will utilize lectures, discussion, readings and service learning to raise questions about the role Christians should play in media and culture generally. Topics covered in this class range from contemporary challenges in journalism to historical tensions between the Church and popular culture to the arguments for and against working in the news media. Students will work collaboratively and individually to develop their understanding of their calling and sense of vocation within the news industry. They will also be required to engage the city through service projects.

WJC 315

## 3 hours

Reporting in Washington
Journalists who work in Washington need all the basic reporting skills and then some. This advanced reporting class will emphasize story development, research and interviewing skills, using one of the most intense news environments in the world as its classroom. The emphasis will be on shortform, hard-news writing - the kind used in wire services, newspapers, the World Wide Web and broadcasting. Guest lecturers from the industry will discuss feature writing, computer research, ethics and other selected topics. The course begins with the basics but quickly moves to advanced topics. Students will submit story ideas, background research folders and rough drafts of stories.

## WJC 350 <br> 3 hours

Washington News and Public Discourse
It is impossible to study how Washington works without discussing the media. Through readings and lectures, we will study how the history of American newspapers is interwoven with the history of Washington. Also, this course focuses on how the future of American newsrooms and American politics will be affected by what happens in the news bureaus, networks and magazines based inside the Beltway. The course also addresses contemporary patterns of news consumption, such as how we turn to entertainment, the internet and many other unconventional sources for news and information. Students will be challenged to determine how journalists should respond to these trends and to study how the global media marketplace is responding. With help from guest speakers and classic books about the national press, this seminar will help students prepare for their futures in an industry in which Washington will always play a crucial role. Students will choose a topic and additional readings while preparing a major research project addressing a current issue facing the national or global press.

## WJC 393

## 6 hours

Internship: Inside Journalism
In an industry with professional standards, especially journalism, there is no substitute for experience. Gatekeepers want to see that you have "put in your time," and bylines above a Washington dateline help. The Washington Journalism Center internship offers a practical work experience in mainstream newsroom positions that provide hands-on work in reporting and writing. This class seeks to provide experience in a "mentored" environment, while also asking students to reflect on their experiences as part of the program's emphasis on calling and vocation. Internships will occupy roughly 25 hours a week for 12 weeks of the semester. Grading will be based on input from the internship supervisor, as well as a portfolio of final versions of stories written and published during the internship.

## Special Programs

## Culturally Relevant Academically Meaningful (CRAM) Program

Designed for students who have just completed their junior or senior year in high school, the Taylor University CRAM (Culturally Relevant Academically Meaningful) Program is a 3 -week honors institute with a focus on cultural engagement. During the first two weeks, students will be involved in coursework designed to provide a deeper understanding of both the Christian faith and the larger culture within which the Church is called to live as salt and light. In the final week of the program, students will engage the culture in seminars and community service projects in central Indiana.

## Honors Guild

Taylor University's Honors Guild is a challenging academic experience for high ability, highly motivated students. Honors Guild students may choose from general offerings plus honors courses. Honors courses emphasize, to a greater extent than the curriculum in general, integration of faith and learning, ideas and values in content and discussion, and student initiative in format.

All Honors Guild students who complete a minimum of 18 hours of Honors Guild courses and maintain an overall GPA of 3.40 earn the Honors Guild designation on their official University transcript.

Incoming students who are eligible must apply by April I, prior to their freshman year; current Taylor students may apply at any time after their first semester or during their sophomore year. Those students with tightly scheduled majors will want to enter the program as early as possible in order to enroll primarily in honors courses that meet general education requirements rather than electives.

Normally, an entering freshman wishing to begin the program should have earned a 3.70 high school GPA and a combined SAT score of I290 or ACT composite score of 27. Further information including application procedures may be obtained by contacting the Honors Guild Director.

## Honor Societies

Each year, Taylor students who excel in academic pursuits are inducted into the various honor societies for specific disciplines. Appropriate ceremonies are held to give campus-wide recognition to students whose academic record earns induction into a national academic honorary society.

Alpha Psi Omega is a national honorary dramatic fraternity organized for the purpose of providing an honor society and wider fellowship for those doing a high standard of work in dramatics. Members are elected based on their participation in the Taylor Theatre program. They must earn 50 points acting and working backstage.

Beta Alpha Epsilon is a University honor society rewarding scholastic attainment to students who are candidates for any baccalaureate degree within the School of Business. Candidates for membership: (I) should be of good character as verified by faculty and Student Development; (2) have completed at least 32 hours of coursework at Taylor University; (3) have achieved a cumulative GPA of at least 3.50 with at least 75 credit hours or 3.60 with at least 60 credit hours; and (4) have completed at least twelve, in-class School of Business major hours.

Chi Alpha Sigma is a National College Athlete Honor Society recognizing student-athletes who are of junior and senior status and have earned cumulative GPAs of 3.40 or above. They must also meet character and citizenship standards established by the National Council. The mission of Chi Alpha Sigma is to bring honor and recognition to deserving student-athletes, their families, teams, athletic departments, and colleges.

Kappa Delta Pi is an international honor society in education. Candidates for membership should exhibit worthy educational ideals, demonstrate leadership potential and a commitment to education, and manifest desirable personal qualities. A GPA of 3.20 or higher is required.

Pi Delta Phi, the national French honor society, recognizes outstanding scholarship in the French language and its literature, increases the knowledge and appreciation of Americans for the cultural contributions of the French-speaking world, and stimulates and encourages French cultural activities. Students are selected for membership in recognition of their achievement in at least one upper-division French literature course.

Sigma Tau Delta is an English honor society open to English majors and minors whose major/minor GPAs are 3.30 or higher.

## Academic Departments and Courses

## Course Information

Lower-division courses typically numbered at the 100 - and 200 -levels are introductory and foundational courses designed for freshman- and sophomore-level students. Upper-division courses numbered at the 300 - and 400 -levels build upon higher knowledge and principles and usually require junior or senior classification to demonstrate an advanced level of independence, writing ability, and critical thinking skills in learning difficult content material within various academic disciplines.

Some curricular courses or course components listed in this catalog include physical or off-campus activities for which students must sign a waiver of liability as a precondition of participation.

Course offerings (including changes in time, day, and the assignment of instructors) may be added to, amended, or canceled by the decision of a department or the University.

The following courses are offered in many departments with descriptions for these courses being the same for all departments, but carrying different departmental prefixes. Registration forms are available online at http://www.taylor.edu/academics/registrar/forms.shtml.
I70 I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course
offering. May count toward the departmental major and general education
requirements.
$\mathbf{2 7 0}$
Selected Topics
A course offered on a subject of interest but not listed as a regular course
offering. May count toward the departmental major and meets general education
requirements.
$\mathbf{3 6 0}$

| Independent Study |
| :--- |
| An individualized, directed study involving a specified topic. |
| $\mathbf{3 7 0}$ |
| Selected Topics |
| A course offered on a subject of interest but not listed as a regular course |
| offering. May count toward the departmental major and general education |
| requirements. |

393 $1-4$ hours
Practicum
Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

450
1-4 hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

480
I-4 hours
Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

## 490

I-2 hours

## Honors

Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.


## SCHOOL OF BUSINESS

Lawrence Belcher, PhD, Dean

Notes

## Business

Dean, L. Belcher<br>Professors L. Erickson, H. Mitchell, J. Sherlock<br>Associate Professor S. Adams<br>Assistant Professors M. Bates, J. Hirschy, K. Miller, D. Poucher

In support of the University's mission, the Taylor University School of Business prepares students to engage in a life of servant leadership characterized by lifelong learning, innovation, excellence, and ethics in organizations around the world.

As an expression of Taylor's multi-dimensional education philosophy, the school of business offers seven baccalaureate majors in accounting, developmental economics, economics, finance, international business, management, and marketing. Minors are available in accounting, business as mission, developmental economics, economics, entrepreneurship, finance, human resource management, management, and marketing.

All school of business curriculum courses combine theory, principles, techniques, and practical applications to enhance graduates' employment opportunities and serve as a solid groundwork for graduate studies. The relevance of Christian faith through current, real-world situations is emphasized in classes, field trips, and expert Christian guest lecturers. Team development and business projects are available in selected business courses; a practicum experience is required of all business school students. Development of communication skills, both written and oral, is emphasized. Many classes give attention to problem solving and quantitative analysis.

In the summer following a student's junior year, a practicum/internship (XXX 393) for four credit hours is required of all majors in the school of business.

Graduation requirements in the majors include passing all courses within the major with grades of C- or better. Any major course with a grade below C- must be repeated before subsequent sequential courses may be taken. All major courses (including electives) must be passed with a grade of C - or better. Seniors must pass a senior comprehensive examination in their major.

The School of Business is a member of the Association of Collegiate Business Schools and Programs (ACBSP).

## Accounting

The accounting major is designed to prepare students for accounting and financial careers in public accounting, business, government, education and nonprofit organizations. The program presents accounting theory and practice, current developments and ethical considerations discussed in a Christian context. Students are taught how to develop, analyze and interpret financial plans and results and to provide management information in the most useful manner. Guided by faculty advisors, students may pursue programs leading toward certification in public accounting or management accounting. Most states require completion of 150 credit hours before taking the CPA examination.

## Accounting (BA)

The bachelor of arts degree with a major in accounting requires two years of one foreign language and 63-67 major hours.

| Business Core | Requirements |  |
| :--- | :---: | :--- |
| ACC 24I | 3 | Accounting Principles I |
| ACC 242 | 3 | Accounting Principles II |
| ECO 201 | 4 | Principles of Microeconomics |
| ECO 202 | 3 | Principles of Macroeconomics |
| FIN 361 | 3 | Corporate Finance |
| MGT 201 | 3 | Business Basics Boot Camp |
| MGT 31I | 3 | Business Law |
| MGT 352 | 3 | Management Analysis and Practice |
| ACC 393 | 4 | Practicum |
| MGT 452 | 3 | Strategic Management |
| MKT 23I | 3 | Principles of Marketing |
|  |  |  |
| Accounting Core |  |  |
| ACC 303 | 3 | Cost Accounting |
| ACC 341 | 3 | Intermediate Accounting I |
| ACC 342 | 3 | Intermediate Accounting II |
| ACC 405 | 3 | Auditing |
| ACC 416 | 3 | Advanced Accounting |
| ACC 442 | 3 | Federal Income Taxes |


| Additional Major Requirements |  |  |
| :---: | :---: | :---: |
| MAT 210 | 4 | Introductory Statistics |
| Select one course from the following: |  |  |
| MGT 260 | 3 | Business Systems Applications (recommended) |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| Select one option from the following: |  |  |
| MAT 110 | 3 | Finite Mathematics (recommended) |
| MAT 151 | 4 | Calculus I |
| tMAT 145 and | 3 | Introduction to Functions and Calculus |
| †MAT 146 | 3 | Functions and Calculus |
| tMAT I45 and MAT 146 combination meets requirement. |  |  |

## Accounting (BS)

The bachelor of science degree with a major in accounting requires 80-84 major hours.

| Business Core Requirements |  |  |
| :---: | :---: | :---: |
| ACC 241 | 3 | Accounting Principles I |
| ACC 242 | 3 | Accounting Principles II |
| ECO 201 | 4 | Principles of Microeconomics |
| ECO 202 | 3 | Principles of Macroeconomics |
| FIN 361 | 3 | Corporate Finance |
| MGT 201 | 3 | Business Basics Boot Camp |
| MGT 311 | 3 | Business Law |
| MGT 352 | 3 | Management Analysis and Practice |
| MGT 452 | 3 | Strategic Management |
| MKT 231 | 3 | Principles of Marketing |
| Select one option from the following: |  |  |
| ACC 393 | 4 | Practicum |
| ACC 394 | 9 | Extended Internship |
| Accounting Core |  |  |
| ACC 303 | 3 | Cost Accounting |
| ACC 308 | 3 | Integrated Accounting Systems |
| ACC 341 | 3 | Intermediate Accounting I |
| ACC 342 | 3 | Intermediate Accounting II |
| ACC 405 | 3 | Auditing |
| ACC 416 | 3 | Advanced Accounting |
| ACC 442 | 3 | Federal Income Taxes |
| Select nine hours (six hours if taking ACC 394) from the following: |  |  |
| ACC 353 | 3 | Fraud Examination |
| ACC 370 | 3 | Accounting Ethics |
| ACC 381 | 3 | Governmental \& Non-profit Accounting |
| ACC 445 | 3 | Advanced Income Tax |
| ACC 475 | 6 | CPA Topics and Certification |
| FIN 430 | 3 | Investments |


| ditional Major Requirements |  |  |
| :---: | :---: | :---: |
| MAT 210 | 4 | Introductory Statistics |
| MGT 260 | 3 | Business Systems Applications |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| Select one option from the following: |  |  |
| MAT 151 | 4 | Calculus I |
| tMAT 145 and | 3 | Introduction to Functions and Calculus |
| tMAT 146 | 3 | Functions and Calculus |

## Accounting/Systems (BS)

The bachelor of science degree with a major in accounting/systems requires 64-67 accounting major hours and curriculum requirements in systems analysis. All systems curriculum courses must be completed with a grade of C - or better.

| Business Core Requirements |  |  |
| :---: | :---: | :---: |
| ACC 241 | 3 | Accounting Principles I |
| ACC 242 | 3 | Accounting Principles II |
| ACC 393 | 4 | Practicum |
| ECO 201 | 4 | Principles of Microeconomics |
| ECO 202 | 3 | Principles of Macroeconomics |
| FIN 361 | 3 | Corporate Finance |
| MGT 201 | 3 | Business Basics Boot Camp |
| MGT 311 | 3 | Business Law |
| MGT 352 | 3 | Management Analysis and Practice |
| MGT 452 | 3 | Strategic Management |
| MKT 231 | 3 | Principles of Marketing |
| Accounting Core |  |  |
| ACC 303 | 3 | Cost Accounting |
| ACC 341 | 3 | Intermediate Accounting I |
| ACC 342 | 3 | Intermediate Accounting II |
| ACC 405 | 3 | Auditing |
| ACC 416 | 3 | Advanced Accounting |
| ACC 442 | 3 | Federal Income Taxes |
| Additional Major Requirements |  |  |
| MAT 210 | 4 | Introductory Statistics |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| Select one option from the following: |  |  |
| MAT 151 | 4 | Calculus I |
| tMAT 145 and | 3 | Introduction to Functions and Calculus |
| tMAT 146 | 3 | Functions and Calculus |


| Systems Curriculum Requirements |  |  |
| :---: | :---: | :---: |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| MAT 151 | 4 | Calculus I |
| SYS 101 | 3 | Introduction to Systems |
| SYS 390 | 3 | Information Systems Analysis |
| SYS 392 | I | Systems Seminar |
| SYS 394 | 4 | Information Systems Design |
| SYS 403 | 3 | Operations Management |
| Select one course from the following: |  |  |
| COS 121 | 4 | Foundations of Computer Science |
| COS 143 | 3 | Interactive Webpage Design |
| Select one course from the following: |  |  |
| MAT 210 | 4 | Introductory Statistics |
| MAT 352 | 4 | Mathematical Statistics |
| Select one course from the following: |  |  |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |
| Systems Electives |  |  |
| Select at least three hours of electives, in addition to those required in the major or systems: |  |  |
| MAT 382 | 3 | Advanced Statistical Methods |
| SYS 214 | 3 | Principles of Human Computer Interaction |
| SYS 310 | 3 | E-Commerce |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |
| *Courses in both areas may count only once. |  |  |

tMAT I45 and MAT 146 combination meets requirement.

## Accounting Minor

The accounting minor recognizes attainment of a sound, working knowledge of accounting in addition to another major field of study. Required are 21-22 minor hours. Not available to finance majors.

| Minor Requirements |  |  |
| :--- | :---: | :--- |
| ACC 24I | 3 | Accounting Principles I |
| ACC 242 | 3 | Accounting Principles II |
| ACC 303 | 3 | Cost Accounting |
| ACC 34I | 3 | Intermediate Accounting I |
| ACC 342 | 3 | Intermediate Accounting II |
| ACC 442 | 3 | Federal Income Taxes |

Select one course from the following:
ACC 370
COS 120

## Economics

## Developmental Economics (BA)

The bachelor of arts degree with a major in developmental economics requires two years of one foreign language and 46-48 hours.

| Major Requirements |  |  | Additional Major Requirements |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ECO 201 | 4 | Principles of Microeconomics | MAT 382 | 3 | Advanced Statistical Methods |
| ECO 202 | 3 | Principles of Macroeconomics | Select one course from the following: |  |  |
| ECO 393 | 4 | Practicum |  |  |  |
| ECO 442 | 3 | Economic Development | MAT 210 | 4 | Introductory Statistics |
| ECO 455 | 3 | Economics of Microfinance | MAT 352 | 4 | Mathematical Statistics |
| MGT 442 | 3 | Business Ethics | Select one option from the following: |  |  |
|  |  |  | MAT 151 | 4 | Calculus I |
| Electives |  |  |  |  |  |
| Select 15 hours of upper-division electives from: |  |  | $\dagger$ MAT 145 | 3 | Introduction to Functions and Calculus |
| ECO 302 |  | 3 | Labor Economics | and |  |  |
| ECO 315 | 3 | Environmental and Natural Resource Economics | +MAT 146 | 3 | Functions and Calculus |
| ECO 331 | 3 | Intermediate Microeconomics | $\dagger$ 'MAT 145 \& 146 count as one option. |  |  |
| ECO 332 | 3 | Intermediate Macroeconomics |  |  |  |
| ECO 411 | 3 | International Economics |  |  |  |
| ECO 460 | 3 | Economics of Micro-entrepreneurship | Complete a departmentally approved international study experience. |  |  |
| ECO 481 | 3 | Study Tour of Economically Developing Countries |  |  |  |
| ENT 422 | 3 | New Venture Planning |  |  |  |
| ITB 375 | 3 | International Business |  |  |  |
| MGT 352 | 3 | Management Analysis and Practice |  |  |  |
| MKT 380 | 3 | International Marketing |  |  |  |
| REL 391 | 3 | Preparation and Strategy for Christian World Mission |  |  |  |
| SOC 200 | 3 | Cultural Anthropology |  |  |  |

## Developmental Economics/Systems (BS)

The bachelor of science degree with a major in economics/systems requires 46-48 hours and curriculum requirements in systems analysis. All systems curriculum courses must be completed with a grade of $C$ - or better.

| Systems Curriculum |  |  |  | Requirements |
| :--- | :---: | :--- | :---: | :---: |
| COS I20 | 4 | Introduction to Computational Problem Solving |  |  |
| ECO 393 | $3-4$ | Practicum |  |  |
| IAS 330 | 3 | Human Relations in Organizations |  |  |
| MAT 151 | 4 | Calculus I |  |  |
| SYS IO | 3 | Introduction to Systems |  |  |
| SYS 390 | 3 | Information Systems Analysis |  |  |
| SYS 392 | 1 | Systems Seminar |  |  |
| SYS 394 | 4 | Information Systems Design |  |  |
| SYS 403 | 3 | Operations Management |  |  |
| Select one course from the following: |  |  |  |  |
| COS 121 | 4 | Foundations of Computer Science |  |  |
| COS 143 | 3 | Interactive Webpage Design |  |  |

Select one course from the following:
MAT 210
MAT

MAT 352 4 | Introductory Statistics |  |  |
| :--- | :--- | :--- |
| Select one course from the following: |  |  |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |

## Systems Electives

Select at least three hours of electives, in addition to those required in the major or systems:

| SYS 214 | 3 | Principles of Human Computer Interaction |
| :--- | :--- | :--- |
| SYS 310 | 3 | E-Commerce |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |

*Courses in both areas may count only once.

## Developmental Economics Minor

The developmental economics minor requires 22 credit hours.

| Minor Requirements |  |  |
| :--- | :---: | :--- |
| ECO 201 | 4 | Principles of Microeconomics |
| ECO 202 | 3 | Principles of Macroeconomics |
| ECO 442 | 3 | Economic Development |
| ECO 455 | 3 | Economics of Microfinance |

## Electives

Select nine hours of electives from:

| ECO 302 | 3 | Labor Economics |
| :--- | :--- | :--- |
| ECO 315 | 3 | Environmental and Natural Resource Economics |
| ECO 331 | 3 | Intermediate Microeconomics |
| ECO 332 | 3 | Intermediate Macroeconomics |
| ECO 411 | 3 | International Economics |
| ECO 460 | 3 | Economics of Micro-entrepreneurship |
| ECO 48I | 3 | Study Tour of Economically Developing Countries |
| ENT 422 | 3 | New Venture Planning |
| ITB 375 | 3 | International Business |
| MGT 442 | 3 | Business Ethics |
| MKT 380 | 3 | International Marketing |
| POS 213 | 3 | International Political Economy |
| REL 391 | 3 | Preparation and Strategy for Christian World View |
| SOC 200 | 3 | Cultural Anthropology |

## Economics (BA)

The bachelor of arts degree with a major in economics requires two years of one foreign language and 46-48 hours.

| Major Requirements |  |  | Additional Major Requirements |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ECO 201 | 4 | Principles of Microeconomics | MAT 382 | 3 | Advanced Statistical Methods |
| ECO 202 | 3 | Principles of Macroeconomics | Select one course from the following: |  |  |
| ECO 331 | 3 | Intermediate Microeconomics |  |  |  |
| ECO 332 | 3 | Intermediate Macroeconomics | MAT 210 | 4 | Introductory Statistics |
| ECO 333 | 3 | History of Economic Thought | MAT 352 | 4 | Mathematical Statistics |
| ECO 393 | 4 | Practicum | Select one option from the following: |  |  |
|  |  |  | MAT 151 | 4 | Calculus I |
| Electives |  |  | †MAT 145 | 3 | Introduction to Functions and Calculus |
| ECO 302 | 3 | Labor Economics | and tMAT 146 |  |  |
| ECO 315 | 3 | Environmental and Natural Resource Economics | †MAT 146 | 3 | Functions and Calculus |
| ECO 321 | 3 | Public Spending and Taxation | +MAT 145 \& 146 count as one option. |  |  |
| ECO 360 | 1-3 | Independent Study |  |  |  |
| ECO 370 | 3-4 | Selected Topics |  |  |  |
| ECO 411 | 3 | International Economics |  |  |  |
| ECO 428 | 3 | Money and Banking |  |  |  |
| ECO 442 | 3 | Economic Development |  |  |  |

## Economics/Systems (BS)

The bachelor of science degree with a major in economics/systems requires 46-48 hours and curriculum requirements in systems analysis. All systems curriculum courses must be completed with a grade of $C$ - or better.
Systems Curriculum Requirements
COS I20
ECO 393
ES
IAS 330
MAT I5I
MYS IOI
Introduction to Computational Problem Solving
SYS 390
SYS 392

Systems Electives
Select at least three hours of electives, in addition to those required in the major or systems:
SYS $214 \quad 3 \quad$ Principles of Human Computer Interaction

| SYS $310 \quad 3$ | E-Commerce |
| :--- | :--- | :--- |

*SYS $4013 \quad 3 \quad$ Operations Research
*SYS 4023 Modeling and Simulation
*Courses in both areas may count only once.

## Economics Minor

The economics minor requires $19-20$ credit hours.

| ts |  |  |
| :---: | :---: | :---: |
| ECO 201 | 4 | Principles of Microeconomics |
| ECO 202 | 3 | Principles of Macroeconomics |
| Select two courses from: |  |  |
| ECO 331 | 3 | Intermediate Microeconomics |
| ECO 332 | 3 | Intermediate Macroeconomics |
| ECO 333 | 3 | History of Economic Thought |
| Select two courses from: |  |  |
| ECO 302 | , | Labor Economics |
| ECO 315 | 3 | Environmental and Natural Resource Economics |
| ECO 321 | 3 | Public Spending and Taxation |
| ECO 331 | 3 | Intermediate Microeconomics |
| ECO 332 | 3 | Intermediate Macroeconomics |
| ECO 333 | 3 | History of Economic Thought |
| ECO 360 | 3 | Independent Study |
| ECO 370 | 3-4 | Selected Topics |
| ECO 411 | 3 | International Economics |
| ECO 428 | 3 | Money and Banking |
| ECO 442 | 3 | Economic Development |

## Finance

## Finance (BS)

The bachelor of science degree with a major in finance requires 77-80 hours.

| Business Core | Requirements |  |
| :--- | :--- | :--- |
| ACC 24I | 3 | Accounting Principles I |
| ACC 242 | 3 | Accounting Principles II |
| ECO 201 | 4 | Principles of Microeconomics |
| ECO 202 | 3 | Principles of Macroeconomics |
| FIN 361 | 3 | Corporate Finance |
| FIN 393 | 4 | Practicum |
| MGT 201 | 3 | Business Basics Boot Camp |
| MGT 31I | 3 | Business Law |
| MGT 352 | 3 | Management Analysis and Practice |
| MGT 452 | 3 | Strategic Management |
| MKT 231 | 3 | Principles of Marketing |

## Finance Electives <br> Select three courses from:

ECO 331 3 Intermediate Microeconomics
ECO 3323 Intermediate Macroeconomics
ECO 428 Money and Banking
FIN $340 \quad 3 \quad$ Real Estate

| FIN 340 | 3 | Real Estate <br> Insurance |
| :--- | :--- | :--- |

FIN $345 \quad 3 \quad$ Selected Topics in Finance
FIN $384 \quad 3$ International Finance
FIN $440 \quad 3 \quad$ Series 7: Brokerage
FIN $450 \quad 3 \quad$ Directed Research
MAT $385 \quad 3 \quad$ Mathematics of Finance

Finance Core Requirements

| ACC 303 | 3 | Cost Accounting |
| :--- | :--- | :--- |
| ACC 341 | 3 | Intermediate Accounting I |
| ACC 342 | 3 | Intermediate Accounting II |
| ACC 442 | 3 | Federal Income Taxes |
| FIN 430 | 3 | Investments |


| Additional Major Requirements |  |  |
| :--- | :---: | :--- |
| MAT 210 | 4 | Introductory Statistics |
| MAT 230 | 4 | Calculus II |
| MAT 382 | 3 | Advanced Statistical Methods |

Select one course from the following:
MGT 260
COS 120
tMAT I45 and MAT I46 combination meets requirement.

## Finance Minor

The finance minor requires $25-27$ hours. Non-business majors are required to take additional prerequisite hours.

| Minor Requirements |  |  |
| :--- | :---: | :--- |
| ACC 303 | 3 | Cost Accounting |
| ACC 442 | 3 | Federal Income Taxes |
| ECO 428 | 3 | Money and Banking |
| FIN 430 | 3 | Investments |
| Select one option from the following: |  |  |
| MAT I5 | 4 | Calculus I |
| tMAT 145 | 3 | Introduction to Functions and Calculus |
| and |  |  |
| tMAT 146 | 3 | Functions and Calculus |

tMAT I45 and MAT 146 combination meets requirement.

Electives
Select nine hours from:

| ACC 34I | 3 | Intermediate Accounting I |
| :--- | :--- | :--- |
| *ECO 331 | 3 | Intermediate Microeconomics |
| *ECO 332 | 3 | Intermediate Macroeconomics |
| FIN 340 | 3 | Real Estate |
| FIN 344 | 3 | Insurance |
| FIN 370 | 3 | Selected Topics |
| FIN 384 | 3 | International Finance |
| FIN 440 | 3 | Series 7: Brokerage |

*A maximum of 3 hours of economics may be used to meet the nine elective hours.

## International Business

## International Business (BA)

The bachelor of arts degree with a major in international business requires two years of one foreign language and 63-68 major hours. Majors must study abroad one semester.

| Business Core | Requirements |  |
| :--- | :---: | :--- |
| ACC 24I | 3 | Accounting Principles I |
| ACC 242 | 3 | Accounting Principles II |
| ECO 201 | 4 | Principles of Microeconomics |
| ECO 202 | 3 | Principles of Macroeconomics |
| FIN 361 | 3 | Corporate Finance |
| ITB 393 | 4 | Practicum |
| MGT 201 | 3 | Business Basics Boot Camp |
| MGT 31I | 3 | Business Law |
| MGT 352 | 3 | Management Analysis and Practice |
| MGT 452 | 3 | Strategic Management |
| MKT 23I | 3 | Principles of Marketing |
|  |  |  |
| International Business | Core Requirements |  |
| ITB 375 | 3 | International Business |
| MKT 380 | 3 | International Marketing |
| FIN 384 | 3 | International Finance |
| Select one course from the following: |  |  |
| ECO 41I | 3 | International Economics |
| ITB 381 | $3-4$ | International Business Study Tour |

## International Business Electives

Select two (300-/400-level) electives from the following areas: ACC, ECO, ENT, FIN, HRM, ITB, MGT, MKT. You may choose electives from same area.

| Additional Major Requirements |  |
| :--- | :--- |
| MAT 210 | 4 |
| Introductory Statistics |  |

Select one course from the following:

| MGT 260 | 3 | Business Systems Applications (recommended) |
| :--- | :--- | :--- |
| COS 120 | 4 | Introduction to Computational Problem Solving |

Select one option from the following:

| MAT 110 | 3 | Finite Mathematics (recommended) |
| :---: | :---: | :---: |
| MAT 151 | 4 | Calculus I |
| tMAT 145 and | 3 | Introduction to Functions and Calculus |
| tMAT 146 | 3 | Functions and Calculus |
| tMAT 145 and MAT 146 combination meets requirement. |  |  |
| Students must spe Abroad Program. |  |  |

## International Business/Systems (BS)

The bachelor of science degree with a major in international business/systems requires completion of two years of one foreign language, 6I-64 hours in the major, and curriculum requirements in systems analysis. Systems courses must be completed with a grade of $C$ - or better. Majors must study abroad one semester.

| Business Core Requirements |  |  |
| :---: | :---: | :---: |
| ACC 241 | 3 | Accounting Principles I |
| ACC 242 | 3 | Accounting Principles II |
| ECO 201 | 4 | Principles of Microeconomics |
| ECO 202 | 3 | Principles of Macroeconomics |
| FIN 361 | 3 | Corporate Finance |
| ITB 393 | 4 | Practicum |
| MGT 201 | 3 | Business Basics Boot Camp |
| MGT 311 | 3 | Business Law |
| MGT 352 | 3 | Management Analysis and Practice |
| MGT 452 | 3 | Strategic Management |
| MKT 231 | 3 | Principles of Marketing |
| International Business Core Requirements |  |  |
| ITB 375 | 3 | International Business |
| MKT 380 | 3 | International Marketing |
| FIN 384 | 3 | International Finance |
| Select one course from the following: |  |  |
| ECO 41I | 3 | International Economics |
| ITB 38I | 3-4 | International Business Study Tour |

Students must spend one semester abroad in a Taylor University Off-Campus/Study Abroad Program.

## International Business Electives

Select two (300-/400-level) additional electives from the following areas:
ACC, ECO, ENT, FIN, HRM, ITB, MGT, MKT.
You may choose two electives from the same area.

| Additional Major Requirements |  |  |
| :---: | :---: | :---: |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| MAT 210 | 4 | Introductory Statistics |
| Select one option from the following: |  |  |
| MAT 151 | 4 | Calculus I |
| tMAT 145 and | 3 | Introduction to Functions and Calculus |
| +MAT 146 | 3 | Functions and Calculus |

†MAT I45 and MAT I 46 combination meets requirement.

| Systems Curriculum Requirements |  |  |
| :---: | :---: | :---: |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| ITB 393 | 3-4 | Practicum |
| MAT 151 | 4 | Calculus I |
| SYS IOI | 3 | Introduction to Systems |
| SYS 390 | 3 | Information Systems Analysis |
| SYS 392 | I | Systems Seminar |
| SYS 394 | 4 | Information Systems Design |
| SYS 403 | 3 | Operations Management |
| Select one course from the following: |  |  |
| COS 121 | 4 | Foundations of Computer Science |
| COS 143 | 3 | Interactive Webpage Design |
| Select one course from the following: |  |  |
| MAT 210 | 4 | Introductory Statistics |
| MAT 352 | 4 | Mathematical Statistics |
| Select one course from the following: |  |  |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |

## Systems Electives

Select at least three hours of electives, in addition to those required in the major or systems:

| MAT 382 | 3 | Advanced Statistical Methods |
| :--- | :--- | :--- |
| SYS 214 | 3 | Principles of Human Computer Interaction |
| SYS 310 | 3 | E-Commerce |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |

## Management

## Management (BA)

The bachelor of arts degree with a major in management requires two years of one foreign language and 63-68 hours in the major.

| Business Core Requirements |  |  |
| :---: | :---: | :---: |
| ACC 241 |  | Accounting Principles I |
| ACC 242 | 3 | Accounting Principles II |
| ECO 201 | 4 | Principles of Microeconomics |
| ECO 202 | 3 | Principles of Macroeconomics |
| FIN 361 | 3 | Corporate Finance |
| MGT 201 | 3 | Business Basics Boot Camp |
| MGT 311 | 3 | Business Law |
| MGT 352 | 3 | Management Analysis and Practice |
| MGT 393 | 4 | Practicum |
| MGT 452 | 3 | Strategic Management |
| MKT 231 | 3 | Principles of Marketing |
| Management Core |  |  |
| ENT 422 | 3 | New Venture Planning |
| HRM 362 | 3 | Human Resource Management |
| HRM 462 | 3 | Organizational Behavior and Development |


| Management Electives |  |  |
| :---: | :---: | :---: |
| Select one course from the following: |  |  |
| ITB 375 | 3 | International Business |
| ITB 381 | 3-4 | International Business Study Tour |
| Select two electives (300/400) from the following areas: ACC, ECO, ENT, FIN, HRM, ITB, MGT, MKT, SYS. You may choose two electives from the same area. |  |  |
| Additional Major Requirements |  |  |
| MAT 210 | 4 | Introductory Statistics |
| Select one course from the following: |  |  |
| MGT 260 | 3 | Business Systems Applications (recommended) |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| Select one option from the following: |  |  |
| MAT 110 | 3 | Finite Mathematics (recommended) |
| MAT 151 | 4 | Calculus I |
| tMAT 145 and | 3 | Introduction to Functions and Calculus |
| †MAT 146 | 3 | Functions and Calculus |

## Management/Systems (BS)

The bachelor of science degree with a major in management/systems requires 65-68 hours and curriculum requirements in systems analysis. All systems curriculum courses must be completed with a grade of $C$ - or better.

| Business Core |  |  |
| :--- | :---: | :--- |
| Requirements |  |  |
| ACC 24I | 3 | Accounting Principles I |
| ACC 242 | 3 | Accounting Principles II |
| ECO 201 | 4 | Principles of Microeconomics |
| ECO 202 | 3 | Principles of Macroeconomics |
| FIN 361 | 3 | Corporate Finance |
| MGT 201 | 3 | Business Basics Boot Camp |
| MGT 311 | 3 | Business Law |
| MGT 352 | 3 | Management Analysis and Practice |
| MGT 393 | 4 | Practicum |
| MGT 452 | 3 | Strategic Management |
| MKT 231 | 3 | Principles of Marketing |
| Management Core |  |  |
| ENT 422 | 3 | New Venture Planning |
| HRM 362 | 3 | Human Resource Management |
| HRM 462 | 3 | Organizational Behavior and Development |

## Management Electives

Select one course from the following:
ITB 375 International Business
ITB 381 3-4 International Business Study Tour
Select two additional electives (300/400) from the following areas:
ACC, ECO, ENT, FIN, HRM, ITB, MGT, MKT, SYS.
You may choose electives from the same area.

| Additional Major Requirements |  |  |
| :---: | :---: | :---: |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| MAT 210 | 4 | Introductory Statistics |
| Select one option from the following: |  |  |
| MAT 151 | 4 | Calculus I |
| tMAT 145 and | 3 | Introduction to Functions and Calculus |
| †MAT 146 | 3 | Functions and Calculus |


| Systems Curriculum Requirements |  |  |
| :---: | :---: | :---: |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| MAT 151 | 4 | Calculus I |
| MGT 393 | 3-4 | Practicum |
| SYS 101 | 3 | Introduction to Systems |
| SYS 390 | 3 | Information Systems Analysis |
| SYS 392 | I | Systems Seminar |
| SYS 394 | 4 | Information Systems Design |
| SYS 403 | 3 | Operations Management |
| Select one course from the following: |  |  |
| COS 121 | 4 | Foundations of Computer Science |
| COS 143 | 3 | Interactive Webpage Design |
| Select one course from the following: |  |  |
| MAT 210 | 4 | Introductory Statistics |
| MAT 352 | 4 | Mathematical Statistics |
| Select one course from the following: |  |  |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |

Select an lectives

| MAT 382 | 3 | Advanced Statistical Methods |
| :--- | :--- | :--- |
| SYS 214 | 3 | Principles of Human Computer Interaction |
| SYS 310 | 3 | E-Commerce |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |

*Courses in both areas may count only once.

## Management Minor

The management minor requires 24 hours.

| Minor Requirements |  |  |
| :--- | :---: | :--- |
| MGT 201 | 3 | Business Basics Boot Camp |
| ACC 241 | 3 | Accounting Principles I |
| MKT 231 | 3 | Principles of Marketing |
| MGT 311 | 3 | Business Law |
| MGT 352 | 3 | Management Analysis and Practice |

## Elective

Select three electives from:
ENT $422 \quad 3 \quad$ New Venture Planning
HRM $362 \quad 3$ Human Resource Management
HRM 4623 Organizational Behavior and Development
MGT $420 \quad 3 \quad$ Production and Operations Management

## Marketing

## Marketing (BA)

The bachelor of arts degree with a major in marketing requires two years of one foreign language and 63-67 hours.

| Business Core Requirements |  |  | Marketing Electives |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ACC 241 |  | Accounting Principles I | Select three electives (300-/400-level) from the following areas: MKT, ITB, ENT. |  |  |
| ACC 242 | 3 | Accounting Principles II | You may ch | ectiv | from the same area. |
| ECO 201 | 4 | Principles of Microeconomics |  |  |  |
| ECO 202 | 3 | Principles of Macroeconomics | Additional | $r$ R | irements |
| FIN 361 | 3 | Corporate Finance | MAT 210 |  | Introductory Statistics |
| MGT 201 | 3 | Business Basics Boot Camp | Select one |  | following: |
| MGT 311 | 3 | Business Law | MGT 260 | 3 | Business Systems Applications (recommended) |
| MGT 352 | 3 | Management Analysis and Practice | COS 120 | 4 | Introduction to Computational Problem Solving |
| MGT 452 | 3 | Strategic Management |  |  |  |
| MKT 231 | 3 | Principles of Marketing | Select one o | from | following: |
| MKT 393 | 4 | Practicum | MAT IIO <br> MAT 151 | 3 4 | Finite Mathematics (recommended) Calculus I |
| Marketing |  |  | †MAT 145 | 3 | Introduction to Functions and Calculus |
| MKT 4I0 | 3 | Marketing Research | and |  |  |
| MKT 445 | 3 | Best Practices in Marketing | tMAT 146 | 3 | Functions and Calculus |
| MKT 460 | 3 | Consumer Behavior | tMAT 145 | T | combination meets requirement. |

## Marketing/Systems (BS)

The bachelor of science degree with a major in marketing/systems requires 65-67 hours and curriculum requirements in systems analysis. All systems curriculum courses must be completed with a grade of C- or better.
Business Core Requirements
ACC 241
ACC 242
ECO 201
ECO 202

| Systems Curriculum Requirements |  |  |
| :---: | :---: | :---: |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| MAT 151 | 4 | Calculus I |
| MKT 393 | 3-4 | Practicum |
| SYS 101 | 3 | Introduction to Systems |
| SYS 390 | 3 | Information Systems Analysis |
| SYS 392 | 1 | Systems Seminar |
| SYS 394 | 4 | Information Systems Design |
| SYS 403 | 3 | Operations Management |
| Select one course from the following: |  |  |
| COS 121 | 4 | Foundations of Computer Science |
| COS 143 | 3 | Interactive Webpage Design |
| Select one course from the following: |  |  |
| MAT 210 | 4 | Introductory Statistics |
| MAT 352 | 4 | Mathematical Statistics |
| Select one course from the following: |  |  |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |
| Systems Electives |  |  |
| Select at least three hours of electives, in addition to those required in the major or systems: |  |  |
| MAT 382 | 3 | Advanced Statistical Methods |
| SYS 214 | 3 | Principles of Human Computer Interaction |
| SYS 310 | 3 | E-Commerce |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |

## Marketing Minor

The marketing minor requires 25 hours. This minor is not available to marketing majors.

| Minor Requirements |  | Select three courses from: |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| MAT 210 | 4 | Introductory Statistics | MKT 312 | 3 | Professional Selling |
| MGT 201 | 3 | Business Basics Boot Camp | MKT 313 | 3 | Retailing and Services Marketing |
| MKT 231 | 3 | Principles of Marketing | MKT 380 | 3 | International Marketing |
| MKT 445 | 3 | Best Practices in Marketing | MKT 4IO | 3 | Marketing Research |
| MKT 460 | 3 | Consumer Behavior | MKT 4I2 | 3 | Advertising and Promotional Strategy |

## Business as Mission Minor

The business as mission minor requires 22 credit hours.

| Minor Requirements |  | Select one option from the following: |  |  |
| :--- | :--- | :--- | :--- | :--- |
| MGT 201 | 3 | Business Basics Boot Camp | ECO 442 | 3 |

## Entrepreneurship Minor for Business Majors

The entrepreneurship minor for business majors requires 18 credit hours. Any combination of the following courses will qualify for the minor. Students who achieve 12 credit hours are eligible to receive an Entrepreneurship Certificate from the School of Business.

| Minor Requirements |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Select at least six courses from: | ENT 422 | 3 | New Venture Planning |  |  |
| ECO 455 | 3 | Economics of Microfinance | ENT 480 | 3 | Entrepreneurial Management Seminar |
| ECO 460 | 3 | Economics of Micro-entrepreneurship | MGT 201 | 3 | Business Basics Boot Camp |
| ENT 340 | 3 | Leadership and Stewardship | XXX 393 | 4 | Practicum (Entrepreneurial Oriented) |

## Entrepreneurship Minor for Non-Business Majors

The entrepreneurship minor for non-business majors requires 18 credit hours. Any combination of the following courses will qualify for the minor. Students who achieve 12 credit hours are eligible to receive an Entrepreneurship Certificate from the School of Business.

Minor Requirements
Select at least six courses from:

| COS 340 | 3 | Software Engineering | ENT 422 | 3 | New Venture Planning |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ECO 455 | 3 | Economics of Microfinance | ENT 480 | 3 | Entrepreneurial Management Seminar |
| ECO 460 | 3 | Economics of Micro-entrepreneurship | MGT 20I | 3 | Business Basics Boot Camp |
| ENT 340 | 3 | Leadership and Stewardship | XXX 393 | 4 | Practicum (Entrepreneurial Oriented) |

## Human Resource Management Minor

The human resource management minor requires 24 hours.

| Minor Requirements |  |  |  |  | Electives |
| :--- | :--- | :--- | :--- | :--- | :--- |
| MGT 201 | 3 | Business Basics Boot Camp | Select two electives from: |  |  |
| CAS 201 | 3 | Professional Communication in Corporate Contexts | IAS 330 | 3 | Human Relations in Organizations |
| HRM 362 | 3 | Human Resource Management | HRM 475 | 3 | Human Resource Issues and Certification |
| HRM 462 | 3 | Organizational Behavior and Development | MGT 442 | 3 | Business Ethics |
| MGT 3II | 3 | Business Law | ECO 302 | 3 | Labor Economics |
| MGT 352 | 3 | Management Analysis and Practice |  |  |  |

## Master of Business Administration Program (MBA)

The Taylor University MBA program is timely and convenient; the curriculum includes 12 courses and 36 credit hours to be completed in only 16 months. All MBA students are required to complete an international study tour to experience global business first-hand while visiting corporate and other organizational entities abroad. Recent trips have included China, England, France, Germany, Hong Kong, Ireland, and Italy.

For more information about the MBA program, please contact Dr. Evan Wood. Additional information regarding Taylor's MBA Graduate Program is available at http://www.taylor.edu/mba or in the Taylor University Graduate School Catalog.

## Accounting Courses

## ACC $170 \quad$ I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## ACC 241

## 3 hours

Accounting Principles I
An introduction to the language of business. Financial transactions are analyzed, recorded, summarized and reported in a meaningful manner to management. Also studied are basic financial statements and the various accounting and internal control procedures for recording and protecting assets. Offered fall semester and January interterm.

## ACC 242

## 3 hours

Accounting Principles II
Continuation of ACC 24I. Accounting problems and procedures pertaining to partnerships and corporations are studied. Also studied are various accounting procedures and reports used by management in acquiring fixed assets, budgeting and controlling manufacturing and departmental operations, reporting financial conditions, and analyzing the results of operations. Prerequisite: ACC 241. Offered spring semester.

## ACC 270

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## ACC 303

3 hours
Cost Accounting
A study of the nature of costs and their importance in manufacturing, service and not-for-profit organizations. Topics include: collection and allocation of costs to products and processes, planning, budgeting, and control reports, relevant costs, cost-volume-profit analysis, responsibility accounting and other management analyses and reports. Prerequisite: ACC 242. Offered fall semester.

## ACC 308

## 3 hours

## Integrated Accounting Systems

Explores the use of integrated accounting software in a variety of business types through hands on use. Reinforces accounting principles and financial analysis. Emphasizes the setup and maintenance of an integrated software system. Prerequisites: ACC242. Offered in the fall semester of odd calendar years.

## ACC 34I

## 3 hours

Intermediate Accounting I
A detailed study of the theory and procedures used by accountants in recording and valuing assets and the resulting effect on profits. Emphasis is placed on current issues in accounting theory and practice in both intermediate accounting courses. Prerequisite: ACC 242. Offered fall semester.

## ACC 342

## 3 hours

Intermediate Accounting II
Continuation of ACC 341. A study of the theory and procedures used by accountants in recording and valuing liabilities and capital accounts. Special emphasis is placed on the preparation and interpretation of balance sheets, income statements and statements of changes in financial position. Prerequisite: ACC 34I or permission of instructor. Offered spring semester.

## ACC 353

## 3 hours

Fraud Examination
A study of how and why various types of frauds are committed and how they may be deterred. Topics studied include fraud prevention and detection, investigation, as well as the various types including employee, vendor, customer, management, consumer, e-commerce and investment. Recent public frauds will be investigated and analyzed. Prerequisites: ACC342 or permission of instructor. Offered in the spring semester of even calendar years.

## ACC 360

## I-4 hours

Independent Study
This course includes the opportunity to prepare for the uniform CPA examination.

ACC 370

## I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## ACC $381 \quad 3$ hours

## Government and Non-profit Accounting

Introduces fund accounting and covers the theory and accounting process for state and municipal governments and non-profit organizations. Prerequisites: ACC 342.

## ACC 393

4 hours

## Practicum

Supervised learning involving a first-hand field experience or a project. Prerequisites: 15 accounting hours and SYS 101 for majors pursuing a systems curriculum. Offered primarily during summer.

## ACC $394 \quad 9$ hours

Extended Accounting Internship
Supervised learning involving an extended first-hand experience. Prerequisites: 15 accounting hours and SYS 101 for majors pursuing a systems curriculum. Offered primarily during summer.

## ACC 405 <br> 3 hours

## Auditing

A study of how professional auditors serve the public, stockholders and management by impartially examining the accounting records and financial statements of enterprises. Topics to be studied include: standards, ethics of the profession, internal control procedures, risk assessment and the nature of audit evidence. Prerequisite: ACC 342 or permission of instructor. Offered fall semester.

## ACC 416

## 3 hours

Advanced Accounting
A study of the more complex issues in accounting for partnerships, consolidated financial statements and multinational and not-for-profit enterprises. This course includes interim and financial reporting and coverage of current regulations and pronouncements pertaining to the profession. Prerequisite: ACC 342 or permission of instructor. Offered spring semester.

## ACC 442

## 3 hours

Federal Income Taxes
A study of the effect of federal income tax laws and regulations on individuals and businesses. This course includes discussion of current issues, tax research, tax planning and representative tax preparation software. Prerequisite: ACC 242. Offered fall semester.

## ACC 445

## 3 hours

Advanced Income Tax
Continuation of ACC 442. Tax laws and tax return preparation pertaining to corporate and fiduciary taxpayers are studied. Topics include regular and small business corporations, estates, trusts and not-for-profit entities. Representative tax preparation software and computerized tax research aids are used in completing course assignments. Prerequisite: ACC 442. Offered periodically.

## ACC 450

## I-4 hours

Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

ACC 475
CPA Topics and Certification
A study of the topics tested on the Uniform Certified Public Accountant examination as published by the American Institute of Certified Public Accountants in its Content Specification Outlines. The course is designed to study these topics at a deeper level than previously introduced in previous courses, and to improve research, communication and application of these topics to business situations, demonstrating critical thinking and problemsolving skills. Prerequisites: ACC405, ACC4I6, and ACC442 or permission of instructor.

## ACC 480

## I-4 hours

Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

ACC 490
I-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## Economics Courses

## ECO $170 \quad 1-4$ hours <br> Selected Topics <br> A course offered on a subject of interest but not listed as a regular course offering.

 May count toward the departmental major and general education requirements.
## ECO 190

3 hours
Issues in Economics
Fundamental economic concepts are studied and applied to current issues such as unemployment, inflation, economic growth, monopoly, pollution, poverty, crime, healthcare costs, consumer credit, the federal budget surplus or deficit and foreign debt. Not for accounting, economics, finance, management, marketing or international business majors. Meets general education civic engagement or general social science requirement. Offered fall semester.

## ECO 201

## 4 hours

Principles of Microeconomics
An introduction to microeconomics emphasizing decision making by individual producers and consumers. Consequences of such decisions for efficiency of resource use and income distribution in a capitalistic economy are studied. Meets general education civic engagement or general social science requirement. Prerequisite: MAT 110 or 120 or 140 or 15 I or 146 or 210 or 352 or SOC 355 . Offered fall and spring semesters.

## ECO 2023 hours <br> Principles of Macroeconomics

An introduction to macroeconomics emphasizing how the U.S. economy works. Topics studied include the factors determining the size of the national economy, inflation and unemployment and fiscal and monetary policies. Meets general education civic engagement or general social science requirement. Prerequisite: ECO 201 or permission of the instructor. Offered fall and spring semesters.

## ECO 270

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## Note: Upper-division (300-/400-level) economics courses are offered periodically as needed. Academic advisors should be consulted for current course offerings.

## ECO 302 <br> 3 hours

Labor Economics
This course applies basic economic theory to labor issues, considering both market and regulatory approaches. Labor supply and demand are related to the determination of wages and overall compensation. The purposes and functions of unions in both public and private sectors are analyzed. Prerequisites: ECO 201 and 202.

## ECO 315

## 3 hours

Environmental and Natural Resource Economics
An analysis of the economics of environmental issues, such as pollution and pollution abatement, discussing cost-benefit analysis together with the economics of using both renewable and non-renewable natural resources. Issues of stewardship and dominion will be considered in light of economic tools. Prerequisite: ECO 201.

## ECO 321

3 hours

## Public Spending and Taxation

Analysis of public expenditure and taxation programs of the U.S. federal government. Expenditures analysis focuses on social security, healthcare and welfare programs. Tax analysis focuses on the federal individual income tax. Prerequisites: ECO 20 I and 202.

## ECO 331 <br> 3 hours

Intermediate Microeconomics
Intermediate-level analysis of decision making by individuals in various types of markets. Consequences of such choices for the decision-makers, other people, and society as a whole are studied. Prerequisites: MAT I46 or 15I; and ECO 201. Offered fall semester of alternate years.

## ECO 332

## 3 hours

## Intermediate Macroeconomics

Intermediate-level analysis of factors determining GDP, unemployment, inflation and interest rates in the U.S. Both open and closed economy models are used. The model divergences and policy implications of the various macroeconomic schools are examined. Prerequisite: ECO 202. Offered fall semester of alternate years.

## ECO $333 \quad 3$ hours

History of Economic Thought
A study of the ideas of the great economic thinkers and the development of various schools of economic thought, including the mercantilists, Smith, Malthus, Ricardo, Mill, Marx, Marshall, and the Neo-classical and Keynesian revolutions. The origins of the more prominent twentieth century developments and schools are examined. Prerequisites: ECO 201 and 202. Offered spring semester of alternate years.

ECO 360

## I-4 hours

Independent Study
An individualized, directed study involving a specified topic.

## ECO 370

## 1-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## ECO 393

4 hours
Practicum
Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## ECO 4II

3 hours

## International Economics

The economics of international trade and finance are studied from the U.S. perspective. The economic effects of international trade and trade restrictions and the causes and effects of changes in foreign exchange rates and the balance of payments are analyzed. Prerequisites: ECO 20 I and 202. Offered spring semester.

## ECO 428 <br> 3 hours <br> Money and Banking

A variety of practical banking topics are covered, including a review of the development of the banking system, attention to the corresponding evolution of money and the demand deposit system, and an overview of non-bank financial intermediaries and their role in the present economy. Prerequisites: FIN 36l; ECO 201 and 202. Offered spring semester.

ECO 442

## 3 hours

Economic Development
A study of the principles of economic growth of lesser-developed countries (LDCs). Historical development patterns of more- developed countries and various theories of economic growth are considered for their relevance to LDCs. Policies encouraging growth are discussed. The problems of transforming former socialistic economies into free market economies are discussed. Each student does a major research project on one particular LDC. Prerequisite: ECO 202. Offered fall semester.

## ECO 450

1-4 hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

## ECO 455 <br> 3 hours

## Economics of Microfinance

Explores micro-enterprise programs in the context of less-developed countries. This course includes the range of economics, social and institutional issues facing such programs, including the awareness of various rudimentary business topics necessary for operating a successful program. Emphasis will be placed on implementing programs within the context of local church and missions organizations. Prerequisite: ECO 442. Offered spring semester of alternate years.

## ECO 460 <br> 3 hours

Economics of Micro-entrepreneurship
Recognizing that production of goods and services creates wealth, while redistribution is merely a zero-sum activity, and acknowledging that people are called to serve God as entrepreneurs in busines, starting businesses within developing countries is a very good way to create jobs for the unemployed as well as producing goods and services that are needed to raise the standard of living within Developing Countries. This course looks at conveying the skills necessary to start businesses in the Developing World. It also examines what legal, social, governmental, cultural, or financial factors frustrate or promote entrepreneurship. Some factors, such as corrupt government officials, inflation, lack of property rights, or legally unenforceable contracts either frustrate attempts to start businesses or drive would-be entrepreneurs into the informal sector. This course applies the principles of economics and other disciplines to demonstrate guidelines for proper governance and paradigms for NGOs to assist and mentor prospective entrepreneurs in developing and transitional economies. Prerequisites: ECO 20I, ECO 202, ECO 442.

A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## ECO 481

## 3 hours

## Study Tour of Economically Developing Countries

Designed to expose students to actual living and economic conditions in developing third- and possibly fourth-world countries. We will be traveling to various countries, visiting places such as Latin American barrios or South African townships. The concern will be to determine the personal impact of poverty, what steps are being taken or could be taken to alleviate the poverty, especially in the context of Christian missions of relief agencies such as World Vision. Prerequisite: ECO 442.

## Entrepreneurship Courses

ENT $170 \quad$ I-4 Hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## ENT 270

I-4 Hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## ENT $340 \quad 3$ Hours

Leadership and Stewardship
Explores the key entrepreneurial characteristics and attributes necessary to successfully innovate regardless of discipline or service activity. Students learn processes and stratagems within the context of biblical worldview to establish a culture of excellence in a variety of organizational environments. Students are exposed to stewardship principles critical to generating excellence through effective leadership, exercise innovation processes and how to leverage the entrepreneurial mindset through practical application, and appreciate their individual profile with self-assessments to create an understanding of essential entrepreneurial characteristics as well as their own entrepreneurial quotient. These truths, skills, and associations can be leveraged throughout the student's life regardless of vocation or calling. Offered spring semester.

## ENT $360 \quad$ I-4 Hours <br> Independent Study

An individualized, directed study involving a specified topic.
ENT $370 \quad$ I-4 Hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## ENT 393

Practicum
Supervised learning involving a first-hand field experience or project. Offered primarily during summer.

## ENT 420

## Creativity and Concept Development

Sometimes the most difficult part of innovation is knowing where to start or the creation of an idea. As a result of this course, students acquire skills, processes, and models for enhancing the creative process and using these, develop a plausible business or ministry concept with real-world applicability. Offered fall semester.

## ENT 422

3 hours
New Venture Planning
Students are exposed to and learn the best practices for starting and growing new ventures (profit or non-profit). Course requirements include the development of a product or service concept and completion of a comprehensive business plan that is worthy of presentation to potential investors/contributors. Characteristics and traits of many contemporary entrepreneurs are studied. Offered spring semester.

## ENT 450

I-4 Hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

## ENT 480 <br> 3 hours <br> Entrepreneurial Management Seminar

The long-term strength of the US economy depends on the continual creation of new entrepreneurial companies. This course is intended for those students that plan at some time to either start or join a young company, help spin-out a company from a major corporation or university, or enter the private equity sector that funds such companies. Class sessions are in a workshop or seminar format where students are expected to comment on cases, solve problems, and pose questions from the reading materials.

## Finance Courses

## FIN $170 \quad$ I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## FIN $194 \quad 3$ hours

Personal Finance
An overview of the personal financial planning process, including such topics as investments, insurance, taxes, credit, retirement planning and budgeting. This course provides students with an opportunity to examine and apply scripturebased principles of money management in preparation for their entry into the workplace. Not intended for business school majors. Offered periodically.

## FIN 270

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## FIN 340

3 hours
Real Estate
A review of real estate ownership as an investment vehicle for both individuals and institutions. Topics to be covered include valuation techniques, finance options, operations management and related tax issues. Prerequisites: ACC 242; FIN 36I; MGT 3II. Offered periodically.

## FIN $344 \quad 3$ hours

Insurance
An overview of the insurance industry and various insurance products. Insurance is described theoretically and practically as a tool for risk management in the areas of life, health, property and other insurable categories. Prerequisite: Junior status. Offered periodically.

## FIN 345

3 hours

## Selected Topics in Finance

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## FIN 360

## 1-4 hours

Independent Study
An individualized, directed study involving a specified topic.

## FIN 361

3 hours
Corporate Finance
A study of methods used in the evaluation of financing and investment alternatives and funds management. The course integrates basic accounting with financial analytical techniques. Areas of emphasis include sources of financing, cash flow analysis, working capital management, capital budgeting, net present value, cost of capital and long-term debt and capital structures. Prerequisite: ACC 242.

## FIN 370 <br> I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## FIN 384

3 hours
International Finance
International Finance is concerned with firms' needs for and options of raising funds in both global and foreign money markets and capital markets, both in first and third world countries. Multinational corporations need to evaluate the advantages in borrowing in the host country relative to the home country. Both cost of capital and tax ramifications will be treated, as well as exchange rate and currency control issues of money funds internationally. Prerequisites: FIN 36I; ECO 202. Offered fall semester of odd years.

## FIN 393

## 4 hours

Practicum
Supervised learning involving a first-hand field experience or a project. Offered primarily during summer.

## FIN 430

3 hours

## Investments

A course designed to give the student a basic familiarity with practica investment strategies and terminology from both an institutional and individual perspective. Discussion includes stocks, bond, commodity and option markets, as well as other investment alternatives. Heavy emphasis is given to current developments. Prerequisite: FIN 361.

FIN 440
3 hours
Series 7: Brokerage
An in-depth examination of the securities industry from the perspective of the brokerage function, including the regulatory environment and legal liability issues, professional ethics, transaction settlement procedures, public/client relations and investment planning strategies. This course prepares students to complete the Qualification Examination for General Securities Registered Representative (Series 7 Exam). Prerequisites: FIN 36 I and 430. Offered spring semester.

## FIN 450

I-3 hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory

## FIN 480

I-4 hours
Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

## FIN 490

Honors
1-2 hours
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## Human Resource Management Courses

HRM $170 \quad 1-4$ hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## HRM 270

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## HRM 360

I-4 hours
Independent Study
An individualized, directed study involving a specified topic

## HRM 362

## 3 hours

Human Resource Management
A study of the role and functions of the human resource department of an organization, with an up-to-date examination of the principles, policies and problems of labor and management. Topics include employee relations, job analysis, compensation structures, recruitment practices, training, promotion, transfer and management-union relationships. Prerequisite: MGT 352.

## HRM 370

## I-4 hours

## Selected Topics

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## HRM 393

4 hours
Practicum
Supervised learning involving a first-hand field experience or a project. Offered primarily during summer.

HRM $450 \quad$ I-4 hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory

## HRM 462

3 hours
Organizational Behavior and Development
Organizational behavior is the study and application of knowledge about how and why people, as individuals and as groups, act within organizations. Organizational development is the systematic application of behavioral science knowledge at various levels-group, intergroup, and total organization-to bring about planned change. The goal is to describe, understand, predict, develop, and (to some degree) control human activity at work. This course will prompt the student to develop a cognitive framework for understanding organizational behavior combined with an integration of the Christian faith. Students develop a capacity to analyze organizational behavior situations critically and to give thoughtful answers to situations and case studies. Prerequisite: MGT 352. Offered spring semester.

## HRM 475

3 hours
Human Resource Issues and Certification
In-depth study of current human resource issues, including conflict resolution, labor relations and HRM laws. Students will take HRM certification examination. Prerequisites: HRM 362 and 462 .Offered periodically.

## HRM 480

I-4 hours
Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

HRM 490
I-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## International Business Courses

| ITB 170 I-4 hours | ITB 360 I-4 hours |
| :---: | :---: |
| Selected Topics | Independent Study |
| A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements. | An individualized, directed study involving a specified topic. |
|  | ITB 370 I-4 hours |
| ITB 270 I-4 hours | Selected Topics |
| Selected Topics | A course offered on a subject of interest but not listed as a regular course |
| A course offered on a subject of interest but not listed as a regular course offering. | offering. May count toward the departmental major and general education |

ITB 375
International Business 3 hours
An in-depth examination of business practices in other countries, leading to a
better understanding of intercultural relationships with trading partners,
better understanding of intercultural relationships with trading partners, investors and host countries. Prerequisite: MKT 23I. Offered fall semester.

## ITB 381

## 3-4 hours

International Business Study Tour
A study tour of selected international locations to focus on regional trade, economics and business topics. Issues of cultural differences, conflicts, compromises and international cooperation are examined. Throughout, the cultural dimension of international business dealings is emphasized. Prerequisites: Sophomore standing within a business school major/minor or permission of the instructor. Offered January interterm and selected summers.

ITB 450
I-4 hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

## ITB $480 \quad$ I-4 hours

Seminar
A limited-enrollment course designed especially for upper-class majors
with emphasis on directed readings and discussion.

## ITB 490

I-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.
mat

## ITB 393

4 hours
Practicum
Supervised learning involving a first-hand field experience or a project. Offered primarily during summer.

## Management Courses

| MGT I70 I-4 hours |  |
| :--- | :--- |
| Selected Topics |  |
| A course offered on a subject of interest but not listed as a regular course offering. |  |
| toward the departmental major and general education requirements. |  |

MGT 201
Business Basics Boot Camp
Students learn the foundational concepts of establishing and operating successful ventures in the highly competitive global economy. The business major as well as other disciplines are exposed to key business leadership principles, strategies, technologies and disciplines used in the 21st Century enterprise through a combination of lecture, case analysis, group projects and simulation exercises. Offered fall semester.

## MGT 260

## 3 hours

Business Systems Applications
This course introduces and develops competency in the various systems and technologies commonly employed in the business environment. Specific topics addressed include use of Internet and World Wide Web resources, webpage development, presentation graphics, advanced spreadsheets and integrated accounting systems. Prerequisites: COS 104/I06 and ACC 241.

## MGT 270

## I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## MGT 3II

## 3 hours

Business Law
An overview and summary of the basic business law topics that the majority of students will encounter in their business careers and personal lives. Topics include contracts, agencies, personal property, torts, bailments, real property, leases, estates, trusts and insurance. Prerequisite: Junior status preferred.

## MGT 322

## 3 hours

## Business and Missions: Philosophy \& Practicality

This course examines the historical, philosophical and scriptural foundations for the emerging Business as Missions movement. Students will wrestle with the practical challenges of maintaining effectiveness and spiritual vitality while balancing the competing demands of simultaneously leading business and ministry initiatives. Offered spring semester.

## MGT 3523 hours

Management Analysis and Practice
A course designed to acquaint students thoroughly with the theories, principles, and practical applications of management (planning, organizing, staffing, leading and controlling). Management principles are learned in the context of a work team developing and administering a business project. Emphasizes business presentations and written reports involving current, real-life situations. Prerequisite: Sophomore status.

## MGT 360

I-4 hours
Independent Study
An individualized, directed study involving a specified topic.

## MGT 370

## I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

MGT $393 \quad 4$ hours
Practicum
Supervised learning involving a first-hand field experience or a project. Offered primarily during summer.

## MGT 4II

Advanced Business Law
A course providing an in-depth examination of specialized areas of business law that are of significant importance for CPA candidates, those entering the banking and corporate environment, and those planning to attend law school. Topics include sales, commercial paper, secured transactions, bankruptcy and environment and product liability. Prerequisite: MGT 31 I. Offered periodically.

## MGT 420

## 3 hours

## Production and Operations Management

A study of operations management related to production of goods and services. Topics include: product design, capital investment, facilities and equipment, maintenance, work methods and measurement, safety and health, production planning and control, materials management, project management and quality assurance. Current issues such as energy, ecology, productivity, and total quality management are discussed. Basic quantitative methods are introduced. Prerequisites: MAT IIO; MAT I5I or 146; MAT 2IO; MGT 352. Offered periodically.

## MGT 442

## 3 hours

## Business Ethics

A course designed to analyze the ethical dilemmas described in case studies of managers in private and corporate businesses. Studies include philosophical foundations for Christian ethical model applications and the development of ethical dilemma resolution. Particular business ethics issues are studied that are realistic and relevant to many business professions. Offered fall semester.

## MGT 450

## I-4 hours

## Directed Research

Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

## MGT 452 <br> 3 hours

Strategic Management
An advanced course dealing with integrative issues in management, encompassing long-range and short-term objectives, planned and pursued in breadth and depth in an ever-changing environment. Prerequisites: ECO 20I; ACC 24I; MGT 352. Offered fall and spring semesters.

## MGT 480

## 1-4 hours

Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

## MGT 490

I-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.


## Notes



## School of Liberal Arts

Thomas G. Jones, EdD, Dean
Art
Biblical Studies, Christian Education, and Philosophy Communication
English
Geography
History, International Studies, and Social Studies
Media Communication
Modern Languages
Music
Political Science and International Relations
Psychology
SOCIOLOGY

Notes

## Art

## Chair, Associate Professor J. Bouw <br> Professor R. Smith <br> Associate Professor C. Ellis <br> Assistant Professors L. Blakely, K. Herrmann, J. Miles, J. Welker

In support of the overall University mission, the art department exists to cultivate and develop its students both artistically and spiritually, equipping them to be transformative agents in a contemporary culture significantly shaped by the arts. The department aspires to:
I. Develop professional practicing artists who demonstrate exemplary competence in their discipline.
2. Provide students with a comprehensive body of artistic knowledge and skills as they relate to their biblical worldview.
3. Continually engage the global community through culturally relevant artistic production and social dialog.

The art department offers a BA in art with the following concentrations: two-dimensional studio, three-dimensional studio, graphic design, and photography. The department also offers BS degrees in art education and art/systems as well as a studio art minor.

Many professional career paths are available to graduates from the department including: art education, graphic design, web design, photography, fine art production, and arts administration.

A senior exhibit is required for all art and art education majors, as fulfillment of the senior comprehensive examination requirement.
The department provides professional development opportunities by hosting trips to major art centers such as Chicago and New York. Furthermore, the department encourages participation in study abroad art programs in Orvieto, Italy, and Australia. Optimal times for students to engage in off-campus study programs are spring of the sophomore year or fall of the junior year.

## Art (BA)

The bachelor of arts degree with a major in art with a concentration in two-dimensional studio ( 59 hours), three-dimensional studio ( 59 hours), graphic design (58-59 hours), or photography (56-57 hours) requires two years of one foreign language and 56-59 hours in the major. Students may not double major with the media communication or computer science-new media majors. No more than $50 \%$ of completed requirements may overlap with another major, minor, or concentration.

| Art Core Requirements |  |  |  |
| :--- | :--- | :--- | :---: |
| ART 10I | 3 | Drawing I |  |
| ART 151 | 3 | Two-Dimensional Design |  |
| ART 156 | 1 | Digital Tools: Adobe Photoshop |  |
| ART 27I | 3 | Three-Dimensional Design |  |


| ART 31I | 3 | Western Art History I |
| :--- | :--- | :--- |
| ART 313 | 3 | Western Art History II |
| ART 382 | 2 | The Christian and the Arts |
| ART 485 | 3 | Senior Exhibition |

Select one of the following concentrations:
Two-Dimensional Studio

| ART 201 | 3 | Figure Drawing |
| :--- | :--- | :--- |
| ART 221 | 3 | Painting: Oii |
| ART 241 | 3 | Printmaking: Relief and Intaglio |
| ART 253 | 3 | Foundations of Photography |
| ART 272 | 3 | Sculpture I |
| ART 301 | 3 | Advanced Drawing |
| ART 322 | 3 | Painting: Watercolor |
| ART 324 | 3 | Intermediate Painting |
| ART 342 | 3 | Printmaking: Lithography and Serigraphy |
| ART 413 | 3 | Contemporary Art |
| ART 416 | 3 | Advanced Studio |
| ART 44I | 3 | Advanced Printmaking |
| ART 482 | 2 | Professional Development in Studio Arts |

Three-Dimensional Studio

| ART 20I | 3 | Figure Drawing |
| :--- | :--- | :--- |
| ART 22I | 3 | Painting: Oil |
| ART 253 | 3 | Foundations of Photography |
| ART 272 | 3 | Sculpture I |
| ART 275 | 3 | Metals I |
| ART 28I | 3 | Ceramics: Handbuilt Forms |
| ART 372 | 3 | Sculpture II |
| ART 375 | 3 | Metals II |
| ART 380 | 3 | Ceramics: Wheelthrowing |
| ART 413 | 3 | Contemporary Art |
| ART 416 | 3 | Advanced Studio |
| ART 47I | 3 | Sculpture III |
| ART 482 | 2 | Professional Development in Studio Arts |

Photography

| Potography |  |  |
| :--- | :---: | :--- |
| ART 157 | I | Digital Tools: InDesign |
| ART 253 | 3 | Foundations of Photography |
| ART 261 | 3 | Film and Darkroom |
| ART 317 | 3 | History of Photography |
| ART 344 | 3 | Photojournalism |
| ART 346 | 3 | Portraiture |
| ART 353 | 3 | Commercial Photography |
| ART 356 | 3 | Web Design |
| ART 358 | I | Digital Tools: Dreamweaver |
| ART 393 | $3-4$ | Practicum |
| ART 457 | 3 | Portfolio I |
| ART 45I | 3 | Video Art |
| ART 46I | 3 | Experimental Photography |

## Art/Systems (BS)

The bachelor of science degree with a major in art/systems consists of the art major requirements, concentration requirements, and curriculum requirements in systems analysis. All systems curriculum courses must be completed with a grade of C- or better. No more than $50 \%$ of completed requirements may overlap with another major, minor, or concentration.

| Systems Curriculum Requirements |  |  | Systems Electives |  |
| :---: | :---: | :---: | :---: | :---: |
| COS 120 | 4 | Introduction to Computational Problem Solving | Select at least three | hours of electives, in addition to those required in the major or systems: |
| IAS 330 | 3 | Human Relations in Organizations | MAT 382 | Advanced Statistical Methods |
| MAT 151 | 4 | Calculus I | SYS 214 | Principles of Human Computer Interaction |
| SYS 101 | 3 | Introduction to Systems | SYS 310 | E-Commerce |
| SYS 390 | 3 | Information Systems Analysis | *SYS 401 3 | Operations Research |
| SYS 392 | , | Systems Seminar | *SYS 4023 | Modeling and Simulation |
| SYS 394 | 4 | Information Systems Design |  |  |
| SYS 403 | 3 | Operations Management | *Courses in both are | reas may count only once. |


| Select one course from the following: |  |  |
| :--- | :--- | :--- |
| COS 121 | 4 | Foundations of Computer Science |
| COS 143 | 3 | Interactive Webpage Design |


| Select one course from the following: |  |  |
| :--- | :--- | :--- |
| MAT $\frac{210}{}$ | 4 | Introductory Statistics |
| MAT 352 | 4 | Mathematical Statistics |

Select one course from the following:
*SYS 40I 3 Operations Research
*SYS 4023 Modeling and Simulation
Select one course from the following:
ART 393 3-4 Practicum
SYS 393 3-4 Practicum

## Art Education (BS)

The bachelor of science degree in art education requires at least 80 hours of professional education and art courses. This major is for students who desire licensure in art for all grades (P-I2). No more than $50 \%$ of completed requirements may overlap with another major, minor, or concentration. Secondary education majors must complete specific general education requirements as outlined by the education department on page 210 .

| Professional Education |  |  |
| :---: | :---: | :---: |
| ART 309 | 2 | Secondary Art Methods |
| EDU 150 | 3 | Education in America |
| EDU 210 | 3 | Reading and Writing for Professional Educators |
| EDU 260 | 3 | Educational Psychology |
| EDU 309 | 1 | Teaching in Secondary, Junior High/Middle Schools - Special Methods |
| EDU 310 | 2 | Discipline and Classroom Management |
| EDU 328 | 2 | Assessment for Student Learning |
| EDU 431 | 15 | Supervised Internship in Secondary Schools |
| SED 320 | 3 | Exceptional Children |
| Art Courses |  |  |
| ART 101 | 3 | Drawing I |
| ART 151 | 3 | Two-Dimensional Design |
| ART 154 | I | Digital Tools: Illustrator |
| ART 156 | I | Digital Tools: Photoshop |
| ART 201 | 3 | Figure Drawing |
| ART 210 | 3 | Introduction to Art Education |
| ART 221 | 3 | Painting: Oil |
| ART 253 | 3 | Foundations of Photography |
| ART 281 | 3 | Ceramics: Handbuilt Forms |
| ART 310 | 3 | Elementary Art Education |
| ART 322 | 3 | Painting: Watercolor |
| ART 380 | 3 | Ceramics: Wheel Throwing |
| Select one course from the following: |  |  |
| ART 271 | 3 | Three-Dimensional Design |
| ART 272 | 3 | Sculpture I |
| Select one course from the following: |  |  |
| ART 241 | 3 | Printmaking: Relief and Intaglio |
| ART 342 | 3 | Printmaking: Lithography and Serigraphy |
| Select one course from the following: |  |  |
| ART 382 | 2 | The Christian and the Arts |
| ART 482 | 2 | Professional Development in Studio Arts |
| Select two art history courses from: |  |  |
| ART 311 | 3 | Western Art History I |
| ART 313 | 3 | Western Art History II |
| ART 316 | 3 | Asian Art History |
| ART 413 | 3 | Contemporary Art |

## Studio Art Minor

The studio art minor requires 21 hours. No more than $50 \%$ of completed requirements may overlap with another major, minor or concentration. Not open to art majors.

| Minor Requirements |  |  |
| :--- | :---: | :--- |
| ART IOI | 3 | Drawing I |
| ART 15I | 3 | Two-Dimensional Design |
|  |  |  |
| Select one course from the following: |  |  |
| ART 311 | 3 | Western Art History I |
| ART 313 | 3 | Western Art History II |
| ART 316 | 3 | Asian Art History |
| ART 413 | 3 | Contemporary Art |

Select one course from the following:
ART 221
ART 253
ART
ART 24I
ART 322

Select at least two additional 3-hour courses in a single area from drawing, painting, photography, ceramics, printmaking, sculpture, or metals and elective hours to complete the 21 -hour minor requirement.

## Art Courses

## ART 101 <br> \section*{Drawing I}

Introduction to the fundamentals of observation and rendering, perspective and composition, using a variety of drawing mediums. Meets general education participation in the arts requirement.

ART 151
3 hours
Two-Dimensional Design
A foundational course in understanding the elements and principles of two dimensional design composition and color theory, as well as methods for creative problem solving. A studio-skills class utilizing a variety of mediums in a related series of projects. Meets general education participation in the arts requirement.

## ART 152

3 hours
Visual Communications
An introduction to the graphic design industry, with emphasis in visua problem solving, a basic understanding of typography, color and composition as well as the implementation of the various additional elements of design.

## ART 154

I hour
Digital Tools: Illustrator
This course focuses on the development of drawing and design skills using Adobe illustrator, the industry standard software for vector image and logo generation.

Digital Tools: Photoshop
This course focuses on the development of painting and image editing skills using Adobe Photoshop, the industry standard software for bitmap image generation and digital photo manipulation

## ART 157

I hour
Digital Tools: InDesign
This course focuses on the development of print layout and compositing skills, manipulating type and images, using Adobe InDesign, the industry leading software for page layout construction and desktop publishing.

## ART 170

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## ART 201

## 3 hours

Figure Drawing
Intermediate level drawing course with emphasis in rendering the human figure. Prerequisites: ART IOI and 151.

## ART 210

## 3 hours

Introduction to Art Education
A survey of the history and philosophy of art education. The course utilizes the disciplines of art criticism, history, aesthetics, and production to acquire information, develop resources, and create a variety of learning experiences for students of various developmental levels. Prerequisites: EDU 150 and sophomore status.

## ART 22

3 hours
Painting: Oi
Beginning experiences in the materials, theory, techniques and composition used in historical and contemporary styles of oil painting. Consideration of the work of individual painters introduces various conceptual approaches to painting. Prerequisites: ART IOI and I5I.

## ART 241

3 hours
Printmaking: Relief and Intaglio
Handprinting as an expressive medium is investigated through relief (e.g., woodcut) and intaglio (e.g., etching, engraving) processes including instruction in the use of essential tools and materials, techniques, and approaches to image-making introducing contemporary and historical examples. Prerequisites: ART IOI and 151 .

## ART 251 <br> Typography

3 hours

An introduction to the essential principles of typography; the design and expressive capacities of letter forms are explored through historical study, typesetting assignments, discussions, and studio projects. Prerequisites: ART 101, 151, 152, and 154 .

ART 253

## 3 hours

Foundations of Photography
Provides ground-level introduction to the tools, concepts, and techniques of photography. Students will explore composition, style, color, tonality, and light. Strong emphasis on full comprehension and technical mastery of dSLRs, digital processing, and color-managed output. Students must provide their own dSLR cameras. Prerequisites: ART I56.

## ART 254

3 hours

## Illustration I

An introductory course to the art and business of illustration with an emphasis in developing conceptual skills, a personal visual voice and unique stylistic approach. Coursework will include the production of editorial, promotional and personal illustrations. Prerequisites: ART 101 and ART 151.

## ART 257

## 3 hours

Layout and Prepress
An editorial design course, with a focus on page layout construction, digital pre-press and tabloid design. Students will learn terms and skills necessary for a career in the editorial design industry. Projects may include book covers, brochures, magazines and newspaper layouts. Prerequisites: ART I01, 151, 154, 156, 157, and 251.

## ART 261

## 3 hours

Film and Darkroom
Maintains the heritage of analog photography by exploring silver halide films and various darkroom processes. Emphasis on shooting and processing black-and-white film and printing paper prints with enlargers. Color films and processing discussed, as well as experimental darkroom techniques. The course culminates with large format view camera work. Students must present a 35 mm film camera in good order to enroll. Prerequisite: ART 253.

## ART 270

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## ART 271

## 3 hours

Three-Dimensional Design
A foundational course in understanding the elements and principles of threedimensional design composition, as well as creative problem solving. A studio skills class utilizing a variety of mediums in a related series of projects. Meets general education participation in the arts requirement.

## ART 2723 hours

## Sculpture I

Three-dimensional studies on form as practiced through art history, classical to abstract representations of the human form and architectural sculptural methods (welding and additive methods). Materials for this course cover clay, stone and metal. Prerequisite: ART 271.

## ART 275

3 hours
Metals I
Beginning metalworking projects use various techniques, with precious and non-precious metals. Soldering, enameling, metal casting and stone setting are covered. Meets general education participation in the arts requirement.

## ART 281 <br> 3 hours

## Ceramics: Handbuilt Forms

An introduction to basic clay formation techniques with an emphasis on the sculptural and asymmetrical potentials of hand constructed clay forms. Covers essentials of the ceramic process: forming, glazing, and transformation through firing. Meets general education participation in the arts requirement.

## ART 300

2 hours
Opportunities for the development of skills and learning experiences for use in the elementary classroom. Introduction to the components of Discipline-Based Art Education through lecture, studio projects and out of class assignments.

ART 301
3 hours
Advanced Drawing
Advanced conceptual approaches as they relate to drawing as an artistic end. Prerequisites: ART 201.

## ART 309 <br> 2 hours

Secondary Art Methods
Examine methodology and teaching practices in art, organizing and writing the art curriculum, classroom management, assessment of student progress, and general strategies and methods for conducting an art program for the middle and high school level students. In addition, studio work will be utilized to create a portfolio of art projects suitable for middle and high school students. Written assignments for the course will be added to the professional portfolio. Prerequisites: EDU 150, 260, and approval into the teacher education program. Corequisite: EDU 309.

## ART 310

## 3 hours

Elementary Art Education
Theory and foundations for the development of skills and learning experiences for use in the elementary art classroom. The Discipline-Based Art Education model will be utilized in preparing lesson plans, studio projects and practical application content.

## ART 3II <br> 3 hours

Western Art History 1
A survey of architecture, sculpture, and painting from prehistory to the Late Gothic in Europe and the Near East.

## ART 313

## 3 hours

Western Art History II
A survey of architecture, sculpture and painting from the Proto-Renaissance to the Modern era in Western Europe and the United States. Prerequisite: ART 3II.

## ART 316

## 3 hours

Asian Art History
A survey of the arts of India, China and Japan with an emphasis on understanding works within their cultural contexts.

ART 317
3 hours
History of Photography
Invites students not only to know the factual, international history of the medium, but to consider its implications for society and culture in general. Projects and assignments will fully acquaint students with the rudimentary mechanics of optics and cameras in their earliest development, as well as major photographers and their styles. Camera required. Prerequisites: ART 253 and ART 261

ART 3223 hours
Painting: Watercolor
Instruction in the essential materials, tools, techniques, and processes for painting in the watercolor medium. Prerequisites: ART IOI and 151.

## ART 324

Intermediate Painting
Intermediate level work refining technical skills, creative expression, and development of style in a variety of painterly media. Prerequisites: ART 201 and 221.

## ART 342

## 3 hours

Printmaking: Lithography and Serigraphy
Handprinting as an expressive medium is investigated through the resist and stenciling processes of lithography and serigraphy (silkscreen), including instruction in the use of essential tools and materials, techniques, and approaches to image-making, introducing contemporary and historical examples. Prerequisites: ART IOI and I5I.

## ART 344

## 3 hours

Photojournalism
Explores documentary photography from spot news to long-form photo essays. Topics include journalistic theories, ethics, and the social functions of journalism. All assignments include photography and written captions, and in some cases longer writings. Camera required. Prerequisites: ART 253 and ART 261.

## ART 346

3 hours
Portraiture
Provides the opportunity to explore portraiture in depth, including conventional, environmental, expressive and experimental work. Camera required. Prerequisites: ART 253.

## ART 351

## 3 hours

Product ID
A design course with emphasis in creating a product identity from concept to completion. This course will discuss but not be limited to, conceptual design, logo/logotype development, packaging design, advertising design and the development of promotional materials. Professional presentation and client skills will also be discussed. Prerequisites: ART 25 I and 257.

## ART 353

## 3 hours

Commercial Photography
Introduces various commercial photo categories and demonstrates ways to make a living with a camera. Emphasis is always on the marketing and stylistic needs of clients rather than the personal style of the photographer. Covers images for various facets of marketing and retail: advertising, fashion, product and food photos, and selling stock. Camera required. Pre-requisites: ART 253 and ART 346 (graphic design majors may substitute ART 257 for ART 346).

## ART 356

## 3 hours

Web Design
This course will teach students design fundamentals for interactive media with a focus on designing user interfaces for the internet. Students will be introduced to the vocabulary, foundational technology, design elements, and techniques for creating interactive media. Projects will cover a range of topics that will introduce students to the many uses for interactive design, identifying, and designing for different target audiences, and the basics of how to deliver the finished product to those audiences. Additionally, through the projects and class exercises, students will be introduced to and gain a better understanding of industry standard tools. Prerequisites: ART 156 and 358.

## ART 357

## 3 hours

Design History
A design course focusing in depth on the stylistic history of graphic design, from Gutenberg to the present. Weekly studio assignments will be given with specific historical and stylistic goals. The purpose of this course is to create a strong awareness of historical styles and to develop artwork applicable to a working portfolio. Prerequisites: ART 25I and 257.

ART 358
Digital Tools: Dreamweaver
This course focuses on the development of layout and compositing skills for the web using Adobe Dreamweaver, the industry standard software for webpage design and construction.

ART $360 \quad$ I-4 hours
Independent Study
An individualized, directed study involving a specified topic.

ART $370 \quad$ I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## ART 372 <br> 3 hours

Sculpture II
Intermediate use of technical skills and conceptual issues of creating sculpture with form and space. Prerequisites: ART 271 and 272 or permission of the instructor

## ART 375

## 3 hours

Intermediate metalworking projects use various techniques, with precious and non-precious metals. Soldering, enameling, metal casting and stone setting are covered. Prerequisite: ART 275 or permission of the instructor.

ART 380

## 3 hours

Ceramics: Wheelthrowing
The use of the potter's wheel for throwing vessel and sculptural forms. Form and surface design are considered, as well as various firing techniques. Meets the general education participation in the arts requirement.

ART 382
2 hours
The Christian and the Arts
Seminar that deals with topics related to the Christian and the Arts emphasizing the development of critical abilities via the discussion of readings, student presentations, and writing assignments. Prerequisite: Junior status.

## ART 383

I hour
The Christian and the Arts-Art Education
Seminar the deals with topics related to the Christian and the Arts for Art Education majors emphasizing the development of critical abilities via the discussion of readings, student presentations, and writing assignments. Prerequisite: Art Education major, junior status.

## ART 393

I-4 hours

## Practicum

Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience.

## ART 413

3 hours
Contemporary Art
Introduces the student to a wide range of contemporary art, emphasizing the development of analytical and critical skills. Prerequisite: Junior status.

## ART 416

## 3 hours

Advanced Studio
Course for the advanced studio art major providing in-depth training and study on developing a professional, intentional, and cohesive body of work This course is not media specific but challenges the student to assess an interdisciplinary method to their art making process in a class setting with other advanced studio art majors of different concentrations. Prerequisite: one of the following: ART $301,372,375,324,44$ I.

ART 44I

## 3 hours

Advanced Printmaking
Advanced studies in printmaking, addressing the refining of skills, and the individual exploration of one or two printmaking processes. Prerequisites: ART 241 and 342 or permission of the instructor.

ART 450
$1-4$ hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

## ART 45 I <br> 3 hours

Video Art
This course is an exploration of the aesthetic, conceptual, and technical aspects of the motion image. Students will learn non-linear digital video editing and video production techniques through individual projects, class discussion and critiques. Relevant historical and theoretical issues are addressed through readings, lectures, and video screenings. Prerequisite: ART 253.

ART 456

## 3 hours

Web Animation
Students will build on the skills learned in ART 356 \& ART 459, by focusing on industry standard animation and interactive software for the world wide web. This course will further develop each student's conceptual, interactive page layout, and web programming skill sets. Emphasis will be placed on fully utilizing Flash's unique animation, interactivity and scripting controls, to create a self promotional website useful in the pursuit of a future design career. Prerequisite: ART I52, 154, I56, 358, and 459.

## ART 457

3 hours
Portfolio
Advanced design course emphasizing development of a working portfolio. Projects may include book covers, advertisements, brochures, posters, editorial design, logotypes, and corporate identity campaigns. Prerequisite: ART $35 I$ and 357.

## ART 459

Digital Tools: Flash
This course focuses on the development of drawing, animation, and interactive design skills using Adobe Flash, the industry standard software for interactive vector image animation.

## ART 46I <br> 3 hours <br> Experimental Photography

Encourages the student to explore personal photographic aesthetics, vision, and statement with an eye toward galleries and markets or a personal portfolio. Work would most likely be conceptual and expressive in nature. The course also provides wide-open opportunity for technical experimentation. Camera required. Pre-requisites: ART 253 and ART 261.

## ART 47I

3 hours
Sculpture III
Advanced use of technical skills and conceptual issues of creating sculpture with form and space. Studio projects employ additive, subtractive and casting methods utilizing such materials as clay, plaster, wood, plastics, and metals. Prerequisite: ART 372 or permission of the instructor.

## ART 480

Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed reading and discussions

## ART 482 <br> 2 hours

Professional Development in Studio Arts
Seminar devoted to early stages of conceptualization for student's careers as working artists upon graduation or for pursuing higher levels of education at the graduate levels. Exposing students to both of the infrastructures of an art business as well as to graduate school via field trips to major cities and corporations.

## ART $485 \quad 3$ hours

Senior Exhibition
Creation of a body of work for the student's senior exhibition with thematic and aesthetic cohesiveness. Students should plan for the costs associated with the exhibition. Prerequisite: Senior status.

## ART 490 <br> I-2 hours

Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

Notes

# Biblical Studies, Christian Education, and Philosophy 

Chair, Professor M. Harbin<br>Biblical Studies Program Director, Professor E. Meadors,<br>CEM Program Director, Professor P. Collins, Philosophy Program Director, Professor J. Spiegel, Professors F. Chechowich, W. Heth<br>Associate Professors J. Collins, S. Klouda, B. Seeman, R. Smith<br>Assistant Professors K. Diller, G. MaGee, J. Pak, M. Severe


#### Abstract

The purpose of the biblical studies, Christian education, and philosophy department is to provide students with a solid understanding of the foundation of the Christian faith to enhance any vocation, to prepare for church or para-church ministry, or to prepare for graduate study. This preparation is two-fold: First, the department provides a significant portion of the "faith" side of the integration of faith and learning by teaching four general education courses required of the entire student body. These four courses (BIB IIO and 2IO, REL 313 , and PHI 413 ) are sequenced with each successive course serving as the prerequisite for the next. As a whole, these general education courses are designed to equip students with enough theological and philosophical substance to be able to integrate biblical truth within their respective disciplines as well as think and live "Christianly" in our post-modern world. A.W. Tozer said, "The history of mankind will probably show that no people has ever risen above its religion, and man's spiritual history will positively demonstrate that no religion has ever been greater than its idea of God." Thus, the ultimate goal of the general education courses taught within this department is that the student know and love God with all his or her heart and mind (John 17:31; Luke 10:27) and become more Christ-like in thought, speech, and action (Romans 8:29).

Second, the department offers three majors-biblical literature, Christian educational ministries, and philosophy-to prepare students who will demonstrate competence in biblical, educational, and philosophical truth in preparation for graduate studies and lifelong servant/leadership roles in professional Christian ministries. In addition, eight minors are offered in biblical languages, biblical literature, Christian educational ministries, philosophy, intercultural studies/missions, applied missions, youth ministry, and ethics. These majors and minors are designed to complement other majors, and consequently, students are encouraged to consider adding a second major or a minor from the BSCEP department to enhance their primary program of study.


Many students with the department choose to take advantage of Taylor's affiliation with Jerusalem University College and spend a semester studying in Jerusalem. Men and women anticipating seminary study should also select other electives in their undergraduate course of study that encompass the world of ideas, nature and human affairs.

## Biblical Studies

The biblical studies major is designed for students who desire a robust intellectual understanding of the foundation of the Christian faith. In the process of the major, students study the biblical text and explore various approaches to understanding it. The goal is that the student understand the traditional view of the biblical text and why it has endured, and be able to critically evaluate alternative explanations.

Students who take this major anticipating graduate study and professional ministry should also take an introductory course in philosophy and logic and be able to read at least one theologically significant foreign language. The primary language is Greek, although Hebrew is also recommended. Students who plan to pursue seminary study should seek the counsel of the department faculty and consult with the appropriate denominational authorities to determine which graduate school(s) would best prepare them for their anticipated career. Early in their senior year, students should correspond with the school(s) to which they intend to apply.

## Biblical Literature (BA)

The bachelor of arts degree with a major in biblical literature requires 33 hours beyond BIB IIO and 210; two years of sequential study in one foreign language; at least a C- in all general education spiritual foundation courses; and the writing, presenting and defending of a scholarly paper in the senior year to meet the comprehensive exam requirement. At least 24 of the 33 major hours must be in biblical literature. Students are encouraged to fulfill their language requirements by studying two years of Greek or Hebrew.
Major Requirements

| BIB 272 | 3 | Inductive Study of the Bible |
| :--- | :---: | :--- |
| BIB 320 | 3 | Pentateuch |
| BIB 34I | 3 | The Gospels |
| BIB 462 | 3 | Biblical Theology |
| BIB 480 | 3 | Seminar in Biblical Literature |
| Select one course from the following: |  |  |
| PHI 262 | 3 | Contemporary Issues |
| PHI 37I | 3 | Principles of Ethics |

## Electives

Select $\underline{q}$ hours of BIB electives.

Select $\underline{6}$ additional elective hours from BIB, CED, PHI, or REL courses.
Must earn at least a $C$ - in all general education spiritual foundation courses: IAS IIO, BIB IIO, BIB $2 I O, R E L 3 I 3, P H I 4 I 3, I A S 495$.

## Biblical Literature/Systems (BS)

The bachelor of science degree with a major in biblical literature/systems consists of the 33 -hour biblical literature major (beyond BIB IIO and 210 ) and curriculum requirements in systems analysis; at least a C - in all general education spiritual foundation courses; and the writing, presenting and defending of a scholarly paper in the senior year to meet the comprehensive exam requirement. All systems curriculum courses must be completed with a grade of C- or better.


## Biblical Literature Minor

A minor in biblical literature requires 15 hours of credit beyond the general education required courses of BIB IIO and 210 . Courses in both areas may count only once.
Minor Requirements
Select six hours of Old Testament courses from:
BIB 272
BIB 320
SIB 340
Inductive Study of the Bible
BIB 350
BIB 420
BIB 452
Pentateuch
BIB 462
Hebrew Prophets
BIB 480

| Select six hours of New | Testament courses from: |  |
| :--- | :---: | :--- |
| BI 272 | 3 | Inductive Study of the Bible |
| BIB 330 | 3 | Acts and the Early Church |
| BIB 331 | 3 | Pauline Epistles |
| BIB 332 | 3 | Hebrews and General Epistles |
| BIB 341 | 3 | The Gospels |
| BIB 420 | 3 | Apocalyptic Literature of the Bible |
| BIB 462 | 3 | Biblical Theology |
| BIB 480 | 3 | Seminar in Biblical Literature |
| Select at least one 3-hour BIB, REL, or CED course. |  |  |

## Biblical Languages Minor

A minor in biblical languages consists of 23 credit hours. Primarily, these courses enable one to read and study the Bible in the original languages. Enrichment of historical concepts of communication, depth and breadth of Christian perspective and cultural appreciation of the biblical world are secondary concerns of biblical language studies. Two years study of Greek or Hebrew meets the language requirement for graduation and satisfies or exceeds language entrance requirements for most seminaries.

## Minor Requirements

Select one option:

| Option I |  | Option 2 |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| GRK 201 | 4 | Elementary New Testament Greek I | GRK 201 | 4 | Elementary New Testament Greek I |
| GRK 202 | 4 | Elementary New Testament Greek II | GRK 202 | 4 | Elementary New Testament Greek II |
| GRK 301 | 3 | Greek Grammar and Syntax | GRK 450 | 3 | Seminar in Biblical Languages |
| GRK 302 | 3 | Exegesis of the Greek New Testament | HEB 211 | 3 | Elementary Old Testament Hebrew I |
| GRK 450 | 3 | Seminar in Biblical Languages | HEB 212 | 3 | Elementary Old Testament Hebrew II |
| HEB 2II | 3 | Elementary Old Testament Hebrew I | HEB 311 | 3 | Hebrew Syntax and Lexicography |
| HEB 212 | 3 | Elementary Old Testament Hebrew II | HEB 312 | 3 | Hebrew Exegesis |

## Christian Educational Ministries

The purpose of the Christian educational ministries program of Taylor University is to provide a foundation for students who are pursuing careers in church, para-church ministry, or graduate school. In addition to the major, students often pursue one of the following interdisciplinary areas of concentration: youth ministry, children's ministry, intercultural ministry, urban ministry, camping and recreational ministry, administrative ministry or music ministry. The Christian educational ministries program at Taylor University is characterized by a whole-person focus. Courses balance theory and practice as the biblical, theological, historical, philosophical, and educational foundations of ministry are explored. Spiritual formation in the context of a learning community is emphasized. Students learn collaborative thinking, planning, programming and evaluation strategies while they are encouraged to identify and use their spiritual gifts in ministry. Students are encouraged to study in an off-campus program for at least one semester.

Students may apply for admission to the Christian educational ministries program upon completion of CED 100 and 262 and one semester of experience in a departmentally approved ministry. Students are considered for acceptance if they meet the following criteria: major GPA of 3.00; cumulative GPA of 2.50 ; at least one semester of experience in a departmentally approved ministry; and an interview with members of the Christian educational ministries faculty.

The application process includes the following components: (1) complete a written application; (2) submit letters of recommendation from a pastor, ministry supervisor, and for residential students, a residence-life staff person [nonresidential students must provide an additional character reference]; and (3) participate in an interview with the Christian educational ministries faculty.

## Christian Educational Ministries (BA)

A bachelor of arts degree with a major in Christian educational ministries requires $48-49$ hours in the major; two years of sequential study in one foreign language; four semesters of a departmentally approved ministry; at least a grade of C- in all general education spiritual foundation courses; and the writing of a scholarly paper in the senior year to meet the comprehensive exam requirement. Students are encouraged to fulfill their language requirements by studying two years of Greek.

| Major Requirements |  |  |
| :--- | :---: | :--- |
| BIB 272 | 3 | Inductive Study of the Bible |
| BIB 462 | 3 | Biblical Theology |
| CED 100 | 3 | Introduction to Christian Educational Ministries |
| CED 232 | 3 | Historical and Theological Foundations for Christian <br>  <br>  <br> Educational Ministries |
| CED 242 | 3 | Psychological and Educational Foundations for Christian <br>  <br> Educational Ministries |
| CED 262 | 3 | Personal Foundations for Ministry |
| CED 351 | 3 | Teaching and Learning Strategies |
| CED 352 | 3 | Program and Curriculum Development |
| CED 371 | 3 | Leadership Development |
| CED 393 | $3-4$ | Practicum |
| CED 421 | 3 | Philosophy and Strategies for Christian Educational Ministries |
| CED 493 | 3 | Christian Educational Ministries Senior Capstone |
| PSY 250 | 3 | Life Span Development |

Select one course from the following:
PHI 262
PHI 371

Electives
Select two BIB elective courses.

Select two BIB elective courses.

Must earn at least a $C$ - in all general education spiritual foundation courses: IAS $\mid 10$, BIB I IO, BIB 210 , REL 3।3, PHI 4 I3, IAS 495.

## Christian Educational Ministries/Systems (BS)

A bachelor of science degree with a major in Christian educational ministries/systems consists of the 48-49 hour Christian educational ministries requirement and curriculum requirements in systems analysis; four semesters of a departmentally approved ministry; at least a grade of C- in all general education spiritual foundation courses; and the writing of a scholarly paper in the senior year to meet the comprehensive exam requirement. All systems curriculum courses must be completed with a grade of $C$ - or better.


## Christian Educational Ministries Minor

A minor in Christian educational ministries requires at least 18 credit hours and two semesters of experience in departmentally approved ministry.

| Minor Requirements |  |  |
| :--- | :---: | :--- |
| BIB 272 | 3 | Inductive Study of the Bible |
| CED 100 | 3 | Introduction to Christian Educational Ministries |
| CED 262 | 3 | Personal Foundations for Ministry |
| CED 351 | 3 | Teaching and Learning Strategies |
| CED 352 | 3 | Program and Curriculum Development |
| CED 371 | 3 | Leadership Development |

## Intercultural Studies/Missions Minor

A minor in intercultural studies/missions requires the completion of 20 credit hours and prepares students for effective and committed service in cross-cultural ministry or missions mobilization.

| Minor Requirements |  | Select one course from the following: |  |  |
| :--- | :---: | :--- | :--- | :--- |
| BIB 330 | 3 | Acts and the Early Church | PHI 322 | 3 |

In addition, the student must complete a cross-cultural experience that may or may not be for credit. Suggestions include involvement in Taylor World Outreach/Lighthouse, a semester abroad, Christian Center for Urban Studies or the REL 393 practicum. Approval is to be secured in advance from the department through the program director (chair of the BSCEP department).

The final course must be approved by the program director and must enhance the purpose for selecting the minor program. Previous course selections have included offerings in communication-new media, environmental science, biblical literature, linguistics and history and geography of a particular region.

## Applied Missions Minor (Ireland)

The Irish applied missions minor is administered in Galway, Ireland at An Tobar Nua, in conjunction with the Irish Studies Program and requires the approval of the department chair and completion of 18 hours.

|  |  |  |
| :---: | :---: | :---: |
| Minor Requirements Courses taken at Taylor: |  |  |
| ISP 310 | I | Preparation for Cross Cultural Study |
| REL 311 | 3 | Foundations of Christian World Missio |


| Courses taken at An Tobar Nua, Galway, Ireland: |  |  |  |
| :--- | :--- | :--- | :---: |
| REL 391 | 3 | Preparation and Strategy for Christian World Mission |  |
| REL 432 | 2 | World Mission Area Studies |  |
| ISP 320 | 2 | Living Cross-Culturally |  |
| ISP 350 | 3 | History and Culture of Ireland |  |
| XXX 393 | 4 | Practicum (in missions or field of choice) |  |

Students who took ISP 225 or 325 as part of the Ireland Studies Program do not need to take ISP 350 in Galway.

## Youth Ministry Minor

The minor in youth ministry is an academic program for students from various baccalaureate majors interested in developing their skills in ministering to youth. This program also provides Christian educational ministries majors with an optional area of specialization in youth ministry. The minor in youth ministry helps prepare graduates for ministries such as InterVarsity, Campus Crusade, Young Life and Youth for Christ.

In addition, the minor may be earned in combination with any major as an ideal way for students to integrate career and ministry goals. Students majoring in biblical literature, Christian educational ministries or philosophy who plan to work with youth may strengthen their credentials by adding the minor. The student must complete 18-24 credit hours.

| Minor Requirements |  |  |
| :---: | :---: | :---: |
| BIB 272 | 3 | Inductive Study of the Bible |
| CED 100 | 3 | Introduction to Christian Educational Ministries |
| CED 221 | 3 | Ministry to Youth |
| CED 312 | 2 | Evangelism in Youth Ministry |
| CED 322 | 2 | Discipleship in Youth Ministry |
| CED 393 | 2-4 | Practicum |
| Select one of the following: |  |  |
| *PSY 250 | 3 | Life Span Development |
| *PSY 340 | 3 | Adolescent Psychology |

## Certificate in Missions

The BSCEP department awards a Certificate in Missions to students in any baccalaureate major program. Students are required to complete 14 hours. Students desiring to work for the Missions Certificate must complete an application, which is available through the program director or the BSCEP program assistant. The student will be responsible for demonstrating his or her completion of the certificate requirements by submitting a completed application along with a copy of his or her transcript to the program director no less than 30 days prior to graduation. Work in progress will be accepted. This certificate is awarded by the department and does not include a transcript entry.

| Certificate | Requirements |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| BIB 330 | 3 | Acts and the Early Church | Select one course from the following: |  |  |
| REL 311 | 3 | Foundations of Christian World Mission | PHI 322 | 3 | World Religions: Western Tradition |
| REL 391 | 3 | Preparation and Strategy for Christian World Mission | PHI 323 | 3 | World Religions: Eastern Tradition |
| REL 432 | 2 | World Mission Area Studies |  |  |  |

In addition, the student must complete a cross-cultural experience that may or may not be for credit. Suggestions include involvement in Taylor World Outreach/Lighthouse, a semester abroad, Christian Center for Urban Studies and the REL 393 practicum. Approval is to be secured in advance from the department through the program director.
The final course must enhance the purpose for selecting the minor program and may be selected from a number of course offerings throughout the University. This course must be approved by the program director.

## Philosophy

The purpose of a major in philosophy is to provide students with a basic understanding in the main areas of philosophical inquiry, thereby furthering their skills in reasoning, oral and written expression, and the formulation of an informed Christian world view.

## Philosophy (BA)

The bachelor of arts degree with a major in philosophy requires two years of one foreign language; at least 30 hours in the major; and the writing of a scholarly paper in the senior year that meets the comprehensive exam requirement.

| Major Requirements |  |  | Select 15 hours from: |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }^{\text {tPHI }} 191$ | 1 | Faith and Philosophy | PHI 110 | 3 | Introduction to Philosophy |
| PHI 201 | 3 | Logic | PHI 262 | 3 | Contemporary Issues |
| PHI 202 | 3 | History of Philosophy I | PHI 311 | 3 | Medical Ethics |
| PHI 203 | 3 | History of Philosophy II | PHI 322 | 3 | World Religions: Western Tradition |
| PHI 413 | 3 | Contemporary Christian Belief | PHI 323 | 3 | World Religions: Eastern Tradition |
| PHI 452 | 3 | Philosophy of Religion | PHI 342 | 3 | Aesthetics |
|  |  |  | PHI 355 | 3 | Metaphysics |
| ${ }^{\dagger}$ Must be taken no later than the year the first upper division philosophy course is taken. |  |  | PHI 371 | 3 | Principles of Ethics |
|  |  |  | *PHI 382 | I | Ethics Bowl |
|  |  |  | PHI 420 | 3 | Continental Philosophy |
|  |  |  | PHI 432 | 3 | Epistemology |
|  |  |  | PHI 445 | 3 | Philosophy of Mind |
|  |  |  | POS 361 | 3 | Political Philosophy |
|  |  |  | *Up to three credit hours of PHI 382 may be counted. |  |  |

## Philosophy/Systems (BS)

A bachelor of science degree with a major in philosophy/systems requires the 30 -hour philosophy major requirements; curriculum requirements in systems analysis; and the writing of a scholarly paper in the senior year to meet the comprehensive exam requirement. All systems curriculum courses must be completed with a grade of $C$ - or better.

| Systems Curriculum Requirements |  |  |
| :---: | :---: | :---: |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| IAS 330 | 3 | Human Relations in Organizations |
| MAT 151 | 4 | Calculus I |
| SYS 101 | 3 | Introduction to Systems |
| SYS 390 | 3 | Information Systems Analysis |
| SYS 392 | 1 | Systems Seminar |
| SYS 394 | 4 | Information Systems Design |
| SYS 403 | 3 | Operations Management |
| Select one course from the following: |  |  |
| $\cos 121$ | 4 | Foundations of Computer Science |
| COS 143 | 3 | Interactive Webpage Design |
| Select one course from the following: |  |  |
| MAT 210 | 4 | Introductory Statistics |
| MAT 352 | 4 | Mathematical Statistics |
| Select one course from the following: |  |  |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |
| Select one course from the following: |  |  |
| SYS 393 | 3-4 | Practicum |
| PHI 393 | 3-4 | Practicum |

## Systems Electives

Select at least three hours of electives, in addition to those required in the major or systems:
MAT 3823 Advanced Statistical Methods
SYS $214 \quad 3 \quad$ Principles of Human Computer Interaction
SYS $310 \quad 3 \quad$ E-Commerce
*SYS 401 3 Operations Research
*SYS 4023 Modeling and Simulation
*Courses in both areas may count only once.

## Philosophy Minor

A minor in philosophy requires the completion of 16 hours.

| Minor Requirements |  |  |
| :--- | :---: | :--- |
| PHI 20I | 3 | Logic |
| PHI 413 | 3 | Contemporary Christian Belief |


| Select one course from the following: |  |  |
| :--- | :--- | :--- |
| PHI 202 | 3 | History of Philosophy I |
| PHI 203 | 3 | History of Philosophy II |

Select seven hours of PHI electives. POS 361 and 362 may also count as electives for the minor

## Ethics Minor

A minor in ethics requires the completion of 18 hours.

| Minor Requirements | Select 15 credit hours from the following: |  |  |
| :---: | :---: | :---: | :---: |
| PHI 371 3 Principles of Ethics | BIO 410 | 3 | Bioethics |
|  | CAC 326 | 2 | Aesthetics |
|  | COS 311 | 2 | Ethics in Computer Science |
|  | ENS 383 | 4 | Environmental Ethics |
|  | MGT 311 | 3 | Business Law |
|  | MGT 442 | 3 | Business Ethics |
|  | PHI 262 | 3 | Contemporary Issues |
|  | PHI 311 | 3 | Medical Ethics |
|  | *PHI 382 | I | Ethics Bowl |
|  | PSY 210 | 2 | Ethics in Psychology |
|  | SOC 210 | 3 | Contemporary Social Issues |
|  | * Up to thr |  | hours of PHI 382 may be counted |

## Biblical Literature Courses

## BIB 103 <br> 4 hours <br> Introduction to Holy Land Studies

A study of the biblical background and contemporary significance of Israel. Taught in Israel during January, this travel-study course may count for either BIB IIO, 210 or a departmental elective. Offered January interterm-when available.

## BIB 110

3 hours
Biblical Literature I
A course that has as its primary content the Old Testament, with special attention given to the law, the prophets and the history of Israel. BIB 310 is designed primarily for transfer students and has additional requirements. Meets general education requirement.

## BIB 170

I-4 hours

## Selected Topics

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## BIB 203

3 hours
In the Footsteps of Paul
A study of the biblical background and contemporary significance of cities Paul visited and wrote to in Greece and Turkey or Greece and Italy. Taught during January, this travel-study course may count for BIB 210 or a departmental elective. Offered January interterm.

## BIB 210

3 hours

## Biblical Literature II

A course that includes a foundation in New Testament study with focus on Jesus Christ as portrayed in the Gospels and Epistles. Also included is a series of explorations into the relevancy of Christ to modern life. Meets general education requirement. Prerequisite: $\mathrm{BIB} / 10 / 310$.

BIB 270
I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## BIB 272

## 3 hours

ctive Study of the Bible
Specific methods are taught to enable students to understand the propositions of the biblical text, relate those propositions to one another, and ask questions of the text in order to discover what the biblical writers meant to convey through their writings. This course incorporates the departmental computer competency requirements for biblical literature and Christian education majors. Prerequisites: $\mathrm{BIB} 110 / 310$ and 210 .

BIB 310
Biblical Literature I
See BIB IIO. Primarily for transfer students and has additional requirements. Meets general education requirement. Available upon request and with permission of the instructor.

BIB 320
3 hours
Pentateuch
Emphasizes the historical narrative and the content of the Law of God Special attention is given to the Genesis account of the origin of the cosmos, man, sin and salvation. The authorship of the Pentateuch is considered. Prerequisite: $B I B / I 0 / 3 / 0$. Offered spring semester

BIB 330
3 hours
Acts and the Early Church
A historical study with particular attention given to the missionary expansion of the early Church, the work of the Holy Spirit and the place of the Church in the world. Prerequisite: BIB 2IO. Offered spring semester.

BIB 33
Pauline Epistles
Attention is given to the life, ministry and writings of Paul. The doctrinal, pastoral and personal epistles of Paul are studied with reference to their geographical and historical settings, the organization of the Apostolic Church and the development of Christian doctrine. Careful exegesis is made of selected portions of each epistle. Prerequisite: BIB 2 IO. Offered fall semester.

BIB 332
3 hours
Hebrews and General Epistles
A study of the non-Pauline epistles with attention to their authorship, historical place in the canon and doctrinal uniqueness. The contents of each book are analyzed, and problem texts are treated. Prerequisite: BIB $2 I 0$. Offered spring semester of odd years.

## BIB 340

## 3 hours

Hebrew Prophets
Selected major and minor prophetic works of the Old Testament are considered, with special emphasis given to the historical background, Messianic message and content, together with specific theological concepts and teachings that are pertinent to modern times. Prerequisite: BIB $/ 10 / 3 / 0$. Offered fall semester.

## BIB 34

## 3 hours

The Gospels
Stresses the life and teaching of Jesus as set forth in the Synoptic Gospels and John. Attention is given to the literary and theological characteristics of each individual gospel and to the development of gospel criticism. The primary focus, however, is on the words and works of Jesus Christ and their significance for Christians today. Prerequisite: BIB 2IO. Offered fall semester

## BIB 350

3 hours
Hebrew poetry and wisdom as presented in the books of Job, Psalms, Proverbs, Ecclesiastes, Lamentations and the Song of Solomon. Prerequisite: BIB IIO/3IO. Offered fall semester.

## BIB $360 \quad$ I-4 hours <br> Independent Study

An individualized, directed study involving a specified topic

## BIB 370

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering May count toward the departmental major and general education requirements.

## BIB 393

3-4 hours

## Practicum

Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## BIB 420 <br> 3 hours

Apocalyptic Literature of the Bible
Examines the historical and theological dimensions of Old Testament, New Testament, and second Temple period apocalypticism. Special attention is given to apocalyptic thought in Daniel, the gospels, and Revelation. Prerequisite: BIB 2/0. Offered spring semester of even years.

BIB 450
$1-4$ hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.
BIB 452
3 hours

Old Testament Historical Literature
Selected historical books in the Old Testament are considered, with particular emphasis given to the authorship, historical theory, and theological content of these books. Prerequisite: BIB I/0/3IO. Offered spring semester of odd years.

BIB 462

## 3 hours

Biblical Theology
A study of the Bible and its central message and meaning. The Bible is viewed as recording a special kind of history revealing God's will and purpose and giving essential meaning to all human life and destiny. This course is normally taken during the senior year. Prerequisite: BIB 272.

BIB 480
3 hours
Seminar in Biblical Literature
A research course focusing on key exegetical, historical, and theological issues crucial to a proper understanding of the biblical literature. This course meets university requirements for senior comprehensive exams for biblical literature majors. Prerequisites: BIB 272, 320 and 34 I. Offered spring semester.

BIB 490
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## Christian Educational Ministries Courses

## CED 100

3 hours
Introduction to Christian Educational Ministries
A course that focuses on the purpose and scope of Christian educational ministries and the types of ministries available to majors. Prerequisite for all other CED courses except CED 22I, 3I2, 322 and 392.

## CED 170

|-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## CED 221

3 hours
Ministry to Youth
A general study of the various programs used to meet the needs of junior high and senior high youth through church and parachurch ministries. Offered fall semester.

CED 232
3 hours
Historical and Theological Foundations for Christian Educational Ministries
A course focusing on the biblical, theological, historical, and philosophical foundations for Christian educational ministry. Prerequisite: CED IO0. Offered fall semester.

## CED 242

3 hours
Psychological and Educational Foundations for Christian Educational Ministries A course focusing on theories of human development and learning, as well as educational theory. Applications for ministry settings are explored. Offered spring semester.

## CED 262

## 3 hours

Personal Foundations for Ministry
Students' capacity for ministry is enhanced in this course by facilitating personal growth and development. Emphasis is given to the ways theological truths address life issues. Prerequisite: CED 100.

## CED 270

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering May count toward the departmental major and general education requirements.

## CED 312

## 2 hours

Evangelism in Youth Ministry
An intensive study of the various theories and approaches used to prepare junior high and senior high youth to become Christians. Offered spring semester.

## CED 322

Discipleship in Youth Ministry
An intensive study of the theories and approaches used to help junior high and senior high youth to grow and develop in their faith. Offered fall semester.

## CED 351

## 3 hours

Teaching and Learning Strategies
A practical course designed to help the student teach the Bible more effectively by the use of educational strategies. A teaching lab and supervision are included, and competency in the use of instructional media is required. Prerequisites: CED 100 and BIB 272. Offered fall semester.

CED 352
3 hours
Program and Curriculum Development
A course that focuses on the development of educational programs within church and parachurch ministries. Emphasis is on published curricula and the development of curricular writing skills. Prerequisite: CED 351 . Offered spring semester.

## CED 360

I-4 hours
Independent Study
An individualized, directed study involving a specified topic.

## CED 370 <br> I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

CED 371
Leadership Development
A course designed to facilitate the development of students' skills in leadership, organization and management related to specific ministry situations. Prerequisite: CED 100. Offered fall semester.

## CED 393 2-4 hours

Christian Educational Ministries Practicum
A practical, supervised involvement in ministry, preferably after a student's junior year. Majors must enroll for 3-4 hours. Youth ministry minor requires 2-4 hours. Offered summer semester.

CED 421
3 hours
Philosophy and Strategies for Christian Educational Ministries
A research course designed to help students articulate their philosophies of ministry within a particular age group or ministry context. Attention is given to critical areas of need within Christian education. This course meets university requirements for senior comprehensive exams for Christian education majors. Graduating CEM majors only. Offered spring semester.

CED 450
I-4 hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

CED $490 \quad \mathrm{I}-2$ hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

CED 492
5-8 hours
A practical, semester-long, supervised ministry experience in Cuenca, Ecuador. Permission required from CEM program advisor and CEM Ecuador program liaison.

## CED 493

3 hours
Christian Educational Ministries Senior Capstone
This integrative course exposes students to models of ministry and vocational direction through research and participative observation and experiences. This course introduces the method for the final philosophy of ministry comprehensive paper. A substantive exposure trip is part of the course structure. Offered January interterm.

## Greek and Hebrew Courses

tGreek or Hebrew may be used to fulfill Taylor University's foreign language requirements.

## GRK 170 <br> I-4 hours <br> Selected Topics

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## GRK 201 $\dagger$

## 4 hours

Elementary New Testament Greek I
A study of the fundamental principles of New Testament (Koine) Greek grammar. Emphasis is placed on the mastery of forms, memorization of vocabulary, and translation of sentences from Greek to English. Offered fall semester.

## GRK 202† 4 hours

## Elementary New Testament Greek II

A continuation of the study of the fundamental principles of New Testament (Koine) Greek grammar. John's First Epistle is translated during the last half of the semester. Prerequisite: GRK 201. Offered spring semester.

## GRK 270

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## GRK $301 \dagger$ <br> 3 hours

Greek Grammar and Syntax
An intermediate Koine Greek grammar course that places special emphasis on the more exegetically significant details of Greek grammar and syntax by reading and analyzing selected portions of the Greek New Testament. Prerequisite: GRK 202. Offered fall semester.

## GRK 302 $\dagger \quad 3$ hours

Exegesis of the Greek New Testament
An introduction to the procedure and practice of Greek exegesis. Emphasis is placed on the "how-to's" of doing textual criticism, word studies, outlining the argument of a passage, validating exegetical decisions, and the proper use of exegetical tools. Prerequisite: GRK 30I. Offered spring semester.

## GRK 360 <br> I-4 hours

Independent Study
An individualized, directed study involving a specified topic.

## GRK 370 <br> I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## GRK 393

I-4 hours
Practicum
Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## GRK 4013 hours

Advanced Exegesis of the Greek New Testament
An extension of skills developed in GRK 301 and 302. Offered by arrangement with the instructor.

## GRK $450 \quad 3$ hours <br> Seminar in Biblical Languages

Stresses translation and exegesis of Greek and Hebrew texts. Special issues such as the New Testament's use of the Old Testament are considered. Prerequisites: GRK 202 and HEB 212. Offered spring semester.

## GRK 480

I-4 hours
Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

## GRK 490

1-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. It is open to students with at least a 3.00 GPA in the major field.

## HEB 170 <br> I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## HEB $211 \dagger$

## 3 hours

## Elementary Old Testament Hebrew I

A study of the fundamental principles of Old Testament Hebrew. Emphasis is placed on the mastery of forms and memorization of vocabulary skills, with a focus on the basic forms of the verb (sometimes called "Qal" stem). Offered fall semester of odd years.

## HEB 212 $\dagger$ 3 hours

## Elementary Old Testament Hebrew II

A continuation of the study of basic Old Testament Hebrew grammar and vocabulary with an emphasis on solidifying Hebrew reading skills and a focus on the more complex forms of the verb (sometimes called "derived" stems). Prerequisite: HEB 211 . Offered spring semester of even years.

## HEB 270

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## HEB 3II $\dagger$

## 3 hours

Hebrew Syntax and Lexicography
Introduction to principles and practice of Hebrew syntactical analysis and lexicography, along with development of reading skills and additional Hebrew vocabulary. Prerequisite: HEB 212. Offered fall semester of even years.

## HEB $31{ }^{\dagger}$

3 hours
Hebrew Exegesis
An introduction to the principles and practice of exegesis and textual criticism of the Hebrew Bible with an emphasis on developing vocabulary skills. Prerequisite: HEB 3II. Offered spring semester of odd years.

## HEB 360

## I-4 hours

Independent Study
An individualized, directed study involving a specified topic.

## HEB 370

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## HEB $393 \quad$ I-4 hours

Practicum
Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## HEB 480

I-4 hours
Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

## HEB 490

I-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## Philosophy Courses

## PHI IIO 3 hours

Introduction to Philosophy
A survey of important issues and traditions in philosophy. Offered fall semester.

## PHI $170 \quad$ I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

PHI 191
I hour
Faith and Philosophy
An examination of issues related to the integration of Christian faith and philosophy. Must be completed by philosophy majors no later than the year of their first upper division philosophy courses.

## PHI 20 <br> Logic

3 hours

A study of classical and contemporary formulations of the principles of human thought. Proper deductive and inductive logic is contrasted with fallacies. Categorical logic, truth functional logic, and quantificational logic are examined Offered fall semester

PHI 202
3 hours
History of Philosophy
A survey of philosophical thought from the early pre-Socratic Greeks to the modern period. Offered fall semester.

PHI 203
History of Philosophy II
A survey of philosophical thought from the modern period to contemporary movements such as linguistic analysis and phenomenology. Offered spring semester.

## PHI 262 <br> 3 hours

Contemporary Issues
A systematic analysis of pressing issues such as sexual morality, divorce, abortion, homosexuality, euthanasia, and war and peace. Offered spring semester.

PHI 270
I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## PHI 3 II

## 3 hours

Medical Ethics
An examination of ethical issues in medicine and healthcare with an emphasis on learning to develop and communicate Christian ethical positions in a pluralistic world. Issues discussed will include respect for patients, the moral status of embryos and fetuses, terminal care and euthanasia, and justice in healthcare.

## PHI 322 <br> 3 hours

World Religions: Western Tradition
A study of Judaism, Islam, Zoroastrianism, and related religious movements. Offered fall semester

## PHI 323

3 hours
World Religions: Eastern Tradition
A study of Hinduism, Buddhism, Sikhism, Shinto, and Chinese religions. Offered spring semester.

## PHI 342

## Aesthetics

A study of classical and contemporary theories about the nature of art, the artistic process, the psychology of aesthetic experience, and standards for good art. Prerequisite: one other course in philosophy or consent of the instructor. Offered spring semesters of odd years.

## PHI 355

## 3 hours

Metaphysics
A study of such issues as the nature of existence, identity, essences, causality, freedom, and space and time. Prerequisite: One other course in philosophy or consent of the instructor. Offered fall semester of odd years.

## PHI 360

I-4 hours
Independent Study
An individualized, directed study involving a specified topic.

## PHI 370

I-4 hours

## Selected Topics

A course offered on a subject of interest but not listed as a regular course offering.
May count toward the departmental major and general education requirements.

## PHI 371

## 3 hours

Principles of Ethics
A survey of the theoretical foundations of ethics, such as the distinction between absolutist and relativistic views, the nature of justice, and the need for rules. Readings from classical and modern authors are included. Offered fall semester of odd years.

## PHI 382 <br> I hour

Ethics Bowl
An intensive study of practical moral issues, culminating in regional and national competitions involving Ethics Bowl teams from other colleges. May be repeated twice for credit. Prerequisite: consent of the instructor.

## PHI 393

I-4 hours
Practicum
Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## PHI 413

3 hours
Contemporary Christian Belief
The integration of Christian thought with contemporary ideas and an introduction to Christian apologetics. Meets general education requirement and is required of all students. Prerequisite: REL 313.

## PHI 420

3 hours

## Continental Philosophy

A seminar giving detailed attention to influential works in continental philosophy, from its roots in Kant down to the present. Prerequisite: PHI 203 History of Philosophy II.

## PHI 432

3 hours
Epistemology
Contemporary theories on the nature and limits of knowledge and the justification of beliefs. Prerequisite: PHI 202 or 203. Offered fall semester of even years.

## PHI 445

Philosophy of Mind
A study of philosophical theories of consciousness, perception, and intelligence, with special attention on contemporary research. Prerequisite: One other course in philosophy or consent of the instructor. Offered spring semester of even years.

## PHI 450

I-4 hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory

## PHI 452

## 3 hours

Philosophy of Religion
A study of the major issues in the philosophy of religion, including religious experience, theism, religious language, and the problem of evil. Prerequisite: PHI 202 or 203. Offered spring semester.

## PHI $480 \quad$ I 4 hours

Seminar
Individualized study or research of an advanced topic within a student's major. It is open to students with at least a 3.00 GPA in the major field.

## PHI 490

## 1-2 hours

Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## Religion Courses

## REL 170 <br> I-4 hours <br> Selected Topics <br> A course offered on a subject of interest but not listed as a regular course offering.

 May count toward the departmental major and general education requirements.
## REL 270 <br> I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## REL 303

3 hours

## Revelation, the Seven Cities, and the Seven Councils

A survey of Christian belief with special emphasis on Revelation and the seven church councils. January interterm course involving two weeks study on campus and two weeks on site in Turkey. Meets REL 313 general education requirement. Prerequisites: BIB IIO/3IO and 210 .

## REL 3 II <br> 3 hours

## Foundations of Christian World Mission

A study of the biblical, theological, and historical foundations of Christian mission strategy. Offered fall semester.

## REL 313

## 3 hours

Historic Christian Belief
A survey of Christian belief as developed during the history of the Church. May not be counted toward BIB, CED, or PHI majors or minors. Meets general education requirement and is required of all students. Prerequisites: BIB $110 / 310,210 / 203$, and junior or senior status.

## REL 360

I-4 hours
Independent Study
An individualized, directed study involving a specified topic.

## REL 370

## I-4 hours

## Selected Topics

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## REL 391

## 3 hours

Preparation and Strategy for Christian World Mission
An introduction to the personal and ministry issues relevant to missionary life and service. Trends and models of cross-cultural ministry are explored. Attention is given to knowledge, skills, and attitudes essential for cross-cultural adaptation. Offered spring semester or as part of the Applied Missions Minor.

REL 393
I-4 hours
Practicum
Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## REL 410

3 hours
Theology of Worship
A theological Biblical and historical study of Christian worship from a classical as well as contemporary perspective. This course examines the pattern, purpose and essential and non essential features of worship found in the Bible and in church history with the goal of formulating one's own theology and practice of Biblical worship. Open to Music, Biblical Studies, and Philosophy majors. Prerequisites: REL 3/3. Offered spring semester of even years.

## REL 432

2 hours
World Missions Area Studies
A research seminar designed for students to explore mission opportunities in an area of the world that interests them. The geography, people, history, economics, culture, government, language, and religion of an area and mission strategies appropriate to the region are considered. Offered spring semester or as part of the Applied Missions Minor.

REL $450 \quad$ I-4 hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

## REL 480 <br> I-4 hours

Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

## REL 490

I-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## Communication

Chair, Professor J. Rousselow-Winquist<br>Professor D. Keller<br>Assistant Professor L. Manganello, J. Sigworth Instructor T. Manning

Grounded in the understanding that the Word becoming flesh was the ultimate communicative act, the mission of the communication department is to develop excellent communicators who demonstrate competency and are skilled in analysis and criticism of oral mediated, interpersonal and public messages.

Within the communication department, students may select one of two majors: communication studies or theatre arts. Students who major in communication studies choose a concentration in corporate communication or relational communication. Each of the majors may be combined with a departmental minor or a second major or minor from a different department. The bachelor of arts degree requires the completion of two years sequential study in one foreign language. The bachelor of science degree must be combined with curriculum requirements in systems analysis. Minors are available in communication studies, corporate communication, relational communication, and theatre arts.

The two fold purpose of the Taylor University Theatre is: to equip students with the practical skills and professional experiences needed for their future academic and professional work; and to present productions that creatively engage the minds and hearts of the community with issues and characters that represent a broad range of human experience.

## Communication Studies (BA)

This major emphasizes communication theory and skills (interpersonal, family, organizational, public speaking, debate, persuasion, analysis, and criticism) and may be used to prepare for careers that have communication knowledge and skills as key requirements. The bachelor of arts degree with a major in communication studies requires two years of one foreign language and 50-5I major hours. Majors must take CAS IIO to meet their general education speaking requirement.

| Departmental Core Requirements |  |  |
| :--- | :--- | :--- |
| CAS I20 | 3 | Interpersonal Communication |
| CAC 125 | 1 | Introduction to Communication |
| CAC 225 | 2 | Dimensions of Communication |
| CAC 326 | 2 | Aesthetics |
| CAC 425 | 3 | Rhetorical Criticism: Theory and Practice |
| CAC 450 | I | Directed Research |
| CAC 480 | 2 | Communication Studies Capstone: Portfolio Development |
| Select one course from the following: |  |  |
| CAT 200 | 3 | Performing Literature |
| CAT 212 | 3 | Acting |
| CAT 341 | 3 | Stagecraft and Design |
| CAT 345 | 3 | Stage Management |
| CAT 362 | 3 | Theatre and the Church |
| CAT 402 | 3 | Contemporary American Theatre |
| *May only count one Musical Theatre Workshop toward core |  |  |

Choose a concentration in corporate communication or relational communication.


## Communication Studies/Systems (BS)

The bachelor of science degree with a major in communication studies/systems consists of the 50-5I hours of communication studies major and curriculum requirements in systems analysis. All communication studies and systems curriculum courses must be completed with a grade of C - or better. Majors must take CAS IIO to meet their general education speaking requirement.

| Systems Curriculum |  |  |  | Requirements |
| :--- | :---: | :--- | :---: | :---: |
| COS I20 | 4 | Introduction to Computational Problem Solving |  |  |
| IAS 330 | 3 | Human Relations in Organizations |  |  |
| MAT 151 | 4 | Calculus I |  |  |
| SYS 101 | 3 | Introduction to Systems |  |  |
| SYS 390 | 3 | Information Systems Analysis |  |  |
| SYS 392 | 1 | Systems Seminar |  |  |
| SYS 394 | 4 | Information Systems Design |  |  |
| SYS 403 | 3 | Operations Management |  |  |
| Select one course from the following: |  |  |  |  |
| COS 121 | 4 | Foundations of Computer Science |  |  |
| COS 143 | 3 | Interactive Webpage Design |  |  |
| Select one course from | the following: |  |  |  |
| MAT 210 | 4 | Introductory Statistics |  |  |
| MAT 352 | 4 | Mathematical Statistics |  |  |


| Select one course from the following: |
| :--- |
| *SYS 401 |$\quad$| Operations Research |
| :--- |
| *SYS 402 |$\quad 3 \quad$ Modeling and Simulation



## Communication Studies Minor

The communication studies minor requires 21 hours. If combined with a major from media communication or theatre arts, a maximum of nine hours may count for both the major and minor. No more than $50 \%$ of the credits may overlap with another major or minor. Minors must take CAS IIO to meet their general education speaking requirement.

| Minor Requirements |  |  |
| :---: | :---: | :---: |
| CAS 120 | 3 | Interpersonal Communication |
|  |  |  |
| CAS 201 | 3 | Professional Communication in Corporate Contexts |
| CAS 230 | 3 | Communication, Media, and Business |
| CAS 340 | 3 | Intercultural Communication |
| CAS 372 | 3 | Influence and Persuasion |
| CAS 382 | 3 | Family Communication |
| Select the remaining 9 hours from the following |  |  |
| CAS 331 | 3 | Team-based Communication |
| CAS 345 | 3 | Gender Communication |
| CAS 355 | 3 | Gender Reconciliation |
| CAS 380 | 3 | Advanced Interpersonal Communication |
| CAS 393 | 3 | Practicum |
| CAS 41I | 3 | Communication in Organizations |

Other courses may be taken upon approval of the department.

## Corporate Communication Minor

The minor in corporate communication requires 21 hours. Students pursuing any major may declare this minor. No more than $50 \%$ of the credits may overlap with another major or minor. Minors must take CAS IIO to meet their general education speaking requirement.
Minor Requirements
CAS 201
CAS 230
CA
CAS 301
CAS 4II
CA
Communication, Media, and Business

| Choose nine | hours from the following: |  |
| :--- | :--- | :--- |
| CAS 331 | 3 | Team-based Communication |
| CAS 340 | 3 | Intercultural Communication |
| CAS 393 | 3 | Practicum |
| HRM 362 | 3 | Human Resource Management |
| ITB 375 | 3 | International Business |
| MAT 210 | 4 | Introductory Statistics |
| MCM 255 | 3 | Media and Society |
| MCM 261 | 3 | Introduction to Public Relations |
| MCM 36I | 3 | Public Relations Cases and Campaigns |
| MCM 46I | 3 | Public Relations Writing and Production |
| MGT 201 | 3 | Business Basics Boot Camp |
| MGT 31I | 3 | Business Law |
| MGT 352 | 3 | Management Analysis and Practice |
| MKT 231 | 3 | Principles of Marketing |
| PHP 350 | 3 | Sport Management |
| PHP 35I | 3 | Sport Public Relations |
| PWR 320 | 4 | Writing for Business |
| SOC 250 | 2 | Principles of Research and Analysis |
| SOC 420 | 3 | Organizational Policies and Programs |
|  |  |  |
| Other courses may be taken upon approval of the department. |  |  |

## Relational Communication Minor

The minor in relational communication requires 21 hours. Students pursuing any major may declare this minor. No more than $50 \%$ of the credits may overlap with another major or minor. Minors must take CAS IIO to meet their general education speaking requirement.

| Minor Requirements | Choose six hours from the following: |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| CAS I20 | 3 | Interpersonal Communication | CAS 301 | 3 | Corporate Communication and the Web |
| CAS 340 | 3 | Intercultural Communication | CAS 355 | 3 | Gender Reconciliation |
| CAS 345 | 3 | Gender Communication | CAS 370 | I-4 | Selected Topics |
| CAS 380 | 3 | Advanced Interpersonal Communication | HRM 362 | 3 | Human Resource Management |
| CAS 382 | 3 | Family Communication | HRM 462 | 3 | Organizational Behavior and Management |
|  |  |  | MCM 261 | 3 | Introduction to Public Relations |
|  |  | MGT 352 | 3 | Management Analysis and Practice |  |
|  |  | MKT 231 | 3 | Principles of Marketing |  |
|  |  | MKT 313 | 3 | Retailing and Service Marketing |  |
|  |  | SOC 250 | 2 | Principles of Research and Analysis |  |
|  |  | SOC 420 | 3 | Organizational Policies and Programs |  |

## Theatre Arts (BA)

The bachelor of arts degree with a major in theatre arts requires the completion of two years, sequential study in one foreign language, 5 l credit hours, and participation in a minimum of two theatre productions per academic year. Majors must take CAS 110 to meet their general education speaking requirement.

| Departmental Core |  |  | Theatre Arts Core |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CAS 120 | 3 | Interpersonal Communication | CAT 130 | 3 | Theatre History I: Antiquity to the Renaissance |
| CAC 125 | 1 | Introduction to Communication | CAT 200 | 3 | Performing Literature |
| CAC 225 | 2 | Dimensions of Communication | CAT 212 | 3 | Acting |
| CAC 326 | 2 | Aesthetics | CAT 230 | 3 | Theatre History II: Renaissance to Postmodernism |
| CAC 425 | 3 | Media and Rhetorical Criticism | CAT 270 | 3 | Acting: Methods and Theories |
| CAC 450 | 1 | Directed Research | CAT 341 | 3 | Stagecraft and Design |
| CAC 480 | 2 | Capstone: Portfolio Development | CAT 345 | 3 | Stage Management |
|  |  |  | CAT 432 | 3 | Play Directing |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Select at least one course from the following: |  |  | Select from the following for the remaining required hours: |  |  |
| CAS 201 | 3 | Professional Communication in Corporate Contexts | CAT 270* | 2 | Musical Theatre Workshop |
| CAS 331 | 3 | Team-based Communication | CAT 301 | 3 | Advanced Performance Studies |
| CAS 340 | 3 | Intercultural Communication | CAT 340 | 1-3 | Applications in Dramaturgy |
| CAS 372 | 3 | Influence and Persuasion | CAT 362 | 3 | Theatre and the Church |
| CAS 380 | 3 | Advanced Interpersonal Communication | CAT $360{ }^{+}$ | 1-4 | Independent Study |
| CAS 382 | 3 | Family Communication | CAT 370* | 2 | Musical Theatre Workshop |
| CAS 411 | 3 | Communication in Organizations | CAT 370 ${ }^{+}$ |  | Selected Topics |
| CAS 370 | 3 | Selected Topics (approved) | CAT 402 |  | Contemporary American Theatre |
|  |  |  | CAT 393 $\dagger$ | 1-4 | Practicum |
|  |  |  | CAT 492 $\dagger$ | 8-16 | Internship |
|  |  |  | *May only count one Musical Theatre Workshop toward core. |  |  |
|  |  |  | ${ }^{\dagger}$ A maximum of five hours from these course may be used toward the theatre arts core. |  |  |
|  |  |  | Theatre Production Requirement |  |  |
|  |  |  | Participation | ast two | theatre productions per academic year. |

## Theatre Arts/Systems (BS)

The bachelor of science degree with a major in theatre arts/systems consists of the 5 I -hour major and curriculum requirements in systems analysis. Majors must take CAS IIO to meet their general education speaking requirement. All systems curriculum courses must be completed with a grade of C- or better.

| Systems Curriculum Requirements |  |  |
| :---: | :---: | :---: |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| IAS 330 | 3 | Human Relations in Organizations |
| MAT 151 | 4 | Calculus I |
| SYS 101 | 3 | Introduction to Systems |
| SYS 390 | 3 | Information Systems Analysis |
| SYS 392 | I | Systems Seminar |
| SYS 394 | 4 | Information Systems Design |
| SYS 403 | 3 | Operations Management |
| Select one course from the following: |  |  |
| COS 121 | 4 | Foundations of Computer Science |
| COS 143 | 3 | Interactive Webpage Design |
| Select one course from the following: |  |  |
| MAT 210 | 4 | Introductory Statistics |
| MAT 352 | 4 | Mathematical Statistics |


| Select one course from the following: |  |  |
| :---: | :---: | :---: |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |
| Select one course from the following: |  |  |
| SYS 393 | 3-4 | Practicum |
| CAT 393 | 3-4 | Practicum |
| Systems Electives |  |  |
| Select at least three hours of electives, in addition to those required in the major or systems: |  |  |
| MAT 382 | 3 | Advanced Statistical Methods |
| SYS 214 | 3 | Principles of Human Computer Interaction |
| SYS 310 | 3 | E-Commerce |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |
| *Courses in both areas may count only once. |  |  |

## Theatre Arts Minor

The theatre arts minor requires the completion of 21 credit hours and participation in at least one theatre production per academic year. If combined with the communication studies or media communication major, a maximum of nine hours may count for both the major and minor. No more than $50 \%$ of the credits may overlap with another major or minor.

| Minor Requirements |  |  |
| :--- | :--- | :--- |
| CAS 120 | 3 | Interpersonal Communication |
| CAT 200 | 3 | Performing Literature |
| CAT 212 | 3 | Acting |
| CAT 270 | 3 | Acting: Methods and Theories |
| CAT 341 | 3 | Stagecraft and Design |
| CAT 432 | 3 | Play Directing |

Select one course from the following:
CAT 301
CAT 362

Theatre Production Requirement
Participation in at least one theatre production per academic year.

## Communication Courses

## CAC 125

Introduction to Communication
Explores the communication major, focusing on requirements and career options. Designed to aid students as they prepare for both their coursework on campus and career decisions upon graduation. Offered fall semester.

## CAC 170

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## CAC 225

## 2 hours

Dimensions of Communication
Explores the classical roots of rhetoric and traces rhetorical theory through the middle ages and renaissance to the modern era. Key theoretical concepts are stressed. Emphasis is on the integration of faith with the discipline. Offered spring semester.

## CAC 270

## 1-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## CAC 3262 hours

## Aesthetics

Explores historic, traditional and contemporary aesthetic theory in the discipline. Offered spring semester.

CAC 360

## I-4 hours

Independent Study
An individualized, directed study involving a specified topic.

## CAC $370 \quad$ I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## CAC 393

## I-4 hours

Practicum
Supervised learning involving a first-hand field experience or project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during the summer.

## CAC 425 <br> 3 hours

Rhetorical Criticism: Theory and Practice
Using traditional and contemporary critical methods and media, historic and contemporary public discourse is evaluated for aesthetic values, depictions of human nature, treatment of religious issues and effects on society. Offered fall semester.

## CAC 450

## I hour

Directed Research
Tutorial and peer review methods are used to monitor student's progress in writing the senior thesis. Prerequisite: CAC 425. Pass/fail only. Offered January interterm and spring semester.

## CAC 480 <br> 2 hours

Communication Studies Capstone: Portfolio Development
The course is designed to be a culminating experience for all Communication Studies majors with a focus on developing a professional portfolio to be used in applying to graduate schools or making job applications. Prerequisite: CAC 425. Pass/fail only.

## CAC 490

I-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## Communication Studies Courses



## Selected Topics

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## CAS 301 3 hours <br> Corporate Communication and the Web

To gain proficiency in various perspectives on corporate communication theory and how it is applied by professionals in the business/organizational setting. Throughout the course, specific attention will be given to the impact of media both on our culture's epistemology and "norms." Through a series of dialogues, readings, exercises, assignments, and presentations, students will evidence understanding of the creation and application of corporate communication. Offered every third semester.

## CAS $331 \quad 3$ hours

Team-based Communication
A study of the theory and techniques of communication applied to goaloriented small group situations, with particular emphasis on team dynamics. Includes consideration and application of research methods, leadership theory, group dynamic theory and conflict resolution. Offered every third semester.

## CAS 340 <br> 3 hours

## Intercultural Communication

The study of the complex process of intercultural communication. The course seeks to create an awareness of culture-bound assumptions and ways to communicate more effectively with persons from other cultures. Offered fall semester.

## CAS 345 <br> 3 hours

## Gender Communication

This course examines methods of competent gendered communication that will be valuable in professional and social environments. This course is designed to introduce the student to perspectives available in the relationship between gender and communication including: nature, treatment, language differences, and cultural influences. Prerequisite: CAS I20.

## CAS 355

## 3 hours

Gender Reconciliation
The foundational issue to be discussed is an epistemological one: how do individuals, groups, and cultures espouse particular beliefs about gender using narrative theory. The course will ask the question: what are the sources of gender narratives that we are exposed to? How do these narratives provide the rational and emotional basis for belief, decision making and behavior for men and women? Three different narrative sources will be explored: Biblical, theological, and hermeneutic interpretations of revelatory texts; popular culture texts such as films, music, T.V. etc; and biographical narratives. narrative and Interpersonal Communication theory will be used to provide analytical frameworks for discussion and writing projects. Prerequisite: CAS 345.

## CAS 360

## 1-4 hours

Independent Study
An individualized, directed study involving a specified topic.

CAS 370

## 3 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering.
May count toward the departmental major and general education requirements.

CAS 372
3 hours
Persuasion and Influence
A study of communication as an agent for change in a media saturated culture.
Topics include image management, semiotics, propaganda, and selling.
Prerequisite: CAS IIO. Offered every third semester.

## CAS $380 \quad 3$ hours

Advanced Interpersonal Communication
A survey of interpersonal communication theories, research and skill development focused on current issues and concepts in the area of interpersonal relationships. Prerequisite: CAS I20. Offered fall semester.

CAS 382
3 hours
Family Communication
The study of messages and meanings in contemporary family relationships including family diversity, spousal relationships, custodial and autonomous child-parent relationships, sibling relationships and the religious, legal and televised messages about families. Prerequisite: CAS 120. Offered spring semester.

## CAS 393 I-4 hours

Practicum
Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Pass/fail only. Offered primarily during summer.

## CAS 4II <br> 3 hours

Communication in Organizations
The study of structures and functions of communication in organizations including contemporary understanding of traditional theoretical perspectives and the application of specific topics relevant to organizational functioning. The semester concludes with a mini-audit of a real organization applying course material. Offered every third semester.

## CAS $450 \quad \mathrm{I}-4$ hours

Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory. Prerequisite: CAC 425. Offered spring semester.

## CAS 480

## I-4 hours

Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

## CAS 490

I-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## CAS 492

## 8-16 hours

Internship
Professional semester of supervised internship in a work setting related to the major field of study. Prerequisites: Completion of departmental core and major core courses and approval of the department faculty. Pass/fail only.

## Theatre Arts Courses

## CAT $130 \quad 3$ hours

Theatre History I: Antiquity to the Renaissance
This survey course covers the development of the theatre from its supposed origins in ancient Greece and Rome to the European Renaissance including its architecture, production values, acting and directing styles, and the political and social movements that informed these traditions. Students will engage with selected readings, discussion, projects, and multimedia presentations. Offered spring semester.

## CAT 170

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.
CAT $200 \quad 3$ hours

Performing Literature
Study and practice of personal spiritual involvement with literature through the application of basic techniques of literary analysis and oral reading. Meets general education literature requirement. Offered fall semester.

## CAT 212 <br> 3 hours

Acting
Study of the theories and principles of acting as an art, approached through a Christian perspective of life and the human situation. Practical application of performance techniques and character development are provided through laboratory theatre experiences. Corequisite: PHP 200J. Offered spring semester of even years.

CAT 230
3 hours
Theatre History II: Renaissance to Postmodernism
A continuation of Theatre History I. This course will continue to explore the history of theatre including its architecture, production values, acting and directing styles, and the political and social movements that informed the traditions from the Renaissance to the present. Students will engage with selected readings, discussion, projects and multimedia presentations. Offered spring semester.

## CAT 270

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## CAT 301 3 hours <br> Advanced Performance Studies

Advanced study and application of the techniques of literary analysis and oral reading. Readers' theatre is emphasized with laboratory experience provided. Prerequisite: CAT 200 or permission of instructor. Offered fall semester of odd years.

## CAT 340 <br> I hour

Applications in Dramaturgy
This course is recommended for anyone who loves theatre and wishes to acquire a more sophisticated understanding of this art form. The course will be offered as a tutorial taken in conjunction with the role of The Assistant to the Director for the semester's main stage production. This course will introduce students to the profession of dramaturgy which began in 1867 in Germany and took root in the United States in the late 1960s. A single course or even an academic program in this field cannot train a professional dramaturg all at once. A mature dramaturg emerges gradually through incremental learning and hands-on-experience. This study and practical application will provide the student with an introduction to the discipline. Director's approval.

## CAT 34I

3 hours
Stagecraft and Design
Emphasis is given to the technical phases of play production including design theory and practice. Work on theatre productions provides practical experience. Offered fall semester of even years.

## CAT 345

3 hours
Stage Management
This course will provide students with the opportunity to explore their leadership potential and capabilities through the role of the Stage Manager in a theatrical context. Students will have the opportunity to interact with SM professionals. Students will be encouraged to assess their own skills and consider how to best address improvement. Offered fall of odd years.

## CAT 360

I-4 hours
Independent Study
An individualized, directed study involving a specified topic.

## CAT $362 \quad 3$ hours

## Theatre and the Church

Explores the biblical foundations of theatre arts following its origin and development. We will purpose to increase recognition of significant figures in the field of religious drama, theology, church growth, and worship planning. The course will give students an introduction to producing and directing for the church, exploring its uniqueness and challenges. Offered fall semester of even years.

## CAT 370

## Selected Topics

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## CAT $393 \quad$ I-4 hours

Practicum
Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Pass/fail only. Offered primarily during summer.

## CAT 402

3 hours

## Contemporary American Theatre

A study of selected twentieth-century American theatre movements, people and dramatic literature from 1960 to the present. Offered spring semester of odd years.

## CAT 432 <br> 3 hours <br> Play Directing

Study of the theories and principles of directing as an art approached through a Christian perspective of life and the human situation. Emphasis is given to play analysis with practical application provided through laboratory theatre experience. Prerequisite: CAT 212 or permission of instructor. Offered fall semester.

## CAT 433 I hour

Directing II: Application
The application of the theories and principles of directing explored in CAT 432. Students will apply their learning to the production of a full length play with focus given to actor/director communication, composition, and execution. Prerequisite: CAT 432. Offered spring semester.

## CAT 450

## I-4 hours

Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.
CAT $480 \quad$ I-4 hours
Seminar
A limited-enrollment course designed especially for upper-class majors with
emphasis on directed readings and discussion.

CAT 490
I-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## CAT 492

8-16 hours
Internship
Professional semester of supervised internship in a work setting related to the major field of study. Prerequisites: Completion of departmental core and major core courses and approval of the department faculty. Pass/fail only.

## English

Chair, Professor N. Dayton<br>Professors B. Baker, J. Ricke, C. Warren<br>Associate Professors B. Bird, L. Mook, M. Muchiri, T. Satterlee<br>Assistant Professor D. Bowman<br>Instructor A. Housholder

The department of English offers courses intended to help students write clearly and effectively and to read literature with critical appreciation. All students take courses in expository writing and selected literary works.

The major in English prepares students to enter such careers as education, law, business, Christian ministry, writing, editing, research, library science, public relations, travel, civil service, and administration. The major also prepares for graduate-level studies in English. Creative writers will find opportunity in Parnassus, a literary magazine published each spring semester. The January interterm offers a tour to London, England, that combines the study of British literature with visits to important literary and historical sites.

The bachelor of arts degree requires completion of two years of one foreign language. The bachelor of science degree must be combined with education or systems analysis.

The major in English is offered with a concentration in either literature or writing, or in both if there are no overlaps except for ENG $2 / 2$ and one general education survey course.

## English/Literature Concentration (BA)

The bachelor of arts degree in English with a concentration in literature requires two years of sequential college-level study in one foreign language and at least 43 hours in addition to ENG IIO Expository Writing.

| Major Requirements |  |  |
| :--- | :---: | :--- |
| *ENG 212 | 4 | Critical Approaches to Literature |
| ENG 230 | 3 | World Literature |
| ENG 240 | 3 | American Literature |
| ENG 362 | 3 | Shakespeare |
| ENG 492 | I | Senior Project Research |
| ENG 493 | 3 | English Capstone |

*Majors must complete ENG 212 prior to taking upper-level literature courses.
Select at least three courses in literature before I900 from:
At least one course must be an American literature course.

| Select one course in literature after 1900 from: |  |  |
| :--- | :--- | :--- |
| tENG 36 | 4 | Drama |
| ENG 370 | 4 | Selected Topics: Themes and Genres |
| tENG 371 | 4 | The Novel |
| ENG 373 | 4 | Literature of Cultural Diversity |
| ENG 442 | 4 | Modern American Literature |
| ENG 444 | 4 | Contemporary Literature |

either pre-20 th or post-20 th century requirements.

At least one course must be a British literature course.

## Electives

| ENG 330 | 4 | Early American Literature |
| :--- | :--- | :--- |
| ENG 340 | 4 | American Romanticism and Realism |
| +ENG 361 | 4 | Drama |
| ENG 370 | 4 | Selected Topics |
| +ENG 371 | 4 | The Novel |
| ENG 412 | 4 | Early English Literature |
| ENG 422 | 4 | Renaissance Literature |
| ENG 426 | 4 | Restoration and Eighteenth-Century Literature |
| ENG 431 | 4 | Victoria Literature |

Select at least 10 elective hours in either literature or writing courses above the 100 level.

## English/Creative Writing Concentration (BA)

The bachelor of arts degree in English with a concentration in writing requires two years of sequential college-level study in one foreign language and at least 42-44 hours in addition to ENG I IO Expository Writing.
Major Requirements
*ENG 212
ENG 492

## Electives

Select at least three additional upper-division (300-/400-level) literature courses.

## English/Systems (BS)

The bachelor of science degree with a major in English/systems and a concentration in either literature or writing consists of the 42-44 hour major and curriculum requirements in systems analysis. All systems curriculum courses must be completed with a grade of C- or better.

| Systems Curriculum Requirements |  |  |
| :---: | :---: | :---: |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| IAS 330 | 3 | Human Relations in Organizations |
| MAT 151 | 4 | Calculus I |
| SYS 101 | 3 | Introduction to Systems |
| SYS 390 | 3 | Information Systems Analysis |
| SYS 392 | I | Systems Seminar |
| SYS 394 | 4 | Information Systems Design |
| SYS 403 | 3 | Operations Management |
| Select one course from the following: |  |  |
| COS 121 | 4 | Foundations of Computer Science |
| COS 143 | 3 | Interactive Webpage Design |
| Select one course from the following: |  |  |
| MAT 210 | 4 | Introductory Statistics |
| MAT 352 | 4 | Mathematical Statistics |
| Select one course from the following: |  |  |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |
| Select one course from the following: |  |  |
| SYS 393 | 3-4 | Practicum |
| ENG 393 | 3-4 | Practicum |
| Systems Electives |  |  |
| Select at least three hours of electives, in addition to those required in the major or systems: |  |  |
| MAT 382 | 3 | Advanced Statistical Methods |
| SYS 214 | 3 | Principles of Human Computer Interaction |
| SYS 310 | 3 | E-Commerce |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |

## English Education (BS)

The bachelor of science degree in English education requires 83 hours of professional education and English courses. Secondary education majors must complete specific general education requirements as outlined by the education department on page 210 .

| Professional Education |  |  |
| :---: | :---: | :---: |
| EDU 150 | 3 | Education in America |
| EDU 210 | 3 | Reading and Writing for Professiona |
| EDU 260 | 3 | Educational Psychology |
| EDU 309 | I | Teaching in Secondary, Junior High/ Special Methods |
| EDU 310 | 2 | Discipline and Classroom Managem |
| EDU 332 | 3 | The Junior High/Middle School |
| EDU 328 | 2 | Assessment for Student Learning |
| EDU 431 | 15 | Supervised Internship in Secondary |
| ENG 309 | 3 | Teaching English in Secondary, Junio |
| SED 320 | 3 | Exceptional Children |
| English Requirements |  |  |
| \#ENG 212 | 4 | Critical Approaches to Literature |
| ENG 230 | 3 | World Literature |
| ENG 240 | 3 | American Literature |
| ENG 305 | 4 | Writing Theory and Grammar |
| ENG 362 | 3 | Shakespeare |
| ENG 492 | 1 | Senior Project Research |
| ENG 493 | 3 | English Capstone |



## English Minor

The general English minor consists of at least 16 hours in addition to ENG IIO Expository Writing and may not be combined with any other English program.
Minor Requirements
*ENG 2124 Critical Approaches to Literature
*Majors must complete ENG 212 prior to taking upper-level literature courses.

| Select three credit hours | from the following: |  |
| :--- | :---: | :--- |
| ENG 230 | 3 | World Literature |
| ENG 233 | 3 | Literary London |
| ENG 240 | 3 | American Literature |
| ENG 250 | 3 | British Literature |
| ENG 370 | I-4 | Selected Topics (when applicable) |

Select three additional 3-hour courses (300-/400-level) in English writing or literature.

## Literature Minor

The literature minor consists of at least I6-I7 hours in addition to ENG 110 Expository Writing and is excluded from English majors with literature concentrations. Writing concentration majors may overlap only ENG 212 Critical Approaches to Literature.

| Minor Requirements | Select one course from: |  |  |
| :---: | :---: | :---: | :---: |
| *ENG 2124 Critical Approaches to Literature | ENG 230 | 3 | World Literature |
|  | ENG 233 | 3 | Literary London |
| *Majors must complete ENG 212 prior to taking upper-level literature courses. | ENG 240 | 3 | American Literature |
|  | ENG 250 | 3 | British Literature |
|  | ENG 370 | 3-4 | Selected Topics: Themes and Genres (if applicable) |
|  | Select three additional 3-hour courses (300-/400-level) in English literature. |  |  |

## Creative Writing Minor

The writing minor consists of at least I6-19 hours in addition to ENG IIO Expository Writing and is excluded from English majors with writing concentrations. Literature concentration majors may overlap only ENG 212 Critical Approaches to Literature.


Note: Intro to Creative Writing is a pre-requisite for all upper level writing
*ENG $2 I 2$ is a pre-requisite for all upper level literature courses
Select one additional 3-hour writing elective course or another 3-hour course in English writing or literature.

## English Courses

## Fundamentals of Writing

Intensive work of students' writing. Students learn writing strategies for every phase of the writing process, compose a variety of texts, and practice standards for academic writing, including sentence style, grammar, and punctuation. Offered fall semester.

## ENG $110 \quad 3$ hours

Expository Writing
Practice in writing clear and effective prose through several expository modes, including a formal research paper. Brief review of grammar and mechanics as necessary, with concentration on analytical thinking. This course must be taken during the freshman year. Meets general education writing requirement. ENG 110 is a prerequisite to all other English courses except ENG 101, II2, 230, 233, 240, and 250.

## ENG 170 <br> I-4 hours

## Selected Topics

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## ENG 211

## 3 hours

Introduction to Creative Writing
A general introduction to and overview of creative writing (including poetry, fiction, drama, and creative nonfiction) that meets the requirement for secondary education students and also serves potential majors and other interested students. Classroom setting with textbook; directed workshop activities after midterm facilitated by selected ENG 410 students. Prerequisite: ENG IIO. Offered fall semester.

## ENG 212 hours

Critical Approaches to Literature
Introduction to basic literary analysis and theory with emphasis on informed reading and critical, written response to selections of poetry, fiction, drama and film. Includes minorities literature. Primarily intended for English majors, but recommended for all students who desire greater reading and writing skills. Prerequisite: ENG IIO.

## ENG $230 \quad 3$ hours

World Literature
A selective survey of world literary achievement from antiquity to the present, tracing the development of themes and ideas. Meets general education literature requirement.

## ENG 233

3 hours
Literary London
A study-tour conducted each January in England, combining study of selected major British authors with extensive sightseeing in London and surrounding counties. Meets general education literature requirement. Enrollment with permission of instructor. Offered January interterm.

## ENG 240

## 3 hours

American Literature
A survey of the American literary tradition from its origins to the present, evaluating and comparing themes, ideas and styles. Meets general education literature requirement
 education literature requirement.

## ENG 270 <br> Selected Topics

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## ENG 300

I-2 hours
Literary Magazine Laboratory
Hands-on production of Taylor's literary magazine from concept to finished product. Two credit hours per semester may be earned by students holding senior editorships of Taylor's official literary magazine. One hour per semester may be earned by those holding secondary positions approved by the instructor. A maximum of four hours may count toward fulfilling the English writing concentration requirements; two hours maximum may count toward the English literature concentration or secondary education major requirements. A maximum of six hours in all writing lab courses from any discipline may be earned toward graduation. Prerequisite: Permission of writing coordinator.

## ENG $305 \quad 4$ hours <br> Writing Theory and Grammar

An introduction to the theories, research, and pedagogy of composition (including grammar). Topics include rhetorical, philosophical, and cognitive theories of writing; composition research; and writing pedagogy. Course designed for both creative writing and English education majors. Prerequisite: ENG 110 .

## ENG 309

## 3 hours

Teaching English in Secondary, Junior High/Middle School
A junior-level course that presents models of professionalism for English Education majors. Strategies and techniques for effective planning, teaching, and evaluating materials with English/Language Arts curricula are demonstrated and developed. Prerequisites: EDU 150, EDU 260, and approval into the Teacher Educational Program. Corequisite: EDU 309.

ENG 31I

## 3 hours

Writing and Rhetoric
Examines the foundational ideas from rhetoric and composition studies that relate to the effectiveness of written communication. Students will learn to apply these ideas to their own writing. Topics include classical to contemporary rhetoric, the essay, persuasion, and construction of meaning through writing, invention, and voice. Offered January Interterm of odd years.

## ENG 320

## 3 hours

Poetry Writing
Comprehensive instruction and guided workshop in writing poetry. Recommended for English BA majors with either literature or writing concentrations; available to all majors. Meets requirement for secondary education students. Prerequisite: ENG IIO. Offered spring semester.

ENG 321
Fiction Writing
Comprehensive instruction and guided workshop in writing fiction. Recommended for English BA majors with either literature or writing concentrations; available to all majors. Meets requirement for secondary education students. Prerequisite: ENG IIO. Offered spring semester.

## ENG 325

## 3 hours

## Creative Nonfiction

Comprehensive instruction and guided workshop in creative nonfiction. Emphasis on distinguishing and practicing sub-genres, such as memoir, nature essay, personal essay and journalistic essay. Prerequisite: ENG IIO. Offered spring semester of even years.

## ENG 330

## 4 hours

## Early American Literature

Explores the complexity of literary origins with its variety of Native-American, discovery, colonial, federal, Enlightenment, and African-American voices up to the Romantic period. Prerequisite: ENG 212 and 200-level English literature course. Offered fall semester of odd years.

## ENG 333

3 hours
Business and Technical Writing
Practice in the forms of writing required in business and industry. Prerequisite: ENG IIO. Offered fall semester.

## ENG $340 \quad 4$ hours

American Romanticism and Realism
Investigates the usefulness of the traditional juxtaposition of romantic and realistic philosophies and conventions when studying nineteenth- and early twentieth-century American works. Prerequisite: ENG 212 and 200-level English literature course. Offered spring semester of odd years.

ENG 360
I-4 hours
Independent Study
An individualized, directed study involving a specified topic.

## ENG 361 <br> 4 hours

Drama
A selective survey of the historical development of drama from its origins to the present day. Counts for either pre-twentieth- or twentieth-century requirement. Prerequisite: ENG 212 and 200-level English literature course. Offered spring semester of odd years.

## ENG 362

3 hours
Shakespeare
Intensive analysis of selected plays and sonnets. Attention is given to the conventions of the Elizabethan and Jacobean theater. Prerequisite: ENG $2 / 2$ and 200-level English literature course. Offered spring semester.

ENG 370

## 1-4 hours

Selected Topics: Themes and Genres
Examples of courses: Women and Literature; Native-American Literature; African-American Literature; The American South and Its Literature; Christian Mythic Writers; Images and Visions of Paradise; Mark Twain: God and the Human Race; Heroes, Heroines, Saints and Lovers. Prerequisite: ENG 212 and 200-level English literature course. Offered primarily during January interterm and occasional fall or spring semesters.

ENG 371
The Novel
A selective survey of the historical development of the novel, from its origins to the present day. Counts for either pre-twentieth- or twentieth-century requirement. Prerequisite: ENG 212 and 200 -level English literature course. Offered spring semester of even years.

## ENG 373

## 4 hours

Literature of Cultural Diversity
A critical study of life in a global community, focusing on the twentiethcentury literature of one or more cultures. Primarily intended for English majors, but recommended for all students desiring cross-cultural awareness. Prerequisite: ENG 212 and 200-level English literature course. Offered spring semester of even years.

## ENG 393

## I-4 hours

## Practicum

Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## ENG 410

Advanced Creative Writing
Intensive practice in selected creative genres. Students may also serve as workshop leaders for ENG 211 students. Enrollment with permission of instructor. May be taken twice. Prerequisite: One of the following: ENG 211 , $320,321,325$ or 472 . Offered fall semester.

## ENG 412

## 4 hours

Early English Literature
A selective study of English literature from "Beowulf" through Chaucer and Malory's "Le Morte d'Arthur." Prerequisite: ENG 212 and 200-level English literature course. Offered fall semester of odd years.

## ENG 422 <br> 4 hours

Renaissance Literature
A study of representative prose writers and non-dramatic poets of the English Renaissance, such as More, Spenser, Donne, Herbert and Milton. Prerequisite: ENG 212 and 200-level English literature course. Offered spring semester of even years.

ENG 426
4 hours
Restoration and Eighteenth-Century Literature
A selective study of poets and prose writers from 1660 to 1798, such as Defoe, Dryden, Fielding, Pope, Swift, Boswell and Johnson. Prerequisite: ENG 212 and 200-level English literature course. Offered fall semester of even years.

ENG 431

## 4 hours

Romantic Literature
A study of writers from 1798 to 1832 , such as Blake, Wordsworth, Coleridge, Byron, Shelley, Keats, and Lamb. Some attention is given to representative novelists. Prerequisite: ENG 212 and 200-level English literature course. Offered fall semester of even years.

## ENG 44I 4 hours <br> Victorian Literature

English authors from 1832 to 1901, such as Tennyson, Browning, Arnold, Carlyle, Newman and Ruskin. Some attention is given to representative novelists. Prerequisite: ENG 212 and 200-level English literature course. Offered fall semester of odd years.

## ENG 442

Modern American Literature
Explores the themes and characteristics of key works of American fiction, poetry, and drama in the context of the twentieth century. Prerequisite: ENG 212 and 200-level English literature course. Offered fall semester of even years.

ENG 444
Contemporary Literature
A study of selected poetry, fiction, and drama since 1960. Prerequisite: ENG
212 and 200-level English literature course. Offered fall semester of odd years.

## ENG 450

1-4 hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory

## ENG 480 <br> I-4 hours

Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

## ENG 490 <br> 1-2 hours <br> Honors <br> Individualized study or research of an advanced topic within a student's major.

 Open to students with at least a 3.00 GPA in the major field.ENG 492
I hour
Senior Project Research
Students are required to meet on a regular basis with Senior Project directors in order to plan, draft and complete a preliminary version of the Senior Project.

## ENG $493 \quad 3$ hours

English Capstone
Designed as a culminating experience for all English majors wherein students evaluate the status and the goals of their studies in a flexible forum exploring academic and professional issues. Senior Projects are completed for submission to Project Directors. Prerequisite: ENG 492. Offered January interterm.

Notes

## Geography

## Chair, Professor R. Jenkinson

The geography curriculum provides knowledge and understanding of the physical, cultural, political, and economic realities of today's world. It stresses the understanding of the varied and complex environments of the earth, gives meaning to location, and establishes a stage for understanding the connections among places, peoples, and environments. It provides an understanding of the process of continual change and how humans modify the Earth as their value system and level of sophistication dictates in the context of stewardship and use. The curriculum also provides the students in the liberal arts setting with basic facts, necessary skills, and an appropriate conceptual frame of reference, including the understanding that most phenomena in any area are spatially associated and interdependent.

## Geography (BA)

The bachelor of arts degree with a major in geography requires two years of one foreign language and a minimum of 46 hours.

| Major Requirements |  |  |
| :---: | :---: | :---: |
| GEO 210 | 4 | Physical Geography |
| GEO 220 | 4 | Regional Geography |
| ENS 231 | 4 | Introduction to Environmental Science |
| ENS 355 | 4 | Geospatial Analysis |
| ENS 383 | 4 | Environmental Ethics |
| Select 12 hours from: |  |  |
| GEO 230 | 3 | Political Geography |
| HIS 211/311 | 4 | History and Geography of Latin America |
| HIS 212/312 | 4 | History and Geography of East Asia |
| HIS 213/313 | 4 | History and Geography of Africa |
| HIS 215/315 | 3 | History and Geography of South Asia |
| Select eight hours from: |  |  |
| ENS 24I | 4 | Physical Geology |
| ENS 361 | 4 | Geomorphology |
| ENS 362 | 4 | Hydrogeology |
| ENS 363 | 4 | Applied Geology and Environmental Planning |

## Electives

Select six elective hours from:
ENS 2424 Geology of Indiana

ENS $340 \quad 4$ Global Ecology/Global Issues
ENS 341 4 Earth Materials
ENS 360 I-4 Independent Study
ENS 370 I-4 Selected Topics
ENS 393 I-4 Practicum
ENS 4024 Environmental Law and Policy
ENS 450 I-4 Directed Research
ENS 490 I-2 Honors
GEO 360 I-4 Independent Study
GEO 370 I-4 Selected Topics
GEO 393 I-4 Practicum
eight hours from

ENS 361
ENS $362 \quad 4 \quad$ Hydrogeology
ENS $363 \quad 4$ Applied Geology and Environmental Planning

## Geography Minor

The geography minor requires $16-17$ hours.

| Minor Requirements |  |  |
| :--- | :--- | :--- |
| GEO 220 | 4 | Regional Geography |
|  |  |  |
| Select one course from the following: |  |  |
| GEO 210 | 4 | Physical Geography |
| GEO 240 | 3 | Introduction to Geology |
| ENS 241 | 4 | Physical Geology |
|  |  |  |
| Select one course from the following: |  |  |
| HIS 211/311 | 4 | History and Geography of Latin America |
| HIS 212/312 | 4 | History and Geography of East Asia |
| HIS 213/313 | 4 | History and Geography of Africa |
| HIS 215/315 | 3 | History and Geography of South Asia |

Electives
Select 5-6 hours not used elsewhere (course number or title) in the minor to meet the 16 hour requirement from the following:
ENS 231 4 Introduction to Environmental Science
ENS 2424 Geology of Indiana
ENS $355 \quad 4 \quad$ Geospatial Analysis
ENS 361 Geomorphology
GEO 2303 Political Geography
GEO 360 I-4 Independent Study
GEO 370 I-4 Selected Topics
GEO 393 I-4 Practicum
HIS 2II/3II 4 History and Geography of Latin America
HIS 212/312 4 History and Geography of East Asia
HIS $213 / 313 \quad 4 \quad$ History and Geography of Africa
HIS 215/315 3 History and Geography of South Asia

## Geography Courses

## GEO 170 <br> Selected Topics

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## GEO 210

## 4 hours

Physical Geography
The study of the basic physical characteristics of the earth and the effect of the natural environment upon the activities of humankind. Meets the general education earth science requirement.

## GEO 220

## 4 hours

Regional Geography
A course offering basic ideas and supporting facts about contemporary world geography. Students study eight world regions: Europe, former Soviet Union, Latin America, Anglo-America, Middle East, Orient, Pacific World and Africa. Meets the general education general social science requirement.

## GEO 230

## 3 hours

## Political Geography

The geographic interpretation of world relations. The relationships of geographic elements to the development of nations both past and present are examined. Meets the general education civic engagement or general social science requirement.

## GEO 240

## 3 hours

Introduction to Geology
Basic course dealing with the fundamental concepts of physical and historical geology. Three hours of lecture and two hours of lab per week. Meets the general education earth science requirement.

## GEO 270

## I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

GEO 360
Independent Study
An individualized, directed study involving a specified topic.

## GEO $370 \quad$ I-4 hours

## Selected Topics

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## GEO 393 <br> I-4 hours

Practicum
Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## GEO 450

I-4 hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.
GEO $480 \quad$ I-4 hours

Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

GEO 490
I-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## Goal-Oriented Major

The goal-oriented major recognizes that departmental majors may not meet the unique needs of some students who attend Taylor University. This major allows a student (with faculty guidance) to design from existing courses a program of study that is valid academically and meets personal or professional goals.

It is expected that the major will be thoughtfully and carefully designed. Therefore, a student should have some college experience before applying for a goal-oriented major and should not begin the application process prior to the second semester of the sophomore year. The student must also seek advice from at least two faculty advisors from different departments that most closely fit the needs of the goal-oriented major. Consultation from literature or an individual within the field of interest is also a prerequisite. Finally, the student should make an appointment to discuss his or her plans with the chair of the goal-oriented major subcommittee. The Academic Policy Committee will make final approval of the application.

A GPA of 2.80 or above is required to be admitted into the program. As with other majors, a minimum of I 28 hours is necessary for graduation; at least 48 of these hours must be completed after the approval of the application. The application deadline is April 15 of each academic year.

The bachelor of arts degree program requires completion of two years of one foreign language and a minimum of 46 hours in the major. A bachelor of science degree in the goal-oriented major requires a minimum of 60 hours in the major, including a minimum 3 -hour practicum. The bachelor of science degree requires 46 hours if combined with curriculum requirements in systems analysis. The required senior comprehensive exam will be a paper ( 3,000 words or more) that integrates several components of the major. All general education, degree, and major requirements listed in this catalog must be fulfilled.

Notes

## History, International Studies, and Social Studies

Chair, Professor A. Winquist<br>Professors R. Jenkinson, S. Messer<br>Associate Professor T. Jones<br>Assistant Professor T. Hoskins

The department of history, international studies, and social studies engages students in the systematic study and interpretation of the recorded human past, thereby promoting life-long learners who have a clearer focus on the impact of the past on the contemporary world. By understanding historical legacies, students are better prepared to minister the love of Jesus Christ in redemptive ways to the world in which they live.

In its curricular activities, the department aspires to:

- Enable students to understand both the "what" and "why" of major historical events and issues.
- Equip students with essential research and analytical skills that they can use to identify historical questions and make sense of the historical record.
- Awaken in students an appreciation for the historical contexts of ever-changing domestic and international issues including legacies of injustice and intolerance.
- Encourage students to apply their historical knowledge and analytical skills in order to serve their localities, the broader Christian community and the world at large.

Students may pursue a BA degree in history; BS degree in history/systems; BS degree in social studies education; or BA degree in international studies. Our graduates pursue a variety of careers both directly and indirectly related to the study of history, including teaching, museum directing, archival and library science, ministry, law, government work, international mission and relief work, business, and journalism. Most educational leaders consider an undergraduate major in a liberal arts subject such as history to be a valuable basis for graduate school study in a variety of fields.

## History

## History (BA)

Students majoring in the department are advised to plan a program with a proper balance between American and world history courses. All students expecting to major in the department who do not have a strong history background on the secondary level should take HIS I03, I04, I24, and 125 as early in their program as possible. The bachelor of arts degree with a major in history requires 36 hours and two years of one foreign language.

| Major Requirements <br> HIS I30 |  |
| :--- | :---: | :--- |
| Introduction to History |  |


| World History Courses |  |  |
| :---: | :---: | :---: |
| Select a minimum of $\underline{12}$ hours in world history from: |  |  |
| HIS 103 | 3 | World History I |
| HIS 104 | 3 | World History II |
| HIS 170 | I-4 | Selected Topics |
| HIS 222 | 4 | Ancient History |
| HIS 240 | 3 | European Religious History |
| tHIS 250 | I | The Contemporary World |
| tHIS 250 | 1 | The Contemporary World |
| HIS 270 | I-4 | Selected Topics |
| HIS 331 | 4 | Reformation and Enlightenment |
| HIS 332 | 4 | Modern Europe 1789-Present |
| HIS 342 | 4 | History of England |
| HIS 361 | 4 | Russian Civilization |
| HIS 370 | I-4 | Selected Topics |
| *HIS 391 | 3 | The World Since 1945 |

## Electives

Select an additional 5-6 hours of history electives to complete the 36-hour requirement.

## History/Systems (BS)

The bachelor of science degree with a major in history/systems consists of the 36 major hours and curriculum requirements in systems analysis. All systems curriculum courses must be completed with a grade of $C$ - or better.

| Systems Curriculum |  |  |
| :--- | :---: | :--- |
| Requirements |  |  |
| COS I20 | 4 | Introduction to Computational Problem Solving |
| IAS 330 | 3 | Human Relations in Organizations |
| MAT 151 | 4 | Calculus I |
| SYS 101 | 3 | Introduction to Systems |
| SYS 390 | 3 | Information Systems Analysis |
| SYS 392 | 1 | Systems Seminar |
| SYS 394 | 4 | Information Systems Design |
| SYS 403 | 3 | Operations Management |
| Select one course from the following: |  |  |
| COS 121 | 4 | Foundations of Computer Science |
| COS 143 | 3 | Interactive Webpage Design |
| Select one course from | the following: |  |
| MAT 210 | 4 | Introductory Statistics |
| MAT 352 | 4 | Mathematical Statistics |



## History Minor

Students majoring in another department may add a history minor of 20 hours.

```
Minor Requirements
HIS I30 3 Introduction to History
```

Select at least $\underline{12}$ hours from either World History or American History.
Select at least five hours in the area not selected above.

## International Studies

The international studies program seeks to assist students in preparing for living and serving in the modern world. The focus of the international studies curriculum is upon the twentieth-century world and the humane disciplines more than the technical and scientific ones.

Majors from all disciplines who wish to develop a broad understanding of God's people throughout the world and are interested in careers in foreign service, humanitarian agencies, international law, overseas teaching, journalism and other mass media, translation, missions, or international business would clearly benefit from a major or minor in international studies.

Students interested in pursuing a major or minor in this program should consult the program director.

## International Studies (BA)

The major requires completion of 40-42 hours in foundational courses, related field requirements, and a concentration area. Other requirements include a January interterm or semester of international study experience, and a senior paper. In addition, majors must also complete two years of one foreign language.

| Foundation Courses |  | tCross-Cultural Ministries Requirements |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| GEO 220 | 4 | Regional Geography | CAS 340 | 3 | Intercultural Communication |
| HIS 103 | 3 | World History I | SOC 200 | 3 | Cultural Anthropology (may be taken through TU Online) |
| HIS 104 | 3 | World History II | Select one course from: |  |  |
| IAS 130 | 3 | Introduction to International Studies | PHI 322 | 3 | World Religions: Western Tradition |
| POS 150 | 3 | World Politics | PHI 323 | 3 | World Religions: Eastern Tradition |

## Related Field Courses

Select three courses from at least two related fields, which are not in the concentration area. +Cross-Cultural Ministries concentrations must take the three courses noted above.

| Advanced Modern Language |  |  |
| :---: | :---: | :---: |
| FRE 221 | 4 | French Conversation |
| FRE 222 | 4 | Contemporary France |
| SPA 305 | 3 | Communication in Spanish |
| SPA 312 | 3 | Culture and Civilization in Spain |
| Business and Economics |  |  |
| ECO 202 | 3 | Principles of Macroeconomics |
| ITB 375 | 3 | International Business |
| Fine Arts |  |  |
| ART 316 | 3 | Asian Art History |
| MUS 343 | 3 | Music and World Cultures |


| Communication Arts or English |  |  |
| :---: | :---: | :---: |
| CAS 340 | 3 | Intercultural Communication |
| ENG 373 | 4 | Literature of Cultural Diversity |
| ENG 444 | 4 | Contemporary Literature |
| Philosophy and Religion |  |  |
| PHI 322 | 3 | World Religions: Western Tradition |
| PHI 323 | 3 | World Religions: Eastern Tradition |
| REL 391 | 3 | Preparation and Strategy for Christian World Mission |
| Sociology |  |  |
| SOC 200 | 3 | Cultural Anthropology (may be taken through TU Online) |

Select one of the following concentration areas and complete a minimum of 15 hours:
African, Asian, and Latin American Studies

| *HIS 311 | 4 | History and Geography of Latin America | HIS 321 | 3 | The Modern Middle East |
| :---: | :---: | :---: | :---: | :---: | :---: |
| *HIS 312 | 4 | History and Geography of East Asia | HIS 370 | 1-4 | Selected Topics (appropriate topic) |
| *HIS 313 | 4 | History and Geography of Africa | HIS 391 | 3 | The World Since 1945 |
| *HIS 315 | 3 | History and Geography of South Asia |  |  |  |
| A maximum of $\underline{6}$ hours may be earned from off-campus programs in Africa, Asia, and Latin America. *A minimum of two different geographic areas must be completed. |  |  |  |  |  |
| Cross-Cultural Ministries (requires I7 hours) |  |  |  |  |  |
| CED 100 | 3 | Introduction to Christian Educational Ministries | Select one course from: |  | Acts and the Early Church Inductive Study of the Bible |
| CED 262 | 3 | Personal Foundations for Ministry | BIB 330 | 3 |  |
| REL 311 | 3 | Foundations of Christian World Mission | BIB 272 | 3 |  |
| REL 391 | 3 | Preparation and Strategy for Christian World Mission |  |  |  |
| REL 432 | 2 | World Mission Area Studies |  |  |  |
| European Studies |  |  |  |  |  |
| HIS 240 | 3 | European Religious History | HIS 361 | 4 | Russian Civilization |
| HIS 331 | 4 | Reformation and Enlightenment | HIS 370 | 1-4 | Selected Topics (appropriate topic) |
| HIS 332 | 4 | Modern Europe 1789-Present | HIS 391 | 3 | The World Since 1945 |
| HIS 342 | 4 | History of England |  |  |  |

A maximum of $\underline{6}$ hours may be earned from off-campus programs in Europe.

French Language and Literature

| FRE 22I | 4 | French Conversation |
| :--- | :---: | :--- |
| FRE 222 | 4 | Contemporary France |
| FRE 332 | 4 | Realism, Symbolism and Existentialism |
| FRE 342 | 4 | French Linguistics |
| FRE 370 | $1-4$ | Selected Topics |
| A maximum of IS hours may be earned from the Academic Program in France. |  |  |
|  |  |  |
| Middle East Studies |  |  |

HIS 321 3 The Modern Middle East

A maximum of 15 hours may be earned from the Middle East Studies Program or 6 hours from Jerusalem University College.

| PSY 357 | 3 | Peace, Reconciliation, and Justice | Select one course from the following: |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SOC 220 | 3 | Ethnic and Minority Issues |
| Select one | rom | following: | SOC 370 | 3 | Rwanda-Peace and Justice |
| $\text { HIS } 352$ | 3 | African-American History | Select one course from the following: |  |  |
| HIS 370 | 3 | Civil Rights | HIS/GEO 311 | 4 | History and Geography of Latin America |
| Select one | from | following: | HIS/GEO 312 | 4 | History and Geography of East Asia |
| PHI 322 | 3 | World Religions-Western Tradition | $\text { HIS/GEO } 315$ | $\begin{aligned} & 4 \\ & 3 \end{aligned}$ | History and Geography of Africa History and Geography of South Asia |
| PHI 323 | 3 | World Religions-Eastern Tradition | $\text { HIS/POS } 321$ | $3$ | The Modern Middle East |
| Spanish Language and Literature |  |  |  |  |  |
| SPA 305 | 3 | Communication in Spanish | SPA 342 | 3 | Spanish Phonology |
| SPA 312 | 3 | Culture and Civilization of Spain | SPA 370 | 1-4 | Selected Topics |
| SPA 321 | 3 | The Art of Writing Spanish | SPA 422 | 4 | Spanish Literature from 1700 to Present |
| SPA 332 | 4 | Contemporary Spanish American Liter |  |  |  |

World Literature

| ENG 212 | 4 | Critical Approaches to Literature | ENG 370 | 1-4 | Selected Topics: Themes and Genres |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ENG 233 | 3 | Literary London | ENG 371 | 4 | The Novel |
| ENG 361 | 4 | Drama | $\begin{aligned} & \text { ENG } 373 \\ & \text { ENG } 444 \end{aligned}$ | $\begin{aligned} & 4 \\ & 4 \end{aligned}$ | Literature of Cultural Diversity Contemporary Literature |

World Politics and Economics

| ECO 4II | 3 | International Economics | Select one course from the following: |  |
| :--- | :--- | :--- | :--- | :--- |
| ECO 442 | 3 | Economic Development | HIS 31I | 4 History and Geography of Latin America |
| Select two courses from: |  | HIS 312 | 4 | History and Geography of East Asia |
| POS 222 | 3 | Comparative Politics | HIS 313 | 4 |
| POS 321 | 3 | The Modern Middle East | HIS 315 | 3 |

## International Studies/Systems (BS)

The bachelor of science degree with a major in international studies/systems consists of the 40-42 major hours and curriculum requirements in systems analysis. Other requirements include a January interterm or semester of international study experience, and a senior paper. In addition, majors must also complete two years of one foreign language. All systems curriculum courses must be completed with a grade of C- or better.

| Systems Curriculum | Requirements |  |
| :--- | :---: | :--- |
| COS I20 | 4 | Introduction to Computational Problem Solving |
| IAS 330 | 3 | Human Relations in Organizations |
| MAT I51 | 4 | Calculus I |
| SYS 101 | 3 | Introduction to Systems |
| SYS 390 | 3 | Information Systems Analysis |
| SYS 392 | 1 | Systems Seminar |
| SYS 394 | 4 | Information Systems Design |
| SYS 403 | 3 | Operations Management |
| Select one course from the following: |  |  |
| COS 121 | 4 | Foundations of Computer Science |
| COS 143 | 3 | Interactive Webpage Design |
| Select one course from the following: |  |  |
| MAT 210 | 4 | Introductory Statistics |
| MAT 352 | 4 | Mathematical Statistics |
| Select one course from the following: |  |  |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |
| Select one course from the following: |  |  |
| SYS 393 | $3-4$ | Practicum |
| HIS 393 | $3-4$ | Practicum |

Systems Electives
Select at least three hours of electives, in addition to those required in the major or systems:
MAT 3823 Advanced Statistical Methods
SYS 2143 Principles of Human Computer Interaction
SYS 3103 E-Commerce
*SYS 4013 Operations Research
*SYS 4023 Modeling and Simulation
*Courses in both areas may count only once.

## International Studies Minor

The international studies minor requires 25-28 hours with the completion of the foundational courses and three courses from related fields.

| Foundation Courses |  |  |
| :--- | :--- | :--- |
| GEO 220 | 4 | Regional Geography |
| HIS 103 | 3 | World History I |
| HIS 104 | 3 | World History II |
| IAS I30 | 3 | Introduction to International Studies |
| POS I50 | 3 | World Politics |

## Related Field Courses

Select three courses from at least two related fields.

| Advanced Modern Language |  |  |
| :---: | :---: | :---: |
| FRE 221 | 4 | French Conversation |
| FRE 222 |  | Contemporary France |
| SPA 305 |  | Communication in Spanish |
| SPA 312 |  | Culture and Civilization of Spain |
| Business and Economics |  |  |
| ITB 375 | 3 | International Business |
| ECO 202 | 3 | Principles of Macroeconomics |
| Communication Arts or English |  |  |
| CAS 340 | 3 | Intercultural Communication |
| ENG 373 | 4 | Literature of Cultural Diversity |
| ENG 444 | 4 | Contemporary Literature |
| Fine Arts |  |  |
| ART 316 | 3 | Asian Art History |
| MUS 343 | 3 | Music and World Cultures |
| Philosophy and Religion |  |  |
| PHI 322 | 3 | World Religions: Western Tradition |
| PHI 323 | 3 | World Religions: Eastern Tradition |
| REL 391 | 3 | Preparation and Strategy for Christian World Mission |

## Social Studies

## Social Studies Education (BS)

The bachelor of science degree in social studies education requires $55-56$ hours of social studies education courses and professional education courses that include student teaching. Secondary education majors must complete specific general education requirements as outlined by the education department on page 210 .

| Professional | Education |  |
| :--- | :---: | :--- |
| EDU 150 | 3 | Education in America |
| EDU 210 | 3 | Reading and Writing for Professional Educators |
| EDU 260 | 3 | Educational Psychology |
| EDU 309 | I | Teaching in Secondary, Junior High/Middle Schools—Special Methods |
| EDU 310 | 2 | Discipline and Classroom Management |
| EDU 332 | 3 | The Junior High/Middle School |
| EDU 328 | 2 | Assessment for Student Learning |
| EDU 43I | 15 | Supervised Internship in Secondary Schools |
| SOS 309 | 2 | Teaching Social Studies in Secondary, Junior High/Middle School |
| SED 320 | 3 | Exceptional Children |
| Social Studies Core |  |  |
| HIS 103 | 3 | World History I |
| HIS 104 | 3 | World History II |
| HIS 124 | 3 | History of the United States to I877 |
| HIS 125 | 3 | History of the United States since I877 |
| HIS 130 | 3 | Introduction to History |
| GEO 220 | 4 | Regional Geography |
| POS 100 | 3 | American Politics |

Select one 3-4 credit hour course from the Economics, Psychology, or Sociology block listed on next page
Historical Perspectives
Select one of the following:
HIS 332
HIS 392

Complete $\underline{15}$ credits from either the Geographical Perspectives or Government and Citizenship block:


## An optional third concentration block may be selected from the following:



## History Courses

> All courses 3 credit hours or more may meet the general education history requirement except where indicated. The same course may not meet both the general education history and social science requirements.

## HIS 103

## 3 hours

## World History I

A survey of the foundations of civilizations and complex societies across the globe from 3200 BC to AD 1500 .

## HIS 104

## World History II

A survey of the early modern and modern world (AD 1500 to present), with attention given to international economic, political, and cultural contact, and its consequences for peoples and cultures.

## HIS 124

## 3 hours

History of the United States to 1877
A survey of the social, political, and cultural development of the people of the United States from the colonization period through Reconstruction.

## HIS 125 <br> 3 hours <br> History of the United States since 1877

A survey of the social, political, and cultural development of the people of the United States from Reconstruction to the present.

## HIS 130

3 hours

## Introduction to History

An introduction to the discipline of history. Emphasis is placed on acquainting students with the major components of historical inquiry, current issues in the field, computer applications and fundamental questions relative to the philosophy of history. Required for history majors. Will not meet general education history requirement.

## HIS 170

## I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements with the consent of the department.

## HIS $211 \quad 4$ hours

History and Geography of Latin America
Historical and geographical study of the nations between the Rio Grande River and Cape Horn. Attention is given to the development of each Latin American area and its relationship to the United States. Meets general education general social science requirement.

## HIS 212

## 4 hours

History and Geography of East Asia
An examination of the histories of China, Japan, and Korea from their earliest foundations to the contemporary era, with particular emphasis on the political, religious, philosophical and cultural underpinnings of these societies. The geographic aspects of the region are also included. Meets general education general social science requirement. Offered spring semester.

## HIS 213

## 4 hours

History and Geography of Africa
A study of the historic, physical, and cultural aspects of Africa, with primary emphasis on sub-Sahara Africa and including the significant role Africa plays in the modern world. Meets general education general social science requirement. Offered fall semester.

## HIS 215

## 3 hours

History and Geography of South/Southeast Asia
An exploration of the political, cultural, and religious development of the Indian subcontinent from 2500 B.C. to the modern era, as well as a survey of Southeast Asia with a focus on Indonesia, the Philippines, Thailand, Singapore and Vietnam. The course includes study of the impact of geography on the region's people and history. Meets general education general social science requirement. Offered fall semester of even years.

## HIS 222

4 hours

## Ancient History

An examination of the ancient Near East and Mediterranean civilizations from Sumer through the late Roman Empire.

## HIS 230

## 3 hours

American Religious History
A study of the historical development in the United States of such movements as Puritanism, revivalism, the social gospel, Judaism, Catholicism and variant forms of Protestantism. Offered fall semester.

## HIS 240

3 hours
European Religious History
A survey of the development of Christianity and Judaism in Europe from the Roman Empire to the contemporary era, with special emphasis on the early church, the conversion of the barbarians, the medieval church, the Reformation, Pietism, 19th century reform movements and the impact of World Wars I and II.

## HIS $250 \quad$ I hour

The Contemporary World
A discussion class reviewing and evaluating the major world news events. Students are expected to read regularly a major news magazine or newspaper. Will not meet general education history requirement. May be repeated.

## HIS 270 1-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements with the consent of the department.

## HIS 310

## 3 hours

The Modern Civil Rights Movement
This course examines the modern Civil Rights Movement in the United States. The focus is on the years 1954-1970, but significant attention is also placed on the background to and aftermath of this period. This course is offered in both on-campus and travel-study formats. Offered January interterm.

## HIS $311 \quad 4$ hours <br> History and Geography of Latin America <br> See HIS 211 .

HIS 3124 hours
History and Geography of East Asia See HIS 212.

HIS 3134 hours
History and Geography of Africa
See HIS 213.
HIS $315 \quad 3$ hours
History and Geography of South/Southeast Asia
See HIS 215.
HIS 321
3 hours
The Modern Middle East
See POS 321.

## HIS 323

3 hours
Women in American History
A survey of women in America from the colonial era to the present. Emphasis is placed on the historical experience of women in terms of perceptions, restrictions and resistance and activities.

## HIS 331

## 4 hours

Reformation and Enlightenment
Historical study of Europe from Luther to the Bastille, including the Ages of the Reformation, Absolutism and the Enlightenment.

## HIS 332

## 4 hours

Modern Europe 1789-Present
A study of Europe from the French Revolution to the creation of the European union. Emphasis is placed on the political, social, economic, and intellectual aspects of this period. Prerequisite: HIS 103 and 104.

## HIS 341

## 3 hours

## Colonial History

An investigation of the colonization of North America by the Spanish, French, Dutch and English, as well as European rivalries, colonial society and the Revolutionary War. Prerequisites: HIS 124, I25, and 130. Offered fall semester of odd years.

## HIS 3424 hours

History of England
A study of English political, constitutional, cultural and intellectual developments, the growth of the British Empire and international relations.

## HIS 351

## 3 hours

American Diplomatic History
A survey of the diplomatic relations of the United States from the period of the American Revolution to the present.

## HIS 352

African-American History
A survey of African-American history from African origins through the modern civil rights movement. Emphasis is placed on the oppression and resistance to oppression that characterize the African-American experience. Offered spring semester.

## HIS 360

Independent Study
An individualized, directed study involving a specified topic. Does not meet the general education history requirement.

## HIS 361

4 hours
Russian Civilization
A study of the development of the Russian nation, its people and culture from Varangian beginnings through czarist rule, and the Soviet Union to 1945. Emphasis is placed on certain periods and personalities, including the Kievan era, Peter the Great, Catherine the Great, tsars of the nineteenth century, the 1917 Revolution, Lenin and Stalin. Offered fall semester in even years.

## HIS 370

1-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements with the consent of the department.

## HIS 371

3 hours
Civil War Era (1820-1880)
A study of the most dominant public issue in mid-nineteenth century America, namely the sectional conflict stemming from the issue of slavery. The course gives major emphasis to: (I) the institutions, ideas and events that led to the Civil War; (2) the war itself; and (3) the reconstruction of the Union.

## HIS 385 <br> 3 hours

American Constitutional Development: Institutional Powers See POS 385.

## HIS $386 \quad 3$ hours

American Constitutional Development: Civil Rights and Liberties See POS 386.

## HIS 391 3 hours

The World Since 1945
An examination of key world events in Africa, Asia, Europe, Latin America, and the United States and Canada since World War II. The emphasis is on the political and economic development, though cultural and social aspects are also included.

## HIS 392 <br> 4 hours <br> Twentieth Century U.S. History

A study of the political, military, economic, and cultural development of the nation during its rise to world prominence. Prerequisite: HIS 124 and 125. Offered spring semester.

## HIS 393

## 1-4 hours

## Practicum

Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Does not meet the general education history requirement. Offered primarily during summer.

## HIS $450 \quad$ I-4 hours

Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.
HIS $480 \quad$ I-4 hours
Seminar

Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion. Does not meet the general education history requirement.

## HIS $490 \quad \mathbf{I - 2}$ hours

Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field. Does not meet the general education history requirement.

## Social Studies Courses

SOS 309
2 hours
Teaching Social Studies in Secondary, Junior High/Middle School
This course is a junior level secondary social studies methods course in which various aspects of classroom instruction are addressed including standards, unit and lesson planning, teaching strategies, questioning and critical thinking skills, P-I2 student learning, and assessment. Prerequisites: EDU I50, 260 and approval into the teacher education program. Corequisite: EDU 309.

Notes

## Humanities

Humanities courses carry an interdisciplinary focus and are directly related to more than one single department or academic field. These courses include curricular offerings in arts, theatre arts, and music.

## Humanities Courses

HUM I70 I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course
offering. May count toward the departmental major and general education requirements.

## HUM 230

4 hours
Art as Experience
Lecture sessions focus upon works from several art forms, with the goal of developing students' perceptual skills. A major focus of this course is experiencing art. Written critiques on selected events are part of the course curriculum. The January interterm version of this course requires permission of instructor. Meets general education arts requirement.

## HUM 250

I hour
Participation in the Arts
ART, CAT, or MUS participation to fulfill the general education participation in the arts requirement. Non-music majors may also take an ensemble or private lesson to fulfill this requirement. Meets general education fine arts requirement. Credit only.

| HUM 250A | Drama |
| :--- | :--- |
| HUM 250AE | Acting for Everyone |
| HUM 250B | Books |
| HUM 250C | Ceramics |
| HUM 250D | Drawing |
| HUM 250DP | Digital Photography |
| HUM 250FD | Folk Dances of Other Cultures |
| HUM 250J | Jewelry |
| HUM 250L | Metals |
| HUM 250P | Photography |
| HUM 250PW | Printmaking-Woodcutting |
| HUM 250SC | Sculpture-Ceramics |
| HUM 250W | Watercolor |
| HUM 250WB | Woodcutting-Boxes |

## HUM 270

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## HUM 330

4 hours
Arts and Ideas
In four hours of lecture/discussion per week, the evolution of western art through selected historical periods and places is traced. The emphasis is heavily historical, stressing learning about the artistic heritage and its context as well as experiencing art. The course is open to students of all majors, but is particularly appropriate for literature, fine arts, history, and philosophy majors. Meets general education fine arts requirement.

## HUM 360 I-4 hours <br> Independent Study <br> An individualized, directed study involving a specified topic.

HUM 370
I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## HUM 393

1-4 hours

## Practicum

Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## HUM 450

I-4 hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

HUM $480 \quad$ I-4 hours
Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

## HUM 490

I-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

Notes

## Interarea Studies

Interarea courses are general in scope and exist apart from any single department. See page 46 for additional course offerings.

## Interarea Courses

IAS IOI I hour
New Student Orientation
This course is designed to assist new students with adaptation to college life and to familiarize them with the wider Taylor University community. Through lectures and discussion groups, the topics of college adjustment, academic development, global engagement, leadership, vocation, cultural engagement, and Taylor's history and philosophy will be addressed. Required of all first-time freshmen regardless of advanced credit or standing and transfer students with II or fewer credit hours. Meets general education requirement.

## IAS 110

## 3 hours

Foundations of Christian Thought
An introduction to the liberal arts and the integration of faith and learning. In addition to large group lectures, the course includes small group discussion sessions led by faculty and staff. The discussion sessions further develop the themes for the course. The primary thrust is to use the central theme of human nature to introduce the student to basic areas of understanding that undergird the intellectual growth process at Taylor. Required of all students. Meets general education requirement. Offered fall semester.

## IAS IIIH <br> 2 hours <br> God, Humanity and Knowledge (Honors)

An interdisciplinary introduction to the liberal arts and the integration of faith and learning. Through lectures, readings, films, and discussion, the course intentionally seeks to challenge students to be more confident in the development of a meaningful belief system. For students enrolled in CRAM; fulfills IAS 110 requirement. Meets general education requirement. Offered summers only.

## IAS 120 <br> I hour

Introduction to International Ministry
To prepare for Lighthouse projects, students study the concept of culture, American cultural distinctives, and the cultural, religious and historical characteristics of Lighthouse host nations. Students examine the components of effective intercultural ministry and communicating faith in Christ crossculturally. Attention is given to personal character, spiritual life, commitment and teamwork essential for effective service. The class is offered each fall. Grade only.

## IAS 1303 hours

Introduction to International Studies
Required for international studies majors, this course introduces students to cross-cultural issues, international current events, and international career opportunities. Offered spring semester.

## IAS $170 \quad 1-4$ hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## IAS 210

## 2 hours

Medical Terminology
This course is designed to assist students in learning medical terminology, as well as to provide instruction in word-building skills so that words can be identified by their word parts. It provides a solid vocabulary foundation for those individuals who anticipate taking the MCAT or plan to enter an area of allied health studies.

## IAS 220

## I-4 hours

Honors
Special seminars available to students in the Honors Guild and others by permission of the instructor.

## IAS 230 I hour <br> Issues in Science and Religion

An interdisciplinary examination of key issues underlying the relationship of science and Christianity, focusing on issues concerning creation, the fall, the flood, and the world in which we live today. The course will be a focus on general scientific concepts and theological principles involved in the integration of faith and learning. Fulfills elective credit toward the 128 -hour degree requirement or one elective credit in either physics or religion.

## IAS 23IH 2 hours <br> Issues in Science and Religion (Honors)

A more in depth interdisciplinary examination of key issues underlying the relationship of science and Christianity, focusing on issues concerning creation, the fall, the flood, and the world in which we live today. The course will be a focus on general scientific concepts and theological principles involved in the integration of faith and learning. Fulfills elective credit toward the 128 -hour degree requirement and one elective credit in both physics and religion. Students will pursue research into a particular issue within this area, as well as more in depth study groups.

## IAS 252

Developmental Processes in Leadership
Designed to provide theoretical foundations and experiential opportunities structured toward personal growth and organizational effectiveness. Strongly recommended for all students interested in on-campus leadership positions. Not available for audit (AUD) credit. Offered January interterm and spring semester.

## IAS 270

## I-4 hours

## Selected Topics

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## IAS 320

## 3 hours

Cross-Cultural Outreach
Through this Lighthouse service-learning experience, students are immersed in another culture and provide needed service to gain cross-cultural understanding, interpersonal and skill development and spiritual growth. Emphasis is given to reflection on God's global purposes, intercultural relationships and life stewardship. Prerequisite: IAS 120 or permission of instructor. Meets general education cross-cultural requirement. Offered January interterm.

## IAS 330 <br> 3 hours

Human Relations in Organizations
The necessity of constructive conflict in organizations and the inevitability of destructive personal conflict are the reasons for studying human relations. Five books, some classic like Carnegie's How To Win Friends and Influence People, some near classic like Covey's The Seven Habits of Effective People, and possible future classics like Sande's The Peacemaker, are read and discussed. The goal is to improve understanding of conflict: That constructive conflict is healthy and necessary, how creative conflict can degenerate into destructive personal conflict, the causes of team dysfunction, how to achieve team synergy, and personal techniques for engaging in constructive conflict, avoiding destructive conflict and redeeming it should it happen. The Bible is used as a discussion resource. The pre-supposition of the course is that evangelical Christian culture encourages conflict avoidance within the culture and often without. Some strive to be "meek and mild" like Jesus, an aspiration that belies an incomplete understanding of Jesus' character and behavior. This is a writing course with a strong emphasis on discussion. Meets general education social science requirement.

## IAS 352

I hour
Student Development Seminar
Designed to provide instruction and study in topics relevant to specific student leadership positions on campus. Prerequisite: IAS 252 or permission of instructor. Offered spring semester.

## IAS 360

I-4 hours
Independent Study (Honors)
An individualized, directed study involving a specified topic. Enrollment in this experience is restricted to students in the Honors Guild.

## IAS 370

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## IAS 393

I-4 hours
Practicum
Supervised learning involving a first-hand field experience or a project.
Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## IAS 450

I-4 hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

IAS 480
I-4 hours
Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

## IAS 490

I-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## IAS $492 \quad$ I-4 hours

Integrative Seminar
An interdepartmental, interdisciplinary seminar of an integrative nature utilizing readings and other media to communicate ideas.
IAS 495 I hour

Senior Seminar
Senior Seminar is an integrative, interdisciplinary general education requirement. Students will register for it during either the fall or spring semester of their senior year. Meets general education requirement.
IAS 499 I hour
Special Study
Upon recommendation of the major department chair, a student may petition
for permission to serve as an instructional assistant in his/her major
department. It is to be understood that the petition must be accompanied by
a description of the student's duties and that the approved petition is to be
presented to the Office of the Registrar at the time of registration.
Prerequisites: Junior standing; overall GPA of at least 2.60; major GPA of at least
3.00; and permission of the appropriate school dean.

## Liberal Arts

The associate of arts degree in the liberal arts is offered for students who desire a two-year program that emphasizes a breadth of knowledge. It is not to be taken with or awarded with any of the three baccalaureate degrees.

A 43 hour core of courses from a variety of academic disciplines is combined with 14 hours from the student's choice of concentration area and elective hours to total 64 credit hours.

The area of concentration (or a combination of related areas if sufficient offerings are not available in one selected field of study) excludes existing associate degree programs (early childhood education and management information systems) and must be approved by the Director of General Education.

## Liberal Arts (AA)

| Core Requirements |  |  |
| :---: | :---: | :---: |
| BIB 110 | 3 | Biblical Literature I |
| BIB 210 | 3 | Biblical Literature II |
| COS 104 | 2 | Computing and Culture - Applications and Context |
| ENG 110 | 3 | Expository Writing |
| HUM 230 | 4 | Art as Experience |
| IAS 101 | I | New Student Orientation |
| IAS 110 | 3 | Foundations of Christian Thought |
| PHP 100 | 2 | Fitness for Life |
| PHP 200 | I | General Physical Education |
| REL 313 | 3 | Historic Christian Belief |
| Select one course from the following: |  |  |
| CAS 110 | 3 | Public Speaking |
| CAS 120 | 3 | Interpersonal Communication |
| Select one literature course from: |  |  |
| ENG 230 | 3 | World Literature |
| ENG 240 | 3 | American Literature |
| ENG 250 | 3 | British Literature |
| Select one science or mathematics course. |  |  |
| Select one history course. |  |  |
| Select one social science course. |  |  |
| Select one cross-cultural course. |  |  |
| Concentration Requirements |  |  |
| Complete at least $\underline{4}$ hours within an approved concentration area. |  |  |
| Electives |  |  |
| Select enough electives to reach the 64 credit hour requirement. |  |  |

Notes

# Media Communication 

Co-chairs, Associate Professor D. Downs, Assistant Professor K. Bruner<br>Assistant Professor J. Bruner, M. Saunier<br>Instructor S. Brookshire

The media communication program seeks to develop extraordinary communicators and artists who are marked by professional excellence, passion for serving Christ, and their desire to use media for cultural transformation. Students are prepared for a wide variety of careers in entertainment, public relations, news and media writing, filmmaking, broadcasting, corporate and nonprofit communication, media ministry, and media missions.

Within the deliberately well-rounded media communication program, all students take a shared core of classes in media theory, writing, ethics, design, and digital software tools. Students then choose a major in: film and media production, media production, media writing, public relations, or web communication. Media production students may add an optional audio concentration. Our goal is to equip great storytellers who can craft messages and stories for multiple audiences, using multiple media.

Students with writing, photography, or layout skills can assist with production of The Echo, Taylor's weekly newspaper, or the llium, the studentproduced yearbook. Students interested in media production or promotion can join WTUR, Taylor's FM radio station, or Envision Productions, Taylor's in-house television, video, and film production team. Students may also get involved with the annual Envision Film Festival, showcasing the best in Taylor filmmaking.

## Film and Media Production (BA)

The bachelor of arts degree in media production requires two years of one foreign language and 56-57 major hours. Off-Campus study at the LA Film Studies Center is required. Students must apply and be accepted to the program. The media communication department cannot guarantee acceptance into this program. Majors must take CAS IIO to meet their general education speaking requirement. All majors must participate in three semesters of media involvement. Students may not double major with art, professional writing, or computer science-new media.

| Media Communication Core |  |  |
| :---: | :---: | :---: |
| ART 156 | 1 | Digital Tools: Photoshop |
| ART 157 | 1 | Digital Tools: InDesign |
| ART 356 | 3 | Web Design |
| ART 358 | I | Digital Tools: Dreamweaver |
| CAS 120 | 3 | Interpersonal Communication |
| MCM 115 | 3 | Introduction to Media Writing |
| MCM 125 | 1 | Media Communication: New Majors Orientation |
| MCM 255 | 3 | Media and Society |
| MCM 332 | 3 | Layout and Design |
| MCM 350 | 3 | Media Theory and Ethics |
| MCM 388 | 3 | Media, Faith, and Culture |
| MCM 393 | 3 | Practicum |
| MCM 485 | 3 | Senior Capstone |


| Major Requirements |  |  |
| :---: | :---: | :---: |
| FSC 305 | 3 | Hollywood Production Workshop (may count as MCM 440) |
| FSC 332 | 4 | Faith and Artistic Development in Film (may count as MCM 388) |
| FSC 492 | 6 | Internship (may count as MCM 393) |
| MCM 215 | 3 | Audio Production |
| MCM 220 | 3 | Film and Video Production |
| MCM 330 | 3 | Scriptwriting |
| MCM 355 | 3 | Multi-Camera Live Production |
| MCM 440 | 3 | Narrative Filmmaking |
| Select one course from the following: |  |  |
| FSC 312 | 3 | Screenwriting (may count as MCM 330) |
| FSC 327 | 3 | Narrative Storytelling |
| FSC 340 | 3 | Professional Acting for Camera (may count as MCM elective) |
| FSC 360 | 3 | Independent Study |
| Select two additional courses from the following: |  |  |
| ART 456 | 3 | Web Animation |
| CAT 212 | 4 | Acting |
| MCM 225 | 3 | Foundations of Photojournalism |
| MCM 340 | 3 | Documentary Filmmaking |
| MCM 345 | 3 | Web Writing and Production |
| MCM 352 | 3 | History and Criticism of Film |
| MCM 358 | 3 | Sundance Study Trip |
| MCM 370 | 3 | Selected Topics (approved by advisor) |
| MCM 430 | 3 | Producing for Clients |
| MCM 455 | 3 | Directing Visual Media |

## Film and Media Production/Systems (BS)

The bachelor of science degree in media production/systems consists of the $56-57$ hour film and media production major and curriculum requirements in systems analysis. Off-Campus study at the LA Film Studies Center is required. Students must apply and be accepted to the program. The media communication department cannot guarantee acceptance into this program. Majors must take CAS IIO to meet their general education speaking requirement. All systems curriculum courses must be completed with a grade of $C$ - or better. All majors must participate in three semesters of media involvement. Students may not double major with art, professional writing, or computer science-new media.

| Systems Curriculum |  |  |  | Requirements |
| :--- | :---: | :--- | :---: | :---: |
| COS I20 | 4 | Introduction to Computational Problem Solving |  |  |
| IAS 330 | 3 | Human Relations in Organizations |  |  |
| MAT 151 | 4 | Calculus I |  |  |
| MCM 393 | $3-4$ | Practicum |  |  |
| SYS 101 | 3 | Introduction to Systems |  |  |
| SYS 390 | 3 | Information Systems Analysis |  |  |
| SYS 392 | 1 | Systems Seminar |  |  |
| SYS 394 | 4 | Information Systems Design |  |  |
| SYS 403 | 3 | Operations Management |  |  |
| Select one course from the following: |  |  |  |  |
| COS 121 | 4 | Foundations of Computer Science |  |  |
| COS 143 | 3 | Interactive Webpage Design |  |  |


| Select one course from the following: |  |  |
| :---: | :---: | :---: |
| MAT 210 | 4 | Introductory Statistics |
| MAT 352 | 4 | Mathematical Statistics |
| Select one course from the following: |  |  |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |

## Systems Electives

Select at least three hours of electives, in addition to those required in the major or systems:

| MAT 382 | 3 | Advanced Statistical Methods <br> SYS 214 |
| :--- | :--- | :--- |
| Principles of Human Computer Interaction |  |  |

SYS $214 \quad 3 \quad$ Principles of Human Computer Interaction
SYS $310 \quad 3 \quad$ E-Commerce
*SYS 40I 3 Operations Research
*SYS 4023 Modeling and Simulation
*Courses in both areas may count only once.

## Media Production (BA)

The bachelor of arts degree in media production requires two years of one foreign language and 52 major hours. Majors must take CAS IIO to meet their general education speaking requirement. All majors must participate in three semesters of media involvement. Students may not double major with art, professional writing, or computer science-new media.

| Media Communication Core |  |  |
| :--- | :--- | :--- |
| ART I56 | I | Digital Tools: Photoshop |
| ART I57 | I | Digital Tools: InDesign |
| ART 356 | 3 | Web Design |
| ART 358 | I | Digital Tools: Dreamweaver |
| CAS I20 | 3 | Interpersonal Communication |
| MCM II5 | 3 | Introduction to Media Writing |
| MCM I25 | 1 | Media Communication: New Majors Orientation |
| MCM 255 | 3 | Media and Society |
| MCM 332 | 3 | Layout and Design |
| MCM 350 | 3 | Media Theory and Ethics |
| MCM 388 | 3 | Media, Faith, and Culture |
| MCM 393 | 3 | Practicum |
| MCM 485 | 3 | Senior Capstone |


| Major Requirements |  |  |  |
| :--- | :--- | :--- | :---: |
| MCM 215 | 3 | Audio Production |  |
| MCM 220 | 3 | Film and Video Production |  |
| MCM 330 | 3 | Scriptwriting |  |
| MCM 355 | 3 | Multi-Camera Live Production |  |
| MCM 440 | 3 | Narrative Filmmaking |  |
| Select two additional courses from the following: |  |  |  |
| ART 456 | 3 | Web Animation |  |
| CAT 212 | 4 | Acting |  |
| MCM 225 | 3 | Foundations of Photojournalism |  |
| MCM 340 | 3 | Documentary Filmmaking |  |
| MCM 345 | 3 | Web Writing and Production |  |
| MCM 352 | 3 | History and Criticism of Film |  |
| MCM 358 | 3 | Sundance Study Trip |  |
| MCM 370 | 3 | Selected Topics (approved by advisor) |  |
| MCM 430 | 3 | Producing for Clients |  |
| MCM 455 | 3 | Directing Visual Media |  |

## An optional concentration in Audio may be added.

Audio
An audio concentration may be added to the media production major, requiring completion of concentration courses in addition to the media production major requirements. Students wishing to attend the Contemporary Music Center in Nashville must apply and be accepted to the program. The media communication department cannot guarantee acceptance into this program.

## Concentration Requirements

A semester at the Contemporary Music Center completing the Technical track:
CMC $300 \quad 3 \quad$ Faith, Music, and Culture (may count as MCM 388)
CMC 30I 3 Inside the Music Industry
CMC 393 I Practicum (may count as I credit of MCM 393)
CMC 4063 Advanced Recording Techniques (may count as a MCM elective)
CMC 4073 Live Sound Reinforcement (may count as a MCM elective)
CMC 4083 Lighting Design

## Media Production/Systems (BS)

The bachelor of science degree in media production/systems consists of the 52 hour media production major and curriculum requirements in systems analysis. Majors must take CAS IIO to meet their general education speaking requirement. All systems curriculum courses must be completed with a grade of C- or better. An audio concentration may be added to the media production major. All majors must participate in three semesters of media involvement. Students may not double major with art, professional writing, or computer science-new media.

| Systems Curriculum Requirements |  |  |
| :---: | :---: | :---: |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| IAS 330 | 3 | Human Relations in Organizations |
| MAT 151 | 4 | Calculus I |
| MCM 393 | 3-4 | Practicum |
| SYS 101 | 3 | Introduction to Systems |
| SYS 390 | 3 | Information Systems Analysis |
| SYS 392 | 1 | Systems Seminar |
| SYS 394 | 4 | Information Systems Design |
| SYS 403 | 3 | Operations Management |
| Select one course from the following: |  |  |
| $\cos 121$ | 4 | Foundations of Computer Science |
| COS 143 | 3 | Interactive Webpage Design |
| Select one course from the following: |  |  |
| MAT 210 | 4 | Introductory Statistics |
| MAT 352 | 4 | Mathematical Statistics |
| Select one course from the following: |  |  |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |
| Systems Electives |  |  |
| Select at least three hours of electives, in addition to those required in the major or systems: |  |  |
| MAT 382 | 3 | Advanced Statistical Methods |
| SYS 214 | 3 | Principles of Human Computer Interaction |
| SYS 310 | 3 | E-Commerce |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |

## Media Writing (BA)

The bachelor of arts degree in media writing requires two years of one foreign language and 52-53 major hours. Majors must take CAS IIO to meet their general education speaking requirement. All majors must participate in three semesters of media involvement. Students may not double major with art, professional writing, or computer science-new media.

| Media Communication Core |  |  |  |  |
| :--- | :--- | :--- | :---: | :---: |
| ART I56 | I | Digital Tools: Photoshop |  |  |
| ART I57 | I | Digital Tools: InDesign |  |  |
| ART 356 | 3 | Web Design |  |  |
| ART 358 | I | Digital Tools: Dreamweaver |  |  |
| CAS I20 | 3 | Interpersonal Communication |  |  |
| MCM 115 | 3 | Introduction to Media Writing |  |  |
| MCM 125 | I | Media Communication: New Majors Orientation |  |  |
| MCM 255 | 3 | Media and Society |  |  |
| MCM 332 | 3 | Layout and Design |  |  |
| MCM 350 | 3 | Media Theory and Ethics |  |  |
| MCM 388 | 3 | Media, Faith, and Culture |  |  |
| MCM 393 | 3 | Practicum |  |  |
| MCM 485 | 3 | Senior Capstone |  |  |


| Major Requirements |  |  |
| :--- | :---: | :--- |
| MCM 225 | 3 | Foundations of Photojournalism |
| MCM 315 | 3 | Advanced Media Writing |
| MCM 335 | 3 | Magazine and Feature Writing |
| MCM 345 | 3 | Web Writing and Production |
| Select one course from the following: |  |  |
| MCM 215 | 3 | Audio Production |
| MCM 220 | 3 | Film and Video Production |
| Select two additional courses from the following.: |  |  |
| ENG 325 | 3 | Creative Nonfiction |
| MCM 215 | 3 | Audio Production |
| MCM 220 | 3 | Film and Video Production |
| MCM 330 | 3 | Scriptwriting |
| MCM 358 | 3 | Sundance Study Trip |
| MCM 370 | 3 | Selected Topics (approved by advisor) |
| PWR 472 | 4 | Freelance Writing |

## Media Writing/Systems (BS)

The bachelor of science degree in media writing/systems consists of the 52-53 hour media writing major and curriculum requirements in systems analysis. Majors must take CAS IIO to meet their general education speaking requirement. All systems curriculum courses must be completed with a grade of C- or better. All majors must participate in three semesters of media involvement. Students may not double major with art, professional writing, or computer science-new media.

| Systems Curriculum |  |  |  |
| :--- | :---: | :--- | :---: |
| Cequirements |  |  |  |
| COS I20 | 4 | Introduction to Computational Problem Solving |  |
| IAS 330 | 3 | Human Relations in Organizations |  |
| MAT 151 | 4 | Calculus I |  |
| MCM 393 | $3-4$ | Practicum |  |
| SYS I01 | 3 | Introduction to Systems |  |
| SYS 390 | 3 | Information Systems Analysis |  |
| SYS 392 | 1 | Systems Seminar |  |
| SYS 394 | 4 | Information Systems Design |  |
| SYS 403 | 3 | Operations Management |  |
| Select one course from the following: |  |  |  |
| COS 121 | 4 | Foundations of Computer Science |  |
| COS 143 | 3 | Interactive Webpage Design |  |

Select one course from the following:

| MAT 210 | 4 | Introductory Statistics |
| :--- | :--- | :--- |
| MAT 352 | 4 | Mathematical Statistics |
| Select one course from the following: |  |  |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |
| Systems Electives |  |  |
| Select at least three hours of electives, in addition to those required in the major or |  |  |
| systems: |  |  |
| MAT 382 | 3 | Advanced Statistical Methods |
| SYS 214 | 3 | Principles of Human Computer Interaction |
| SYS 310 | 3 | E-Commerce |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |
| *Courses in both areas may count only once. |  |  |

## Public Relations (BA)

The bachelor of arts degree in public relations requires two years of one foreign language and 52 major hours. Majors must take CAS 110 to meet their general education speaking requirement. All majors must participate in three semesters of media involvement. Students may not double major with art, professional writing, or computer science-new media.

| Media Communication Core |  |  |  |
| :--- | :--- | :--- | :---: |
| ART I56 | I | Digital Tools: Photoshop |  |
| ART I57 | I | Digital Tools: InDesign |  |
| ART 356 | 3 | Web Design |  |
| ART 358 | I | Digital Tools: Dreamweaver |  |
| CAS I20 | 3 | Interpersonal Communication |  |
| MCM II5 | 3 | Introduction to Media Writing |  |
| MCM I25 | 1 | Media Communication: New Majors Orientation |  |
| MCM 255 | 3 | Media and Society |  |
| MCM 332 | 3 | Layout and Design |  |
| MCM 350 | 3 | Media Theory and Ethics |  |
| MCM 388 | 3 | Media, Faith, and Culture |  |
| MCM 393 | 3 | Practicum |  |
| MCM 485 | 3 | Senior Capstone |  |


| Major Requirements |  |  |
| :--- | :---: | :--- |
| MCM 261 | 3 | Introduction to Public Relations |
| MCM 315 | 3 | Advanced Media Writing |
| MCM 361 | 3 | Public Relations Cases and Campaigns |
| MCM 461 | 3 | Public Relations Writing and Production |
| Select three additional courses from the following: |  |  |
| CAS 201 | 3 | Professional Communication in Corporate Contexts |
| CAS 331 | 3 | Team-based Communication |
| CAS 4II | 3 | Communication in Organizations |
| ENT 420 | 3 | Creativity and Concept Development |
| MCM 220 | 3 | Film and Video Production |
| MCM 225 | 3 | Foundations of Photojournalism |
| MCM 330 | 3 | Scriptwriting |
| MCM 345 | 3 | Web Writing and Production |
| MCM 370 | 3 | Selected Topics (approved by advisor) |
| MGT 201 | 3 | Business Basics Boot Camp |
| MGT 350 | 3 | Principles of Management |
| MGT 352 | 3 | Management Analysis \& Practice |
| MKT 231 | 3 | Principles of Marketing |

## Public Relations/Systems (BS)

The bachelor of science degree in public relations/systems consists of the 52 hour public relations major and curriculum requirements in systems analysis. Majors must take CAS IIO to meet their general education speaking requirement. All systems curriculum courses must be completed with a grade of C- or better. All majors must participate in three semesters of media involvement. Students may not double major with art, professional writing, or computer science-new media.

| Systems Curriculum |  |  |
| :--- | :---: | :--- |
| Requirements |  |  |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| IAS 330 | 3 | Human Relations in Organizations |
| MAT 151 | 4 | Calculus I |
| MCM 393 | $3-4$ | Practicum |
| SYS 101 | 3 | Introduction to Systems |
| SYS 390 | 3 | Information Systems Analysis |
| SYS 392 | 1 | Systems Seminar |
| SYS 394 | 4 | Information Systems Design |
| SYS 403 | 3 | Operations Management |
| Select one course from the following: |  |  |
| COS 121 | 4 | Foundations of Computer Science |
| COS 143 | 3 | Interactive Webpage Design |


| Select one course from the following: |  |  |
| :---: | :---: | :---: |
| MAT 210 | 4 | Introductory Statistics |
| MAT 352 | 4 | Mathematical Statistics |
| Select one course from the following: |  |  |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |
| Systems Electives |  |  |
| Select at least three hours of electives, in addition to those required in the major or systems: |  |  |
| MAT 382 | 3 | Advanced Statistical Methods |
| SYS 214 | 3 | Principles of Human Computer Interaction |
| SYS 310 | 3 | E-Commerce |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |
| *Courses in both areas may count only once. |  |  |

## Web Communication (BA)

The bachelor of arts degree in web communication requires two years of one foreign language and 53 major hours. Majors must take CAS 110 to meet their general education speaking requirement. All majors must participate in three semesters of media involvement. Students may not double major with art, professional writing, or computer science-new media.

| Media Com |  | ation Core | Major Requirements |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ART 156 | 1 | Digital Tools: Photoshop | ART 456 | 3 | Web Animation |
| ART 157 | 1 | Digital Tools: InDesign | ART 459 | I | Digital Tools: Flash |
| ART 356 | 3 | Web Design | MCM 215 | 3 | Audio Production |
| ART 358 | 1 | Digital Tools: Dreamweaver | MCM 220 | 3 | Film and Video Production |
| CAS 120 | 3 | Interpersonal Communication | MCM 225 | 3 | Foundations of Photojournalism |
| MCM 115 | 3 | Introduction to Media Writing | MCM 345 | 3 | Web Writing and Production |
| MCM 125 | 1 | Media Communication: New Majors Orientation |  |  |  |
| MCM 255 | 3 | Media and Society | Select two courses from the following: |  |  |
| MCM 332 | 3 | Layout and Design | COS 142 | 3 | Interactive Webpage Development |
| MCM 350 | 3 | Media Theory and Ethics | ENT 420 | 3 | Creativity and Concept Development |
| MCM 388 | 3 | Media, Faith, and Culture | ENT 422 | 3 | New Venture Planning |
| MCM 393 | 3 | Practicum | MCM 330 | 3 | Scriptwriting |
| MCM 485 | 3 | Senior Capstone | MCM 370 | 3 | Selected Topics (approved by advisor) |
|  |  |  | MCM 461 | 3 | Public Relations Writing and Production |
|  |  |  | SYS 101 | 3 | Introduction to Systems |
|  |  |  | $\ddagger$ ¢YS 214 | 3 | Principles of Human Computer Interaction |
|  |  |  | $\ddagger$ ¢YS 310 | 3 | E-Commerce |

## Web Communication/Systems (BS)

The bachelor of science degree in web communication/systems consists of the 53 hour web communication major and curriculum requirements in systems analysis. Majors must take CAS IIO to meet their general education speaking requirement. All systems curriculum courses must be completed with a grade of C- or better. All majors must participate in three semesters of media involvement. Students may not double major with art, professional writing, or computer science-new media.

| Systems Curriculum |  | Requirements |
| :--- | :---: | :--- |
| COS I20 | 4 | Introduction to Computational Problem Solving |
| IAS 330 | 3 | Human Relations in Organizations |
| MAT I5I | 4 | Calculus I |
| MCM 393 | $3-4$ | Practicum |
| SYS 10I | 3 | Introduction to Systems |
| SYS 390 | 3 | Information Systems Analysis |
| SYS 392 | I | Systems Seminar |
| SYS 394 | 4 | Information Systems Design |
| SYS 403 | 3 | Operations Management |
| Select one course from the following: |  |  |
| COS 121 | 4 | Foundations of Computer Science |
| COS 143 | 3 | Interactive Webpage Design |
| Select one course from | the following: |  |
| MAT 210 | 4 | Introductory Statistics |
| MAT 352 | 4 | Mathematical Statistics |


| Select one course from the following: |  |  |
| :---: | :---: | :---: |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |
| Systems Electives |  |  |
| Select at least three hours of electives, in addition to those required in the major or systems: |  |  |
| MAT 382 | 3 | Advanced Statistical Methods |
| \#SYS 214 | 3 | Principles of Human Computer Interaction |
| \#SYS 310 | 3 | E-Commerce |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |
| *Courses in both areas may count only once. |  |  |
| $\ddagger$ Courses |  | both systems and concentration. |

## Public Relations Minor

The public relations minor requires 2 I hours. No more than $50 \%$ of the credits may overlap with another major or minor. Minors must take CAS IIO to meet their general education speaking requirement.

## Minor Requirements

MCM 1153 Introduction to Media Writing
MCM 2613 Introduction to Public Relations
MCM 3153 Advanced Media Writing
MCM 3613 Public Relations Cases and Campaigns
MCM 46I 3 Public Relations Writing and Production

Select two courses from the following:
CAS 201 3 Professional Communication in Corporate Contexts
CAS 33I 3 Team-based Communication
CAS 4II 3 Communication in Organizations
ENT 4203 Creativity and Concept Development
MCM 2553 Media and Society
MCM 3303 Scriptwriting
MCM 3323 Layout and Design
MCM $345 \quad 3 \quad$ Web Writing and Production
MCM 3703 Selected Topics
MCM 3883 Media, Faith, and Culture
MCM $393 \quad 3$ Practicum
MGT 201 3 Business Basics Boot Camp
MGT 3523 Management Analysis and Practice
MKT 23I 3 Principles of Marketing

## Media Communication Courses

## MCM IIS <br> 3 hours <br> ntroduction to Media Writing

This course examines a variety of techniques and formats with an emphasis on news and telling the story. Students will write for print, broadcast and the Internet. Emphasis is on improving writing and editing and telling stories across different platforms with the primary focus on learning to write accurately and precisely. Offered fall and spring semesters

## MCM 125

## 1 hour

Media Communication: New Majors Orientation
Explores the media communication majors, focusing on requirements and career options. It is designed to aid students as they prepare for both their coursework on campus and career decisions upon graduation. Offered fall semester.

## MCM $170 \quad$ I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## MCM 215

## 3 hours

Audio Production
An exploration of the principles and applications of digital audio in today's media industries. Topics discussed include sound theory, microphones, digital audio fundamentals, systems theory and computer- and hardware-based recording and editing. Emphasis is on communicating a creative and technically excellent message. Offered fall and spring semesters.

## MCM 220

3 hours
Film and Video Production
A hands-on immersion in visual storytelling using single camera film-style shooting techniques. Course includes digital cinematography, nonlinear editing, lighting, audio for video/film and producing with an emphasis on creative storytelling and visual aesthetics. Offered fall and spring semesters.

MCM 225

## 3 hours

Foundations of Photojournalism
Introduces equipment, techniques, skills, and concepts of digital photography as applied to journalistic storytelling for news, features, sports, and photo essay. Students must own or have access to a digital SLR camera (6MB or higher). Prerequisite: ART 156 Photoshop.

## MCM 255

## 3 hour

Media and Society
This course examines the history, operations and effects of media industries including magazines, newspapers, radio, television, film, public relations, advertising and the Internet. Offered fall and spring semesters.

## MCM 261

Introduction to Public Relation
An analysis of public relations theory and practice examining public relations environments, audiences and message strategies. Offered fall and spring semesters.

## MCM 270

## I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## MCM 300 <br> I-2 hours

Media Laboratory
Two hours of credit may be earned per semester by students holding the top leadership positions in authorized campus communications-newspaper, yearbook, radio station, or in-house production team. One hour of credit may be earned per semester by those holding secondary media positions approved by the faculty advisor and media communication department chair. A maximum of six hours, including MCM 300 and ENG 300, may count toward graduation. Prerequisite: Permission of instructor.

## MCM 315

## 3 hours

## Advanced Media Writing

This course examines journalistic writing, introducing students to advanced research and interviewing methods. The course requires extensive journalistic writing in the areas of opinion, feature and in-depth writing. Prerequisite: MCM I I5. Offered spring semester.

## MCM 330

Scriptwriting
This course introduces content, style and format of media scripts. Areas include broadcast news writing, advertising copywriting, and short film screenplay writing. Prerequisite: MCM I I5. Offered fall semester.

## MCM 332 <br> 3 hours

Layout and Design
Covers principles of layout and design for communication-related industries. Students will learn the basic principles of design and be able to apply them to various projects. Prerequisites: ART 156 and 157. Meets general education participation in the arts requirement. Offered fall and spring semesters.

## MCM 335

3 hours
Magazine and Feature Writing
This course is designed to further develop students' research and reporting skills in specialized areas. Specifically, this course will prepare students to be competent reporters and writers in such specialized areas as sports, science, business, the environment, health, medicine, gender, race, and ethnicity. Prerequisite: MCM II5. Offered fall semester of even years.

## MCM 340

3 hours
Documentary Filmmaking
An exploration of the art of documentary film. Includes critique of notable documentaries, the study of multiple approaches to nonfiction storytelling and the creation of a festivalready short documentary including pre-production, production, and post-production. Prerequisite: MCM 220.

## MCM 345

Web Writing and Production
This course explores content, style and format of writing for the Web and for social media. Emphasis is on crafting nonlinear stories and on preparing supporting content for Web writing. Prerequisites: MCM II5. Offered fall semester of odd years.

## MCM 350

Media Theory and Ethics
An overview of media communication theories and ethical challenges in the media workplace.

## MCM 352

## 3 hours

## History and Criticism of Film

A survey of American film history, artistic growth and early influences and techniques of filmmaking. Critical principles for viewing films are emphasized. Offered spring semester of odd years.

## MCM $355 \quad 3$ hours

Multi-Camera Live Production
An overview of multi-camera live production processes, techniques and personnel in the studio setting and on-location. Students will plan and produce programming, functioning as a production team. Prerequisite: MCM 220. Offered fall semester.

## MCM 358

## 3 hours

Sundance Study Trip
An exploration of the intersections between faith and film including independent reading and writing, followed by a week-long trip to the Sundance Film Festival. Offered January Interterm.

## MCM 360

## 1-4 hours

Independent Study
An individualized, directed study involving a specified topic.

## MCM 361

## 3 hours

Public Relations Cases and Campaigns
This course examines and analyzes contemporary social and corporate issues in order to identify the public relations implications, techniques and strategies involved. Prerequisite: MCM 261. Offered fall semester.

## MCM 370

## 1-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## MCM $388 \quad 3$ hours

Media, Faith, and Culture
An exploration of the intersections between media, popular culture and the gospel. Topics include evangelical responses to popular culture through history, religious broadcasting, religious filmmaking, media in the local church setting, media in global missions and portrayals of Christ and Christians on TV and film. Production or layout experience is preferred. Offered spring semester.

MCM 393
1-4 hours
Practicum
Supervised learning involving a first-hand field experience or a project. One hour of credit is awarded for a minimum of 40 hours of practicum experience. Pass/fail only. Offered primarily during summer.

MCM 430
3 hours
Producing for Clients
This course develops the skills involved in successfully managing a clientdriven production project. Producing tasks including pre-production, budgeting, scheduling and client relations are emphasized. Students work with an outside organization to produce a professional video or film project. Prerequisite: MCM 220. Offered fall semester of even years.

## MCM 440

## 3 hours

Narrative Filmmaking
This course examines the creation and critique of film. The class will explore the creative aspects of scriptwriting and producing film. It will also provide students with opportunity to direct, shoot and edit a short film. Students will develop an ability to integrate Christian thought and storytelling. Prerequisite: MCM 330. Offered spring semester.

## MCM 450

## I-4 hours

Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

## MCM 455

3 hours
Directing Visual Media
An overview of the role of the director in visual media: script analysis and script marking for television and film, the director's role in preproduction, production and post-production, analysis of television and film genres and their representative directors. Students will have the opportunity to direct a project. Prerequisites: MCM 220 and MCM 355. Offered spring semester of even years as needed.

## MCM $461 \quad 3$ hours

Public Relations Writing and Production
Emphasizes the development and application of public relations writing, event planning, and speaking. Prerequisite: MCM 26I. Offered spring semester.

## MCM 480

I-4 hours
Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

## MCM 485 <br> 3 hours

Senior Capstone
Senior media communication majors will complete a senior portfolio and prepare for employment and graduate school. Offered spring semester.

## MCM 490

I-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

MCM 492
8-16 hours
Internship
Professional semester of supervised internship in a work setting related to the major field of study. Prerequisites: Completion of departmental core and approval of the department faculty. Pass/fail only.

# Modern Languages 

Chair, Professor D. Treber<br>Professor E. Messer<br>Associate Professor C. Chang, M. West<br>Assistant Professors K. Dowling, G. Klotz

The department of modern languages provides the opportunity for students to develop their communication skills in another language in order to gain linguistic, cultural, and literary understanding and to interact meaningfully with people from other cultures. The department prepares students for the future, whether that means sharing their faith, conversing with a neighbor whose first language is not English, or performing a job in the professional realm.

In addition to offering courses in French and Spanish to meet the two-year language requirement for the bachelor of arts degree, the department offers teaching and non-teaching majors and minors in Spanish.

Majors may be required to take courses abroad in order to complete the departmental requirements. Other students may choose to study abroad for their own benefit or to complete the language requirement. In all cases, the department must approve the study abroad courses in advance.

## Spanish (BA)

The bachelor of arts degree with a major in Spanish requires a minimum of 30 hours above elementary courses (SPA IOI and IO2).

| Major Requirements |  |  |
| :--- | :---: | :--- |
| SPA 201 | 3 | Intermediate Spanish I |
| SPA 202 | 3 | Intermediate Spanish II |
| SPA 305 | 3 | Communication in Spanish |
| SPA 3I2 | 3 | Culture and Civilization of Spain |
| Select one course from the | following: |  |
| SPA 321 | 3 | The Art of Writing Spanish |
| SPA 342 | 3 | Spanish Phonology |
| Select four hours from: |  |  |
| SPA 33I | 4 | Introductory Spanish American Literature |
| SPA 332 | 4 | Contemporary Spanish American Literature |
| SPA 42I | 4 | Spanish Medieval and Renaissance Literature |
| SPA 422 | 4 | Spanish Literature from I700 to Present |

## Electives

Select enough elective courses not already applied to fulfill the 30-hour requirement.
SIS xxx Semester in Spain (12-16 credit hours) or LAS 300 Latin American Studies Program-Spanish Language Study (6 credit hours) may fulfill a portion of the 30 -hour requirement. Credit will be assigned in specific areas upon satisfactory completion of the study-abroad experience. Participation in the program must be approved by the modern languages department chair.

Credit for SPA 201 and 202 may be earned through the College Board Advanced Placement Program (AP), by completing a more advanced course with a minimum grade of "B-," or through the College-Level Examination Program (CLEP). The CLEP test should be completed by the end of the freshman year.

## Spanish Education (BS)

The bachelor of science degree in Spanish education requires professional education courses and major courses ( 40 hours of Spanish). Study abroad is encouraged as an enhancement of student preparation. Secondary education majors must complete specific general education requirements as outlined by the education department on page 210 .

| Spanish Requirements |  |  |
| :---: | :---: | :---: |
| Language |  |  |
| SPA 201 | 3 | Intermediate Spanish I |
| SPA 202 | 3 | Intermediate Spanish II |
| SPA 305 | 3 | Communication in Spanish |
| Select one course from the following: |  |  |
| SPA 321 | 3 | The Art of Writing Spanish |
| SPA 342 | 3 | Spanish Phonology |
| Literature |  |  |
| Select $\underline{8}$ hours from: |  |  |
| SPA 331 | 4 | Introductory Spanish American Literature |
| SPA 332 | 4 | Contemporary Spanish American Literature |
| SPA 421 | 4 | Spanish Medieval and Renaissance Literature |
| SPA 422 | 4 | Spanish Literature from 1700 to Present |
| LAS 300 | 6 | Latin American Studies Program-Spanish Language Study |
| Culture and Civilization |  |  |
| Select 6-8 hours from the following: |  |  |
| SPA 312 | 3 | Culture and Civilization of Spain |
| SPA 370 | 3 | Culture and Civilization of Latin America |
| SPA 393 | 1-4 | Practicum |


| Professional Education |  |  |
| :---: | :---: | :---: |
| EDU 150 | 3 | Education in America |
| EDU 210 | 3 | Reading and Writing for Professional Educators |
| EDU 260 | 3 | Educational Psychology |
| EDU 309 | I | Teaching in Secondary, Junior High/Middle SchoolsSpecial Methods |
| EDU 310 | 2 | Discipline and Classroom Management |
| EDU 332 | 3 | The Junior High/Middle School |
| EDU 328 | 2 | Assessment for Student Learning |
| EDU 431 | 15 | Supervised Internship in Secondary Schools |
| MDL 309 | 2 | Teaching Modern Languages in Secondary, Junior High/Middle School |
| SED 320 | 3 | Exceptional Children |

Select enough electives not already applied to total 40 hours in the language.
SIS xxx Semester in Spain (12-14 credit hours) or LAS 300 Latin American Studies Program-Spanish Language Study (6 credit hours) may fulfill a portion of the 40hour language requirement. Credit will be assigned in specific areas upon satisfactory completion of the study-abroad experience. Participation in the program must be approved by the modern languages department chair.

## Spanish Minor

The minor in Spanish requires a minimum of 17 hours above elementary courses (SPA 101 and 102 ) and must include a $300-1400-l e v e l$, $3-4$ hour course taken on campus.

## Minor Requirements

Select at least 17 hours from

| SPA 201 | 3 | Intermediate Spanish I |
| :--- | :--- | :--- |
| SPA 202 | 3 | Intermediate Spanish II |
| SPA 305 | 3 | Communication in Spanish |
| SPA 312 | 3 | Culture and Civilization of Spain |
| SPA 321 | 3 | The Art of Writing Spanish |
| SPA 331 | 4 | Introductory Spanish American Literature |
| SPA 332 | 4 | Contemporary Spanish American Literature |
| SPA 342 | 3 | Spanish Phonology |
| SPA 421 | 4 | Spanish Medieval and Renaissance Literature |
| SPA 422 | 4 | Spanish Literature from I700 to Present |

## French Courses

FRE IOI 4 hours

## Elementary French I

Stresses reading and the use of spoken language, including the essentials of grammar, and offers an introduction to French culture. Includes coordinated lab activities.

FRE 102
Elementary French II
See FRE IOI. Prerequisite FRE IOI.

## FRE 170

## I-4 hours

## Selected Topics

A course offered on a subject of interest but not listed as a regular course offering.
May count toward the departmental major and general education requirements.

## FRE 201

3 hours
Intermediate French I
Continues and builds upon the approach of FRE 101 and 102 through grammar review and intensive reading. Language lab activities are provided to promote oral communication. Prerequisite FRE 102.

## FRE 202

## 3 hours

Intermediate French II
See FRE 20I. Prerequisite FRE 201

## FRE 221

## French Conversation

Emphasizes the development of facility in oral and written communication in French. Includes lab activities. Prerequisite: FRE 202. Offered fall semester of even years.

## FRE 222

4 hours
Contemporary France
Study of contemporary French culture. Prerequisite: FRE 202. Offered fall semester of odd years.

## FRE 270

## 1-4 hours

## Selected Topics

A course offered on a subject of interest but not listed as a regular course offering.
May count toward the departmental major and general education requirements.

## NOTE: FRE 221 or 222 or instructor's permission are prerequisites to upper-division French courses.

FRE $312,322,332$, and 342 are offered in rotation, dependent upon student need and demand.

## FRE 312

## 4 hours

## Classicism

A survey of French classical literature with emphasis on the dramas of Corneille, Racine, and Moliere. Prerequisite: FRE 221 or 222 or instructor's permission. Meets general education literature requirement.

Credit for SPA 201 and 202 may be earned through the College Board Advanced Placement Program (AP), by completing a more advanced course with a minimum grade of "B-," or through the College Level Examination Program (CLEP). The CLEP test should be completed by the end of the freshman year.

SIS xxx Semester in Spain (12-16 credit hours) or LAS 300 Latin American Studies Program-Spanish Language Study ( 6 credit hours) may fulfill a portion of the 17 -hour requirement. Credit will be assigned in specific areas upon satisfactory completion of the study-abroad experience. Participation in the program must be approved by the modern languages department chair.


## NOTE: SPA 305 or instructor's permission

 is a prerequisite to all upper-division Spanish courses.
## SPA 312

## 3 hours

Culture and Civilization of Spain
A survey of the people, culture, and customs of Spain through lectures, readings, discussions, and multimedia. Offered spring semester of even years. Prerequisite: SPA 305 or instructor's permission.

## SPA $321 \quad 3$ hours

The Art of Writing Spanish
An advanced workshop experience in the writing of Spanish. Includes a review of grammar and mechanics and practice in several expository modes, including a formal research paper. Prerequisite: SPA 305 or instructor's permission. Offered fall semester of odd years.

## SPA 331

## 4 hours

Introductory Spanish American Literature
A study of representative New World Spanish literature to 1880. Selections from the conquest, colonial, and romantic periods are discussed. Historical and cultural perspectives are provided. Prerequisite: SPA 305 or instructor's permission. Offered fall semester of odd years.

## SPA $332 \quad 4$ hours

Contemporary Spanish American Literature
Post-romantic readings of Spanish America dating from 1880 to the present
day. Selections are for critical analysis and interpretation as well as enjoyment. Prerequisite: SPA 305 or instructor's permission. Offered spring semester of even years.

## SPA 342

## 3 hours

Spanish Phonology
An examination of the formation of speech sounds in the Spanish language and the application of phonetics and phonemics to understanding and speaking Spanish. Also includes a study of dialectal differences of American and Peninsular Spanish. Prerequisite: SPA 305 or instructor's permission. Offered spring semester of odd years.

## SPA 360

1-4 hours
Independent Study
An individualized, directed study involving a specified topic. Prerequisite: SPA 305 or instructor's permission.

## SPA 370

1-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. Prerequisite: SPA 305 or instructor's permission.

## SPA 393

I-4 hours
Practicum
Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Prerequisite: SPA 305 or instructor's permission. Offered primarily during summer.

## SPA 421

4 hours
Spanish Medieval and Renaissance Literature
A study of Peninsular Spanish literature from its origin to 1700 , the course includes selections from "El Cid" to "Calderon." Historical, political, and cultural perspectives are considered. Prerequisite: SPA 305 or instructor's permission. Offered fall semester of even years.

## SPA 422 <br> 4 hours

Spanish Literature from 1700 to Present
A study of selected readings from the neoclassic, regional, romantic, and other periods of Spanish literature extending to the present. Social and political perspectives are considered. Prerequisite: SPA 305 or instructor's permission. Offered spring semester of odd years.

## SPA 450

## I-4 hours

Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory. Prerequisite: SPA 305 or instructor's permission.

## SPA 480

I-4 hours
Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion. Prerequisite: SPA 305 or instructor's permission.

SPA 490
1-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field. Prerequisite: SPA 305 or instructor's permission.

## Modern Languages Courses

## MDL 309

## 2 hours

Teaching Modern Languages in Secondary, Junior High/Middle School
This course is designed to provide students with fundamental linguistic knowledge of Spanish and French and the application of this knowledge to different aspects of instruction of Spanish/French and to language learning and teaching in bilingual situations. Those aspects include the acquisition of first and second language, the methodologies of foreign language instruction, socio-cultural variables and general knowledge of Spanish morphology and grammar, and understanding the difficulties of English-speaking students in Spanish class. This course consists of three major parts: (1) second language acquisition; (2) Spanish/French grammar approached from the teacher perspective; and (3) sociolinguistics, instructional technology and language assessment. Prerequisites: EDU 150, 260 and approval into the teacher education program. Corequisite: EDU 309.

Notes

## Music

Chair, Professor A. Harrison<br>Professors C. Bade, D. Collins, L. Harshenin, J. Rediger, P. Robertson<br>Associate Professor S. Whipple<br>Assistant Professor E. Kwan

Taylor University makes music an integral part of the overall program serving the needs of the liberal arts student within the context of Christian higher education. For the music major, the department provides the bachelor of arts degree, bachelor of science degree, and bachelor of music degree programs. A "Handbook for Music Majors," outlining all areas of concentration, is available from the music department.

The music department provides music minors in church music ministries, keyboard pedagogy, composition and applied music; numerous ensemble opportunities open to all students; private lessons on all instruments; and concerts, faculty recitals, student recitals and other cultural opportunities. Possible careers in music include areas such as performing, teaching, music business, composing, music technology, and sacred music ministry.

The music department is accredited by the National Association of Schools of Music (NASM).

## General Information for Music Majors

All prospective music majors must audition as part of the admissions process. Specific guidelines for auditions may be obtained by contacting the music department.

Music majors may receive instructional experience through the Center for Musical Development (CMD), practicums in music business, internships in the public schools or churches and student teaching experiences in two school settings.

The utilization of modern technology is incorporated in some music courses through computer-assisted instruction (using Apple computers), electronic clavinova piano lab, music synthesizers, the electronic music studio and various software packages.

All music majors are required to attend performance classes, student and faculty recitals, concerts and artist-series events. Bachelor of music in music education majors attend a minimum of 84 concerts during their academic tenure; all other music majors attend a minimum of 96 concerts.

At the end of each term, an examining committee hears each music major perform on his/her primary instrument.
Each music major gives a junior proficiency recital- 20 minutes in length for bachelor of music candidates and 15 minutes in length for all others, including music education candidates. This recital is presented at the end of a student's sophomore year, or fourth term, in his/her applied area before the music faculty only, and determines whether a student is to be admitted to the upper-division level.

All music majors perform in performance class recitals twice per term. The instructor determines public recital performances. Bachelor of music students are required to give a full graduation recital in their senior year, and all others, including music education majors, are required to give at least a half recital in their senior year. An alternate project may be substituted for the graduation recital in the BA degree, BS degree, and the BM music education major.

Music majors are required to participate in an ensemble each term while on campus, with a minimum of two years in the chorale, wind ensemble or symphony orchestra. Keyboard and composition majors are placed in the ensemble program in accordance with their abilities, career interests and ensemble needs.

## Music Ensembles

All students are invited to participate in music ensembles. Students are encouraged to structure their schedules so that ensembles may be taken for credit. Humanities 250 credit may be obtained by participation for credit in a music ensemble. Auditions are held for freshmen and transfer students during Welcome Weekend at the beginning of the academic year. For those students previously enrolled at Taylor University, auditions may be arranged through the individual ensemble conductors.

## Applied Music

Private lessons are required of all music majors and are available for non-majors. All students taking applied music for the first time register for the 100 level. (Exceptions for transfer students are determined by an examination.) Advancement from one level to another is on the basis of proficiency/examination, or consent of the instructor. The course numbers represent lower and upper-division credits. Normally freshmen and sophomores register for the 100-200 level and juniors and seniors register for the 300-400 level. Students not majoring or minoring in music may register for MUS 105 Applied Music Lessons (meets HUM 250x Participation in the Arts requirement). For those students desiring to study privately in voice, keyboard, or instrumental areas, studio placements are arranged individually with the area coordinators during the first week of each semester. Private lessons begin the second week of each term and continue for 13 lessons each semester. Music majors and minors should consult the "Handbook for Music Majors" for specific requirements at each level and private lesson fees.

Private music lessons for non music majors may be taken for one credit hour (half hour lesson). Music minors may take private lessons for one or two hours (full hour lesson). Music majors may take lessons in credits from one to three hours (full hour lesson) in the following areas: brass, organ, piano, percussion, string, voice, woodwind, harp, and guitar.

## Music (BA)

The bachelor of arts degree with a major in music requires completion of 54-55 hours and two years, sequential study in one foreign language. Voice majors are required to take French or German to meet the language requirement. This degree is designed for students who are primarily interested in a liberal arts degree program with a focus in music. This broadly based degree program has as its foundation the study of music, history, theory, and literature. The program prepares students for diverse career opportunities or graduate study.

Major Requirements
Applied Major (Primary) Instrument
Select 10 hours from:

| MUS 100 | I-4 | Applied Performance |
| :--- | :---: | :---: |
| MUS 200 | I-4 | Applied Performance |
| MUS 300 | I-4 | Applied Performance |
| MUS 400 | I-4 | Applied Performance |
| *MUS II8 | I | Vocal Diction I |
| *MUS 119 | I | Vocal Diction II |
| *MUS I 18 and 119 are for voice majors only. |  |  |

Applied Minor (Secondary) Instrument
Select $\underline{2}$ hours from:
MUS $100 \quad$ I-4 Applied Performance
MUS 200 I-4 Applied Performance

## Ensembles

Select eight hours from:
MUS 210AC, $210 T S, 2$ IOUC, $210 \mathrm{GC}, 2100 \mathrm{~T}, 210 \mathrm{BC}, 210 \mathrm{FC}, 210 \mathrm{HC}, 210 \mathrm{JC}$, $210 \mathrm{E}, 2 \mathrm{IIOPB}, 210 \mathrm{TR}, 240,280,290,310 \mathrm{AC}, 310 \mathrm{TS}, 310 \mathrm{CC}, 310 \mathrm{GC}, 3100 \mathrm{~T}$, $310 \mathrm{BC}, 310 \mathrm{FC}, 310 \mathrm{HC}, 310 \mathrm{JC}, 310 \mathrm{JE}, 310 \mathrm{~PB}, 310 \mathrm{TR}, 340,380,390$

| Additional Major Requirements |  |  |
| :---: | :---: | :---: |
| MUS 101 | 0-I | Fundamentals of Music (or competency) |
| MUS 124 | 3 | Music Theory and Harmony I |
| MUS 124L | I | Music Theory and Harmony I Lab |
| MUS 125 | 3 | Music Theory and Harmony II |
| MUS 125L | 1 | Music Theory and Harmony II Lab |
| MUS 131 | 1 | Introduction to Music I |
| MUS 132 | 2 | Introduction to Music II |
| MUS 201 | 1 | Computers, Technology and Music |
| MUS 224 | 3 | Music Theory and Harmony III |
| MUS 224L | 1 | Music Theory and Harmony III Lab |
| MUS 361 | 2 | Conducting I |
| MUS 371 | 3 | History and Literature I |
| MUS 372 | 3 | History and Literature II |
| MUS 472 | 3 | History-Literature III |
| Select one course from the following: |  |  |
| MUS 243 | 3 | Music and World Cultures |
| MUS 343 | 3 | Music and World Cultures |
| Select one course from the following: |  |  |
| MUS 341 | 2 | Counterpoint |
| MUS 342 | 2 | Form and Analysis |
| Select one course from the following: |  |  |
| MUS 381 | 2 | Piano Pedagogy I |
| MUS 440 | 2 | Vocal Pedagogy |
| MUS 462 | 2 | Instrumental Pedagogy and Literature |
| Foreign Language Requirement |  |  |
| *FRE IOI | 4 | Elementary French I |
| *FRE 102 | 4 | Elementary French II |

## Music (BS)

The bachelor of science degree in music is a liberal arts degree designed to provide for the student a broad-based musical foundation which, combined with concentrations in church music ministries, management, marketing, or theatre arts, prepares the student for possible vocational opportunities in church music ministry, the music industry, or music theatre. All students must complete a standard core of music courses and courses in church music ministries, management, marketing, or theatre arts. The church music ministries concentration consists of 7I-74 hours; the management and marketing concentrations consist of 77-79 hours; and the theatre arts concentration consists of 70-72 hours.

Major Core Requirements
Select 12 hours from the following:

| tMUS 100 | I-4 | Applied Performance |
| :--- | :---: | :--- |
| MUS 200 | I-4 | Applied Performance |
| MUS 300 | I-4 | Applied Performance |
| MUS 400 | I-4 | Applied Performance |
| *MUS I I8 | I | Vocal Diction I |
| *MUS I 19 | I | Vocal Diction II |

†Two hours of MUS 100 must be Keyboard Skills.
*Voice majors must take MUS II8 and II9.

| Additional Major Requirements |  |  |
| :--- | :---: | :--- |
| MUS 101 | $0-1$ | Fundamentals of Music (or competency) |
| MUS 124 | 3 | Music Theory and Harmony I |
| MUS 124L | I | Music Theory and Harmony I Lab |
| MUS 125 | 3 | Music Theory and Harmony II |
| MUS 125L | I | Music Theory and Harmony II Lab |
| MUS 131 | I | Introduction to Music I |
| MUS 132 | 2 | Introduction to Music II |
| MUS 201 | I | Computers, Technology and Music |
| MUS 361 | 2 | Conducting I |

## Ensembles

Select $\underline{8}$ hours from the following:
MUS 2IOAC, 2 IOTS, $210 \mathrm{UC}, 210 \mathrm{GC}, 2100 \mathrm{~T}, 210 \mathrm{BC}, 210 \mathrm{FC}, 210 \mathrm{HC}, 210 \mathrm{JC}$, $210 J E, 210 P B, 210 T R, 240,280,290,310 A C, 310 T S, 310 U C, 310 G C, 3100 T$, 3 IOBC, 3 IOFC, $310 \mathrm{HC}, 310 \mathrm{JC}, 310 \mathrm{JE}, 310 \mathrm{~PB}, 3$ IOTR, $340,380,390$

## Select one of the following concentration areas:

## Church Music Ministries

| Concentration Requirements |  |  | Electives |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BIB 272 | 3 | Inductive Study of the Bible | Select two | fro | he following: |
| CED 100 | 3 | Introduction to Christian Educational Ministries | MUS 121 | 2 | Seminar in Composition I |
| CED 262 | 3 | Personal Foundations for Ministry | MUS 292 | 3 | Introduction to Electronic Music |
| CED 371 | 3 | Leadership Development | MUS 351 | 2 | Choral Arranging |
| MUS 243 | 3 | Music and World Cultures | MUS 352 | 2 | Instrumental Arranging |
| MUS 362 | 2 | Conducting II |  |  |  |
| MUS 371 | 3 | History and Literature I |  |  |  |
| MUS 357 | 3 | Church Music Methods and Materials |  |  |  |
| MUS 245 | 3 | Foundations of Church Music Ministry |  |  |  |
| MUS 345 | 3 | Christian Congregational Song |  |  |  |
| MUS 393 | 2 | Practicum in Church Music |  |  |  |
| MUS 250 | 1 | Audio Visual Technologies in the Church |  |  |  |
| REL 410 | 3 | Theology of Worship |  |  |  |

Management

| Concentration Requirements |  |  |
| :---: | :---: | :---: |
| ACC 24I | 3 | Accounting Principles I |
| MGT 201 | 3 | Business Basics Boot Camp |
| MGT 311 | 3 | Business Law |
| MGT 352 | 3 | Management Analysis and Practice |
| MKT 231 | 3 | Principles of Marketing |
| MUS 372 | 3 | History and Literature II |
| MUS 392 | 3 | Music and Business |
| MUS 393 | 4 | Practicum |
| Select one optiont from the following: |  |  |
| *MUS 472 | 3 | History-Literature III |
| *MUS 224 and | 3 | Music Theory and Harmony III |
| *MUS 224L | 1 | Music Theory and Harmony III Lab |
| Electives |  |  |
| Select three electives from the following: |  |  |
| ENT 422 | 3 | New Venture Planning |
| HRM 362 | 3 | Human Resource Management |
| HRM 462 | 3 | Organization |
| MGT 420 | 3 | Production and Operations Management |

Select a minimum of $\underline{8}$ hours from the following:
MUS 121
MUS 243
MUS 292
tMust take MUS 472 or the combination of MUS 224 and MUS 224L to meet requirement.
*Courses may not meet both requirements and elective hours.

Marketing
Concentration Requirements
MAT 210
MGT 20I
MKT 23I
MKT 445
MKT 460
MUS 372
Electives
Select three electives from the following:
MKT 312
MKT 313
MKT 380
MKT 410
MKT 412

Theatre Arts

| Concentration Requirements |  |  | Electives |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CAS 120 | 3 | Interpersonal Communication | Select a minimum of $\underline{8}$ hours from the following: |  |  |
| CAT 200 | 3 | Performing Literature | MUS 121 | 2 | Seminar in Composition I |
| CAT 212 | 3 | Acting | *MUS 224 | 3 | Music Theory and Harmony III |
| CAT 432 | 3 | Play Directing | *MUS 224L | 1 | Music Theory and Harmony III Lab |
| PHP 200J | I | General Physical Education: Acting | MUS 243 | 3 | Music and World Cultures |
| MUS 3100T | I | Opera Theatre | MUS 292 | 3 | Introduction to Electronic Music |
| MUS 372 | 3 | History and Literature II | MUS 341 | 2 | Counterpoint |
| Select one from the following: |  |  | MUS 342 | 2 | Form and Analysis |
| CAT 301 | 3 | Advanced Oral Interpretation of Literature | MUS 351 | 2 | Choral Arranging |
| CAT 341 | 3 | Stagecraft and Design | MUS 352 | 2 | Instrumental Arranging |
| Select one from the following: |  |  | MUS 362 MUS 371 | 2 3 | Conducting II |
| CAT 362 | 3 | Theatre and the Church | *MUS 472 | 3 | History-Literature III |
| CAT 402 | 3 | Contemporary America Theatre |  |  |  |
| MCM 352 | 3 | History and Criticism of Film | Select two ho |  | 250 (one in musical theatre and one in |
| Select one optiont from the following: |  |  | *Courses may not meet both requirements and elective hours. |  |  |
| *MUS 472 | 3 | History-Literature III |  |  |  |
| *MUS 224 and | 3 | Music Theory and Harmony III | requirement. |  |  |

## Music/Performance (BM)

The bachelor of music degree is the initial professional baccalaureate degree in music. Its primary emphasis is on development of the skills, concepts, and sensitivity essential to the professional life of a musician.

The bachelor of music degree in performance prepares students for graduate school and possible careers as solo performers in concert or church music, accompanists, private teachers, professional ensemble members or conductors or college teachers. It requires 81-85 hours and is offered to students in the following concentration areas:

Vocal Performance


Applied Major (Primary) Instrument
Select 20 hours from:

| MUS 100 | I-4 | Applied Performance |
| :--- | :--- | :--- |
| MUS 200 | I-4 | Applied Performance |
| MUS 300 | I-4 | Applied Performance |
| MUS 400 | I-4 | Applied Performance |

Applied Minor (Secondary) Instrument
Select 4 hours from:

| MUS 100 | I-4 | Applied Performance |
| :--- | :--- | :--- |
| MUS 200 | I-4 | Applied Performance |

## Ensembles

Select $\underline{8}$ hours from:
MUS 2IOAC, $210 \mathrm{TS}, 210 U C, 210 \mathrm{GC}, 2100 \mathrm{~T}, 210 \mathrm{BC}, 210 \mathrm{FC}, 210 \mathrm{HC}, 210 \mathrm{JC}$, $210 J \mathrm{E}, 210 \mathrm{~PB}, 210 \mathrm{TR}, 240,280,290,310 \mathrm{AC}, 310 \mathrm{TS}, 310 \mathrm{UC}, 310 \mathrm{GC}, 3100 \mathrm{~T}$, 3IOBC, 3IOFC, 3IOHC, 3I0JC, 3I0JE, 3IOPB, 3IOTR, 340, 380, 390

Additional Major Requirements

| Complete the following courses: |  |  |
| :---: | :---: | :---: |
| MUS 101 | 0-1 | Fundamentals of Music (or competency) |
| MUS 124 | 3 | Music Theory and Harmony I |
| MUS 124L | 1 | Music Theory and Harmony I Lab |
| MUS 125 | 3 | Music Theory and Harmony II |
| MUS 125L | 1 | Music Theory and Harmony II Lab |
| MUS 131 | 1 | Introduction to Music I |
| MUS 132 | 2 | Introduction to Music II |
| MUS 201 | 1 | Computers, Technology and Music |
| MUS 121 | 2 | Seminar in Composition I |
| MUS 122 | 2 | Seminar in Composition II |
| MUS 224 | 3 | Music Theory and Harmony III |
| MUS 224L | 1 | Music Theory and Harmony III Lab |
| MUS 243 | 3 | Music and World Cultures |
| MUS 292 | 3 | Introduction to Electronic Music |
| MUS 341 | 2 | Counterpoint |
| MUS 342 | 2 | Form and Analysis |
| MUS 361 | 2 | Conducting I |
| MUS 362 | 2 | Conducting II |
| MUS 371 | 3 | History and Literature I |
| MUS 372 | 3 | History and Literature II |
| MUS 381 | 2 | Piano Pedagogy I |
| MUS 382 | 2 | Piano Pedagogy II |
| MUS 470 | 2 | Piano Literature |
| MUS 472 | 3 | History-Literature III |

Electives
MUS 351 and 352 are recommended electives.

Instrumental Performance

## Applied Major (Primary) Instrument

Select 20 hours from:

| MUS 100 | I-4 | Applied Performance |
| :--- | :--- | :--- |
| MUS 200 | I-4 | Applied Performance |
| MUS 300 | I-4 | Applied Performance |
| MUS 400 | I-4 | Applied Performance |

Applied Minor (Secondary) Instrument
Select 4 hours from:

| MUS 100 | I-4 | Applied Performance |
| :--- | :--- | :--- |
| MUS 200 | I-4 | Applied Performance |

## Ensembles

Select $\underline{8}$ hours from:
MUS 210AC, $210 T S, 210 U C, 210 G C, 2100 T, 210 B C, 210 F C, 210 H C, 210 J C$, $210 \mathrm{JE}, 210 \mathrm{~PB}, 210 \mathrm{TR}, 240,280,290,310 \mathrm{AC}, 310 \mathrm{TS}, 310 \mathrm{UC}, 310 \mathrm{GC}, 3100 \mathrm{~T}$, 3 IOBC, 3 IOFC, 3 IOHC, $310 \mathrm{JC}, 3$ IOJE, 3 IOPB, 3 IOTR, 340, 380, 390

| Additional Major Requirements |  |  |
| :---: | :---: | :---: |
| Complete th | owing |  |
| MUS 101 | 0-1 | Fundamentals of Music (or competency) |
| MUS 124 | 3 | Music Theory and Harmony I |
| MUS 124L | I | Music Theory and Harmony I Lab |
| MUS 125 | 3 | Music Theory and Harmony II |
| MUS 125L | I | Music Theory and Harmony II Lab |
| MUS 131 | 1 | Introduction to Music I |
| MUS 132 | 2 | Introduction to Music II |
| MUS 201 | 1 | Computers, Technology and Music |
| MUS 121 | 2 | Seminar in Composition I |
| MUS 122 | 2 | Seminar in Composition II |
| MUS 224 | 3 | Music Theory and Harmony III |
| MUS 224L | I | Music Theory and Harmony III Lab |
| MUS 243 | 3 | Music and World Cultures |
| MUS 292 | 3 | Introduction to Electronic Music |
| MUS 341 | 2 | Counterpoint |
| MUS 342 | 2 | Form and Analysis |
| MUS 352 | 2 | Instrumental Arranging |
| MUS 361 | 2 | Conducting I |
| MUS 362 | 2 | Conducting II |
| MUS 371 | 3 | History and Literature I |
| MUS 372 | 3 | History and Literature II |
| MUS 462 | 2 | Instrumental Pedagogy and Literature |
| MUS 472 | 3 | History-Literature III |
| Select one of the following: |  |  |
| MUS 231 | 1 | Instrumental Methods I-Brass Instruments |
| MUS 232 | I | Instrumental Methods II-Woodwinds |
| MUS 331 | 1 | Instrumental Methods III-Percussion |
| MUS 332 | 1 | Instrumental Methods IV-Strings |

Select four additional hours of electives in MUS.

## Music/Composition (BM)

The bachelor of music degree in composition prepares students for further studies in graduate school, teaching theory/composition in college, and composing or arranging sacred or secular music, as well as numerous opportunities in radio, television, technology, or other related fields. This major consists of 79-80 hours.

| Applied Major/Minor (Primary/Secondary) InstrumentSelect eight hours from: |  |  | Additional Requirements |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | MUS 201 | 1 | Computers, Technology and Music |
| MUS 100 | 1-4 | Applied Performance | MUS 220 | 2 | Composition I |
| MUS 200 | I-4 | Applied Performance | MUS 225 | 2 | Composition II |
| MUS 300 | I-4 | Applied Performance | MUS 224 | 3 | Music Theory and Harmony III |
| MUS 400 | I-4 | Applied Performance | MUS 224L | I | Music Theory and Harmony III Lab |
|  |  |  | MUS 231 | 1 | Instrumental Methods I-Brass Instruments |
|  |  |  | MUS 232 | I | Instrumental Methods II-Woodwinds |
| Ensembles |  |  | MUS 243 | 3 | Music and World Cultures |
| Select $\underline{8}$ hours from: |  |  | MUS 292 | 3 | Introduction to Electronic Music |
| MUS $210 \mathrm{AC}, 210 \mathrm{TS}, 210 \mathrm{UC}, 210 \mathrm{GC}, 2100 \mathrm{~T}, 210 \mathrm{BC}, 210 \mathrm{FC}, 210 \mathrm{HC}, 210 \mathrm{JC}$, |  |  | MUS 321 | 2 | Composition III |
| $210 \mathrm{JE}, 210 \mathrm{~PB}, 210 \mathrm{TR}, 240,280,290,310 \mathrm{AC}, 310 \mathrm{TS}, 310 \mathrm{CC}, 310 \mathrm{GC}, 3100 \mathrm{~T}$, |  |  | MUS 322 | 2 | Composition IV |
| $310 \mathrm{BC}, 310 \mathrm{FC}, 310 \mathrm{HC}, 310 \mathrm{JC}, 310 \mathrm{JE}, 310 \mathrm{~PB}, 310 \mathrm{TR}, 340,380,390$ |  |  | MUS 331 | I | Instrumental Methods III-Percussion |
|  |  |  | MUS 332 | 1 | Instrumental Methods IV-Strings |
|  |  |  | MUS 341 | 2 | Counterpoint |
| Additional Requirements |  |  | MUS 342 | 2 | Form and Analysis |
| MUS 101 | 0-1 | Fundamentals of Music (or competency) | MUS 351 | 2 | Choral Arranging |
| MUS 121 | 2 | Seminar in Composition I | MUS 352 | 2 | Instrumental Arranging |
| MUS 122 | 2 | Seminar in Composition II | MUS 361 | 2 | Conducting I |
| MUS 124 | 3 | Music Theory and Harmony I | MUS 362 | 2 | Conducting II |
| MUS 124L | 1 | Music Theory and Harmony I Lab | MUS 371 | 3 | History and Literature I |
| MUS 125 | 3 | Music Theory and Harmony II | MUS 372 | 3 | History and Literature II |
| MUS 125L | 1 | Music Theory and Harmony II Lab | MUS 421 | 2 | Composition V |
| MUS 131 | 1 | Introduction to Music I | MUS 422 | 2 | Composition VI |
| MUS 132 | 2 | Introduction to Music II | MUS 472 | 3 | History-Literature III |

## Music Education (BM)

The bachelor of music degree in music education requires $94-95$ hours of professional education and music courses. Completion of this degree and the requirements of the teacher education professional licensure program will result in certification for either Instrumental/General P-I2 or Choral/General P-I2. Secondary education majors must complete specific general education requirements as outlined by the education department on page 210.

| Professional Education |  |  |
| :--- | :---: | :--- |
| EDU 150 | 3 | Education in America |
| EDU 210 | 3 | Reading and Writing for Professional Educators |
| EDU 260 | 3 | Educational Psychology |
| EDU 309 | 1 | Teaching in Secondary, Junior High/Middle <br>  <br> EDU 310 |
| Schools-Special Methods |  |  |

## Music Requirements

Applied Major (Primary) Instrument
Select $\underline{Z}$ hours from:

| MUS 100 | I-4 | Applied Performance |
| :--- | :--- | :--- |
| MUS 200 | I-4 | Applied Performance |
| MUS 300 | I-4 | Applied Performance |
| MUS 400 | I-4 | Applied Performance |

Applied Minor (Secondary) Instrument
Select 2 hours from:

| MUS 100 | I-4 | Applied Performance |
| :--- | :--- | :--- |
| MUS 200 | I-4 | Applied Performance |

Music Education Courses

| MUS 135 | I | Introduction to Music Education |
| :--- | :--- | :--- |
| MUS 309 | 3 | Secondary School Methods |
| MUS 311 | 3 | Elementary School Music |
| MUS 361 | 2 | Conducting I |
| MUS 362 | 2 | Conducting II |


| Additional Music Requirements |  |  |
| :--- | :---: | :--- |
| MUS 10I | $0-1$ | Fundamentals of Music (or competency) |
| MUS 124 | 3 | Music Theory and Harmony I |
| MUS 124L | 1 | Music Theory and Harmony I Lab |
| MUS 125 | 3 | Music Theory and Harmony II |
| MUS 125L | I | Music Theory and Harmony II Lab |
| MUS 13I | I | Introduction to Music I |
| MUS 132 | 2 | Introduction to Music II |
| MUS 201 | I | Computers, Technology and Music |
| MUS 224 | 3 | Music Theory and Harmony III |
| MUS 224L | I | Music Theory and Harmony III Lab |
| MUS 243 | 3 | Music and World Cultures |
| Select one course from the following: |  |  |
| MUS 341 | 2 | Counterpoint |
| MUS 342 | 2 | Form and Analysis |
| Select two courses from: |  |  |
| MUS 371 | 3 | History and Literature I |
| MUS 372 | 3 | History and Literature II |
| MUS 472 | 3 | History-Literature III |

Also complete one of the following areas of emphasis:

| Choral/General Music |  |  |
| :---: | :---: | :---: |
| MUS 118 | I | Vocal Diction I |
| MUS 119 | 1 | Vocal Diction II |
| MUS 351 | 2 | Choral Arranging |
| MUS 440 | 2 | Vocal Pedagogy |
| Complete $\underline{7}$ hours of approved ensembles. |  |  |
| Instrumental/General Music |  |  |
| MUS 231 | I | Instrumental Methods I—Brass Instruments |
| MUS 232 | 1 | Instrumental Methods II-Woodwinds |
| MUS 331 | I | Instrumental Methods III-Percussion |
| MUS 332 | 1 | Instrumental Methods IV-Strings |
| MUS 352 | 2 | Instrumental Arranging |

Complete $\underline{7}$ hours of approved ensembles.

## Applied Music Minor

The applied music minor is for non-music majors and is designed for a liberal arts music minor program. The minor consists of 2l-22 hours including core requirements in four one-hour lessons.

| Minor Requirements |  |  | MUS 125 | 3 | Music Theory and Harmony II |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Applied Major (Primary) Instrument |  |  | MUS 125L | I | Music Theory and Harmony II Lab |
| Select 4 hours from: |  |  | MUS 131 | 1 | Introduction to Music I |
| MUS 100 | 1-4 | Applied Performance | MUS 132 | 2 | Introduction to Music II |
| MUS 118 | 1 | Vocal Diction I (for voice emphasis only) |  |  |  |
| MUS 119 | 1 | Vocal Diction II (for voice emphasis only) | Select one of the following: |  |  |
| MUS 200 | 1-4 | Applied Performance | MUS 381 | 2 | Piano Pedagogy I |
|  |  |  | MUS 440 | 2 | Vocal Pedagogy |
|  |  |  | MUS 462 | 2 | Instrumental Pedagogy and Literature |
| Core Courses |  |  |  |  |  |
| MUS 101 | 0-1 | Fundamentals of Music (or competency) |  |  |  |
| MUS 124 | 3 | Music Theory and Harmony I | Ensembles |  |  |
| MUS 124L | 1 | Music Theory and Harmony I Lab | Participate in | rs | major or minor ensemble. |

## Keyboard Pedagogy Minor

The keyboard pedagogy minor is for non-music majors and is designed to prepare students to teach private piano. The minor consists of $21-22$ hours, including core requirements and specialty courses.

|  |  |  |
| :---: | :---: | :---: |
| Applied Major (Primary) Instrument |  |  |
|  |  |  |
| MUS 100 | 1-4 | Applied Performance |
| MUS 200 | 1-4 | Applied Performance |
| Complete the following specialty courses: |  |  |
| MUS 381 | 2 | Piano Pedagogy I |
| MUS 382 | 2 | Piano Pedagogy II |
| MUS 470 | 2 | Piano Literature |


| Complete the following courses: |  |  |  |
| :--- | :---: | :--- | :---: |
| MUS IOI | $0-$ I | Fundamentals of Music (or competency) |  |
| MUS I24 | 3 | Music Theory and Harmony I |  |
| MUS I24L | I | Music Theory and Harmony I Lab |  |
| MUS I25 | 3 | Music Theory and Harmony II |  |
| MUS I25L | I | Music Theory and Harmony II Lab |  |
| MUS I3I | I | Introduction to Music I |  |
| MUS I32 | 2 | Introduction to Music II |  |

## Church Music Ministries Minor

The church music ministries minor is for non-music majors and is designed to prepare the graduate for music ministry in the Christian Church. The minor consists of 24-25 hours including course requirements and four semesters of applied music lessons

## Minor Requirements

Applied Primary Instrument67
Select 4 hours from:
MUS 100 I-4 Applied Performance (recommend piano, organ, voice, or guitar)
MUS 200 I-4 Applied Performance (a minimum of one semester of piano study is recommended for voice or guitar students)

| Core Courses |  |  | Church Music Core |  |  |
| :--- | :---: | :--- | :--- | :--- | :--- |
| MUS 101 | $0-1$ | Fundamentals of Music (or competency test) | MUS 245 | 3 | Foundations of Church Music Ministries |
| MUS 124 | 3 | Music Theory and Harmony I | MUS 357 | 3 | Church Music Methods and Materials |
| MUS 124L | I | Music Theory and Harmony I Lab | MUS 361 | 2 | Conducting I |
| MUS 125 | 3 | Music Theory and Harmony II | MUS 393 | I | Practicum |
| MUS 125L | I | Music Theory and Harmony II Lab |  |  |  |
| MUS 131 | I | Introduction to Music I |  |  |  |
| MUS 132 | 2 | Introduction to Music II | Ensemble participation or ministry in a campus worship team is recommended. |  |  |

## Music Composition Minor

The composition minor is for non-music majors and is designed to provide students with a concentrated opportunity to enrich, sharpen, and broaden their personal writing skills through music composition. Course of study includes public performance of the student's original pieces. This minor provides the student with the opportunity to explore one of three areas of emphasis: instrumental, choral and electro-acoustic composition. This minor consists of 24-25 hours.

| Minor Requirements |  |  |
| :--- | :---: | :--- |
| MUS 100 | Applied Performance-Piano (proficiency required) |  |
| MUS 10I | $0-1$ | Fundamentals of Music (or competency) |
| MUS 124 | 3 | Music Theory and Harmony I |
| MUS 124L | I | Music Theory and Harmony I Lab |
| MUS 125 | 3 | Music Theory and Harmony II |
| MUS 125L | I | Music Theory and Harmony II Lab |
| MUS 131 | I | Introduction to Music I |
| MUS 132 | 2 | Introduction to Music II |
| MUS 201 | I | Computers, Technology and Music |
| MUS 224 | 3 | Music Theory and Harmony III |
| MUS 224L | I | Music Theory and Harmony III Lab |
| MUS 323 | I | Functional Keyboard Skills |

Complete one of the following areas of emphasis:


## Music Courses

| MUS 100 Applied Lesson |  |
| :---: | :---: |
|  |  |
| Learning practice |  |
| repertoire, gaining a broad knowledge of literatur |  |
| performance skills. Lessons are designed |  |
| (registration overrides will be required for minors). |  |
| requirement. Lessons are $1 / 2$ hour and I hour. |  |
| MUS 100B | Applied Lesson-Brass |
| MUS I00G | Applied Lesson-Guitar |
| MUS 100K | Applied Lesson-Piano |
| MUS IOON | Applied Lesson-Organ |
| MUS I00P | Applied Lesson-Percussion |
| MUS 100S | Applied Lesson-Strings |
| MUS 100V | Applied Lesson-Voice |
| MUS I00W | Applied Lesson-Woodwind |

## MUS 101 I hour

## Fundamentals of Music

A remedial course in the rudiments of music designed to prepare the beginning music major/minor for entrance into the music theory cycle. Consists of integrated laboratory experience for development of written, aural and keyboard skills. Proficiency placement test offered during fall welcome weekend. Offered fall and spring semesters.

## MUS 105

## I hour

Applied Lesson
Private instruction designed for personal enrichment and development of musical talent. Content determined by contract with instructor at the beginning of each semester. Lessons are designed for non-majors and to meet the general education participation in the arts requirement. Lessons are $1 / 2$ hour.

| MUS 105B | Applied Lesson-Brass |
| :--- | :--- |
| MUS 155G | Applied Lesson-Guitar |
| MUS 155 | Applied Lesson-Piano |
| MUS 15N | Applied Lesson-Organ |
| MUS 155P | Applied Lesson-Percussion |
| MUS 105S | Applied Lesson-Strings |
| MUS 105V | Applied Lesson-Voice |
| MUS 105W | Applied Lesson-Woodwind |

## MUS IIIG

## I hour

## Guitar

Applied class instruction in guitar for students with little or no previous training. Development of techniques with repertoire appropriate to the elementary level. Meets general education fine arts requirement.

## MUS IIIP

## Piano

Applied class instruction in piano for students with little or no previous training. Development of techniques with repertoire appropriate to the elementary level. Meets general education fine arts requirement.

## MUS IIIS

I hour

## String

Applied class instruction for students with little or no previous training. Development of techniques with repertoire appropriate to the elementary level. Meets general education fine arts requirement.

## MUS IIIV

I hour

## Voice

Applied class instruction in voice for students with little or no previous training. Development of techniques with repertoire appropriate to the elementary level. Meets general education fine arts requirement.

## MUS II2G

I hour
Guitar
See MUS IIIG.

## MUS II2P <br> Piano <br> See MUS IIIP.

I hour

## MUS II2S

I hour
String
See MUS IIIS.

MUS II2V I hour
Voice
See MUS IIIV.

## MUS 118 I hour

Vocal Diction I
A study of the International Phonetic Alphabet and its application for singers in Italian and German. Students will use classical art songs and arias as their basis of study. This class is to be taken in conjunction with applied lessons, supplying a firm foundation for future study. Required of all voice majors. Offered spring semester.

MUS 119
Vocal Diction II
A study of English and French diction and its application in classical art songs and arias. A working knowledge of the International Phonetic Alphabet is utilized as a learning tool. This class is to be taken in conjunction with applied lessons, supplying a firm foundation for future study. Required of all voice majors. Prerequisite: MUS II8 or permission of instructor. Offered fall semester.

MUS 121

## 2 hours

Seminar in Composition I
Original composition in elementary and advanced forms. Emphasis is on development of individual style of expression. Prerequisite: MUS 101 or permission of instructor.

## MUS 122

2 hours
Seminar in Composition II
Original composition in elementary and advanced forms. Emphasis is on development of individual style of expression. Prerequisite: MUS 121 or permission of instructor.

## MUS 124

## 3 hours

Music Theory and Harmony I
A study of the basic structural elements of tonal theory and harmony. Topics covered include construction of $7^{\text {th }}$ chords, principles of part writing and voice leading, melodic phrase analysis, diatonic harmonic progression (including function progression, cadence types, and non-harmonic chord tones), and analysis of small forms. Prerequisite: MUS 101 or successful passing of music department's Fundamentals of Music Placement Exam. Corequisite: MUS 124L. Offered fall semester and January interterm.

MUS 124L

## I hour

Music Theory and Harmony I Lab
A laboratory experience that is designed to reinforce the content covered in MUS 124 through the development of aural and keyboard skills. Corequisite: MUS I24. Offered fall semester and January interterm.

## MUS 125

3 hours
Music Theory and Harmony II
A continuation of Music Theory and Harmony I. An intermediate study in the principles of tonal harmonic progression, with an emphasis on the principles of chromaticism and modulation. Topics will include secondary dominants (vocabulary and part writing), closely related key structures, modulation types (common chard, chromatic, phrase, and sequential), and analysis of binary, ternary and sonata forms. Prerequisite: MUS 124 and 124L. Corequisite: MUS 125L. Offered spring semester.

## MUS 125L

I hour
Music Theory and Harmony II Lab
A laboratory experience that is designed to reinforce the content covered in MUS I25 through the development of aural and keyboard skills. Corequisite: MUS 125. Offered spring semester.

MUS 131

## I hour

Introduction to Music I
An introductory course exploring careers in music, the elements of music, basic music forms and styles, and an overview of Christian perspectives on music. The course is designed for the music major, music minor and other interested students. Offered fall semester.

MUS 132

## 2 hours

Introduction to Music II
A survey of music history and literature in the Western-European tradition, with emphasis on the major composers, genres, forms, stylistic characteristics and aesthetic principles of the various eras. Prerequisite: MUS I3I. Offered spring semester.

## MUS 135

I hour
Introduction to Music Education
An introduction to the field of music education ( $\mathrm{P}-12$, general, choral, instrumental) in general, and the areas of licensure (performance, knowledge, and dispositions) that need to be demonstrated and documented in particular. The IPSB components-Indiana Standards, technology, diversity, service learning, literacy, exceptionality, P-I2 proficiencies, induction and portfolio development and assessment-will be introduced in class. In addition, an allday field trip will be taken to observe the music program in a model school and attendance will be expected at the IMEA state conference. Offered spring semester.

## MUS 170

## I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## MUS 200

## 2 hours

Applied Lesson
Learning practice methods, building good techniques, acquiring sufficient repertoire, gaining a broad knowledge of literature and composers, and achieving performance skills. Lessons are designed for music majors and minors (registration overrides will be required for minors). Lessons are I hour.

| MUS 200B | Applied Lesson-Brass |
| :--- | :--- |
| MUS 200G | Applied Lesson-Guitar |
| MUS 200K | Applied Lesson-Piano |
| MUS 200N | Applied Lesson-Organ |
| MUS 200P | Applied Lesson-Percussion |
| MUS 200S | Applied Lesson-Strings |
| MUS 200V | Applied Lesson-Voice |
| MUS 200W | Applied Lesson-Woodwind |
|  |  |
| MUS 201 |  |
| Computers, Technology and Music |  |

## Computers, Technology and Music

This is a preliminary-level instructional course designed to train the music major in the knowledge and applications of computer and MIDI systems as used in the music profession. Emphasis is placed on acquiring basic knowledge and skills in MIDI and hardware systems, synthesizer performance, sequencing and desktop publishing. Dominant use is on Macintosh systems. Basic keyboard skills are essential. Includes a supervised lab each week. Prerequisites: MUS I 24 and I24L; or permission of the instructor.

## MUS 2IOAC I hour <br> Adoration Chorus (Female Chorus)

A choral ensemble open by audition to all women at Taylor University. This choir utilizes contemporary sacred choral arrangements, spirituals, and praise and worship songs as a means of ministering. Pursuing vocal excellence, the Adoration Chorus focuses on leading others in worship, performing in churches, university functions, schools and community venues. Meets general education fine arts requirement.

## MUS 210BC

## I hour

The Brass Choir, open by audition, consists of a selected group of brass players who perform classical and sacred brass literature. The choir performs frequently in chapel and area churches. Meets general education fine arts requirement.

## MUS 2IOFC

## I hour

## Flute Choir

The Flute Choir consists of a selected group of flute students. The students are auditioned by the flute instructor and explore flute chamber literature. This choir performs one concert each semester. Meets general education fine arts requirement.

## MUS 210HC

I hour
Handbell Choir
The Handbell Choir is open to students with bell ringing experience, as well as to students with no previous experience who are willing to learn the art of bell ringing. The group performs in chapel, as well as in programs on and off campus. Meets general education fine arts requirement.

## MUS 210JC

## Jazz Combo

The Jazz Combo is a selected ensemble by audition. The combo explores improvisatory stylings and performs a concert each semester. Beginning, intermediate and advanced level instruction is given. Meets general education fine arts requirement.

MUS 210JE
I hour
Jazz Ensemble
The Jazz Ensemble is open to all wind and percussion players by audition. It performs contemporary stage band literature, as well as the jazz classics. This ensemble performs a concert each semester and tours in local schools and regional festivals. Meets general education fine arts requirement.

## MUS 2100T <br> I hour

## Opera Theatre

Opera Theatre is open to all students by audition. Performances include one fully-staged production each February and a semi-staged "scenes" production in the spring semester. The primary goal of the ensemble is to create live performances in which students demonstrate dramatic confidence, vocal ease, and aesthetic sensibility. Meets general education fine arts requirement.

## MUS 210PB

Pep Band
The Pep Band is open to all students who enjoy performing contemporary music at football and basketball home games. (No audition required.) Meets general education fine arts requirement.

## MUS 210TR

## I hour

Taylor Ringers
The Taylor Ringers consists of 13 members chosen by audition. The group performs a variety of 4-5 octave literature of a moderate-to-difficult nature on campus and during tours each spring. Meets general education fine arts requirement.

## MUS 210TS

## hour

Taylor Sounds
The Taylor Sounds is a select group of musicians dedicated to a high standard of chamber choral performance. The goal of the group is to learn a breadth of quality musical styles by notable composers. The mission of the ensemble is to express the highest divine and human values through the choral chamber music art. Performance tours include domestic and overseas venues, as well as conferences, conventions and banquets. Meets general education fine arts requirement.

## MUS 2IOUC I hour <br> University Chorus

The University Chorus is a mixed choral ensemble open by audition to all men and women at Taylor University. The chorus sings diverse literature from all historic periods and performs on campus in chapel and concerts. Meets general education fine arts requirement.

## MUS 220 <br> 2 hours

Composition I
Private or small group lessons in beginning composition. Emphasis on awareness of technical demands, awareness of textural control demonstrated in completion of several short pieces. Prerequisite: Permission of instructor or MUS I24 and MUS I24L.

## MUS 224

3 hours
Music Theory and Harmony III
A continuation of Theory and Harmony II. Advanced studies in the principles of extended tonal harmony, including introduction to hyper-tonal and posttonal concepts as found in the early $20^{\text {th }}$ century. Topics will include chromatic chard vocabulary and part writing practice, foreign-key and enharmonic modulation, consecutive and passing regions, inferred tonality technique, early twentieth century structural concepts, and analysis of variation and ritornell/fugue forms. Prerequisite: MUS 125 and 125 L . Corequisite: MUS 224L. Offered fall semester.

## MUS 224L <br> I hour

Music Theory and Harmony III Lab
A laboratory experience that is designed to reinforce the content covered in MUS 224 through the development of aural and keyboard skills. Corequisite: MUS 224. Offered fall semester.

## MUS 225

## 2 hours

## Composition II

Private or small group lessons in beginning composition. Emphasis on linear control and personal stylistic expression, as demonstrated through completion of art song, instrumental solos, and small chamber music pieces. Prerequisite: MUS 220 or permission of instructor.

MUS 231
I hour
Instrumental Methods I—Brass Instruments
Class instruction in various brass instruments. Designed to acquaint music education specialists and church musicians with basic performance problems and teaching techniques of the brasses. Offered fall semester of even years.

## MUS 232

## I hour

Instrumental Methods II-Woodwinds
Class instruction in various woodwind instruments. Designed to acquaint music education specialists and church musicians with basic techniques for teaching and playing woodwind instruments. Offered spring semester of odd years.

## MUS 240

## I hour

Taylor University Chorale
The Taylor Chorale is open to all Taylor students on an audition basis. Repertoire consists of music drawn from the spectrum of sacred choral works. The mission of the ensemble is to express the highest divine and human values through the choral arts. Performances include domestic and international tours, as well as concerts for conferences and conventions. Performance of sacred works with professional orchestras are also part of the chorale tradition. Meets general education fine arts requirement.

## MUS 243

## 3 hours

Music and World Cultures
An investigative study of selected non-Western cultures and the role of music within the cultures. Three components are basic principles of culture and basic principles of music, Japanese culture and music, and African culture and music (East Africa and West Africa). This cross-cultural course is open to all students. Upper-division credit requires a paper pertaining to music and a culture of the student's choice. Offered January interterm.

MUS 245

## 3 hours

Foundations of Church Music Ministry
Biblical and musical foundations of Christian worship ministry. A survey of various worship styles including historic and contemporary worship formats. Principles of leadership and creativity in worship planning will be discussed. Open to all majors. Offered fall semester of odd years.

## MUS 250

## I hour

Audio Visual Technologies in the Church
A study of the use of technology in the modern Christian Church including sound reinforcement, video projection, computer assisted worship, and lighting formats. This course will have a practical application component which includes laboratory work with the chapel media technicians. Prerequisite: MUS 245 or permission of the instructor. Offered January interterm of odd years.

MUS 270
I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## MUS 280 <br> I hour <br> Wind Ensemble

The Wind Ensemble is open to all wind and percussion players by audition. The Wind Ensemble performs the classic and contemporary wind repertoire, sacred, pops and pep band literature. The wind ensemble presents one full concert program each semester and tours annually during spring break. Meets general education fine arts requirement.

## MUS 290

## I hour

Symphony Orchestra
The Symphony Orchestra is open to all string, wind and percussion players by audition. The symphony orchestra performs selected masterworks of the symphonic repertoire written for full orchestra from each of the major historical periods. The symphony orchestra performs one full concert program each semester. Meets general education fine arts requirement.

## MUS 292

3 hours
Introduction to Electronic Music
An introduction to the aesthetics and types of electronic music,. Emphasis is placed on working with synthesizers, tape records, computers, sequencers, signal processors and splicers, with the objective of creating an electronic composition as a final project. Outside reading on the subject is required as an adjunct part of the course. Prerequisite: MUS 20I. Offered fall semester of odd years.

## MUS 300

I hour
Applied Lesson
Learning practice methods, building good techniques, acquiring sufficient repertoire, gaining a broad knowledge of literature and composers, and achieving performance skills. Lessons are designed for music majors and minors (registration overrides will be required for minors). Lessons are I hour.

| MUS 300B | Applied Lesson-Brass |
| :--- | :--- |
| MUS 300G | Applied Lesson-Guitar |
| MUS 300K | Applied Lesson-Piano |
| MUS 300N | Applied Lesson-Organ |
| MUS 300P | Applied Lesson-Percussion |
| MUS 300S | Applied Lesson-Strings |
| MUS 300V | Applied Lesson-Voice |
| MUS 300W | Applied Lesson-Woodwind |

MUS $301 \quad 2$ hours
Music in the Elementary Classroom
This course consists of three components: (I) an overview of the basics of music (rhythm, melody, harmony, form, tone color); (2) an introduction to musical skills (singing, playing a recorder, guitar, autoharp, conducting, rhythm band instruments); and (3) methods and materials for teaching music (especially those related to the Kodaly and Orff methodologies). Prerequisite or Corequisite: EDU 260.

| MUS 309Secondary School Methods3 hours |  |
| :---: | :---: |
|  |  |
| An introduction to the methods and materials for teaching general music, |  |
| 150 and 260. Corequisite: EDU 309. Offered spring semester of odd years. |  |
| MUS 3IOAC 1 hours Adoration Chorus (Female Chorus) |  |
|  |  |
| See MUS 2IOAC. |  |
| MUS 3IOBC | I hour |
| Brass Choir See MUS 2IOBC. |  |
|  |  |
| MUS 310FC <br> Flute Choir See MUS 2IOFC. | I hour |
|  |  |
|  |  |
| MUS 310HC Handbell Choir See MUS $210 H C$. | I hour |
|  |  |
|  |  |
| MUS 310jC Jazz Combo | I hour |
|  |  |
| See MUS $210 J C$. |  |
| MUS 3IOJE | I hour |
| Jazz Ensemble |  |
| See MUS 2IOJE. |  |
| MUS 3100T Opera Theatre | I hour |
|  |  |
| See MUS $2100 T$. |  |
| MUS 310PB | I hour |
| Pep Band |  |
| See MUS 210 PB . |  |
| Taylor Ringers |  |
|  |  |
| See MUS $210 T R$. |  |
| Maylor Sounds I hour |  |
|  |  |
| See MUS $210 T \mathrm{~S}$. |  |
| MUS 3IOUC | I hour |
| University Chorus |  |
| See MUS 2IOUC. |  |

Elementary School Music
A study of the role of the music specialist in planning musical experiences for children, with emphasis on child development, music literature, teaching aids, and teaching practices, utilizing guitar, recorders and Orff Instruments. Curriculum development and the organization of the elementary school music program are also included. Offered fall semester of even years.

## MUS 320 <br> 1-4 hours <br> Internship

In-depth experience with a minister of music involving responsibilities in various phases of the church music program, including administration, organization, rehearsal and worship.

## MUS 321

2 hours
Composition III
Continuation of the project begun in MUS 121 and 122 . Includes an introduction to the technique of electronic music and the composition of several pieces in this medium using the music synthesizer and related equipment. Taught as a private lesson with requisite fee.

## MUS 322

2 hours
Composition IV
See MUS 32 I.

## MUS 323

I hour
Functional Keyboard Skills
The facilitating of practical keyboard skills, including scales, chords, arpeggios, sight reading and harmonization of melodies at sight. In addition, students complete the requirements needed for transposition, score reading and accompanying in order to pass the Piano Proficiency. Offered spring semester.

## MUS 331 I hour <br> Instrumental Methods III-Percussion

Class instruction in percussion instruments. Designed to acquaint music education specialists and church musicians with basic techniques for performing and teaching percussion instruments. Offered spring semester of even years.

## MUS 332 I hour

Instrumental Methods IV—Strings
Class instruction in string instruments. Designed to acquaint music education specialists and church musicians with basic techniques for performing and teaching orchestral stringed instruments. Offered fall semester of odd years.

## MUS 340 I hour <br> Taylor University Chorale

See MUS 240.

## MUS 341

## 2 hours

Counterpoint
Theoretical approach to the fundamental principles of eighteenth century polyphonic composition; a study of the formal designs and methods of structural treatment with written and analytical experience in the harmoniccontrapuntal concept of music. Prerequisites or corequisites: MUS I25 and I25L. Offered spring semester of odd years.

## MUS 342

2 hours
Form and Analysis
Analysis of representative works of the eighteenth and nineteenth centuries, with emphasis on the structure and stylistic aspects of music. Prerequisites or corequisites: MUS 125 and I25L. Offered spring semester of even years.

## MUS 343

3 hours
Music and World Cultures
See MUS 243.

## MUS 345

## 3 hours

Christian Congregational Song
A survey of the history of Christian congregational song from ancient to modern times. Worship liturgy including historical and contemporary formats will be researched and studied. Organization, creation, and leading of meaningful worship experiences utilizing music of the past and present will be a focus. Prerequisite: MUS 245 or permission of instructor. Offered spring semester of odd years.

MUS 351
2 hours

## Choral Arranging

A course on the ranges, tonal possibilities, and technical limitations of the different voices and the analysis of scores of standard choral compositions. Arranging and adapting scores for various vocal combinations are included. Prerequisites or corequisites: MUS 125 and I25L. Offered fall semester of even years.

## MUS 352

2 hours
Instrumental Arranging
Band and orchestral instruments are studied with a view to practical and effective writing. Arranging of compositions for various instrumental combinations is included. Prerequisites or corequisites: MUS 125 and 125L. Offered fall semester of odd years.

## MUS 357 <br> 3 hours

Church Music Methods and Materials
A study of the organization, administration and operation of the Christian church music program. Areas of study include the graded children's choir program, adult choir ministry, praise team ministry, and utilization of various instruments. Open to music majors and minors. Prerequisite: MUS 245 or permission of instructor. Offered spring semester of even years.

MUS 360
Independent Study
An individualized, directed study involving a specified topic.

## MUS 361

Conducting I
An introduction to the psychological, technical and musical elements of choral conducting. Study of musical scores of choral literature is also stressed. Offered fall semester.

MUS $362 \quad 2$ hours
Conducting II
Continuation of MUS 361 with emphasis on advanced score studies, conducting and rehearsal techniques of instrumental works. Lab experience with band and orchestra ensembles is included. Prerequisite: MUS 361 or permission of the instructor. Offered spring semester.

## MUS 370

1-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering.
May count toward the departmental major and general education requirements.

MUS 371

## 3 hours

History and Literature I
An introduction to Western music and musical style before 1750. Stylistic cognizance is acquired through examination of prevailing musical idioms, forms and literature. Composers, performers and historical figures that influenced music history are also examined, as well as terminology and vocabulary common to musicology. Prerequisites: MUS I3I \& I32. Offered fall semester.

MUS 372
3 hours
History and Literature II
An introduction to Western music and musical style between 1750 and 1900. Stylistic cognizance is acquired through examination of prevailing musical idioms, forms and literature. Composers, performers, and historical figures that influenced music history are also examined, as well as terminology and vocabulary common to musicology. Prerequisites: MUS I3I \& I32. Offered spring semester.

## MUS 380

I hour
Wind Ensemble
See MUS 280.

MUS 381
Piano Pedagogy 1
A study of the methods and materials of teaching beginning piano students. Supervised teaching experience is included. Offered spring semester of even years.

## MUS 382 <br> 2 hours

Piano Pedagogy II
A study of the methods and materials of teaching intermediate keyboard students. Supervised teaching experience is included. Offered fall semester of even years.

MUS 390
I hour

## Symphony Orchestra

See MUS 290.

## MUS 392

## 3 hours

Music and Business
A study of the business aspects of the music industry including topics such as identification of the management team, the recording industry, songwriting and music publishing, touring, music merchandising and motion picture music. Offered spring term of even years.

## MUS 393

## I-4 hours

Practicum
Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## MUS 400

## 2-4 hours

## Applied Lesson

Learning practice methods, building good techniques, acquiring sufficient repertoire, gaining a broad knowledge of literature and composers, and achieving performance skills. Lessons are designed for music majors and minors (registration overrides will be required for minors). Lessons are I hour.

| MUS 400B | Applied Lesson-Brass |
| :--- | :--- |
| MUS 400G | Applied Lesson-Guitar |
| MUS 400K | Applied Lesson-Piano |
| MUS 400N | Applied Lesson-Organ |
| MUS 400P | Applied Lesson-Percussion |
| MUS 400S | Applied Lesson-Strings |
| MUS 400V | Applied Lesson-Voice |
| MUS 400W | Applied Lesson-Woodwind |

## MUS 421

2 hours
Composition V
Continuation of projects begun in MUS 321 and 322 in preparation for the senior recital. Taught as a private lesson with requisite fee.

## MUS 422 <br> Composition VI <br> See MUS 42 I.

2 hours

## MUS 440

## Vocal Pedagogy

Introduction to the scientific principles and theories of vocal production. Guides the student in building an appropriate repertoire of pedagogical materials through class demonstration, discussion and examination of current pedagogical attitudes and materials. Class members are required to observe and teach voice lessons. Offered spring semester of even years.

MUS 442
2 hours
Vocal Literature
A study of art song literature (English, Italian, German, French, and American) since 1600. Emphasis is on building stylistic interpretation. Lecture, score examination and recorded examples are used. Music is performed by class participants. Offered spring semester of odd years.

## MUS 450

I-4 hours

## Directed Research

Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

## MUS 462

## 2 hours

Instrumental Pedagogy and Literature
Explores techniques, materials, literature and performance practices related to teaching instruments, including a supervised teaching experience. Offered fall semester of odd years.

## MUS 470

2 hours
Piano Literature
A study of piano works chosen from a given era or composer. Lecture, performance, recorded examples and pedagogy techniques are used. Open to piano majors, certificate in piano pedagogy candidates and others by permission of the instructor. Offered spring semester of odd years.

MUS 472

## 3 hours

History-Literature III
A study of the development of music from the year 1900 to the present. Representative music and concomitant phases of political history and art are correlated with aural and analytical techniques of this period of history. Prerequisites: MUS I3I \& I32. Offered spring semester.

## MUS 480

I-4 hours
Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

## MUS 490

I-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

# Political Science and International Relations 

Chair, Professor P. Loy<br>Assistant Professor N. Kerton-Johnson

Political Science examines the structure and processes of government, contrasting philosophies about how government should be ordered, as well as various opinions about what policies government should pursue and by what means.

Politics is present in all organizations. Public policy affects most areas of life, and knowledge of how the political process actually works is crucial for anyone who seeks to influence public life as a leader or ordinary citizen. Students majoring in political science often combine political science with another major or minor. An undergraduate major in political science is an especially strong foundation for law school and graduate programs in public and international affairs. Because government and politics affect many areas of society, it can also be a good foundation for such graduate programs as seminary and business school.

## Political Science (BA)

The bachelor of arts degree with a major in political science requires two years of sequential study in one foreign language and a minimum of 32 hours.

| Major Requirements |  |  |
| :--- | :---: | :--- |
| POS 100 | 3 | American Politics |
| POS 150 | 3 | World Politics |
| POS 232 | 3 | Political Thinking |
| POS 361 | 3 | Political Philosophy |
| POS 465 | 2 | Senior Paper |
| Select one course from the following: |  |  |
| POS 222 | 3 | Comparative Politics |
| POS 321 | 3 | Modern Middle East |
| Select one course from | the following: |  |
| POS 312 | 3 | Political Behavior |
| POS 331 | 3 | Public Policy |
| POS 345 | 3 | Congress and the Presidency |

## Electives

Select 12 hours of political science electives or American Studies Program (see OffCampus/International Studies Programs) courses.

Students planning to go on to graduate work in political science should also take SOC 250, 350, and 355 to gain a strong foundation in the methodology of social research as well as POS 450 (3-4 hrs) to deepen their knowledge of the scholarly literature in their field of interest.

## Political Science/Systems (BS)

The bachelor of science degree with a major in political science/systems consists of the 32 -hour major and curriculum requirements in systems analysis. All systems curriculum courses must be completed with a grade of C- or better.

| Systems Curriculum Requirements |  |  |
| :---: | :---: | :---: |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| IAS 330 | 3 | Human Relations in Organizations |
| MAT 151 | 4 | Calculus I |
| SYS 101 | 3 | Introduction to Systems |
| SYS 390 | 3 | Information Systems Analysis |
| SYS 392 | I | Systems Seminar |
| SYS 394 | 4 | Information Systems Design |
| SYS 403 | 3 | Operations Management |
| Select one course from the following: |  |  |
| COS 121 | 4 | Foundations of Computer Science |
| COS 143 | 3 | Interactive Webpage Design |
| Select one course from the following: |  |  |
| MAT 210 | 4 | Introductory Statistics |
| MAT 352 | 4 | Mathematical Statistics |
| Select one course from the following: |  |  |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |
| Select one course from the following: |  |  |
| SYS 393 | 3-4 | Practicum |
| POS 393 | 3-4 | Practicum |

## Systems Electives

Select at least three hours of electives, in addition to those required in the major or systems:
MAT $382 \quad 3$ Advanced Statistical Methods

SYS 2143 Principles of Human Computer Interaction
SYS $310 \quad 3$ E-Commerce
*SYS 4013 Operations Research
*SYS 4023 Modeling and Simulation
*Courses in both areas may count only once.

## Political Science Minor

A minor in political science consists of 18 hours.
Minor Requirements
POS $361 \quad 3 \quad$ Political Philosophy

## Electives

Select at least $\underline{15}$ hours of political science electives.
Eight hours from the American Studies Program may also be used toward minor hours.

## Pre-Law Program

Advisor, Professor P. Loy
The best preparation for graduate training in the field of law is a regular four-year college academic program leading to the bachelor of arts degree. The student's major, chosen in consultation with the pre-law advisor, should be one that enhances reading, writing, and analytical skills.

Normally, the courses are taken during the junior or senior years. If, however, the student plans to participate in an off-campus program, such as the American Studies Program, it may be necessary to take one or two of the courses during the sophomore year. Students should consult with their academic advisors or the pre-law advisor about the best time to take pre-law courses.

## Pre-Law Minor

As a supplement to their major, students may opt for a pre-law minor which consists of 18 hours.

| Minor Requirements |  |  |
| :--- | :---: | :--- |
| CAS 331 | 3 | Team-based Communication |
| MGT 311 | 3 | Business Law |
| POS 385 | 3 | American Constitutional Development: Institutional Powers |
| POS 386 | 3 | American Constitutional Development: Civil Rights Liberties |
| PRL 441 | 3 | Legal Studies |
| PRL 442 | 3 | Legal Thought |

## Political Science Courses

## POS 100 hours

## American Politics

Primary emphasis is given to the relationship between the theories and ideals of democracy and the actual practice of making and implementing policy. The course considers the constitutional system, as well as the institutions of American government. Meets general education civic engagement or general social science requirements. Offered fall semester.

## POS $150 \quad 3$ hours

World Politics
Surveys the development of the international political system and the relations among nation-states, international organizations and other entities. Gives special attention to war, conflict resolution, and international law. Meets general education civic engagement or general social science requirements.

## POS 170

## I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## POS 213

## 3 hours

## International Political Economy

Examines trade, development and environmental protection as issues involving both states and non-state actors in world politics. Uses case studies to consider the relationship between Christian ethics and the wealth and poverty of nations. Meets general education civic engagement or general social science requirements. Offered spring semester.

## POS 222

## 3 hours

Comparative Politics
Studies political institutions and processes in selected countries. Focuses on political culture, democracy, and factors affecting how well governments function. Meets general social science requirement. Offered fall semester of even years.

## POS 232 <br> 3 hours

## Political Thinking

Introduces students to central concepts and theories of politics and engages students in critical analysis of those concepts and theories. Special consideration is given to key works on the integration of Christianity and politics. Offered spring semester.

## POS 270

## I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

POS 304
Global Governance
The course begins by surveying different approaches to the study of security. It then takes a thematic approach. It considers whether liberal democracies are different from other types of state in relation to war and attitudes to the laws or war. It also examines the issues of nuclear weapon, terrorism, controls on conventional arms transfers, ethnic conflict, the news media and public opinion, humanitarian intervention, the occupation of Iraq, Christians' war and pacifism, and the relationships between security and development. Designed to serve as a foundation for participation in the American National Model United Nations (AMUN) simulation. Offered fall semester.

## POS 312 <br> 3 hours

Political Behavior
A description and examination of the voting behavior of the American people and opinions about candidates, political parties and public policy. Some attention is also given to the formation of public opinion in a democratic polity. Meets general social science requirement. Offered spring semester of odd years.

## POS 321 <br> 3 hours

Modern Middle East
A political history of Southwest Asia and North Africa in the 20th century. Special attention is given to the variety of governments in the region, Islam and politics and domestic and international conflict. Offered spring semester.

## POS 325

## 3 hours

American Foreign Policy
Uses case studies of major events in U.S. foreign relations since World War II to consider the relationship between morality and politics. Includes an overview of the process of making and implementing foreign policy within the U.S. government. Offered fall semester of odd years.

## POS 331 hours

Public Policy
An extensive examination of the interaction between Congress and the Presidency in making public policy. The course focuses on major theories of public policy and examines governmental policy-making from these perspectives. Meets civic engagement or general social science requirement. Offered fall semester.

POS 3453 hours
Congress and the Presidency
Studies congressional processes such as leadership, committees and rules and the role of the President in American politics. Special emphasis is given to the interaction between Congress and the President in formulating public policy. Offered spring semester of even years.

## POS 350 <br> 3 hours

International Security
The concept of security is used very frequently in relation to international issues. This course introduces students to the study of international security, including theoretical, normative, and policy issues. Offered January interterm.

## POS 360

1-4 hours
Independent Study
An individualized, directed study involving a specified topic

## POS 361 <br> 3 hours <br> Political Philosophy

A survey of major thinkers from Plato to the present through discussion of perennial issues such as individualism and community, liberty and equality and governmental power. Offered fall semester.

## POS 370

## |-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## POS 374

## 3 hours

Religious Liberty and Christian Freedom
This course introduces students to the subject of religious liberty and Christian freedom, analyzing the nature of freedom and the position of Christianity as foundational to liberty. Students are then exposed to a comparative analysis of hostility and persecution, its development, and its typology. Offered spring semester.

POS 385

## 3 hours

American Constitutional Development: Institutional Powers
Considers the development of judicial review in relation to the powers of the President and Congress. Focuses on judicial interpretations of the commerce and taxing clauses, as well as state powers under the due process clause of the $14^{\text {th }}$ Amendment. Offered fall semester.

POS 386
3 hours
American Constitutional Development: Civil Rights Liberties
Focus is on the Bill of Rights and the equal protection clause of the $14^{\text {th }}$
Amendment. Considers such topics as freedoms of speech, press and religion, the civil rights movement and the controversy over privacy rights. Offered spring semester.

## POS 393

## 1-4 hours

Practicum
Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## POS 450

I-4 hours
Directed Research
Advanced work under the supervision of a professor in connection with a special project or to enhance preparation for graduate work.

## POS 465

2 hours
Senior Paper
A journal-length analytical research paper based on scholarship in the field that is related to the student's chosen topic. Fulfills the senior comprehensive requirement.

POS 462

## 3 hours

Theories of International Relations
International Relations as a discipline has always been characterized by the extensive and significant theoretical ferment. This course will provide an overview of key theoretical traditions in International Relations and their evolution and contestations in recent year. Offered in odd years.

## POS 490

I-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## Pre-Law Courses

## PRL 170 <br> I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

PRL 270
I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## PRL 360

I-4 hours
Independent Study
An individualized, directed study involving a specified topic.

## PRL 370

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## PRL 393

## I-4 hours

Practicum
Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## PRL 441

Legal Studies
Taught by an attorney, this course is designed for those who expect to attend law school. Students gain experience with the writing, reading and critical thought levels expected of all law students.

## PRL 442

3 hours
Legal Thought
An overview of ancient, modern, and contemporary theories of the law. The course explores the nature of law and its relationship to politics, morality and ethics. Prerequisite: MGT 3 II or permission of instructor.

## PRL 450

I-4 hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

## PRL 480

Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

## PRL 490

1-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

Notes

## Psychology

Chair, Professor M. Cosgrove<br>Professors J. Lund, V. Maloney, S. Snyder<br>Associate Professor D. Dungan<br>Assistant Professors D. Johnson, S. Moeschberger, C. Sisson

Psychology involves the systematic study of human behavior and the mental and physiological processes that underlie it. Each course seeks to integrate psychological data with major biblical beliefs. The aim of the department is to train Christian psychology students who upon graduation are prepared for further academic studies or professional responsibilities.

The bachelor of arts degree requires completion of two years of one foreign language. The bachelor of science degree must be combined with curriculum requirements in systems analysis. Psychology may also be selected as at least one of three blocks in the social studies education major (see pages II9-120 or the education department for detailed curriculum guides).

## Psychology (BA)

The bachelor of arts degree with a major in psychology requires 38 hours.

| Major Requirements |  |  | Electives |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PSY 110 | 3 | Foundations of Psychology | Select a minimum of four courses totaling at least $\underline{12}$ elective hours from the following: |  |  |
| PSY 125 | 2 | Intrapersonal Psychology | PSY 140 | 2 | Applied Psychology |
| PSY 210 | 2 | Ethics in Psychology | PSY 220 | 3 | Sport Psychology |
| PSY 250 | 3 | Life Span Development | PSY 300 | 4 | Abnormal Psychology |
| PSY 272 | 3 | Research in Psychology | PSY 330 | 3 | Statistics and Design in Psychological Research |
| PSY 310 | 3 | Integration of Psychology and Christianity | PSY 331 | 3 | Biblical Psychology |
| PSY 321 | 3 | Social Psychology | PSY 360 | 1-4 | Independent Study |
| PSY 480 | 3 | Psychology Seminar | PSY 370 | 1-4 | Selected Topics |
|  |  |  | PSY 390 | 3 | Christian Marriage |
| Select one | from | following: | PSY 400 | 3 | Theories of Personality |
| PSY 370 | 3 | Research Lab | PSY 410 | 3 | Motivation |
| PSY 370 | 3 | Advanced Research | PSY 411 | 3 | Learning: Theory and Application |
| PSY 393 | 3 | Practicum | PSY 420 | 3 | Cognition |
| PSY 450 | 3 | Directed Research | PSY 422 | 3 | Psychological Testing |
|  |  |  | PSY 44I | 3 | Physiological Psychology |
|  |  |  | PSY 461 | 3 | Fundamentals of Counseling |
|  |  |  | PSY 490 | 1-2 | Honors |
| PSY 393 or <br> the core. |  | erience course may be used as an elective if $n$ | Students | nticip | e attending graduate school are encouraged to |
| PSY 200 |  | count for elective hours in the major. | complete the following: |  |  |
| PSY 393 and a research experience course may be used only once to meet major requirements. |  |  | PSY 300 | 4 | Abnormal Psychology |
|  |  |  | PSY 330 | 3 | Statistics and Design in Psychological Research |
|  |  |  | PSY 422 | 3 | Psychological Testing |
| By permission only, an additional I-3 hours of research credit beyond 3 hours of any |  |  | PSY 44I | 3 | Physiological Psychology |

## Psychology/Pre-Medicine Concentration (BA)

The bachelor of arts degree with a major in psychology/pre-medicine concentration consists of the 38 -hour psychology major requirements and the following pre-medicine concentration requirements.
Concentration Requirements

| Biology Courses |
| :--- |
| BIO 10I |
| BIO 203 | 4

BIO 312

| Math Courses |  |  |
| :---: | :---: | :---: |
| MAT 230 | 4 | Calculus II |
| Select one option from the following: |  |  |
| MAT 151 | 4 | Calculus I |
| †MAT 145 and | 3 | Introduction to Functions and Calculus |
| +MAT 146 | 3 | Functions and Calculus |
| +MAT 145 \& 146 count as one option. |  |  |
| Physics Courses |  |  |
| PHY 203 | 4 | General Physics I |
| PHY 204 | 4 | General Physics II |
| Psychology Course (strongly recommended) |  |  |
| PSY 330 | 3 | Statistics and Design in Psychological Res |

## Psychology/Systems (BS)

The bachelor of science degree with a major in psychology/systems consists of the 38 -hour major and curriculum requirements in systems analysis. All systems curriculum courses must be completed with a grade of $C$ - or better.

| Systems Curriculum Requirements |  |  |
| :---: | :---: | :---: |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| IAS 330 | 3 | Human Relations in Organizations |
| MAT 151 | 4 | Calculus I |
| SYS IOI | 3 | Introduction to Systems |
| SYS 390 | 3 | Information Systems Analysis |
| SYS 392 | I | Systems Seminar |
| SYS 394 | 4 | Information Systems Design |
| SYS 403 | 3 | Operations Management |
| Select one course from the following: |  |  |
| $\cos 121$ | 4 | Foundations of Computer Science |
| COS 143 | 3 | Interactive Webpage Design |
| Select one course from the following: |  |  |
| MAT 210 | 4 | Introductory Statistics |
| MAT 352 | 4 | Mathematical Statistics |
| Select one course from the following: |  |  |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |
| Select one course from the following: |  |  |
| SYS 393 | 3-4 | Practicum |
| PSY 393 | 3-4 | Practicum |

Systems Electives
Select at least three hours of electives, in addition to those required in the major or systems:
MAT $382 \quad 3 \quad$ Advanced Statistical Methods
SYS 2143 Principles of Human Computer Interaction
SYS $310 \quad 3$ E-Commerce
*SYS 401 3 Operations Research
*SYS 4023 Modeling and Simulation
*Courses in both areas may count only once.

## Psychology Minor

A minor in psychology requires 18 hours.
Minor Requirements
Select one course from the following:
PSY IIO

PSY 200 $\quad 3$| Foundations of Psychology |  |
| :--- | :--- |
|  | 3 | Introduction to Psychology

Electives
Select an additional $\underline{15}$ hours of psychology electives.
PSY IIO or 200 may not count in the elective hours for the minor
Only one developmental class may be taken for the minor (PSY 240, 250, 340, or 350).

## Psychology Courses

## PSY 110

## Foundations of Psychology

An historical and philosophical introduction to the discipline of psychology. Topics include worldviews in psychology, history of psychology, current perspectives in psychology and models of integration of psychology and Christianity. Meets general education general social science requirement.

## PSY 125

## 2 hours

Intrapersonal Psychology
The study of how to process the emotional dynamics of anger, guilt, anxiety and grief while becoming mature, emotionally integrated social beings.

## PSY 140

## 2 hours

Applied Psychology
This is an introduction to practical uses and applications in psychology. Topics covered range from industrial psychology to legal issues.

## PSY 170

I-4 hours

## Selected Topics

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## PSY 200

## 3 hours

Introduction to Psychology
An introduction to the subject matter and methods of psychology. Topics on human development, personality, learning, sensation, perception, motivation, emotion, mental health and social psychology are considered. Meets general education general social science requirement.

## PSY 210

## 2 hours

Ethics in Psychology
A study of various models of ethics, with a desire to develop a Christian model. The Christian model is then applied to various issues in counseling, psychopathology, research, human development, law, and educational psychology. Prerequisite: PSY 110 or 200.

## PSY 220

Sport Psychology
This course investigates the interpersonal, societal, and cultural variables that surround athletics and sports in our contemporary culture. Topics include personality variables of the successful athlete; anxiety and arousal in sports, as well as strategies to assist in the control of these states; motivation; casual attributions for success and failure in athletes and coaches; the role of the direct and indirect contexts of sports and competition; and exercise psychology.

## PSY 240 <br> 3 hours

Child Psychology
This course deals with the subject matter of developmental psychology (cognitive, physical, and socio-emotional development) and also applies the subject matter to those actively working with children, including parents, teachers, coaches, etc. Meets general education general social science requirement. Does not count in psychology major.

## PSY 250

3 hours
Life Span Development
This course is designed to provide a general overview of the developmental process in humans from conception through death and dying. Included is attention to the physical, cognitive psychosocial and spiritual developments. Meets general education general social science requirement.

## PSY 270 I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## PSY 272

3 hours
Research in Psychology
Research methods in psychology are studied and critiqued. Students are involved in practical research and writing assignments. Prerequisite: PSY IIO or 200.

PSY 300
4 hours
Abnormal Psychology
A study of the nature, causes, and treatment of maladaptive behavior, with special consideration given to the symptoms and dynamics of psychological disorders. Prerequisite: PSY IIO or 200.

## PSY 310

## 3 hours

Integration of Psychology and Christianity
An examination of the relationship between psychology and Christian beliefs about human nature. Topics involve the presuppositions of modern psychology, the Christian view of the person, and tension areas between psychology and theology. Prerequisite: PSY IIO or 200.

## PSY 321

## 3 hours

Social Psychology
A study of how the thought, feeling, or behavior of individuals is influenced by the actual, imagined, or implied presence of others. Topics include social perception, conformity prejudice, aggression, attitudes and their change, affiliation, and altruism. Prerequisites: PSY 110 or 200; PSY 250 and 272.

## PSY 330

## 3 hours

Statistics and Design in Psychological Research
Introductory course that surveys common statistical concepts in psychological research. It also examines and critiques the major research designs used in psychology today. Prerequisites: PSY 110 or 200; and PSY 272.

## PSY 331

3 hours
Biblical Psychology
A survey of biblical teaching on the nature of the person, its relationship to emotional and behavioral problems, and solutions to those problems. Offered spring semester.

## PSY 340 <br> 3 hours

Adolescent Psychology
This course deals with the problems of adolescent development and resulting issues, including peer pressure and conformity, adult-adolescent conflicts, cognitive changes, adjustments to physical changes, struggles with identity, etc. Contemporary issues, including drug and alcohol use, eating disorders, and teen sexuality are also discussed. The focus is on a practical application of research literature with an integration of biblical principles. Meets general education general social science requirement. Offered spring semester.

## PSY 350

## 3 hours

Child and Adolescent Psychology
This course surveys the characteristics of growth and development of children through adolescence, including physical, psychological, social, cognitive, and emotional aspects. School-related contemporary issues such as child abuse, drug and alcohol use, peer pressure, and teenage sexuality are discussed. Meets general education general social science requirement. Does not count in psychology major. Offered fall semester.

## PSY 357

## 3 hours

Peace, Reconciliation, and Justice
This course provides a basic introduction to the role of psychology in helping to establish peaceful societies around the world. It will seek to integrate a Christian worldview with current trends in peacemaking, including topics such as forgiveness, reconciliation, and social justice. Attention will be given to ethnopolitical conflicts from a multi-disciplinary perspective.

## PSY 360

## I-4 hours

Independent Study
An individualized, directed study involving a specified topic.

## PSY 370 <br> I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## PSY 390

## 3 hours

Christian Marriage
A practical and applied course that integrates psychological literature and biblical teaching in the subject areas of the marriage relationship. These areas include marriage foundations, dating and engagement, premarital sexual behavior, singleness, mate selection, marriage success and satisfaction, love and infatuation, marriage roles, communication and conflict and divorce.

PSY 393
1-4 hours

## Practicum

Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## PSY 400

3 hours
Theories of Personality
A study of the major current systematic psychological theories of personality. Consideration is given to their underlying assumptions and usefulness for research and therapeutic practice. Prerequisites: PSY 110 or 200; and three additional hours in psychology or social work.

## PSY 410

## 3 hours

Motivation
This course is designed to provide a theoretical, Christian, practical understanding of motivation. Motivation is addressed by looking at its historical development and models of volition, affection, intellect, and biology. Prerequisites: PSY 110 or 200; and six additional hours in psychology. Offered fall semester of every other year.

## PSY 4II

## 3 hours

Learning: Theory and Application
The study of major learning theories and their application to advertising, education, counseling, and daily problems of life. Prerequisite: PSY 110 or 200.

## PSY 420

3 hours
Cognition
The scientific study of the cognitive functions of memory, attention, perception, learning styles, imagery, decision making, problem solving, and metacognition, with application for implementing this information. Prerequisites: PSY 110 or 200; and six additional hours in psychology. Offered fall semester of every other year.

## PSY 422

## 3 hours

Psychological Testing
A study of the principles of psychological testing, considering both the theoretical and practical foundations underlying the construction, use, and interpretation of various psychometric instruments. The student is given opportunity to administer, score, and interpret selected instruments. Prerequisites: PSY IIO or 200; and PSY 330. Offered spring semester.

## PSY 441

## 3 hours

Physiological Psychology
A study of the neurophysiology underlying human behavior. Emphasis is given to central nervous system mechanisms that mediate sensation, consciousness, learning, motivation, and emotional behavior. Offered spring semester.

## PSY 450

I-4 hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

## PSY 46I 3 hours

Fundamentals of Counseling
An analysis of the major theories and approaches to counseling, correlating them with counterpart theories of personality and learning. Each major theory is dealt with in the light of biblical revelation. As a result, the student is encouraged to formulate a tentative theory of counseling consistent with biblical truth. Prerequisites: PSY 110 or 200; PSY 310.

## PSY 480

3 hours

## Psychology Seminar

Required for senior psychology majors with an emphasis on directed readings and discussion. The content of the readings and discussions will focus on integrative material in the discipline, as well as contemporary issues confronting not only professional psychologists, but lay persons as well. Offered January interterm.

## PSY 490

Honors
Individualized study or research of an advanced topic within a student's major. Open to students with a minimum GPA of 3.00 in the major field.

Notes

## Sociology

## Chair, Professor M. Jessup

Professor S. Bird

It is the goal of the sociology department to prepare students for graduate study, employment and effective Christian participation in a variety of social settings ranging from the family and peer groups to churches and large multinational corporations.

Sociology concentrates attention on the basic processes of social interaction that result in human personality and society. The behavior of humans in groups and organized systems such as the family, work, and government is studied. Sociology also looks at the way human behavior is regulated and standardized around major societal values as compared with biblical standards and values.

The sociology major has four different emphases to allow students to learn the sociological insights and methods that will be most appropriate for their future plans. Three of the emphases are interdisciplinary, which allows the student to focus on an area of study (urban, family or policy issues) rather than a specific academic field. For many students, the sociology major provides an attractive mechanism for double majoring. Since the credit requirement is relatively low and the sociology content allows students to connect the reality of social life to insights from other majors, a double major provides practical utility, expanded employment possibilities and greater intellectual cross-disciplinary development.

## Sociology (BA)

The bachelor of arts degree with a major in sociology requires two years of one foreign language and 39 hours in the major, including a $20-\mathrm{hour}$ core and a 19-hour concentration.

| Major Requirements |  |  | Electives |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SOC 250 | 2 | Principles of Research and Analysis | Select two | from: |  |
| SOC 350 | 3 | Social Research Methods | SOC 100 | 3 | Introduction to Sociology |
| SOC 355 | 3 | Applied Social Statistics | SOC 210 | 3 | Contemporary Social Issues |
| SOC 493 | 2 | Sociology Integrative Seminar | SOC 220 | 3 | Ethnic and Minority Issues |
| SOC 498 | I | Sociology Senior Thesis |  |  |  |
|  |  |  | *Courses in | reas | y count only once. |
| Select one course from the following: |  |  |  |  |  |
| *SOC 361 | 3 | History of Social Thought |  |  |  |
| *SOC 365 | 3 | Contemporary Social Thought |  |  |  |

In addition, the major requires 19 hours in one of the following concentration areas:
Family Studies
This concentration focuses on understanding human behavior through the family life cycle. Students interested in working with families through churches, social service agencies or other venues might be particularly interested in this emphasis.

| Concentration Requirements |  |  | Electives |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SOC 340 | 3 | Sociology of Children and Families | Select one | cou | from: |
| SOC 381 | 3 | Marriage and Family Systems | SOC 315 | 3 | Social Inequality and Stratification |
| SWK 340 | 3 | Working with Children | SOC 410 | 3 | Community and Urban Affairs |
| SWK 355 | 3 | Helping Troubled Families | SOC 420 | 3 | Organizational Policies and Programs |
| Select one course from the following: |  |  | Select one elective course from: |  |  |
| SOC 393 | 1 | Practicum | CAS 382 | 3 | Family Communication |
| SOC 450 | I | Directed Research | CED 221 | 3 | Ministry to Youth |
|  |  |  | PSY 240 | 3 | Child Psychology |
|  |  |  | PSY 250 | 3 | Life Span Development |
|  |  |  | PSY 340 | 3 | Adolescent Psychology |
|  |  |  | PSY 390 | 3 | Christian Marriage |
| Policy Studies |  |  |  |  |  |

The policy studies concentration provides an interdisciplinary consideration of policies and social programs from organizational, governmental and private agency perspectives. Students interested in the development or implementation of programs or policies at for-profit or nonprofit organizations, service agencies, churches, or government offices might be particularly interested in this emphasis.

| Concentration Requirements |  |  |
| :--- | :---: | :--- |
| SOC 315 | 3 | Social Inequality and Stratification |
| SOC 420 | 3 | Organizational Policies and Programs |
| POS 331 | 3 | Public Policy |
| SWK 362 | 3 | Social Policy |
| Select one course from the following: |  |  |
| SOC 393 I Practicum <br> SOC 450 I Directed Research |  |  |

## Electives

| Select one elective course from: |  |  |
| :--- | :---: | :--- |
| SOC 340 | 3 | Sociology of Children and Families |
| SOC 381 | 3 | Marriage and Family Systems |
| SOC 410 | 3 | Community and Urban Affairs |

Select one elective course from:

| CAS 411 | 3 | Communication in Organizations |
| :--- | :--- | :--- |
| ECO 190 | 3 | Issues in Economics |
| ECO 202 | 3 | Principles of Macroeconomics |
| IAS 330 | 3 | Human Relations in Organizations |
| MGT 352 | 3 | Management Analysis and Practice |
| SWK 231 | 3 | Social Welfare: Historical Perspectives and Development |

## Sociological Studies

This emphasis is a traditional sociology major that allows students to maintain greater flexibility in their course scheduling and also maximize the sociological focus of their studies. Students interested in pursuing graduate work in sociology or having greater flexibility in course scheduling might be particularly interested in this emphasis.


## Urban Studies

This concentration area offers students the opportunity to learn about urban life through classroom study and field experience. Students interested in addressing urban needs through service agencies, churches or government offices might be particularly interested in this emphasis.

| Concentration Requirements |  | Electives |  |
| :--- | :--- | :--- | :--- |
| SOC 315 | 3 | Social Inequality and Stratification | Select one elective course from the following: |
| SOC 410 | 3 | Community and Urban Affairs | SOC 340 |

## Sociology/Systems (BS)

The bachelor of science degree with a major in sociology/systems consists of the 39 -hour sociology major and curriculum requirements in systems analysis. All systems curriculum courses must be completed with a grade of $C$ - or better.

| Systems Curriculum |  |  |  | Requirements |
| :--- | :--- | :--- | :---: | :---: |
| COS I20 | 4 | Introduction to Computational Problem Solving |  |  |
| IAS 330 | 3 | Human Relations in Organizations |  |  |
| MAT 151 | 4 | Calculus I |  |  |
| SOC 355 | 3 | Applied Social Statistics |  |  |
| SYS 101 | 3 | Introduction to Systems |  |  |
| SYS 390 | 3 | Information Systems Analysis |  |  |
| SYS 392 | 1 | Systems Seminar |  |  |
| SYS 394 | 4 | Information Systems Design |  |  |
| SYS 403 | 3 | Operations Management |  |  |
| Select one course from the following: |  |  |  |  |
| COS 121 | 4 | Foundations of Computer Science |  |  |
| COS 143 | 3 | Interactive Webpage Design |  |  |
| Select one course from the following: |  |  |  |  |
| *SYS 401 | 3 | Operations Research |  |  |
| *SYS 402 | 3 | Modeling and Simulation |  |  |
| Select one course from | the following: |  |  |  |
| SYS 393 | $3-4$ | Practicum |  |  |
| SOC 393 | $3-4$ | Practicum |  |  |

## Systems Electives

Select at least three hours of electives, in addition to those required in the major or systems:
MAT 3823 Advanced Statistical Methods
SYS 2143 Principles of Human Computer Interaction
SYS $310 \quad 3$ E-Commerce
*SYS 40I 3 Operations Research
*SYS 4023 Modeling and Simulation
*Courses in both areas may count only once.

## Sociology Minor

The sociology minor requires 18 hours.
Minor Requirements
Select one course from the following:
SOC 100
SOC 210
Select one course from the following:
SOC 361
SOC 365

Electives
Select $\underline{12}$ hours of sociology electives.

## Sociology Courses

## SOC 100

Introduction to Sociology
A study of the principles and concepts of sociology in the context of present day social systems. Attention is given to major contemporary analyses of social events, processes, and institutions. Meets general education civic engagement or general social science requirement. Offered spring semester.

SOC 110

## 3 hours

Introduction to Global Societies
This course explores the nature of contemporary societies around the world by considering societal stages and development, cultural and social structural aspects of societies, international inequality, and globalization.

## SOC 170

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## SOC 200

3 hour
Cultural Anthropology
An introduction to the principles of cultural anthropology, including the analysis of major anthropological theories and concepts and an examination of socia institutional arrangements in small-scale societies. Only offered periodically.

## SOC 210

## 3 hours

Contemporary Social Issues
An introduction to the study of social problems from several perspectives. Problems in areas such as drug abuse, crime, education, and the family are examined in the light of basic principles of sociology. Meets general education civic engagement or general social science requirement. Offered fall semester.

## SOC 220

3 hours
Ethnic and Minority Issues
An analysis of inter-group relations in the United States. Topics include a consideration of the mechanisms of group interaction between dominant and subordinate groups and the experiences and histories of the primary minority groups in the United States. Meets general education civic engagement or general social science requirement. Offered fall semester.

## SOC 250

Principles of Research and Analysis
Intended to prepare students to effectively make sense of the bewildering variety of numbers available in contemporary societies about people, organizations, and social outcomes, this course is an introduction to the key principles of social measurement and basic ways numbers are used to represent patterns in the social world. Offered fall semester.

## SOC 270

## I-4 hours

## Selected Topics

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## SOC 310

3 hours
Religion and Society
An examination of the cultural and structural influences that guide the forms religion takes in society and the processes through which religious ideas, behaviors, and institutions are constructed. Attention is given to the sociological theory and research that underlies religious behavior. Meets general education general social science requirement. Offered periodically.

## SOC 315

## 3 hours

Social Inequality and Stratification
This course examines the social systems (cultural and structural) that determine outcomes in wealth, power and social prestige. The primary focus is on class systems. Offered fall semester of every other year (alternates with SOC 420).

## sOC 330

## 3 hour

Social Change and Social Movements
This course focuses on the basic premises of social change including the evolutionary, conflict and cyclical theories of social change, and the organized activities of collective behavior and social movements that encourage or discourage social change. Special attention is given to the theoretical contributions of the structural strain, resource mobilization and social constructionists' perspectives. Meets general education general social science requirement. Offered periodically.

## SOC 340 <br> 3 hours

Sociology of Children and Families
This course examines the sociological foundations of childhood including family formation, childhood socialization and the changing cultural significance of children. This course also examines the divergent roles, styles and functions of parenting. Offered fall semester of every other year (alternates with SOC 38I).

## SOC 350

## 3 hours

Social Research Methods
An exploration of the primary methods of social research and data collection. Topics include defining a research question and design, and data collection from operationalization to data entry. Prerequisite: SOC 250. Offered fall semester.

## SOC 355

3 hours
Applied Social Statistics
An introduction to statistical analysis for social research issues. The course focuses on the uses of statistics, choosing appropriate statistics for a given problem and interpreting statistical output. Meets general education mathematics requirement. Prerequisite: SOC 250. Offered spring semester.

## SOC 360

I-4 hours
Independent Study
An individualized, directed study involving a specified topic.

## SOC 361

3 hours
History of Social Thought
Primary emphasis is placed upon the contributions of sociologists since the time of Comte. The writings and concepts of leading sociologists in both Europe and America are studied. Meets general education general social science requirement. Offered fall semester of every other year (alternates with SOC 365).

SOC 365
3 hours
Contemporary Social Thought
An analysis of social theory as it is practiced today. Building on the classical works of Marx, Durkheim, Weber, Simmel and Mead, this course focuses on how modern sociologists have incorporated the classical writers to explain social developments. Special attention is given to postmodernists, social constructionists, functionalists, neo-Marxists, neo-Weberians and leading feminist thinkers. Meets general education general social science requirement. Offered fall semester of every other year (alternates with SOC 361).

## SOC 370

## 1-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## SOC 381

## 3 hours

Marriage and Family Systems
A study of the changing state of family systems in America. The course also examines how work, social class, ethnicity and gender affect family structure and function. Meets general education general social science requirement. Offered fall semester of every other year (alternates with SOC 340).

## SOC 393

I-4 hours
Practicum
Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## SOC 410

3 hours

## Community and Urban Affairs

Consideration of problems relating to community structure, development and process, beginning with a historical overview of the development of cities. Special emphasis is placed upon the interrelationships of various groupings within communities, particularly within the urban scene. A field trip to a major urban center provides "hands-on" learning. Meets general education civic engagement or general social science requirement. Offered spring semester.

## SOC 4203 hours

## Organizational Policies and Programs

A study of the social dynamics that guide and shape organizations in modern societies. The class prepares students to see and work with the structures of organizations like the church, government agencies, for-profit companies and nonprofits. The focus is on the application of organizational theories to organizational settings and includes projects on the development of organizational programs. Offered spring semester every other year (alternates with SOC 315).

SOC 450
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

## SOC 480

I-4 hours
Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

## SOC 490

I-2 hours
Honors
Individualized study or research of an advanced topic within a student's major.
Open to students with at least a 3.00 GPA in the major field.

SOC 493
2 hours
Sociology Integrative Seminar
This course provides students with the opportunity to approach the field of sociology holistically and integrate faith and sociological insight. Offered spring semester.

## SOC 498 <br> I hour

Sociology Senior Thesis
Students will complete a senior thesis that demonstrates an ability to apply sociological perspective through a theoretical or methodological analysis of a sociological topic they have chosen. Offered spring semester.

## Notes



# School of Natural and Applied Sciences 

Mark L. Biermann, PhD, Dean

Biology<br>\section*{Chemistry and Biochemistry}<br>Computer Science and Engineering<br>Earth and Environmental Sciences<br>Mathematics<br>Physics and Engineering

Notes

Chair, Professor J. Reber<br>Professors J. Moore, J. Regier, P. Rothrock, A. Whipple<br>Assistant Professor B. Dewar Instructor E. Hasenmyer

Taylor University has been a leader and at the forefront of Christian colleges in educating scientists in biology with strengths lying in preparation of students for graduate school, medical programs (medical \& dental school and veterinary programs; physician assistant, physical therapy, public health and allied health programs) and science education. Our goal of developing biologists as leaders means that the department seeks to highly prepare its majors for the future by providing a strong foundation in biological science. The department of biology seeks to:
I. Provide students with a strong foundation in the essentials of biology with the opportunity to specialize in a particular field of biology. This is accomplished by:

- Offering the breadth and quality of critically relevant course work necessary to prepare undergraduate biology majors for graduate and professional programs in the biological sciences.
- Providing instruction by faculty with doctoral degrees.
- Advising in specialty areas by advisors knowledgeable in those areas.

2. Thoroughly prepare students for future careers in the biological sciences by training them in the current knowledge, skills and processes of biological sciences. This is accomplished by:

- Providing student opportunities within the biological sciences through practicums and research experiences.
- Continued faculty professional development as scholars, scientists, educators and role models by staying current in their profession and disciplines.
- Examining the current program's approach, knowledge base, flexibility, equipment needs and integration of biology with other scientific disciplines; and implementing changes as needed.

3. Prepare Christian men and women for service to a world in need. This is accomplished by:

- Presenting the essentials of modern, dynamic biology to students as part of the University general education curriculum.
- Integrating faith and learning, including the continuing exploration of ethical implications in the application of modern biological science to the problems facing humankind today.

To fulfill the senior comprehensive examination requirement and be eligible for May graduation, majors are required to pass the biology subject test of the Graduate Record Exam (GRE) during the fall semester of their senior year.

## Biology (BA)

The bachelor of arts degree with a major in biology requires two years of one foreign language and 5I-53 hours in the major. (A minimum of 32 hours in the major must be from courses other than BIO 360, 393, 450, and 490.)

| Major Requirements |  |  |
| :--- | :---: | :--- |
| BIO IO1 | 4 | Principles of Cell Biology |
| BIO 103 | 3 | Introductory Plant Biology |
| BIO 104 | 3 | Introductory Animal Biology |
| BIO 203 | 4 | Principles of Genetics |
| BIO 493 | 4 | Biology Senior Capstone |
| ENS 204 | 4 | Principles of Ecology |

Electives

| Select I5 hours from: |  |  |
| :--- | :---: | :--- |
| SIO 244 | 4 | Human Anatomy and Physiology I |
| BIO 245 | 4 | Human Anatomy and Physiology II |
| BIO 301 | 4 | Taxonomy of Vascular Plants |
| BIO 307 | 4 | Vertebrate Natural History |
| BIO 3I2 | 4 | Cellular and Molecular Biology |
| BIO 322 | 3 | Ornithology |
| BIO 33I | 4 | Comparative Anatomy |
| BIO 360 | I-4 | Independent Study |
| BIO 370 | I-4 | Selected Topics |
| BIO 4IO | 3 | Bioethics |
| BIO 432 | 4 | Developmental Biology |
| BIO 44I | 4 | Environmental Physiology |
| BIO 450 | I-4 | Directed Research |
| BIO 452 | 4 | Animal Physiology |
| BIO 462 | 4 | Molecular Genetics |
| BIO 47I | 4 | Microbiology and Immunology |
| BIO 472 | 4 | Histology |
| BIO 490 | I-2 | Honors |
| CHE 4II | 3 | Biochemistry I |
| ENS 23I | 4 | Introduction to Environmental Science |
| ENS 475 | 4 | Systems Ecology |

In addition, the following courses are strongly recommended:
CHE 3II/3I2, PHY 203/204 or PHY 2II/2I2, and NAS 480

## Biology/Systems (BS)

The bachelor of science degree with a major in biology/systems consists of the 5I-53 hour bachelor of arts biology major and curriculum requirements in systems analysis. All systems curriculum courses must be completed with a grade of $C$ - or better.

| Systems Curriculum |  |  |
| :--- | :---: | :--- |
| Requirements |  |  |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| IAS 330 | 3 | Human Relations in Organizations |
| MAT 15 I | 4 | Calculus I |
| SYS 101 | 3 | Introduction to Systems |
| SYS 390 | 3 | Information Systems Analysis |
| SYS 392 | 1 | Systems Seminar |
| SYS 394 | 4 | Information Systems Design |
| SYS 403 | 3 | Operations Management |

Systems Electives
Select at least three hours of electives, in addition to those required in the major or systems:
MAT 3823 Advanced Statistical Methods

SYS 2143 Principles of Human Computer Interaction
SYS $310 \quad 3$ E-Commerce
*SYS 40I 3 Operations Research
*SYS 4023 Modeling and Simulation
*Courses in both areas may count only once.

Select one course from the following:

| $\operatorname{COS} 121$ | 4 | Foundations of Computer Science |
| :--- | :--- | :--- |
| $\operatorname{COS} 143$ | 3 | Interactive Webpage Design |

Select one course from the following:

| MAT 210 | 4 | Introductory Statistics |
| :--- | :--- | :--- |
| MAT 352 | 4 | Mathematical Statistics |

Select one course from the following:

| *SYS 401 | 3 | Operations Research |
| :--- | :---: | :--- |
| *SYS 402 | 3 | Modeling and Simulation |
| Select one course from the following: |  |  |
| SYS 393 | $3-4$ | Practicum |
| BIO 393 | $3-4$ | Practicum |

## Biology (BS)

The bachelor of science degree with a major in biology consists of 71 major hours.
Major Requirements
BIO IOI
BIO IO3
BIO 104
BIO 203
BIO 493
ENS 204
Select one course from the following:
BIO 393

| Additional Major Requirements |  |  |
| :---: | :---: | :---: |
| CHE 311 | 4 | Organic Chemistry I |
| CHE 312 | 4 | Organic Chemistry II |
| Select one of the following chemistry course combinations: |  |  |
| CHE 201 | 4 | General, Organic, and |
| $\begin{gathered} \text { CHE } 202 \\ \text { or } \end{gathered}$ | 4 | General, Organic, and |
| CHE 211 | 4 | College Chemistry I |
| CHE 212 | 4 | College Chemistry II |
| Select one of the following physics course combinations: |  |  |
| PHY 203 | 4 | General Physics I |
| $\begin{gathered} \text { PHY } 204 \\ \text { or } \end{gathered}$ | 4 | General Physics II |
| PHY 211 | 4 | University Physics I |
| PHY 212 | 5 | University Physics II |
| Select one of the following mathematics options: |  |  |
| MAT 151 | 4 | Calculus I |
| MAT 210 | 4 | Introductory Statistics |
| MAT 230 | 4 | Calculus II (or higher) |

A minimum of $\underline{33}$ hours in the major must be from courses other than BIO 360, 393, 450, 490, or CHE 4II.

## Pre-Medicine Pre-Professional Program

Students are required to make formal application to the pre-medicine program in the spring semester of their sophomore year or after completion of 45 hours of course work. Students must have completed four of the five biology core courses, one year of chemistry, the math requirement, and have a cumulative GPA of 3.30. Each student will receive a copy of the Biology Student Handbook from his or her academic advisor.

Students interested in the pre-medicine curriculum should check out during their sophomore year the medical school admissions requirements for the school(s) to which they plan to apply. The Medical School Admission Requirements guide published annually by AAMC is the best resource for this information. It is important to meet the specific entrance requirements of the medical school(s) chosen.

Maintaining at least a 3.60 GPA and scoring well on the MCAT test (usually taken in the spring of the junior year) are common prerequisites for acceptance to a medical school. Assistance is available in preparing for the MCAT examinations.

## Biology/Pre-Medicine Concentration (BA)

The bachelor of arts degree with a major in biology and a pre-professional concentration in pre-medicine requires two years, sequential study in one foreign language and 70-77 hours in the major.

| Major Requirements |  |  | Additional Major Requirements |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BIO 101 | 4 | Principles of Cell Biology | CHE 311 | 4 | Organic Chemistry I |
| BIO 103 | 3 | Introductory Plant Biology | CHE 312 | 4 | Organic Chemistry II |
| BIO 104 | 3 | Introductory Animal Biology | Select one | ollo | chemistry course combin |
| BIO 203 | 4 | Principles of Genetics | CHE 201 | 4 | General, Organic, and |
| BIO 393 | 2-4 | Practicum | CHE 202 | 4 | General, Organic, and |
| BIO 493 | 4 | Biology Senior Capstone | or |  |  |
| ENS 204 | 4 | Principles of Ecology | CHE 211 <br> CHE 212 | 4 | College Chemistry I College Chemistry II |
| Electives |  |  |  |  |  |
| Select four elective courses from: |  |  | Select one of the following physics course combinations: |  |  |
| BIO 312 | 4 | Cellular and Molecular Biology | PHY 203 | 4 | General Physics I |
| BIO 331 | 4 | Comparative Anatomy | PHY 204 | 4 | General Physics II |
| BIO 432 | 4 | Developmental Biology | or |  |  |
| BIO 452 | 4 | Animal Physiology | PHY 211 | 4 | University Physics I |
| BIO 462 | 4 | Molecular Genetics | PHY 212 | 5 | University Physics II |
| BIO 471 | 4 | Microbiology and Immunology | Select one of the following mathematics options: |  |  |
| BIO 472 | 4 | Histology | MAT 151 | 4 | Calculus I |
| CHE 41I | 3 | Biochemistry I | MAT 210 | 4 | Introductory Statistics |
| Select an a | al 3-4 | urs of upper-division biology electives. | MAT 230 | 4 | Calculus II (or higher) |

## Biology/Pre-Medicine Concentration (BS)

The bachelor of science degree with a major in biology and a pre-professional concentration in pre-medicine consists of 71 - 77 major hours.

| Major Requirements |  |  |
| :---: | :---: | :---: |
| BIO 101 | 4 | Principles of Cell Biology |
| BIO 103 | 3 | Introductory Plant Biology |
| BIO 104 | 3 | Introductory Animal Biology |
| BIO 203 | 4 | Principles of Genetics |
| BIO 493 | 4 | Biology Senior Capstone |
| ENS 204 | 4 | Principles of Ecology |
| Select one course from the following: |  |  |
| BIO 393 | 2-4 | Practicum |
| BIO 450 | 2-4 | Directed Research |
| Select one course from the following: |  |  |
| BIO 312 | 4 | Cellular and Molecular Biology |
| BIO 462 | 4 | Molecular Genetics |
| BIO 471 | 4 | Microbiology and Immunology |
| Select one course from the following: |  |  |
| BIO 331 | 4 | Comparative Anatomy |
| BIO 432 | 4 | Developmental Biology |
| Select one course from the following: |  |  |
| BIO 302 | 4 | Limnology |
| BIO 304 | 4 | Field Natural History of the Black Hills |
| BIO 305 | 4 | Natural History of Rocky Mountains |
| BIO 313 | 4 | Insect Biology and Ecology |
| BIO 322 | 4 | Ornithology |
| BIO 323 | 4 | Aquatic Biology |
| BIO 342 | 4 | Fish Biology and Ecology |
| BIO 370 | 4 | Selected Topics in Field Biology (Pre-Approved) |
| Select one course from the following: |  |  |
| BIO 44I | 4 | Environmental Physiology |
| BIO 452 | 4 | Animal Physiology |


| Additional Major Requirements |  |  |
| :---: | :---: | :---: |
| CHE 311 | 4 | Organic Chemistry I |
| CHE 312 | 4 | Organic Chemistry II |
| Select one of the following chemistry course combinations: |  |  |
| CHE 201 | 4 | General, Organic, and |
| $\begin{gathered} \text { CHE } 202 \\ \text { or } \end{gathered}$ | 4 | General, Organic, and |
| CHE 211 | 4 | College Chemistry I |
| CHE 212 | 4 | College Chemistry II |
| Select one of the following physics course combinations: |  |  |
| PHY 203 | 4 | General Physics I |
| $\begin{gathered} \text { PHY } 204 \\ \text { or } \end{gathered}$ | 4 | General Physics II |
| PHY 211 | 4 | University Physics I |
| PHY 212 | 5 | University Physics II |
| Select one of the following mathematics options: |  |  |
| MAT 151 | 4 | Calculus I |
| MAT 210 | 4 | Introductory Statistics |
| MAT 230 | 4 | Calculus II (or higher) |

## Biology Science Education (BS)

The bachelor of science degree in biology science education requires 89-96 hours of professional education, required science, biology core, and elective courses. Secondary education majors must complete specific general education requirements as outlined by the education department on page 210 .

| Professional Education |  |  |
| :---: | :---: | :---: |
| EDU 150 | 3 | Education in America |
| EDU 210 | 3 | Reading and Writing for Professional Educators |
| EDU 260 | 3 | Educational Psychology |
| EDU 309 | 1 | Teaching in Secondary, Junior High/Middle SchoolsSpecial Methods |
| EDU 310 | 2 | Discipline and Classroom Management |
| EDU 328 | 2 | Assessment for Student Learning |
| EDU 332 | 3 | The Junior High/Middle School |
| EDU 431 | 15 | Supervised Internship in Secondary Schools |
| NAS 309 | 2 | Science Education Methods |
| SED 320 | 3 | Exceptional Children |
| Biology Core Courses |  |  |
| BIO 101 | 4 | Principles of Cell Biology |
| BIO 103 | 3 | Introductory Plant Biology |
| BIO 104 | 3 | Introductory Animal Biology |
| BIO 203 | 4 | Principles of Genetics |
| BIO 493 | 4 | Biology Senior Capstone |
| ENS 204 | 4 | Principles of Ecology |
| Science Core Courses |  |  |
| Select one of the following chemistry course combinations: |  |  |
| CHE 201 | 4 | General, Organic, and Biochemistry I |
| CHE 202 <br> or | 4 | General, Organic, and Biochemistry II |
| CHE 211 | 4 | College Chemistry I |
| CHE 212 | 4 | College Chemistry II |
| Select one course from the following: |  |  |
| PHY 203 | 4 | General Physics I |
| PHY 211 | 4 | University Physics I |
| Select one course from the following: |  |  |
| ENS 241 | 4 | Physical Geology |
| ENS 242 | 4 | Geology of Indiana |
| GEO 240 | 3 | Introduction to Geology |
| PHY 204 | 4 | General Physics II |
| PHY 212 | 5 | University Physics II |


| Biology Electives |  |  |
| :---: | :---: | :---: |
| Select one field course from the following: |  |  |
| BIO 302 | 4 | Limnology |
| BIO 304 | 4 | Field Natural History of the Black Hills |
| BIO 305 | 4 | Natural History of the Rocky Mountains |
| BIO 313 | 4 | Insect Biology and Ecology |
| BIO 322 | 4 | Ornithology |
| BIO 323 | 4 | Aquatic Biology |
| BIO 342 | 4 | Fish Biology and Ecology |
| Select one cell and molecular course from the following: |  |  |
| BIO 312 | 4 | Cellular and Molecular Biology |
| BIO 432 | 4 | Developmental Biology |
| BIO 462 | 4 | Molecular Genetics |
| BIO 471 | 4 | Microbiology and Immunology |
| Select one organismal biology course from the following: |  |  |
| BIO 244 | 4 | Human Anatomy and Physiology I |
| BIO 245 | 4 | Human Anatomy and Physiology II |
| BIO 331 | 4 | Comparative Anatomy |
| BIO 44I | 4 | Environmental Physiology |
| BIO 452 | 4 | Animal Physiology |
| Select one ecological and population biology course from the following: |  |  |
| BIO 301 | 4 | Taxonomy of Vascular Plants |
| BIO 307 | 4 | Vertebrate Natural History |
| ENS 475 | 4 | Systems Ecology |
| Select one biology experience course from the following: |  |  |
| BIO 393 | 2-4 | Practicum |
| BIO 450 | 2-4 | Directed Research |

Select any course not taken from a previous area above or four hours from an additional 300- or 400-level biology course.

## Biology Minor

A minor in biology requires 26-28 hours.

| Minor Requirement |  |  |
| :---: | :---: | :---: |
| Select thre |  | e following: |
| BIO 101 | 4 | Principles of Cell Biology |
| BIO 103 | 3 | Introductory Plant Biology |
| BIO 104 | 3 | Introductory Animal Biology |
| BIO 203 | 4 | Principles of Genetics |
| ENS 204 | 4 | Principles of Ecology |

Additional Minor Requirements
MAT 210 44
Introductory Statistics
Select one course from the following:

| CHE 201 | 4 | General, Organic, and Biochemistry I |
| :--- | :--- | :--- |
| CHE 211 | 4 | College Chemistry I |

Select an additional eight hours of upper-division (300-/400-level) biology courses.

## AuSable Institute of Environmental Studies

Taylor University is affiliated with the AuSable Institute of Environmental Studies (AIES) in Mancelona, Michigan. Taylor students may take summer courses for credit at AIES. Detailed information is available from the AIES representative of the department of biology.

## Biology Courses

## BIO $100 \quad 4$ hours

## General Biology

Concepts and principles are studied to provide basic knowledge that assists students to meet the obligations of an informed citizen. The spring semester of General Biology is intended for elementary education majors as a content course that emphasizes instructional methodologies in science education. Three hours of lecture and two hours of laboratory per week. Meets general education life science requirement; not available to biology majors.

## BIO 101 <br> 4 hours <br> Principles of Cell Biology

A majors core course: Study of generalized sub-cellular structures and metabolism emphasizing dependence of function on structure, principles of organization, and capture and utilization of energy. Three hours of lecture and two hours of laboratory per week. Meets general education life science requirement.

## BIO 103

3 hours
Introductory Plant Biology
A majors core course: Introduction to plants taxonomy, physiology, and ecology; Archaea, algae, and fungi are introduced as well. The structure, growth, and development of the flowering plant body are emphasized. Two hours of lecture and two hours of laboratory per week. Meets general education life science requirement.

## BIO 104 <br> 3 hours

Introductory Animal Biology
A majors core course: A taxonomic survey of the major phyla in the animal kingdom. Classification, characteristics, representative forms, and relations to man are considered. Invertebrates are emphasized. Two hours of lecture and three hours of laboratory per week. Meets general education life science requirement.

## BIO 170

I-4 hours

## Selected Topics

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## BIO 200

## 4 hours

Human Nutrition
A study of human nutrition dealing with human consumption and utilization of ood. An understanding of the basic roles of nutrients in the body creates an appreciation of the continuity of the life cycle with its changing nutritiona needs. Three hours of lecture and two hours of laboratory per week. Prerequisite: CHE 100 or permission of instructor. Meets general education life science requirement; not available to biology majors.

## BIO 203

4 hours
Principles of Genetics
A majors core course: Fundamental principles of Mendelian inheritance, introduction to molecular genetics, along with quantitative and evolutionary genetics will be examined. Three hours of lecture and two hours of laboratory per week. Does not normally satisfy general education science requirement.

## BIO 205

4 hours
Human Biology
An introduction to the structure and function of the human body. This course focuses on the anatomy and physiology of human cells, tissues, organs, all organ systems, as well as the whole organism. Practical health applications will also be explored. Meets general education life science requirement

## BIO 243

## 5 hours

Human Anatomy and Physiology
A survey of the structure and function of the human organism. Biochemical composition, cellular structure, and tissue levels of organization and all the major systems are covered. Four hours of lecture and two hours of lab. Meets general education life science requirement. Offered summer semester only.

## BIO 244

4 hours
Human Anatomy and Physiology I
The first of a two-course survey covering the structure and function of the human body. Biochemical composition, cellular structure, and tissue levels of organization, along with the integument, skeletal, muscular, and nervous systems are covered. Three hours of lecture and two hours of lab per week. Meets general education life science requirement. Offered fall semester.

## BIO 245

4 hours
Human Anatomy and Physiology II
The second of a two-course survey covering the structure and function of the human body. The endocrine, cardiovascular, respiratory, digestive, urinary, and reproductive systems are covered. Three hours of lecture and two hours of lab per week. Prerequisite: BIO 244. Offered spring semester.

## BIO 270 <br> I-4 hours

## Selected Topics

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## BIO 300

Medical Physiology
Medical Physiology is taught in Cuenca Ecuador by the Medical School of the Universidad del Azuay. The course is part of the Global Engagement Centre program for the department of biology. The course covers human physiology in a clinical setting. Class is approached in a pathology problems based curriculum with laboratories in the university hospital. Permission is required by the Director of the Cuenca Centre.

## BIO 301

4 hours
Taxonomy of Vascular Plants
Identification, classification, and systematics of vascular plants are studied. Topics include basic population genetics, the process of speciation, phylogeny reconstruction, and molecular patterns of diversification. Laboratory emphasis is on local flora, plant family characteristics, and modern systematic techniques. Two hours of lecture and four hours of laboratory per week. Prerequisite: BIO 103; BIO 203 is recommended. Offered fall semester

## BIO 302

4 hours
Limnology
Field Course: Field study of lakes and other freshwater systems with applications to planning and management. Includes an introduction to limnology and investigation of representative lakes, streams and wetlands of the region and compares the North American Great Lakes with other great lakes of the world and their stewardship. Prerequisites: BIO 103, 104, and CHE 201 or 211 . Offered summers at AIES.

## BIO 304 <br> 4 hours

Field Natural History of the Black Hills
Field Course: Introduction to basic field and lab methods used in field natural history. Includes basic nomenclature of spring flora and fauna in terrestrial as well as aquatic systems. Examines the principles of geology/paleontology, ecosystems, communities, and wildlife as exhibited in the Black Hills region of South Dakota, including Mt. Rushmore, Badlands National Park, Custer State Park, Devils Tower National Monument, the Black Hills National Forest, and Yellowstone and Grand Teton National Parks. Prerequisites: BIO 103, I04, ENS 204, or permission of instructor. Offered summers at the Wheaton College Science Station, Black Hills South Dakota.

## BIO 3054 hours <br> Natural History of the Rocky Mountains

Field Course: Natural History of the Rocky Mountains is a field study course of the ecology and natural history of the Rocky Mountains. Students study the varied life zones, geology, climatic, and soil interactions of the Sonoran Desert, Grand Canyon, Great Basin Desert, Great Salt Lake, Yellowstone, Grand Teton National Park, Pawnee Prairie, and Rocky Mountain National Park. Students will gain appreciation of God's creation. Prerequisites: Completion of the biology core courses before enrolling or permission of the professor. Offered summer semester.

## BIO 307

4 hours
Vertebrate Natural History
This course looks at the adaptive anatomy, feeding relationships, behavior, life history, and geographical distribution of vertebrates from fishes to mammals. Labs focus on methods currently employed for study and observation of vertebrates in the field and involve several outdoor sessions. Three hours of lecture and three hours of lab per week. Prerequisite: BIO IO4 or permission of the instructor; ENS 204 is recommended. Offered spring semester.

## BIO 312

## 4 hours

Cellular and Molecular Biology
Analysis of the eukaryotic cell with regard to its physiological and biochemical characteristics, including bioenergetics, protein kinesis, cell communication, cell-division cycle, cell junctions and histology, cancer, and the adaptive immune system. Three hours lecture, one three-hour laboratory per week. Prerequisites: BIO 101, CHE 201 or 211 , and 202 or 212 , and minimum junior status; or permission from the instructor.

## BIO 313 <br> 4 hours

Insect Biology and Ecology
Field Course: A study of insect taxonomy, ecology, life histories, and economic importance. Special attention is given to environmental stewardship issues, including use of insecticides, biological control, integrated pest management, and impact of cultivation on formation of pest faunas. Field methods are stressed. Prerequisites: BIO IOI, I04. Offered summers at AIES.

## BIO 322

## Ornithology

Field Course: Biology, behavior, ecology, and identification of birds. Work is primarily conducted in the field and covers the major habitats of northern lower Michigan, including wetlands, lakes, rivers, forests, dunes, and open field communities. Emphasis is placed on identification of the spring bird fauna of northern lower Michigan by sight and by call. Prerequisites: One course in introductory biology and animal biology. Offered summers at AIES.

## BIO 323

4 hours
Aquatic Biology
Field Course: Collection, identification and ecological position of fresh-water organisms. Taxonomic skills are developed. Prerequisites: BIO 103, 104, and ENS 204. Offered summers at AIES.

## BIO 331

4 hours
Comparative Anatomy
Classification, characteristics, and comparison of typical chordate animals with emphasis on the vertebrates. Lab contains detailed dissection of representative vertebrates. Three hours of lecture and three hours laboratory per week. Prerequisite: BIO 104 or permission of instructor. Offered fall semester and summers, at discretion of faculty.

## BIO 342 <br> 4 hours <br> Fish Biology and Ecology

Field Course: Identification, ecology, exploitation and stewardship of fishes and their habitats. Field studies include noncommercial and commercial fisheries in the Great Lakes region, ecological dynamics of fisheries, exploitation and population ecology, fishing techniques, and fishing rights and regulations. Prerequisites: BIO 101, I04, and ENS 204. Offered summers at AIES.

## BIO 360

I-4 hours
Independent Study
An individualized, directed study involving a specified topic.

## BIO 370 <br> I-4 hours <br> Selected Topics

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## BIO 393

1-4 hours

## Practicum

Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## BIO 410

3 hours
Bioethics
An introduction to bioethics, comprising an overview of ethical theory, uniquely Christian contributions to ethical theory, and a consideration of specific bioethical problems. The interaction of bioethics in the worlds of ideologies, politics, and economics, and the unique contribution a Christian bioethical perspective brings to the public square, will also be foci of the course. Designed for upper level biology students, but open to any upper division student willing and able to acquire the necessary biological competence to knowledgably deal with the biology of the course material.

## BIO 432

## 4 hours

Developmental Biology
A study of development at the molecular, cellular, and organismal levels. The lecture sessions focus on current concepts in developmental biology, and the lab is classical vertebrate embryology (frog, chick, pig). Three hours of lecture and three hours of laboratory per week. Prerequisites: BIO 101 and 104; BIO 312 or 462 recommended. Offered fall semester.

## BIO 441

## 4 hours

Environmental Physiology
An introduction to the physiology of cells and tissues with emphasis on responses to environmental challenges. Topics include cell structure, protein synthesis and enzymes, water balance, transport, mineral nutrition, metabolism including photosynthesis, and responses to environmental cues stresses. Three hours of lecture and three hours of laboratory per week. Prerequisites: BIO 103, CHE 201 or 211 , and CHE 202 or 212 . Offered spring semester of odd years.

BIO 450
I-4 hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

## BIO 452 <br> 4 hours

Animal Physiology
A study of the physiological nature of living organisms with special consideration of the functions of vertebrate organ systems. Practical experience is given in working with live animals and the instrumentation used to examine the functional processes of various systems. Three hours of lecture and three hours of laboratory per week. Prerequisites: BIO 33I, CHE 201 or 2 II , and CHE 202 or 212 . Offered spring semester.

## BIO 462

4 hours
Molecular Genetics
The current understanding of what a gene is, how it functions, and how it is regulated, particularly from a molecular perspective, is the essence of this course. Viral, prokaryotic, and eukaryotic systems are studied. Current scientific literature as well as a published textbook serve as sources. Three hours lecture and one four-hour laboratory per week. Prerequisites: BIO IOI, 203, and two courses in chemistry. BIO 47I is recommended. Offered fall semester.

## BIO 471

4 hours
Microbiology and Immunology
An introduction to general microbiology and to the human immune response. Included are microbial growth and control, diversity and taxonomy, the ecological role of microorganisms, and medical microbiology. The laboratory provides basic bacterial culture techniques, including the identification of unknowns. Three hours of lecture and three hours of laboratory per week. Prerequisites: BIO 101, BIO 203, and two courses in chemistry are recommended. Offered spring semester.

## BIO 472

## 4 hours

Histology
The study of minute structure, composition, and function of tissue. Lectures and laboratories help expose students to both the normal tissue formation found in animal tissues (chiefly mammalian) and many of the abnormal tissue developments associated with pathological dysfunctions. Prerequisites: Completion of the biology core courses before enrolling or permission of the instructor. Offered spring semester.

## BIO $480 \quad$ I- 4 hours

Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

## BIO 490

## I-2 hours

Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## BIO 493

## 4 hours

Biology Senior Capstone
An integrative, senior-level course in which major themes from within the biology major and from the Taylor general education program are intentionally revisited at a depth appropriate to college seniors. Such themes include the nature of biology as a natural science, the historical and philosophical foundations of the natural sciences, and the interaction and integration of biology with the Christian faith. Students will also actively engage in the process of doing current biological science, as well as consider several ethical issues that arise from current biology. Prerequisite: Senior standing as a biology major. Offered January interterm.

# Chemistry and Biochemistry 

Chair, Professor D. Hammond<br>Professor L. Kroll<br>Associate Professors D. King, D. Takehara<br>Assistant Professor P. Stan

The department of chemistry and biochemistry provides high-quality training in chemistry and biochemistry while providing opportunities for meaningful spiritual and interpersonal experiences that will enable students to move successfully into the next phase of their professional training or the career of their choice. Chemistry is an excellent starting point for careers in research within the physical and life sciences, medicine, veterinary medicine, dentistry, pharmacy, environmental science, forensic science, education, industry, and many others.

## Chemistry (BA)

The bachelor of arts degree with a major in chemistry requires two years of one foreign language and 58-60 hours in the major. This program is suitable for students wishing to enter either graduate school or the chemical industry.

| Major Requirements |  |  |
| :--- | :---: | :--- |
| CHE 2II | 4 | College Chemistry I |
| CHE 2I2 | 4 | College Chemistry II |
| CHE 30I | 3 | Analytical Chemistry I |
| CHE 30IL | I | Analytical Chemistry I Lab |
| CHE 302 | 3 | Analytical Chemistry II |
| CHE 302L | I | Analytical Chemistry II Lab |
| CHE 3II | 4 | Organic Chemistry I |
| CHE 3I2 | 4 | Organic Chemistry II |
| CHE 330 | 3 | Inorganic Chemistry |
| CHE 4IOL | 2 | Biochemistry Lab |
| CHE 4II | 3 | Biochemistry I |
| CHE 420 | I | Chemistry Thesis |
| CHE 43I | 3 | Physical Chemistry I |
| CHE 43IL | I | Physical Chemistry I Lab |
| CHE 432 | 3 | Physical Chemistry II |
| CHE 432L | I | Physical Chemistry II Lab |


| Additional Major Requirements |  |  |
| :---: | :---: | :---: |
| MAT 230 | 4 | Calculus II |
| PHY 211 | 4 | University Physics I |
| PHY 212 | 5 | University Physics II |
| Select one option from the following: |  |  |
| MAT I5I | 4 | Calculus I |
| tMAT 145 and | 3 | Introduction to Function |
| tMAT 146 | 3 | Functions and Calculus |
| tMAT I45 and MAT 146 combination meets requirement. |  |  |
| Recommended Electives |  |  |
| CHE 412 | 3 | Biochemistry II |
| MAT 240 | 4 | Calculus III |
| MAT 25I | 4 | Differential Equations |
| MAT 352 | 4 | Mathematical Statistics |
| $\cos x x x$ |  |  |

## Chemistry (BS)

The bachelor of science degree with a major in chemistry consists of 67 hours in the major and curriculum requirements in systems analysis. This program is especially attractive to students planning to enter either graduate school or the chemical industry.

| Major Requirements |  |  |
| :--- | :---: | :--- |
| CHE 2II | 4 | College Chemistry I |
| CHE 2I2 | 4 | College Chemistry II |
| CHE 30I | 3 | Analytical Chemistry I |
| CHE 30IL | I | Analytical Chemistry I Lab |
| CHE 302 | 3 | Analytical Chemistry II |
| CHE 302L | I | Analytical Chemistry II Lab |
| CHE 3II | 4 | Organic Chemistry I |
| CHE 3I2 | 4 | Organic Chemistry II |
| CHE 330 | 3 | Inorganic Chemistry |
| CHE 4IOL | 2 | Biochemistry Lab |
| CHE 4II | 3 | Biochemistry I |
| CHE 4I2 | 3 | Biochemistry II |
| CHE 420 | I | Chemistry Thesis |
| CHE 43I | 3 | Physical Chemistry I |
| CHE 43IL | I | Physical Chemistry I Lab |
| CHE 432 | 3 | Physical Chemistry II |
| CHE 432L | I | Physical Chemistry II Lab |
| CHE 450 | 6 | Directed Research |

Additional Requirements
tMAT I5I

| tMAT 230 | 4 | Calculus I |
| :--- | :--- | :--- |
| tPHY 211 | 4 | Calculus II |
| tPHY 212 | 4 | University Physics I |
| tCourse does not count toward major GPA. |  |  |
| Recommended Electives |  |  |
| BIO 101 | 4 | Principles of Cell Biology |
| MAT 240 | 4 | Calculus III |
| MAT 251 | 4 | Differential Equations |
| MAT 352 | 4 | Mathematical Statistics |

## Chemistry/Biochemistry Concentration (BA)

The bachelor of arts degree with a major in chemistry and a concentration in biochemistry requires two years of one foreign language and 67-70 hours. This program prepares students for a career in biochemistry, medicine, molecular biology and other related fields

| Major Requirements |  |  |
| :--- | :---: | :--- |
| CHE 2 II | 4 | College Chemistry I |
| CHE 2 I2 | 4 | College Chemistry II |
| CHE 30I | 3 | Analytical Chemistry I |
| CHE 30IL | I | Analytical Chemistry I Lab |
| CHE 302 | 3 | Analytical Chemistry II |
| CHE 302L | I | Analytical Chemistry II Lab |
| CHE 3II | 4 | Organic Chemistry I |
| CHE 3I2 | 4 | Organic Chemistry II |
| CHE 330 | 3 | Inorganic Chemistry |
| CHE 4IOL | 2 | Biochemistry Lab |
| CHE 4II | 3 | Biochemistry I |
| CHE 4I2 | 3 | Biochemistry II |
| CHE 420 | I | Chemistry Thesis |
| CHE 43I | 3 | Physical Chemistry I |
| CHE 43IL | I | Physical Chemistry I Lab |


| Additional Major Requirements |  |  |
| :---: | :---: | :---: |
| MAT 230 | 4 | Calculus II |
| PHY 211 | 4 | University Physics I |
| PHY 212 | 5 | University Physics II |
| BIO 101 | 4 | Principles of Cell Biology |
| Select one option from the following: |  |  |
| MAT 151 | 4 | Calculus I |
| tMAT 145 and | 3 | Introduction to Functions and Calculus |
| †MAT 146 | 3 | Functions and Calculus |

MAT I45 and MAT I46 combination meets requirement.
Electives
Select two elective biology courses (6 hours).

| Recommended Biology Courses |  |  |
| :--- | :---: | :--- |
| BIO 203 | 4 | Principles of Genetics |
| BIO 462 | 4 | Molecular Genetics |
| BIO 47I | 4 | Microbiology and Immunology |

## Chemistry/Pre-Medicine Concentration (BA)

The bachelor of arts degree with a major in chemistry and a pre-professional concentration in pre-medicine requires two years, sequential study of one foreign language and 65-68 major hours.

Students interested in the pre-medicine curriculum should check out during their sophomore year the medical school admissions requirements for the school(s) to which they plan to apply. The Medical School Admission Requirements guide published annually by AAMC is the best resource for this information. It is important to meet the specific entrance requirements of the medical school(s) chosen.

Maintaining at least an A- average and scoring well on the MCAT test (usually taken in the spring of the junior year) are common prerequisites for acceptance to a medical school. Assistance is available in preparing for the MCAT examinations.

| Major Requirements |  |  |
| :--- | :---: | :--- |
| CHE 2II | 4 | College Chemistry I |
| CHE 2I2 | 4 | College Chemistry II |
| CHE 30I | 3 | Analytical Chemistry I |
| CHE 30IL | I | Analytical Chemistry I Lab |
| CHE 302 | 3 | Analytical Chemistry II |
| CHE 302L | I | Analytical Chemistry II Lab |
| CHE 3II | 4 | Organic Chemistry I |
| CHE 3I2 | 4 | Organic Chemistry II |
| CHE 330 | 3 | Inorganic Chemistry |
| CHE 4IOL | 2 | Biochemistry Lab |
| CHE 4II | 3 | Biochemistry I |
| CHE 420 | I | Chemistry Thesis |
| CHE 43I | 3 | Physical Chemistry I |
| CHE 43IL | I | Physical Chemistry I Lab |

Additional Major Requirements
MAT 230
PHY 21 I
PHY 212

## Chemistry-Environmental Science (BS)

This integrated major has a strong emphasis on the physical aspects of environmental studies. It is appropriate for students planning careers in environmental research or industrial or municipal environmental monitoring and control. The bachelor of science degree with a major in chemistry-environmental science requires $90-92$ major hours.

| Chemistry |  |  |
| :--- | :---: | :--- |
| Requirements |  |  |
| CHE 2II | 4 | College Chemistry I |
| CHE 2I2 | 4 | College Chemistry II |
| CHE 30I | 3 | Analytical Chemistry I |
| CHE 30IL | I | Analytical Chemistry I Lab |
| CHE 302 | 3 | Analytical Chemistry II |
| CHE 302L | I | Analytical Chemistry II Lab |
| CHE 3II | 4 | Organic Chemistry I |
| CHE 3I2 | 4 | Organic Chemistry II |
| CHE 330 | 3 | Inorganic Chemistry |
| CHE 4IOL | 2 | Biochemistry Lab |
| CHE 4II | 3 | Biochemistry I |
| CHE 420 | I | Chemistry Thesis |
| CHE 43I | 3 | Physical Chemistry I |
| CHE 43IL | I | Physical Chemistry I Lab |
| CHE 432 | 3 | Physical Chemistry II |
| CHE 432L | I | Physical Chemistry II Lab |


| Environmental Science Requirements |  |  |
| :---: | :---: | :---: |
| CHE 320 | 3 | Environmental Chemistry |
| CHE 320L | I | Environmental Chemistry Lab |
| ENS 204 | 4 | Principles of Ecology |
| ENS 231 | 4 | Introduction to Environmental Science |
| ENS 383 | 4 | Environmental Ethics |
| ENS 402 | 4 | Environmental Law and Policy |
| Select one course from the following: |  |  |
| CHE 393 | 2-4 | Practicum |
| ENS 393 | 2-4 | Practicum |
| Mathematics Requirements |  |  |
| MAT 230 | 4 | Calculus II |
| Select one option from the following: |  |  |
| MAT 151 | 4 | Calculus I |
| †MAT 145 and | 3 | Introduction to Functions and Calculus |
| †MAT 146 | 3 | Functions and Calculus |


| Physics Requirements |  |  |
| :--- | :---: | :--- |
| PHY 211 | 4 | University Physics I |
| PHY 212 | 5 | University Physics II |

tMAT I45 \& 146 count as one option.
Electives (to total 90-92 major hours)

| Electives (to total | en-9 | major hours) |
| :--- | :---: | :--- |
| CHE 4I2 | 3 | Biochemistry II |
| MAT 210 | 4 | Introductory Statistics |
| ENP 331 | 4 | Introduction to Electronics |
| ENS 24I | 4 | Physical Geology |

## Chemistry Education (BS)

The bachelor of science degree with a major in chemistry education requires 82-85 hours of professional education courses and major courses. Secondary education majors must complete specific general education requirements as outlined by the education department on page 210.

| Chemistry |  |  | Professional Education |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CHE 211 | 4 | College Chemistry I | EDU 150 | 3 | Education in America |
| CHE 212 | 4 | College Chemistry II | EDU 210 | 3 | Reading and Writing for Professional Educators |
| CHE 301 | 3 | Analytical Chemistry I | EDU 260 | 3 | Educational Psychology |
| CHE 301L | I | Analytical Chemistry I Lab | EDU 309 | 1 | Teaching in Secondary, Junior High/Middle Schools-Special Methods |
| CHE 302 | 3 | Analytical Chemistry II | EDU 310 | 2 | Discipline and Classroom Management |
| CHE 302L | 1 | Analytical Chemistry II Lab | EDU 328 | 2 | Assessment for Student Learning |
| CHE 311 | 4 | Organic Chemistry 1 | EDU 332 | 3 | The Junior High/Middle School |
| CHE 420 | I | Chemistry Thesis | EDU 431 | 15 | Supervised Internship in Secondary Schools |
| CHE 431 | 3 | Physical Chemistry 1 | NAS 309 | 2 | Science Education Methods |
| CHE 43IL | I | Physical Chemistry I Lab | SED 320 | 3 | Exceptional Children |
| Select at least one course from: |  |  | Additional Major Requirements |  |  |
| CHE 312 | 4 | Organic Chemistry II | MAT 230 | 4 | Calculus II |
| CHE 320 | 3 | Environmental Chemistry | PHY 211 | 4 | University Physics I |
| CHE 330 | 3 | Inorganic Chemistry | PHY 212 | 5 | University Physics II |
| CHE 41I | 3 | Biochemistry I | Select one option from the following: |  |  |
|  |  |  | MAT 151 | 4 | Calculus I |
|  |  |  | tMAT 145 and | 3 | Introduction to Functions and Calculus |
|  |  |  | †MAT 146 | 3 | Functions and Calculus |
|  |  |  | †MAT 145 | coun | one option. |

## Chemistry Minor

The chemistry minor requires a minimum of 21 hours and includes at least four semesters of core chemistry lab courses.

| Minor Requirements |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CHE 211 | 4 | College Chemistry I | Select one of the following chemistry course combinations: |  |  |
| CHE 212 | 4 | College Chemistry II | tCHE 301 | 3 | Analytical Chemistry I |
| CHE 311 | 4 | Organic Chemistry I | CHE 30IL <br> or | 1 | Analytical Chemistry I Lab |
| Electives |  |  | tCHE 302 | 3 | Analytical Chemistry II |
| Select at least two upper-division (300/400-level) chemistry courses. |  |  | CHE 302L <br> or | I | Analytical Chemistry II Lab |
|  |  |  | tCHE 320 | 3 | Environmental Chemistry |
|  |  |  | CHE 320L <br> or | 1 | Environmental Chemistry Lab |
|  |  |  | CHE 330 | 3 | Inorganic Chemistry |

tMust be taken with Lab to meet requirement.

## Physical Science Education/Chemistry Concentration (BS)

The bachelor of science degree with a major in physical science and a concentration in chemistry requires 82-84 hours of professional education physical science core and chemistry courses. Secondary education majors must complete specific general education requirements as outlined by the education department on page 210 .

| Physical Science Core |  |  |
| :---: | :---: | :---: |
| CHE 211 | 4 | College Chemistry I |
| CHE 212 | 4 | College Chemistry II |
| MAT 230 | 4 | Calculus II |
| PHY 211 | 4 | University Physics I |
| PHY 212 | 5 | University Physics II |
| Select one option from the following: |  |  |
| MAT 151 | 4 | Calculus I |
| †MAT 145 and | 3 | Introduction to Functio |
| †MAT 146 | 3 | Functions and Calculus |

tMAT 145 \& 146 count as one option.

| Chemistry Concentration |  |  |
| :---: | :---: | :---: |
| CHE 301 | 3 | Analytical Chemistry I |
| CHE 30IL | I | Analytical Chemistry I Lab |
| CHE 302 | 3 | Analytical Chemistry II |
| CHE 302L | 1 | Analytical Chemistry II Lab |
| CHE 311 | 4 | Organic Chemistry I |
| CHE 312 | 4 | Organic Chemistry II |
| CHE 43I | 3 | Physical Chemistry I |
| CHE 43IL | I | Physical Chemistry I Lab |
| Professional Education |  |  |
| EDU 150 | 3 | Education in America |
| EDU 210 | 3 | Reading and Writing for Professional Educators |
| EDU 260 | 3 | Educational Psychology |
| EDU 309 | I | Teaching in Secondary, Junior High/Middle SchoolsSpecial Methods |
| EDU 310 | 2 | Discipline and Classroom Management |
| EDU 328 | 2 | Assessment for Student Learning |
| EDU 332 | 3 | The Junior High/Middle School |
| EDU 431 | 15 | Supervised Internship in Secondary Schools |
| NAS 309 | 2 | Science Education Methods |
| SED 320 | 3 | Exceptional Children |

## Chemistry Courses

## CHE 100

## Chemistry for Living

A course designed for students who have little or no background in chemistry. Basic principles of chemistry are applied in a social context. Three hours of lecture and one two-hour lab per week. Meets general education physical science requirement. No prerequisite, although high school algebra is recommended. Offered fall and spring semesters.

## CHE 120 <br> 4 hours

This course is a one semester introduction to forensic science which will focus on the application of physical and life sciences to criminal investigation. Topics include the crime scene, physical evidence, fingerprints, forensic toxicology, forensic serology, as well as many others. There are no prerequisites. Based upon the course section selected, will meet either a life or physical science general education requirement. Offered spring semesters.

## CHE 170

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## CHE 20I

## 4 hours

General, Organic, and Biochemistry I
This is the first semester of a two-semester sequence designed for students with minimal backgrounds in chemistry yet need a solid foundation in chemistry for their major. These students do not typically take other chemistry courses beyond this sequence. The two semesters are a comprehensive overview of General Chemistry, Organic Chemistry, and Biochemistry. The first semester focuses on General Chemistry with an introduction to Organic Chemistry. Three hours of lecture and three hours of lab per week. Meets general education physical science requirement. No college level prerequisites, but high school algebra and chemistry are strongly recommended. Offered fall semester.

## CHE 202

## 4 hours

General, Organic, and Biochemistry II
This is the continuation of CHE 201 (see CHE 20I description). The second semester continues with the introduction to Organic Chemistry and includes an overview of Biochemistry. Three hours of lecture and three hours of lab per week. Prerequisite: CHE 20I. Offered spring semester.

## CHE 211

## College Chemistry

This is a general chemistry course for those intending to take later coursework in chemistry, such as organic, inorganic, analytical, or environmental chemistries. The course thoroughly explores the basic concepts and theories of chemistry, using quantitative skills to predict and characterize chemical properties and changes. The nature of atomic structure and chemical bonding and the properties of solids, liquids, and gases are all presented and studied using lectures, demonstrations, and computer-assisted teaching and testing methods. Chemical change is studied in terms of reaction classes, energy flows, and kinetic theories. Meets the general education physical science requirement. Offered fall semester.

## CHE 212

College Chemistry II
The second general chemistry course for those intending to take later coursework in chemistry, such as organic, inorganic, analytical, or environmental chemistries. This course thoroughly explores the basic concepts and theories of chemistry using quantitative skills to predict and characterize chemical properties and changes. The nature of organic chemistry, complexes, equilibria, electrochemistry, and advanced acid-base properties are all presented and studied using lectures, demonstrations, and computer-assisted teaching and testing methods. Chemical change is studied in terms of entropy, free energy, and kinetic theories. Prerequisite: CHE 211 . Offered spring semester.

## CHE 270

## I-4 hours

## Selected Topics

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## CHE 30I

## 3 hours

## Analytical Chemistry I

Introduction to modern theories and methods used in separations and quantitative determinations. Topics include basic statistics and treatment of data, gravimetry, titrations and spectroscopy. Topics correlate with the lab. Three hours of lecture per week. Prerequisite: CHE $2 / 2$ or permission of instructor. Corequisite: CHE 30 IL. Offered fall semester.

## CHE 30IL

## I hour

Analytical Chemistry I Lab
This lab includes gravimetric, titrations, and spectroscopy. Some instrumentation is used including AA and GCMS. Three hours of lab per week. Prerequisite: CHE 212 or permission of instructor. Corequisite: CHE 301. Offered fall semester.

## CHE 302 <br> 3 hours <br> Analytical Chemistry II

A continuation of CHE 301 in which instrumental methods of analysis are emphasized. A survey of instrumental methods used in modern analytical chemistry. Topics include the general principles of basic instrument components and their integration into the wide variety of modern instrumentation. Three hours of lecture per week. Prerequisite: CHE 301 or permission of instructor. Corequisite: CHE 302L. Offered spring semester of even years.

## CHE 302L

Analytical Chemistry II Lab
Students will gain hands-on experience with a variety of spectroscopic (UV, VIS, AA), spectrometric (MS), electrochemical, chromatographic (HPLC, GC, IC), and hybrid (GC/MS, LC/MS) analytical instrumentations. Three hours of lab per week. Corequisite: CHE 302. Offered spring semester of even years.

## CHE 3II

## 4 hours

Organic Chemistry I
The study of covalent carbon compounds. Nomenclature, properties, and reactions (including reaction mechanisms) of all classes of hydrocarbons, alcohols, ethers, halides, and organometallic substances are studied. NMR and IR spectroscopic methods are learned and applied. The lab includes development of advanced lab skills and study of the kinetics and properties of organic substances in reactions. Three hours of lecture and three hours of lab. Prerequisites: CHE 211, 212. Offered fall semester.

## CHE 312

## 4 hours

Organic Chemistry II
Continuation of CHE 31I. Focuses on carbonyl and carboxylate compounds and their derivatives, amines, and polyfunctional compounds, including biomolecules. Lab work includes study of the properties of aromatic compounds, qualitative organic analysis, and small group original research projects. Three hours of lecture and three hours of lab. Prerequisite: CHE 3 II. Offered spring semester.

## CHE 320

## 3 hours

Environmental Chemistry
A course that emphasizes principles and analysis of chemical sources, movement, distribution, and effects in natural environments. Prerequisite: One year of general chemistry. Corequisite: CHE 320L. Offered spring semester of odd years.

## CHE 320L

I hour
Environmental Chemistry Lab
This lab provides experiences in sampling and analysis of water, soil, and air. Experimental work is conducted in both natural habitats and the lab. Prerequisite: One year of general chemistry. Corequisite: CHE 320. Offered spring semester of odd years.

## CHE $330 \quad 3$ hours

Inorganic Chemistry
Coverage of the bonding and properties of the main group and especially transition metal elements with a focus on their coordination and solid-state chemistry. Molecular symmetry principles, spectroscopy, and catalytic applications of these substances are discussed in lecture and studied in lab. Organometallic and bioinorganic chemistry are emphasized in lab studies. Two hours of lecture and three hours of lab. Prerequisite: CHE 3II. Offered each January interterm.

## CHE 360

I-4 hours
Independent Study
An individualized, directed study involving a specified topic.

CHE 370
1-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## CHE 393

## I-4 hours

## Practicum

Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## CHE 410L

2 hours
Biochemistry Lab
The lab uses a case study approach in which an enzyme is isolated and characterized in detail. The molecular genetics, structure, regulation, and kinetics of the enzyme are studied using a wide range of techniques. This course is designed for chemistry and biology majors with a background in organic chemistry. There will be some lecture, but the primary experience will be in the lab. Prerequisite: CHE 4II or consent of instructor. BIO IOI is strongly recommended. Offered January interterm.

## CHE 4II

## 3 hours

Biochemistry I
An introduction to the principles of biochemistry in which conformation and biosynthesis of macromolecules, bioenergetics, molecular genetics, and techniques of separation and analysis are studied. This course is designed for chemistry and biology majors with a background in organic chemistry. Three hours of lecture per week. Prerequisite: CHE 3II or consent of instructor. BIO 101 is strongly recommended. Offered fall semester.

## CHE 4 I2

3 hours
Biochemistry II
This course is a continuation of CHE 4II. The emphasis is on metabolism, molecular genetics, and molecular physiology. This course is designed for chemistry and biology majors with a background in organic chemistry. Three hours of lecture per week. Prerequisite: CHE 4II or consent of instructor. BIO 101 is strongly recommended. Offered spring semester.

## CHE 420

I hour
Chemistry Thesis
Students write a major paper, receive coaching and feedback, modify their paper if necessary, and give an oral presentation. Prerequisite: Successful completion of fall term paper writing workshop. Required of all chemistry seniors.

## CHE 431

3 hours
Physical Chemistry I
An introduction to the kinetic-molecular theory of gases, the principles of thermodynamics, solutions, electrochemistry, and chemical kinetics. The course is designed for chemistry and physics majors. Prerequisites: CHE 211 and 212; PHY 2II, 212; and MAT 146 or 15I, 230. Corequisite: CHE 43IL. Offered fall semester of even years.

CHE 43 IL

## I-2 hours

Physical Chemistry I Lab
A lab course that includes vacuum techniques, thermometry and thermoregulation, calorimetry, physical characterization of solutions, and optical techniques. Students opting for two hours apply these techniques to a project. Three hours of lab per week. Corequisite: CHE 43I. Offered fall semester of even years.

## CHE 432 <br> 3 hours

Physical Chemistry II
Emphasis on elementary principles of quantum mechanics, molecular structure, spectroscopy, and photochemistry. The course is designed for chemistry and physics majors. Three hours of lecture per week. Prerequisites: CHE 211 and 2I2; PHY 2II, 212; and MAT I46 or I5I, 230, with MAT 240, 25I, 35 I strongly recommended. Corequisite: CHE 432L. Offered spring semester of odd years.

## CHE 432L

## I-2 hours

Physical Chemistry II Lab
A lab course that focuses on computational chemistry and spectroscopy. We use the techniques of quantum mechanics and molecular mechanics to explore the structure, spectroscopy, and reactions of atoms and molecules. Three hours of lab per week. Corequisite: CHE 432. Offered spring semester of odd years.

## CHE 450 <br> I-4 hours

## Directed Research

Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

## CHE 480

I-4 hours
Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

## CHE 490

I-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

# Computer Science and Engineering 

Chair, Professor W. Toll<br>Professors F. Aguilar, S. Brandle, A. White<br>Associate Professors J. Cramer, J. Geisler, T. Nurkkala

In support of the overall University mission, the mission of computer science and engineering is to educate men and women who sense God's calling to technical professions in the disciplines of computer science, systems, and computer engineering.

Six baccalaureate majors are offered by the department:

- Computer Science (BA)
- Computer Science (BS)

Designed primarily for students wishing to pursue graduate study in computer science.

- Computer Science/Systems (BS)

Systems requirements in addition to the computer science curriculum of the BA.

- Computer Science-New Media (BA)

Computer Science core with courses from Computer Science, Art, and Media Communication emphasizing media use and computation.

- Computer Science-New Media/Systems (BS)

Systems requirements in addition to the Computer Science-New Media curriculum.

- Computer Engineering (BS)

Combination of fundamental engineering, computer science, and electronics curricula. Program is accredited by the Engineering Accreditation Commission of ABET, III Market Place, Suite I050, Baltimore, MD 2I202-40I2; telephone (4I0) 347-7700.

The department has cooperated with the Center for Research and Innovation and the School of Business in developing an entrepreneurial curriculum. Computer science majors interested in this area are encouraged to pursue the entrepreneurship minor offered by the School of Business. The proper choice of concentration and electives within the computer science major allows the student to select courses that also apply to the entrepreneurship minor.

## Systems for Bachelor of Science Degree

Program Director, Professor F. Aguilar
The systems program is offered by the computer science and engineering department. For a description of the program and requirements for majors outside of the department see the entry under Academic Programs on page 36.

## Computer Science (BA)

The bachelor of arts degree with a major in computer science requires the completion of two years of one foreign language and 70 hours in the major. Majors are required to pass a comprehensive examination during their senior year. This examination includes an implementation project, written and oral presentation of this work, and an oral examination over coursework in the major field. The project and presentation portions of this examination are included in COS 492 Senior Project except for students in the software studio concentration where they are included in COS 472 Software Studio IV.

| Core Requirements |  |  |
| :--- | :---: | :--- |
| COS 120 | 4 |  |
| Introduction to Computational Problem Solving |  |  |
| COS 121 | 4 | Foundations of Computer Science |
| COS 143 | 3 | Interactive Webpage Design |
| COS 243 | 3 | Multi-tier Web Application Development |
| COS 265 | 3 | Data Structures and Algorithms |
| COS 284 | 3 | Introduction to Computer Systems |
| COS 311 | 2 | Ethics in Computer Science |
| tCOS 492 | 3 | Senior Project |
| COS 493 | 1 | Computer Science Senior Capstone |
| MAT 151 | 4 | Calculus I |
| MAT 215 | 3 | Discrete Mathematics for Computer Science |
| SYS 101 | 3 | Introduction to Systems |

$\dagger$ Not required for Software Studio concentration.

| Select one course from the following: |  |  |
| :--- | :---: | :--- |
| COS 320 | 3 | Algorithm Design |
| COS 382 | 3 | Language Structures |
| COS 435 | 3 | Theory of Computation |

COS 2433 Multi-tier Web Application Development
$\operatorname{COS} 393 \quad 3 \quad$ Practicum

Introduction to Computer Systems
$\operatorname{COS} 452 \quad 3$ Research 1
Select one course from the following:

| MAT 210 | 4 | Introductory Statistics |
| :--- | :---: | :--- |
| MAT 352 | 4 | Mathematical Statistics |

Electives: (Courses fulfiling concentration requirements may not also be used as electives.)
Select additional electives to complete the 70 total hour requirement from the following: COS 230, 280, COS 300-/400-level courses
SYS 214, 352, 40I, 402, 403, 4II
Select one of the following concentration areas:

| Graphics |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| SYS 214 | 3 | Principles of Human Computer Interaction | $\operatorname{COS} 351$ | 3 | Computer Vision |
| COS 314 | 3 | Human Computer Interaction | $\operatorname{COS} 424$ | 3 | Surfaces and Modeling |
| COS 350 | 3 | Computer Graphics | $\operatorname{COS} 425$ | 3 | Animation |
|  |  |  |  | Computer Science requirements continued on next page 177 |  |

Computer Science requirements continued from previous page

| COS 280 | 3 | Introduction to Artificial Intelligence | SYS 352 | 3 | Knowledge Based Systems |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\cos 351$ | 3 | Computer Vision | SYS 4II | 3 | Machine Learning |
| $\cos 380$ | 3 | Natural Language Processing |  |  |  |
| Scientific Computing |  |  |  |  |  |
| MAT 230 | 4 | Calculus II | MAT 251 | 4 | Differential Equations |
| MAT 240 | 4 | Calculus III | MAT 310 | 3 | Mathematical Modeling with Numerical Analysis |
| MAT 245 | 4 | Linear Algebra |  |  |  |
| Software Studio |  |  |  |  |  |
| $\operatorname{COS} 340$ | 3 | Software Engineering | $\cos 471$ | 4 | Software Studio III |
| cos 371* | 4 | Software Studio I | $\operatorname{COS} 472$ | 4 | Software Studio IV |
| $\cos 372$ | 4 | Software Studio II |  |  |  |
|  |  |  | *COS 371 requires SYS 390 which does not count toward the major. |  |  |

## Computer Science (BS)

The bachelor of science degree with a major in computer science requires the completion of 86 hours in the major. Majors are required to pass a comprehensive examination during their senior year. This examination includes an implementation project, written, and oral presentation of this work, and an oral examination over coursework in the major field. The project and presentation portions of this examination are included in COS 453 Research II.

| Core Requirements |  |  | Select one course from the following: |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| COS 120 | 4 | Introduction to Computational Problem Solving | MAT 210 | 4 | Introductory Statistics |
| $\cos 121$ | 4 | Foundations of Computer Science | MAT 352 | 4 | Mathematical Statistics |
| COS 143 | 3 | Interactive Webpage Design |  |  |  |
| COS 243 | 3 | Multi-tier Web Application Development | Select two courses from the following: |  |  |
| COS 265 | 3 | Data Structures and Algorithms | COS 381 | 3 | Computer Architecture |
| COS 284 | 3 | Introduction to Computer Systems | $\cos 421$ | 3 | Operating Systems |
| $\cos 310$ | 1 | Current Literature Survey | COS 436 | 3 | Distributed Processing |
| $\cos 311$ | 2 | Ethics in Computer Science |  |  |  |
| COS 320 | 3 | Algorithm Design | Electives |  |  |
| COS 382 | 3 | Language Structures | Select enough electives to complete the 86-hour total requirement from: |  |  |
| COS 435 | 3 | Theory of Computation | COS 230, | 0-1 | -level course except COS 393 |
| COS 452 | 3 | Research I | SYS 214, 3 | I, | 403, 4II |
| COS 453 | 3 | Research II |  |  |  |
| COS 493 | 1 | Computer Science Senior Capstone |  |  |  |
| MAT 151 | 4 | Calculus I |  |  |  |
| MAT 215 | 3 | Discrete Mathematics for Computer Science |  |  |  |
| SYS IOI | 3 | Introduction to Systems |  |  |  |

## Select one of the following concentration areas:

## Graphics

| COS 314 | 3 | Human Computer Interaction |
| :--- | :--- | :--- |
| COS 350 | 3 | Computer Graphics |
| COS 351 | 3 | Computer Vision |
| COS 424 | 3 | Surfaces and Modeling |
| COS 425 | 3 | Animation <br> SYS 214 |
|  | 3 | Principles of Human Computer Intera |
| Intelligent Systems |  |  |
| COS 280 | 3 |  |
| COS 351 | 3 | Comproduction to Artificial Intelligence |
| COS 380 | 3 | Natural Language Processing |
| SYS 352 | 3 | Knowledge Based Systems |
| SYS 41I | 3 | Machine Learning |

## Scientific Computing

| MAT 230 | 4 | Calculus II |
| :--- | :--- | :--- |
| MAT 240 | 4 | Calculus III |
| MAT 245 | 4 | Linear Algebra |
| MAT 25I | 4 | Differential Equations |
| MAT 310 | 3 | Mathematical Modeling with Numerical Analysis |

## Software Studio

| $\operatorname{COS} 340$ | 3 | Software Engineering |
| :--- | :--- | :--- |
| *COS 37I | 4 | Software Studio I* |
| $\operatorname{COS} 372$ | 4 | Software Studio II |
| $\operatorname{COS} 471$ | 4 | Software Studio III |
| $\operatorname{COS} 472$ | 4 | Software Studio IV |

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## Computer Science/Systems (BS)

The bachelor of science degree with a major in computer science/systems consists of the 70 hour major requirement and curriculum requirements in systems analysis. All systems curriculum courses must be completed with a grade of C - or better. Majors are required to pass a comprehensive examination during their senior year. This examination includes an implementation project, written and oral presentation of this work, and an oral examination over coursework in the major field. The project and presentation portions of this examination are included in COS 492 Senior Project except for students in the Software Studio concentration where they are included in COS 472 Software Studio IV. Courses fulfilling major core, systems, concentration or elective requirements will not meet more than one requirement.

| Core Requirements |  |  |
| :---: | :---: | :---: |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| COS 121 | 4 | Foundations of Computer Science |
| COS 143 | 3 | Interactive Webpage Design |
| COS 243 |  | Multi-tier Web Application Development |
| COS 265 | 3 | Data Structures and Algorithms |
| COS 284 | 3 | Introduction to Computer Systems |
| Cos 311 | 2 | Ethics in Computer Science |
| COS 393 | 3 | Practicum |
| tCOS 492 | 3 | Senior Project |
| COS 493 | I | Computer Science Senior Capstone |
| MAT 151 | 4 | Calculus I |
| MAT 215 | 3 | Discrete Mathematics for Computer Science |
| SYS 101 | 3 | Introduction to Systems |
| Select one course from the following: |  |  |
| COS 320 | 3 | Algorithm Design |
| COS 382 | 3 | Language Structures |
| COS 435 | 3 | Theory of Computation |
| Select one course from the following: |  |  |
| MAT 210 | 4 | Introductory Statistics |
| MAT 352 | 4 | Mathematical Statistics |


| Systems Curriculum Requirements |  |  |
| :--- | :---: | :--- |
| IAS 330 | 3 | Human Relations in Organizations |
| SYS 390 | 3 | Information Systems Analysis |
| SYS 392 | 1 | Systems Seminar |
| TSYS 394 | 4 | Information Systems Design |
| SYS 403 | 3 | Operations Management |
| Select one course from the following: |  |  |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |

Systems Electives
Select at least three hours of electives, in addition to those required in the major or systems:
MAT 3823 Advanced Statistical Methods
\#SYS $214 \quad 3 \quad$ Principles of Human Computer Interaction
SYS $310 \quad 3$ E-Commerce
*SYS 40I 3 Operations Research
*SYS 4023 Modeling and Simulation
tSoftware Studio concentrations will meet SYS 394 requirement by taking both COS 371 and 372 .
$\ddagger$ SYS 214 may not be used in concentration and as a systems elective.
*Course may not be used as both a systems requirement and systems elective
†Not required for Software Studio concentration.
Major Electives
Select enough electives to meet the 70 total hour requirement from:
COS 230, 280, 300-400-level courses SYS 214, 352, 40I, 4II.

Select one of the following concentration areas: (Courses fulfilling concentration requirements may not also be used as electives.)
Business Information Systems

| COS 340 | 3 | Software Engineering | Choose one of the following; |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| COS 343 | 3 | Advanced Database Concepts | ACC 241 | 3 | Principles of Accounting |
| MGT 201 | 3 | Business Basics Boot Camp | ENT 422 | 3 | New Venture Planning |
| \#SYS 214 | 3 | Principles of Human Computer Interaction |  |  |  |
| Graphics |  |  |  |  |  |
| $\ddagger$ ¢YS 214 | 3 | Principles of Human Computer Interaction | $\cos 351$ | 3 | Computer Vision |
| $\operatorname{COS} 314$ | 3 | Human Computer Interaction | $\cos 424$ | 3 | Surfaces and Modeling |
| $\cos 350$ | 3 | Computer Graphics | COS 425 | 3 | Animation |

Intelligent Systems

| COS 280 | 3 | Introduction to Artificial Intelligence | SYS 352 | 3 | Knowledge Based Systems |
| :--- | :--- | :--- | :--- | :--- | :--- |
| COS 351 | 3 | Computer Vision | SYS 41I | 3 | Machine Learning |
| $\operatorname{COS} 380$ | 3 | Natural Language Processing |  |  |  |

Scientific Computing

| MAT 230 | 4 | Calculus II | MAT 251 | 4 | Differential Equations |
| :--- | :--- | :--- | :--- | :--- | :--- |
| MAT 240 | 4 | Calculus III | MAT 310 | 3 | Mathematical Modeling with Numerical Analysis |
| MAT 245 | 4 | Linear Algebra |  |  |  |

Software Studio

| COS 340 | 3 | Software Engineering | $\operatorname{COS} 471$ | 4 | Software Studio III |
| :--- | :--- | :--- | :--- | :--- | :--- |
| †COS 37I | 4 | Software Studio I | $\operatorname{COS} 472$ | 4 | Software Studio IV |
| tCOS 372 | 4 | Software Studio II |  |  |  |

## Computer Science Minor

A computer science minor requires 25 hours.

| Minor Requirements |  |  |
| :--- | :---: | :--- |
| COS 120 | 4 |  |
| Introduction to Computational Problem Solving |  |  |
| COS 121 | 4 | Foundations of Computer Science |
| COS 143 | 3 | Interactive Webpage Design |
| COS 311 | 2 | Ethics in Computer Science |
| SYS 101 | 3 | Introduction to Systems |

Select $\underline{q}$ hours from any COS courses, SYS 2I4, SYS 352, SYS 411

## Computer Science-New Media (BA)

The bachelor of arts degree with a major in computer science-new media consists of two years of one foreign language and 63 hours in the major. Majors are required to pass a comprehensive examination during their senior year. This examination includes an implementation project, written and oral presentation of this work, and an oral examination over coursework in the major field. The project and presentation portions of this examination are included in COS 492 Senior Project.

| Core Requirements |  |  |
| :--- | :---: | :--- |
| ART I52 | 3 | Visual Communication |
| ART 154 | I | Digital Tools: Illustrator |
| ART 156 | I | Digital Tools: Photoshop |
| ART 253 | 3 | Foundations of Photography |
| ART 358 | I | Digital Tools: Dreamweaver |
| ART 456 | 3 | Web Animation |
| ART 459 | I | Digital Tools: Flash |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| COS 121 | 4 | Foundations of Computer Science |
| COS 143 | 3 | Interactive Webpage Design |
| COS 243 | 3 | Multi-tier Web Application Development |
| COS 265 | 3 | Data Structures and Algorithms |
| COS 311 | 2 | Ethics in Computer Science |
| COS 314 | 3 | Human Computer Interaction |
| COS 350 | 3 | Computer Graphics |
| COS 393 | 3 | Practicum |
| COS 425 | 3 | Animation |
| COS 492 | 3 | Senior Project |
| COS 493 | I | Computer Science Senior Capstone |
| MCM 215 | 3 | Audio Production |
| MCM 220 | 3 | Film and Video Production |
| SYS 214 | 3 | Principles of Human Computer Interaction |


| Select one course from the following: |  |  |
| :---: | :---: | :---: |
| COS 331 | 3 | Data Communications |
| COS 351 | 3 | Computer Vision |
| COS 424 | 3 | Surfaces and Modeling |
| \#SYS 310 | 3 | E-Commerce |
| Select one course from the following: |  |  |
| ART 151 | 3 | Two Dimensional Design |
| ART 251 | 3 | Typography |
| ART 353 | 3 | Commercial Photography |
| MCM 330 | 3 | Scriptwriting |
| MCM 345 | 3 | Web Writing and Productior |

COS $265 \quad 3 \quad$ Data Structures and Algorithms
Human Computer Interaction
COS $350 \quad 3 \quad$ Computer Graphics
COS 393 Practicum
Senior Project
COS 493 I Computer Science Senior Capstone
MCM $220 \quad 3$ Film and Video Production
SYS 2143 Principles of Human Computer Interaction
Principles of Human Conputer lateraction

## Computer Science-New Media/Systems (BS)

The bachelor of science degree with a major in computer science-new media consists of the 63 hour major requirement and curriculum requirements in systems analysis. All systems curriculum courses must be completed with a grade of C- or better. Majors are required to pass a comprehensive examination during their senior year. This examination includes an implementation project, written and oral presentation of this work, and an oral examination over coursework in the major field. The project and presentation portions of this examination are included in COS 492 Senior Project.

| Systems Curriculum |  |  |
| :--- | :---: | :--- |
| Requirements |  |  |
| IAS 330 | 3 | Human Relations in Organizations |
| MAT 15I | 4 | Calculus I |
| SYS 101 | 3 | Introduction to Systems |
| SYS 390 | 3 | Information Systems Analysis |
| SYS 392 | 1 | Systems Seminar |
| SYS 394 | 4 | Information Systems Design |
| SYS 403 | 3 | Operations Management |
| Select one course from the following: |  |  |
| MAT 210 | 4 | Introductory Statistics |
| MAT 352 | 4 | Mathematical Statistics |


| Select one course from the following: |  |  |
| :---: | :---: | :---: |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |
| Systems Electives |  |  |
| Select at least three hours of electives, in addition to those required in the major or systems: |  |  |
| MAT 382 | 3 | Advanced Statistical Methods |
| \#SYS 310 | 3 | E-Commerce |
| *SYS 401 | 3 | Operations Research |
| *SYS 402 | 3 | Modeling and Simulation |
| *Courses in both areas may count only once. |  |  |
| $\ddagger$ SYS 310 may not count as both a major and systems elective. |  |  |

## Computer Engineering (BS)

Intimate knowledge of both physics and computer science is the foundation of the design and development of powerful and efficient embedded computer systems. The computer engineering major is offered jointly by the computer science and engineering \& physics and engineering departments and focuses on the theoretical and applied operation of computer hardware and software.

The computer engineering program is accredited by the Engineering Accreditation Commission of ABET, II I Market Place, Suite I050, Baltimore, MD 21202-4012; telephone (410) 347-7700

## Program Objectives:

I. Develop Christian leaders who serve God and humanity through active service to their family, church, job and global community.
2. Develop competent computer engineers who work in situations in which they apply their broad understanding of computer science, engineering, physics and mathematics.
3. Develop computer engineers who engage in lifelong learning by applying and adapting their understanding of fundamental principles in a constantly changing field.
4. Develop computer engineers who utilize their project experience to solve complex engineering problems using a formal design methodology.
5. Develop computer engineers with a strong work ethic, good communication skills, and who act in an ethically responsible manner.

The bachelor of science degree with a major in computer engineering requires 96 hours. Majors are required to pass a comprehensive examination during their senior year. This examination includes a major design and implementation project (COS 491, 494, 495), written and oral presentation of this work, and an oral examination over coursework in the major field.

| Physics and Engineering Requirements |  |  | Computer Science Requirements |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PHY 211 | 4 | University Physics I | COS 120 | 4 | Introduction to Computational Problem Solving |
| PHY 212 | 5 | University Physics II | cos 121 | 4 | Foundations of Computer Science |
| ENP 104 | 2 | Introduction to Engineering and Software Tools | COS 265 | 3 | Data Structures and Algorithms |
| ENP 252 | 4 | Principles of Engineering | COS 284 | 3 | Introduction to Computer Systems |
| ENP 321 | 2 | Applied Electromagnetics | COS 311 | 2 | Ethics in Computer Science |
| ENP 331 | 4 | Introduction to Electronics | $\cos 331$ | 3 | Data Communications |
| ENP 332 | 4 | Control Systems | COS 340 | 3 | Software Engineering |
| ENP 333 | 3 | Introduction to Solid State Devices | COS 381 | 3 | Computer Architecture |
| ENP 341 | 4 | Microcomputer Interfacing | COS 393 | 2 | Practicum |
| ENP 431 | 4 | Advanced Electronics and Microcircuits | COS 421 | 3 | Operating Systems |
|  |  |  | COS 491 | 2 | Senior Engineering Project I |
| Mathematics Requirements |  |  | COS 493 | I | Computer Science Senior Capstone |
| MAT 151 | 4 | Calculus I | COS 494 | 3 | Senior Engineering Project II |
| MAT 215 | 3 | Discrete Mathematics for Computer Science | $\operatorname{COS} 495$ | 1 | Senior Engineering Project III |
| MAT 230 | 4 | Calculus II |  |  |  |
| MAT 240 | 4 | Calculus III |  |  |  |
| MAT 251 | 4 | Differential Equations |  |  |  |
| MAT 352 | 4 | Mathematical Statistics |  |  |  |

## Computer Science Courses

## COS 104

Computing and Culture - Applications and Context
An introduction to the ideas of computational technology including the use of applications, ethical foundations and the understanding of the context of technology in our world. Analysis from a Christian perspective is emphasized. Topics discussed include algorithmic thinking, organization of data with spreadsheets and databases, internet and security, hardware, software, and the history of computers. Important skills covered in the course include web design, spreadsheet and database applications, video and photo manipulation, information literacy, and an introduction to the process of programming. Two hours of lecture and one hour of lab. Meets general education requirement.

## COS 105 <br> I hour

Ethics, Computing, and Society
As computing technology becomes more complex and less visible, we understand less about how the world functions. Our worldview is impacted by technology in ways that are not recognized and, therefore, not critically evaluated, particularly with a Christian understanding. This course is designed to introduce students to the context of computation in their world. Through writing, discussions, and class assignments, students will gain an understanding of computing technology that goes beyond its use and explores the impact of technology on our world view. The context provided includes an introduction to the issues in our society associated with ethics and technology. Main topics addressed include: applying major ethical theories, intellectual property, privacy, and putting technology into context with a Christian perspective. This course is available only to transfer students who have credit in an acceptable computer competency course and will meet the general education requirement for such students. Current Taylor students may not use this course to meet the general education requirement.

COS 106

## Computing and Culture - Applications and Context

An introduction to the ideas of computational technology including the use of applications, ethical foundations, and the understanding of the context of technology in our world. Analysis from a Christian perspective is emphasized. Topics discussed include algorithmic thinking, organization of data with spreadsheets and databases, internet and security, hardware, software, and the history of computers. Important skills covered in the course include web design, spreadsheet and database applications, video and photo manipulation, information literacy, and an introduction to the process of programming. This course includes all material from $\operatorname{COS} 104$ plus additional opportunity for discussion in the additional lab time. Two hours of lecture and two hours of lab. Meets general education requirement. This course is intended for students in the Honors Guild.

## COS 120

## 4 hours

## Introduction to Computational Problem Solving

Approaches to computing solutions for problems from a variety of subject areas are examined and provide motivation for the study of the development of algorithms and their implementation. Programming concepts are introduced incrementally in order to solve increasingly complex problems. Good algorithm design and program structure are emphasized. Introductory data structures and software engineering principles are stressed. An introduction to object-oriented programming is included. Three hours of lecture and two hours of lab per week. Does not count as a general education requirement.

## cos 121 <br> 4 hours <br> Foundations of Computer Science

This course builds on COS 120 by emphasizing object-oriented programming and including concepts of computer science such as computational complexity. Data structures such as lists, stacks, queues, and trees are introduced as they are needed in developing algorithms for problems studied. Additional topics include source code versioning, unit testing, and code refactoring. Three hours of lecture and two hours of lab per week. Prerequisite: COS I20.

## COS 143

3 hours

## Interactive Webpage Design

A study of how to deliver interactive webpages through a web browser. Students will learn to represent the data structurally with HTML, the presentation with CSS, and the functionality with Javascript. Students will explore good design strategies that promote useful webpages. In order to deliver interactive sites, the students will utilize remote scripting (AJAX) to connect with existing server functionality to receive XML or JSON data for page updates. Modern web technologies including HTML5, CSS3, DOM manipulation, etc. will be explored.

## COS 170

## I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## COS 230

## 3 hours

Missions Technology
A survey and in-depth study of technology applied to Christian missions. Theory and issues in application are developed. Interaction with missions agencies and a practical project are included.

## COS 243

3 hours
Multi-tier Web Application Development
The course will explore how to develop a complete web application with implementation separating concerns between content delivery, business logic, and data storage. An emphasis on a modern MVC platform will be used to provide the separation of concerns. Additionally, core database knowledge for a functioning application will be explored including data modeling for a relational database, common SQL queries, stored procedures, and triggers. Prerequisites: COS I2I, COS 143.

## COS 265

## 3 hours

## Data Structures and Algorithms

A survey of data structures and algorithms that operate on them, with an emphasis on abstract data types and analysis of computational complexity. Prerequisite: COS 121.

## COS 270

## 1-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## COS $280 \quad 3$ hours

Introduction to Artificial Intelligence
A survey of the field of artificial intelligence. Major areas of exploration include search, logic, learning, knowledge representation, problem solving, natural language processing, computer vision, robotics, expert systems, and neural networks. An introduction to LISP is included. Prerequisite: COS 121.

## COS 284

## 3 hours

Introduction to Computer Systems
This course provides an integrated introduction to computer hardware architecture, operating systems, and their interaction. Assembly language and operating system programming are emphasized. Prerequisite: COS I2I, MAT 215.

## COS 310

## I hour

Current Literature Survey
A survey of classical and current literature in computer science. A goal of the course is to produce a concept for a research proposal with literature survey appropriate for an undergraduate research project. Students lead discussions on papers and topics of interest. Prerequisite: one 300 -level COS course.

## Cos 311

## 2 hours

Ethics in Computer Science
A study of the ethical implications of computers in society and the role of Christians as computer science and engineering professionals. Foundational concepts of Western moral philosophy are presented. Major ethical issues, such as privacy, piracy, liability, equity, and whistle-blowing are explored. Professional society codes of conduct are examined and discussed. Legal and ethical issues such as piracy, copyright, and fair use related to media are also addressed. Ethical concerns of computer science and systems analysis and their relationship to one's faith are an integral part of this course.
cos 314
Human Computer Interaction
This course builds on concepts from SYS 214 and implementation techniques from COS 143 as well as introducing additional implementation strategies. Interfaces for web and standalone applications are studied and implemented. Prerequisites: SYS 214, COS 143.

## COS 320

3 hours
Algorithm Design
Algorithms and related data structures from a variety of areas are examined and analyzed. Parallel processing paradigms and theoretical topics, such as complexity models, are introduced. Prerequisites: COS 265, MAT 215.

## COS 321

3 hours
Ethics and Technology
A study of the ethical implications of computing technology in society and the role of Christians as users, people impacted by, and shapers of computing technology. Foundational concepts of Western moral philosophy are presented. Major ethical issues, such as privacy, piracy, liability, equity, and whistle-blowing are explored. Professional society codes of conduct are examined and discussed. Legal and ethical issues such as piracy, copyright, and fair use related to media are also addressed. Ethical concerns of computer science and systems analysis and their relationship to one's faith are an integral part of this course. This course is intended for students in the Honors Guild but will also meet the COS 311 requirement for majors in computer science and engineering.

## COS 331 <br> 3 hours

Data Communications
A study of the nature and applications of data communications in use today. Fundamental concepts of types, modes, and media of transmission are studied. Communication protocols and their encompassing architectures are analyzed and compared. Practical applications of data communications concepts are demonstrated through networking projects and development of communications software. Prerequisite: $\operatorname{COS} 121$.

## COS 340

## 3 hours

Software Engineering
A study of the concepts, procedures, and tools of large system software project development, including project estimation and management, software technical metrics, configuration management, and software testing. Concepts of software engineering are introduced using the development of a large software system as an instructional illustration. The project is designed and its development managed using the methods and techniques examined in the course. Prerequisite: COS I2I.

## COS $342 \quad 3$ hours

## Information Security

An overview of the issues involved in making information secure, including policies, protection models, authentication, auditing, intrusion detection, and access control. The design and implementation of secure software is emphasized. Prerequisite: COS 121.

## COS 343

## 3 hours

Advanced Database Concepts
A study of the fundamental concepts of how database technologies work. An emphasis on relational databases will be explored, including normalization, advanced SQL queries, indexing, physical data storage, performance and tuning strategies, and concurrency control. Students will be introduced to other database technologies possibly including object-oriented databases, NoSQL, replication, etc. Prerequisites: COS 243, MAT 215.

## COS 350

## 3 hours

Computer Graphics
An introductory course in computer graphics with an emphasis on 3D image production using a variety of approaches, including OpenGL programming. Basic algorithms, data structures, and GUI programming are introduced. Prerequisite: COS 121 .

## COS 351

3 hours
Computer Vision
A study of the fundamental concepts of digital image acquisition, manipulation, enhancement, representation, analysis and understanding. Prerequisite: COS 121. Offered spring semester of even years.

## COS 360

I-4 hours
Independent Study
An individualized, directed study involving a specified topic.

## COS 370

I-4 hours

## Selected Topics

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements. Prerequisites: Two courses in computer science.

## COS 371 <br> 4 hours <br> Software Studio

The first course in a sequence of four courses that provide extended project development experience utilizing the studio model. Students learn the craft of software development by working in various capacities on real long-term projects. The expected work load for this course includes one hour per week in a seminar format, two hours per week in reading and writing papers, and nine documented hours per week of work on the assigned project. The seminar portion of the course is organized so that students enrolled in Software Studio I and III will meet as a group to consider topics that rotate on a two-year cycle so that students are exposed to all topics over the two year span of this set of courses. Department approval is required based on student ability and the availability of appropriate projects. Corequisites: SYS 390.

## COS 372

4 hours
Software Studio II
The second course in a sequence of four courses that provide extended project development experience utilizing the studio model. Students learn the craft of software development by working in various capacities on real longterm projects. The expected work load for this course includes one hour per week in a seminar format, two hours per week in reading and writing papers, and nine documented hours per week of work on the assigned project. The seminar portion of the course is organized so that students enrolled in Software Studio II and IV will meet as a group to consider topics that rotate on a two-year cycle so that students are exposed to all topics over the 2 year span of this set of courses. Prerequisite: COS 371.

## COS 380

3 hours
Natural Language Processing
A study of the automation of human communication abilities, covering both textual and vocal aspects. Major topics include language understanding, representation, enhancement, generation, translation, and speaker/author recognition. Prerequisite: COS 280. Offered spring semester of odd years.

## COS 381

3 hours

## Computer Architecture

A study of the hardware structure of computer systems, including arithmetic/logic units, memory organization, control unit design, pipelining, and instruction set design. A brief introduction to advanced topics, such as out-of-order execution, branch prediction, multi-core systems, and paralle processing will prepare the student for graduate level courses in architecture. Prerequisites: COS 284, MAT 215.

## COS 382

3 hours
Language Structures
A study of the features and implementation issues of programming languages, including a survey of language paradigms. Grammars, syntax, semantics, translation, lexical analysis, and parsing are introduced. Prerequisite: COS 265.

## COS 393

4 hours
Supervised learning involving a first-hand field experience or a project Practicum course credit requires 320 hours of work experience. Grade only Offered primarily during summer

## COS 42I

3 hours

## Operating Systems

A study of the design considerations of computer operating systems and their interaction with hardware features. Topics covered include process management, storage management, protection and security, and distributed systems. Prerequisites: COS 265, 284.

## COS 424 <br> 3 hours

Surfaces and Modeling
An advanced graphics course with emphasis on curve and surface representation and geometric modeling. Mathematics and algorithms are studied. Topics include Bezier and B-spline curves and surfaces and geometric modeling techniques. Prerequisite: $\operatorname{COS} 350$.

## COS 425

3 hours
Animation
An advanced graphics course with emphasis on techniques for rendering and animation. Mathematics and algorithms are studied. Topics include light and illumination models, ray tracing, methods to enhance realism, and standard animation techniques. A professional software package will be used to create a significant animation. Prerequisite: COS 350.

## COS 435

3 hours
Theory of Computation
A theoretical treatment of what can be computed and how efficiently computation can be done. Topics include models of computation and automata, deterministic and non-deterministic computations, and formal language theory. Prerequisite: COS 265

COS 436
3 hours
Distributed Processing
A study of concepts and models of distributed and parallel computing, including concurrency, synchronization, theoretical design, algorithms, implications of hardware organization, clusters, grid computing, and common programming environments. Prerequisite: COS 265.

## COS 450

l-4 hours
Directed Research
Independent or small group projects. May be taken by any COS major with instructor approval.

## COS 452

Research I
Participation in a research project under faculty direction. May be repeated. Permission of the instructor required.

## COS 453

3 hours

## Research II

Participation in a research project under faculty direction. A formal presentation of results is required. Permission of the instructor required.

## COS 471

4 hours
Software Studio III
The third course in a sequence of four courses that provide extended project development experience utilizing the studio model. Students learn the craft of software development by working in various capacities on real long-term projects. The expected work load for this course includes one hour per week in a seminar format, two hours per week in reading and writing papers, and nine documented hours per week of work on the assigned project. The seminar portion of the course is organized so that students enrolled in Software Studio I and III will meet as a group to consider topics that rotate on a two-year cycle so that students are exposed to all topics over the two year span of this set of courses. This course may not count as an elective for any of the COS majors. Prerequisite: COS 372.

## COS 472

4 hours
Software Studio IV
The fourth course in a sequence of four courses that provide extended project development experience utilizing the studio model. Students learn the craft of software development by working in various capacities on real longterm projects. The expected work load for this course includes one hour per week in a seminar format, two hours per week in reading and writing papers, and nine documented hours per week of work on the assigned project. The seminar portion of the course is organized so that students enrolled in Software Studio II and IV will meet as a group to consider topics that rotate on a two-year cycle so that students are exposed to all topics over the two year span of this set of courses. This course may not count as an elective for any of the COS majors. This course includes significant written and oral project summary and serves as the senior project course for BA and BS/Systems COS majors in the Software Studio track. Prerequisite: COS 471 .

## COS 480

I-4 hours
Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.
COS $490 \quad$ I-2 hours

Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## COS 491

## 2 hours

Senior Engineering Project I
The course is the first of a three course culminating experience preparing students for engineering practice through a major design and implementation project. Prerequisite: senior status, CEN major. Offered fall semester.

## COS 492

## 3 hours

enior Project
Designed to exercise each senior's technical analysis design and development of skills and showcase his/her documentation and presentation skills. The student develops a project through multiple phases of the software lifecycle frequently beginning at the design stage. The project is typically chosen to reflect the student's area of concentration. Prerequisite: Completion of 105 credit hours.

## COS 493 <br> I hour

Computer Science Senior Capstone
This course has two primary objectives: an oral examination and an offcampus study trip. The examination is prefaced by course reviews led by the students. The trip is used to strengthen interpersonal relationship skills and to examine topics critical to leading a balanced life. Prerequisite: Completion of 105 credit hours.

## COS 494

Senior Engineering Project II
The course is the second in a three course culminating experience preparing students for engineering practice through a major design and implementation project. Prerequisite: COS 49I. Offered January interterm.

COS 495
Senior Engineering Project III
The course is the third of a three course culminating experience preparing students for engineering practice through a major design and implementation project. Prerequisite: COS 494. Offered spring semester.

## Systems Courses

## SYS 101 <br> Introduction to Systems

An introduction to the basic concepts of "system" and "process". Example systems might include manufacturing and distribution, power production, and satellite systems. Software systems and databases to support and control systems are emphasized. Systems thinking, quality, and problem solving are major topics. Because almost every modern system uses database to control processes, basic relational database concepts and structured query language (SQL) are taught. Field trips and guest lectures are featured in the learning experience.

## SYS 170

## I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## SYS 270 <br> I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## SYS 214

## 3 hours

Principles of Human Computer Interaction
This course discusses the analysis, design, development, and evaluation of interfaces allowing humans to interact with computers and the presentation of information in formats designed for human understanding. Topics include handheld, mobile, and ubiquitous device interfaces, as well as traditional desktop system GUls. Prototyping and information visualization are also discussed.

## SYS 310 <br> 3 hours <br> E-Commerce

Examines the development of and future prospects for electronic commerce. It focuses on the use of electronic transmissions to engage in exchange of products and services. Students will consider the emerging changes in business as well as the new opportunities for entrepreneurship brought on by e-commerce. They will explore the dynamics of technical innovations as well as the organizational and societal consequences of moving commerce electronically. They will also evaluate the operations of a variety of webbased businesses. Guest speakers from industry will lecture regarding the technical, economic, and political/regulatory aspects of e-commerce. Prerequisites: COS 121 or 143; SYS 10 I.

## SYS 352 <br> 3 hours

Knowledge Based Systems
Prominent knowledge-based system approaches are introduced including crisp production rule systems and fuzzy logic systems. Principles of knowledge acquisition are taught and applied. Various forms of knowledge representation are experienced, including rules, nets, frames, and predicate logic. Programming is primarily in CLIPS. Prerequisites: COS 121 , SYS 101.

## SYS 360

I-4 hours
Independent Study
An individualized, directed study involving a specified topic.

## SYS 370

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## SYS 390

## 3 hours

Information Systems Analysis
A study of the knowledge and skills needed to conduct the definition and analysis phases of an information system project. Central concepts are quality management and business process reengineering. Problem definition, information gathering, data and process modeling, and specification of logical system requirements using a business event methodology are emphasized. Learning is by doing: a major project is begun in this course and completed in SYS 394. Prerequisites: Junior standing, COS 121 or 143; SYS 101.

## SYS 392

Systems Seminar
This course provides a survey of systems topics with an emphasis on current development in many disciplines. Guest, faculty, and student presentations, plus occasional panel discussions, provide the format. May be taken twice. Prerequisite: SYS IOI.

## SYS $393 \quad$ I-4 hours

Practicum
Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## SYS 394

Information Systems Design
A study of the knowledge and skills needed to conduct the design and construction phases of an information system project. Central concepts are: translating a logical design into a physical design, project management, and client-server architectures. Students will learn and use application technologies powering the World Wide Web. Learning is by doing: the major project defined and analyzed in SYS 390 will be designed and built. Prerequisite: SYS 390.

## SYS 401

## 3 hours

Operations Research
An introduction to operations research (management science) which is quantitative decision making. Emphasis is on linear programming and its application to financial decisions, distribution problems, project scheduling and other network problems. Decision analysis with probabilities and multi-goal decisions are discussed as well. Prerequisites: The following courses (or their approved substitutes) must have been completed with a grade of $C$ - or better: SYS 101; COS 12I or 143; MAT 210 or 352; MAT 151.

## SYS 402

## 3 hours

Modeling and Simulation
A study of mathematical modeling and simulation methods, focusing on discrete systems. A variety of simulation languages are reviewed, but Extend is used extensively. Many applications are surveyed and group term projects are carried out. Prerequisites: The following courses (or their approved substitutes) must have been completed with a grade of C- or better: COS 121 or 143; MAT 210 or 352; MAT 151.

## SYS $403 \quad 3$ hours

Operations Management
This course presents the design (quality management, process design, and statistical process control) and operations (supply chain management, forecasting, inventory management, and resource planning) of productive systems. Quality, competitiveness in a global economy, and quantitative management are emphasized throughout the course. Prerequisite: MAT 15I.

## SYS 4II

3 hours
Machine Learning
Classification learning systems of various types are explored. These include statistical pattern recognition, neural networks, genetic algorithms, and methods for inducing decision trees and production rules. Existing systems are reviewed. Group term projects allow development of and experimentation with a system of interest. Prerequisite: COS 280.

## SYS 450

1-4 hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

## SYS 480

I-4 hours
Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

## SYS 490

I-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

# Earth and Environmental Sciences 

Chair, Professor P. Rothrock<br>Professors M. Guebert, R. Squiers Assistant Professor R. Reber

The environmental science program offers students the opportunity to enhance their liberal arts education with a cluster of specialized courses designed to provide the knowledge, skills and conscience necessary for environmental decision-making for stewardship and service in a complex world. The department of earth and environmental sciences is housed in the Randall Environmental Center, located on 145 acres of preserved natural area of the Upland campus. Courses focusing on practical problem-solving methodologies add depth, utility and perspective to a variety of fields of study. The department offers opportunities for applied study in international settings, and a summer field course in the Black Hills of South Dakota. Student research is strongly encouraged and has been supported by external funding.

The department offers a bachelor of science degree in environmental science and coordinates two integrated majors: chemistry-environmental science (see listing under the department of chemistry and biochemistry) and environmental engineering (see listing under physics and engineering department). These majors provide excellent preparation for graduate education or job placement in a wide variety of career fields in environmental science. In addition to preparation for the Graduate Record Exams (GRE), these programs also serve as excellent preparation for the LSAT (law school entrance exam) and GMAT (MBA entrance exam).

Students in a wide range of majors outside the department may choose to develop a variety of practical scientific skills and explore the concepts of environmental stewardship by selecting one of three minors in the department: environmental science, environmental studies, and environmental law and policy.

In addition to the programs described below, a master of environmental science degree is offered. Qualified Taylor University students may participate in an accelerated $4+1$ option, thus earning both the bachelor and master degrees in five years. Visit http://www.taylor.edu/mes or contact the MES program director or the department of earth and environmental sciences for more information.

## Environmental Science (BS)

The bachelor of science degree with a major in environmental science requires 67-69 hours.

| Major Requirements |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BIO 304 | 4 | Field Natural History of the Black Hills Principles of Ecology | Select one of the following options: |  |  |
| ENS 204 | 4 |  | Option I (Biology) |  |  |
| ENS 231 | 4 | Introduction to Environmental Science | Select two courses not previously used from the following: |  |  |
| ENS 383 | 4 | Environmental Ethics | $\mathrm{BIO} 10 \mathrm{I}$ | $4$ | Principles of Cell Biology |
| ENS 402 | 4 | Environmental Law and Policy | BIO 103 | 3 | Introductory Plant Biology |
| ENS 393 | 2 | Practicum | BIO 104 | 3 | Introductory Animal Biology |
| MAT 210 | 4 | Introductory Statistics | BIO 244 | 4 | Human Anatomy and Physiology I |
| POS 331 | 3 | Public Policy | BIO 245 | 4 | Human Anatomy and Physiology II |
| Select one of the following chemistry course combinations: |  |  | BIO 301 | 4 | Taxonomy of Vascular Plants |
| CHE 201 | $4$ | General, Organic, and Biochemistry I | BIO 307 | 4 | Vertebrate Natural History |
| CHE 202 | 4 | General, Organic, and Biochemistry II | BIO 331 | 4 | Comparative Anatomy |
| or |  |  | BIO 452 | 4 | Animal Physiology |
| CHE 211 | 4 | College Chemistry I | BIO 471 | 4 | Microbiology and Immunology |
| CHE 212 | 4 | College Chemistry II | ENS 475 | 4 | Systems Ecology |
| Biology Requirements |  |  | Option 2 (Earth and Physical Science) |  |  |
| Select one of the following courses: |  |  | Select two courses not previously used from the following: |  |  |
| BIO 101 | 4 | Principles of Cell Biology | ENS 340 | 4 | Global Ecology/Global Issues |
| BIO 103 | 3 | Introductory Plant Biology | ENS 341 | 4 | Earth Materials |
| BIO 104 | 3 | Introductory Animal Biology | ENS 355 | 4 | Geospatial Analysis |
| Select two of the following courses: |  |  | ENS 362 | 4 | Hydrogeology |
| BIO 301 | 4 | Taxonomy of Vascular Plants | ENS 363 | 4 | Applied Geology and Environmental Planning |
| BIO 307 | 4 | Vertebrate Natural History | ENS 364 | 4 | Water Resources and Appropriate Technology |
| BIO 44I | 4 | Environmental Physiology |  |  |  |
| BIO 471 | 4 | Microbiology and Immunology |  |  |  |
| ENS 475 | 4 | Systems Ecology |  |  |  |



## Environmental Science Minor

The minor in environmental science requires $19-20$ hours and is designed for students in science majors. Minor not open to environmental science or integrated majors. Students who desire entry into the master of environmental science program should also take ENS 204, MAT 210 , and CHE 201 and 202 or CHE 211 and 212 .

| Minor Requirements |  |  |
| :---: | :---: | :---: |
| Select one course from the following: |  |  |
| ENS 200 | 3 | Environment and Society |
| ENS 231 | 4 | Introduction to Environmental Science |
| Select one course from the following: |  |  |
| ENS 383 | 4 | Environmental Ethics |
| ENS 402 | 4 | Environmental Law and Policy |


| Select $\underline{\text { I2 }}$ h hours from: |  |  |
| :--- | ---: | :--- |
| ENS 204 | 4 | Principles of Ecology |
| ENS 241 | 4 | Physical Geology |
| ENS 340 | 4 | Global Ecology/Global Issues |
| ENS 341 | 4 | Earth Materials |
| ENS 355 | 4 | Geospatial Analysis |
| ENS 361 | 4 | Geomorphology |
| ENS 362 | 4 | Hydrogeology |
| ENS 363 | 4 | Applied Geology and Environmental Planning |
| ENS 364 | 4 | Water Resources and Appropriate Technology |
| ENS 475 | 4 | Systems Ecology |
| BIO 304 | 4 | Field Natural History of the Black Hills |
| CHE 320 | 3 | Environmental Chemistry |
| and |  |  |
| CHE 320L | I | Environmental Chemistry Lab |

Appropriate course substitutions may be made with permission of the department chair

## Environmental Law and Policy Minor

The minor in environmental law and policy requires 18 hours and is especially appropriate for students with majors in political science and those pursuing careers in law. Minor not open to environmental science or integrated majors.

| Minor Requirements |  |  |
| :--- | :--- | :--- |
| ENS 383 | 4 | Environmental Ethics |
| ENS 402 | 4 | Environmental Law and Policy |
| POS 331 | 3 | Public Policy |
| Select one course from the following: |  |  |
| ENS 200 | 3 | Environment and Society |
| ENS 231 | 4 | Introduction to Environmental Science (recommended) |
|  |  |  |
| Select one course from the following: |  |  |
| GEO 240 | 3 | Introduction to Geology |
| ENS 241 | 4 | Physical Geology |

## Environmental Studies Minor

This minor in environmental studies requires 18 hours and is especially appropriate for students with majors in business, communication arts, humanities, or social sciences. It should be of particular interest for students pursuing a semester abroad. Minor not open to environmental science or integrated majors.
Minor Requirements
ENS 383 $\quad 4 \quad$ Environmental Ethics
Select one course from the following:

| ENS 200 | 3 | Environment and Society |
| :--- | :--- | :--- |
| ENS 231 | 4 | Introduction to Environmental Science (recommended.) |
| Select one course from the following: |  |  |
| ENS 241 | 4 | Physical Geology |
| GEO 240 | 3 | Introduction to Geology |


| Select enough additional hours from the following to reach I 18 minor hours: |  |  |
| :--- | :---: | :--- |
| ECO 315 | 3 | Environmental and Natural Resource Economics |
| ENS 204 | 4 | Principles of Ecology |
| ENS 304 | 4 | Global Ecology/Global Issues |
| ENS 341 | 4 | Earth Materials |
| ENS 355 | 4 | Geospatial Analysis |
| ENS 361 | 4 | Geomorphology |
| ENS 362 | 4 | Hydrogeology |
| ENS 363 | 4 | Applied Geology and Environmental Planning |
| ENS 364 | 4 | Water Resources and Appropriate Technology |
| ENS 402 | 4 | Environmental Law and Policy |
| ENS 475 | 4 | Systems Ecology |

Appropriate course substitutions may be made with permission of the chair of the department.

## Environmental Science Courses

| ENS 170 | $\mathrm{I}-4$ hours |
| :--- | :--- |
| Selected Topics |  |

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## ENS $200 \quad 3$ hours

Environment and Society
Introduction to ecological principles and human impacts on the environment. Issues studied include population dynamics, natural resources, pollution problems, and environmental ethics. Lab exercises focus on experimental ecology and the basic techniques used to describe and measure environmental quality. Meets the general education life science requirement. Environmental science majors should elect ENS 23 I rather than ENS 200.

## ENS 201

## 4 hours

Introduction to Geology in the Field
Introduction to earth's materials, processes, and history as discovered through field observations of minerals, rocks, fossils, strata, caves, rivers, canyons, and mountains. Emphasis is placed on field experiences and observations, complemented by study of maps, laboratory work, and discussions. Offered during summer at the Black Hills Science Station near Rapid City, South Dakota

## ENS 204 <br> 4 hour

## Principles of Ecology

A majors core course: An introduction to the relationships existing between organisms and their environment. Lectures focus on the structural and functional aspects of populations, communities, and ecosystems in the context of the major North American biomes. Three hours lecture and two hours laboratory per week. Does not normally satisfy general education science requirement. Prerequisite: Three hours of BIO or ENS or permission of the instructor.

## ENS 231 <br> 4 hours <br> Introduction to Environmental Science

An introduction to environmental science, including a discussion of ecological principles and their application, energy systems, pollution problems, environmental policy and decision making, and the scientific and ethical mplications of human impacts on the environment. Lab exercises focus on experimental ecology and the basic techniques used to describe and measure environmental quality. This course serves three functions: (1) it is the entry level course for environmental science majors; (2) it may be taken for general education lab science credit; and (3) biology majors may count it as a 200level biology course when calculating course hour requirements in biology. Three hours of lecture and two hours of lab per week. Meets the general education life science requirement.

## ENS 241

4 hours
Physical Geology
A general introduction to the earth's internal and external physical, dynamic systems. Topics include occurrence and formation of minerals and rocks, processes that shape the earth's surface, and the internal structure and dynamics that lead to plate tectonics and crustal deformation. Specia emphasis is placed on the environmental aspects of humans' interaction with the earth. Three hours of lecture and two hours of lab per week. Meets general education earth science requirement.

## ENS 242

## 4 hours

Geology of Indiana
An introduction to the concepts of physical and historical geology in the context of Indiana. Topics include rocks, fossils, structure, landforms, and earth and environmental resources of the state. Offered during summer session and includes a required field trip to several regions of Indiana for field observation and collection of mineral, rock, and fossil specimens. Meets general education earth science requirement.

## ENS 270

## I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## ENS 340 <br> Global Ecology/Global Issues

An introduction to the analysis of complex issues. Global actors, their values and policies, and the potential futures they create are investigated in the context of issues such as economic development, energy, food, and population. Global interdependence is stressed. The academic perspective is interdisciplinary, and the geographic focus is non-North American. Three hours of lecture and two hour discussion section per week. Prerequisite: ENS 200 or 231.

## ENS 34I

Earth Materials
Basic principles of mineralogy and petrology, with emphasis placed on description, identification, classification, and interpretation of rock-forming minerals and the igneous, sedimentary, and metamorphic rocks they comprise. Also includes origin and occurrence of earth materials and their uses in economic and environmental contexts. Lab emphasizes observation of hand specimens and some thin-sections. Three hours of lecture and the equivalent of two hours of lab per week, including field trips to selected locations throughout the state. Prerequisite: ENS 241 or permission from the instructor.

## ENS 355

## 4 hours

Geospatial Analysis
An introduction to methods of collection, management and analysis of geospatial data. Topics include basic map properties, preparation and interpretation of thematic and topographic maps, analysis of aerial photographs, surveying by traditional and global positioning systems (GPS) techniques, and acquisition of remotely-sensed satellite data. Special emphasis is placed on methods and applications of geographic information systems (GIS) in geospatial analysis. Prerequisite: ENS 200, 23I, or 241 .

## ENS 360

I-4 hours
Independent Study
An individualized, directed study involving a specified topic.

## ENS 361

## 4 hours

Geomorphology
An applied approach to the study of earth surface processes and the landforms they produce. Topics include processes and landforms associated with weathering, mass wasting, rivers, karst, tectonics, glaciers, shorelines, and wind. Emphasis placed on environmental and land-use applications. Field and lab assignments include qualitative descriptions and quantitative measurements from fieldwork, topographic and geologic maps, and aerial photographs. Three hours of lecture and three hours of lab per week. Prerequisite: ENS 241 or permission from the instructor.

## ENS 362

## 4 hours

Hydrogeology
Basic processes and measurement of the hydrologic cycle, including precipitation, evaporation, surface runoff, stream flow, soil moisture, and groundwater. Emphasis placed on groundwater, including aquifer characteristics, principles of flow, conceptual models of regional flow, geology of occurrence, well hydraulics, chemistry and quality, detection of pollutants, contaminant transport and remediation, and resource development. Three hours of lecture and three hours of lab per week. Prerequisites: ENS 24I or permission from the instructor.

## ENS 363 <br> 4 hours

Applied Geology and Environmental Planning
The application of principles from surficial geology and hydrology in the recognition, assessment, and mapping of environmental geo-hazards in the context of environmental planning. Topics include hazards and land-use analysis of soils, slopes, floods, groundwater, coasts, and tectonic activities. Three hours of lecture and three hours of lab per week. Prerequisite: ENS 241 or permission from the instructor.

ENS 364
4 hours
Water Resources and Appropriate Technology
Concepts and practices of water resource development and appropriate technology in the context of environmental resources in a developing country. Students participate in a service-learning project of design and implementation of water resource related appropriate technology (such as well-drilling, water quality protection, hygiene training, and sanitation system design) as part of a holistic ministry toward transformational development. Students develop a perspective on the role of appropriate technology in the responsibility of individuals in cross-cultural service, in issues of cross-cultural communication and interactions, and in God's purposes in missions and the worldwide church. Prerequisite: IAS I 20.
ENS 370
Selected Topics
A course offered on a subject of interest but not listed as a regular course
offering. May count toward the departmental major and general education

A course offered on a subject of interest but not listed as a regular course
offering. May count toward the departmental major and general education requirements.

## ENS 383

## 4 hours

## Environmental Ethics

An in-depth discussion of the ethical implications of major environmental problems, such as world population and food supply, inequities in land and resource distribution, animal rights, materialism and personal life styles, and exploitation vs. stewardship of the environment. Three hours of lecture and a discussion section per week. Prerequisite: Junior/senior ENS majors or permission from the instructor.

## ENS 393

I-4 hours
racticum
Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## ENS 402

## 4 hours

Environmental Law and Policy
Lectures introduce the major elements of U.S. environmental law: NEPA, EIS, CAA, CWA, RCRA, CERCLA, TSCA, FIFRA and CRTK. The administrative process, cost/benefit analysis and the role of litigation in enforcement are also discussed. Presentation techniques and debate skills are introduced. Three hours of lecture and a discussion section per week. Prerequisite: Senior environmental science majors and minors or permission from the instructor.

ENS 450
I-4 hours

## Directed Research

Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

## ENS 475 <br> 4 hours

Systems Ecology
The principles of systems theory are introduced in an integrated study of the development, dynamics, and disruption of natural ecosystems. Theoretical, analytical, and experimental aspects of ecosystems are explored. Students are introduced to the use of microcomputers as a tool in ecosystem modeling. Prerequisites: ENS 204 and one course in college-level mathematics or computer science.

## ENS 480

I-4 hours
Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

ENS 490
I-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## Mathematics

## Chair, Professor M. Colgan

## Professors R. Benbow, J. Case, K. Constantine, M. DeLong Assistant Professors P. Mummert, D. Toll

The major purposes of the mathematics department are to help students increase their knowledge and understanding of mathematical concepts, develop their reasoning ability and problem-solving skills, and improve their ability to apply mathematics in a variety of areas. The department prepares students to become teachers of mathematics; to enter careers in actuarial science, business, industry, and government; and to pursue graduate study in mathematics and related areas.

The student expecting to major in mathematics should have four years of high school mathematics, including two years of high school algebra, geometry, trigonometry and preferably calculus. In the freshman year, students planning to major in mathematics and those preparing for scientific work, including engineering, should be qualified to begin with MAT I5I or MAT 230.

Students interested in actuarial science should major in math-interdisciplinary with a minor in accounting, economics, or finance, or they should major in math-systems. They should take MAT 352, MAT 382, and MAT 385 as preparation for the first two actuarial exams. Students can also receive VEE credit (Validation by Educational Experience) from the Society of Actuaries with grades of B- or higher in ECO 201-202 and FIN 361. See the guidelines from the Society of Actuaries webpage for further details.

The department offers four majors: mathematics, mathematics/systems, mathematics education, and mathematics-interdisciplinary.
Each year the mathematics department offers at least four sanctioned events such as special lectures or colloquiums. All majors are required to attend a total of at least I2 sanctioned events before taking the MAT 493 course.

## Mathematics (BA)

Designed for students planning to attend graduate school, the bachelor of arts degree with a major in mathematics requires two years of sequential college-level study in one foreign language and at least 46-49 major hours.

| Major Requirements |  | Select one course from the following: |  |  |
| :--- | :--- | :--- | :--- | :--- |
| MAT I80 | 3 | Problem Solving | MAT 251 | 4 |
| MAT 230 | 4 | Calculus II | MAT 310 | 3 | Mathenatical Modeling with Numerical Analysis

## Mathematics/Systems (BS)

The bachelor of science degree with a major in mathematics/systems requires a minimum of 47 hours ( 42 math hours) in the major and curriculum requirements in systems analysis. All systems curriculum courses must be completed with a grade of C- or better.

| Major Requirements |  |  | Systems Curriculum Requirements |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MAT 180 | 3 | Problem Solving | COS 120 | 4 | Introduction to Computational Problem Solving |
| MAT 230 | 4 | Calculus II | IAS 330 | 3 | Human Relations in Organizations |
| MAT 240 | 4 | Calculus III | MAT 151 | 4 | Calculus I |
| MAT 245 | 4 | Linear Algebra | MAT 382 | 3 | Advanced Statistical Methods |
| MAT 255 | 3 | Justifications in Mathematics | MAT 393 | 3-4 | Practicum |
| MAT 340 | 4 | Advanced Calculus | SYS 101 | 3 | Introduction to Systems |
| MAT 352 | 4 | Mathematical Statistics | SYS 390 | 3 | Information Systems Analysis |
| MAT 382 | 3 | Advanced Statistical Methods | SYS 392 | I | Systems Seminar |
| MAT 392 | 1 | Mathematics Seminar | SYS 394 | 4 | Information Systems Design |
| MAT 393 | 3-4 | Practicum | SYS 403 | 3 | Operations Management |
| MAT 455 | 3 | Abstract Algebra | Select one course from the following: |  |  |
| MAT 493 | 3 | Senior Capstone | $\operatorname{COS} 121$ | 4 | Foundations of Computer Science |
| Additional Major Requirements |  |  | COS 143 | 3 | Interactive Webpage Design |
| Select one course in chemistry or physics from: |  |  | Select one course from the following: |  |  |
| CHE 201 | 4 | General, Organic, and Biochemistry I | MAT 210 | 4 | Introductory Statistics |
| CHE 211 | 4 | College Chemistry 1 | MAT 352 | 4 | Mathematical Statistics |
| PHY 211 | 4 | University Physics I | Select one course from the following: |  |  |
| PHY 212 | 5 | University Physics II | SYS 401 | 3 | Operations Research |
|  |  |  | SYS 402 | 3 | Modeling and Simulation |

## Electives

Select three hours of mathematics electives-MAT 215 or higher.

## Mathematics Education (BS)

The bachelor of science degree in mathematics education requires 87 hours of professional education and major courses ( 50 hours of math) Secondary education majors must complete specific general education requirements as outlined by the education department on page 210 .

| Professional Education |  |  | Additional Major Requirements |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| EDU 150 | 3 | Education in America | Select one course from the following: |  |  |
| EDU 210 | 3 | Reading and Writing for Professional Educators | COS 120 | 4 | Introduction to Computational Problem Solving |
| EDU 260 | 3 | Educational Psychology | MAT 251 | 4 | Differential Equations |
| EDU 309 | I | Teaching in Secondary, Junior High/Middle Schools- | MAT 310 | 3 | Mathematical Modeling with Numerical Analysis Technology for Mathematics |
|  |  | Special Methods | MAT 330 | 3 |  |
| EDU 310 | 2 | Discipline and Classroom Management | MAT 370 | 3 | Selected Topics (topic must be approved by department) |
| EDU 328 | 2 | Assessment for Student Learning | MAT 385 | 3 | Mathematics of Finance |
| EDU 332 | 3 | The Junior High/Middle School | PHY 341 | 3 | Math Methods in Physics and Engineering |
| EDU 431 | 15 | Supervised Internship in Secondary Schools |  |  |  |
| MAT 309 | 2 | Teaching Math in Secondary Schools | Select $\underline{3}$ hours of mathematics electives-MAT 215 or higher. |  |  |
| SED 320 | 3 | Exceptional Children |  |  |  |
|  |  |  | Select one of the following chemistry or physics courses: |  |  |
|  |  |  | CHE 201 | 4 | General, Organic, and Biochemistry I |
| Mathematics Requirements |  |  | CHE 21I | 4 | College Chemistry 1 |
| MAT 180 | 3 | Problem Solving | PHY 211 | 4 | University Physics I |
| MAT 230 | 4 | Calculus II | PHY 212 | 5 | University Physics II |
| MAT 240 | 4 | Calculus III |  |  |  |
| MAT 245 | 4 | Linear Algebra |  |  |  |
| MAT 255 | 3 | Justifications in Mathematics |  |  |  |
| MAT 280 | 3 | Mathematics in the Junior High/Middle School |  |  |  |
| MAT 312 | 4 | College Geometry |  |  |  |
| MAT 340 | 4 | Advanced Calculus |  |  |  |
| MAT 352 | 4 | Mathematical Statistics |  |  |  |
| MAT 392 | 1 | Mathematics Seminar |  |  |  |
| MAT 455 | 3 | Abstract Algebra |  |  |  |
| MAT 493 | 3 | Senior Capstone |  |  |  |

## Mathematics—Interdisciplinary (BS)

The bachelor of science degree with a major in mathematics-interdisciplinary requires a minimum of 52-56 hours and the completion of a minor (or major) in accounting, biology, chemistry, computer engineering, environmental science, engineering physics, computer science, economics, finance or physics. Minor (or major) requirements are listed under the department offering the minor. The practicum may be in a supporting area (major or minor) instead of mathematics.

| Major Requirements |  |  | Additional Major Requirements |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MAT 180 | 3 | Problem Solving | COS 120 | 4 | Introduction to Computational Problem Solving |
| MAT 230 | 4 | Calculus II | Electives |  |  |
| MAT 240 | 4 | Calculus III | Select $\underline{3}$ hours of mathematics electives-MAT 215 or higher. |  |  |
| MAT 245 | 4 | Linear Algebra |  |  |  |
| MAT 251 | 4 | Differential Equations | Select one of the following chemistry or physics courses: |  |  |
| MAT 255 | 3 | Justifications in Mathematics | CHE 201 | 4 | General, Organic, and Biochemistry I |
| MAT 310 | 3 | Mathematical Modeling with Numerical Analysis | CHE 211 | 4 | College Chemistry I |
| MAT 352 | 4 | Mathematical Statistics | PHY 211 | 4 | University Physics I |
| MAT 382 | 3 | Advanced Statistical Methods | PHY 212 | 5 | University Physics II |
| MAT 392 | 1 | Mathematics Seminar |  |  |  |
| MAT 393 | 2-4 | Practicum |  |  |  |
| MAT 493 | 3 | Senior Capstone |  |  |  |
| Select one course from the following: |  |  |  |  |  |
| MAT 340 | 4 | Advanced Calculus |  |  |  |
| MAT 455 | 3 | Abstract Algebra |  |  |  |

## Mathematics Minor

A mathematics minor requires a minimum of 23-25 hours.
Minor Requirements
MAT 230 $\quad 4 \quad$ Calculus II
tMAT 145 \& 146 count as one option

Select an additional 15 hours of mathematics elective hours above MAT I5I. MAT 201 and 202 do not count toward the minor.

## Mathematics Courses

## MAT $100 \quad 1$ hour

Mathematics Fundamentals
A study of the basic arithmetic operations, exponents, ratios, linear and quadratic equations, graphs, and story problems. This course is specifically designed to assist those students who need help for the mathematics proficiency examination. Pass/fail only. Does not count toward a mathematics major or minor.

## MAT IIO 3 hours <br> Finite Mathematics

A study of selected topics from set theory, matrices, systems of linear equations and inequalities, linear programming, counting and probability, statistics, and mathematics of finance. Prerequisite: A good understanding of algebra. Does not count toward a mathematics major or minor. Meets general education mathematics requirement.

## MAT 120

## 3 hours

Investigations in Mathematics
A course designed to engage students in relevant college-level mathematics and its connection to the Christian faith and everyday life. Students will experience interesting questions and real-life applications of mathematics from a variety of contexts while using appropriate technology. Emphasis will be on thinking, reasoning, and exploring patterns as well as communicating mathematical ideas. Topics will be chosen from data analysis, modeling, probability, statistics, mathematics of finance, logic, infinity, geometric applications, and fundamentals of problem solving. Does not count toward a mathematics major or minor. Meets general education mathematics requirement.

## MAT 140

## 3 hours

## Fundamental Calculus for Applications

An introductory study of derivatives, series, and integrals with a wide range of applications, including maximum and minimum problems. Prerequisite: A good understanding of algebra. Does not count toward a mathematics major or minor. Meets general education mathematics requirement.

## MAT 145

## 3 hours

Introduction to Functions and Calculus
The MAT 145/I46 sequence aims to provide a deep understanding of topics from precalculus and calculus as well as a strong sense of their usefulness. Fundamental ideas of calculus, specifically rates of change, are introduced early and used to provide a framework for the study of mathematical modeling involving algebraic, exponential, and logarithmic functions. Applications to business, economics, and science are emphasized. Meets general education mathematics requirement. MAT 145/I46 may be taken as a two-semester substitute for MAT 151 .

## MAT 146

## 3 hours

## Functions and Calculus

MAT 146 is the second of a two-course sequence which begins with MAT 145, and continues the investigation of functions, including trigonometric functions, and their rate of change. Students are introduced to integrals and methods of integrations with applications. Further topics, such as infinite series and differential equations are included. Prerequisite: MAT I45. MAT 145/I 46 may be taken as a two-semester substitute for MAT 15 I.

## MAT 151

## 4 hours

Calculus I
A study of functions, including algebraic and trigonometric functions. An introduction to the algebraic, numerical, and graphical approaches to calculus, including limits, continuity, derivatives, integrals, and applications. Prerequisite: A good understanding of algebra and trigonometry. Meets general education mathematics requirement. MAT 145 and 146 may be taken as a two-semester substitute for MAT 151.

## MAT 170

## I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## MAT 180

Problem Solving
An introduction to the mathematical sciences through the study of problem solving. An overview of various methods of problem solving to discover patterns, construct and modify conjectures and develop proofs of those conjectures. There will be an emphasis on developing creativity, confidence, and concentration. Content areas studied will include algebra, combinatorics, number theory and calculus, all from a problem-solving point of view. Prerequisite: MAT 151 or one semester of high school calculus. Meets general education mathematics requirement.

## MAT 2014 hours <br> \section*{Mathematics for Elementary Teachers I}

First of a two-course integrated content-methods sequence for elementary teacher preparation. This course is a study of number systems, operations, and data analysis/probability, with special reference to teaching materials, laboratory methods, and pedagogy, including classroom use of manipulatives and technology. Each student is required to work with a MAT 202 student in a teaching team in the Taylor-Eastbrook Mathematics Project (TEMP). Prerequisite: approval into the teacher education program. Does not count toward a mathematics major or minor. Open to majors in early childhood and elementary education. Eight hours of MAT 201 and 202 meet the general education mathematics requirement.

## MAT 2024 hours <br> Mathematics for Elementary Teachers II

The second of a two-course integrated content-methods sequence for elementary teacher preparation. Course topics emphasize the standards of geometry, measurement, problem-solving, communication, and reasoning. Each student is responsible each week for planning, teaching, and evaluating a mathematics lesson in a local school (TEMP). Prerequisite: MAT 20I. Does not count toward a mathematics major or minor. Open to majors in early childhood and elementary education. Eight hours of MAT 201 and 202 meet the general education mathematics requirement.

## MAT 210 <br> 4 hours

## Introductory Statistics

A study of basic statistical methods with a focus on applied data analysis in a group setting using statistical software. Develops proficiency in the use of descriptive methods, sampling, linear regression and correlation, probability theory and distributions, statistical inference techniques for estimation and hypothesis testing and experimental design. Meets general education mathematics requirement.

## MAT 215

3 hours
Discrete Mathematics for Computer Science
Discrete mathematics concepts are studied that are foundational for further study in computer science. Topics include propositional logic and quantifiers, proofs with emphasis on induction, design and optimization of combinatorial circuits, Boolean algebra, solution of certain classes of recurrence and equivalence relations and modulo arithmetic with application to RSA cryptography. Prerequisites: COS I20; MAT I46 or 15 I.

## MAT 220

4 hours
Ways of Knowing
Topics studied include number, logic, Euclidean and non-Euclidean geometry, algebraic structures, dimension, and infinity. A study is made of the deductive method in mathematics and its relationship to ways of knowing in other areas. There is an emphasis on the beauty of mathematics and the relationship of mathematics to science and other forms of culture including the arts and religion. Course is offered within the Honors Guild. Meets general education mathematics requirement.

## MAT 230

## 4 hours

Calculus II
A study of analytic geometry, functions, limits and derivatives, differentiation and integration of algebraic functions and elementary transcendental functions, applications of the derivative, the definite integral, sequences, series, Taylor's formula, and special techniques of integration. Prerequisite: MAT I46 or 15 I.

## MAT 240

## 4 hours

Calculus III
A study of parametric equations, polar coordinates, vectors, threedimensional geometry, partial derivatives, multiple integration, and vector analysis. Prerequisite: MAT 230. Offered fall semester.

## MAT 245

## 4 hours

Linear Algebra
A course on matrix theory, linear equations and linear dependence, vector spaces and linear transformations, characteristic equation, quadratic forms, and the singular value decomposition. Prerequisite: MAT 240. Offered spring semester of even years.

## MAT 25 I

## 4 hours

Differential Equations
A course on the solution of differential equations of the first order and first degree, linear differential equations with constant coefficients, nonhomogeneous equations by undetermined coefficients and variation of parameters, systems of differential equations, nonlinear differential equations, and an introduction to series solutions. Numerical methods and qualitative analysis are also used. Differential equations are used to model physical problems, including vibration problems and electrical circuits. Prerequisite: MAT 240. Offered spring semester.

## ustifications in Mathematics

The focus of the course is for students to acquire the ability to create and express mathematical arguments through the exploration of mathematical ideas. In addition to gaining an understanding and appreciation for interesting mathematics, students will develop an ability to think creatively, to analyze critically, and to communicate appropriately mathematical reasoning and argumentation. Topics include proof techniques, logic, sets, functions, number theory, infinity, and graph theory. Prerequisite: MAT I5I. Offered fall semester.

## MAT 26 I

I hour
Special Problems
Selected topics in mathematics. Prerequisite: Consent of the department chair.

## MAT 262

I hour

## Special Problems-TEMP

Selected topics in mathematics.

## MAT 270

1-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## MAT 280

## 3 hours

Mathematics in the Junior High/Middle School
An integrated content-methods course for middle school and introductory high school preparation. This course includes the mathematical strands of reasoning and algebra, rational numbers, geometry/measurement, and data analysis and probability, interwoven with the connections to appropriate pedagogical strategies for middle grades' teaching and learning. Includes a field-based teaching lab. Math majors only or permission of the instructor.

## MAT 3092 hours

Teaching Math in Secondary Schools
This course is designed to assist teacher candidates in developing their pedagogical content knowledge in the area of mathematics. It addresses such topics as lesson planning, higher-order thinking, professional development, content-appropriate teaching strategies, standards-based instruction, assessment of student learning, educational technology, motivational techniques, and instructional resources. National and state math standards are examined as a basis for reflective teaching and best practices. This junior-level course should be taken the spring semester before student teaching. Prerequisites: EDU 150, 260 and approval into the teacher education program. Corequisite: EDU 309.

## MAT 310

3 hours
Mathematical Modeling with Numerical Analysis
An introduction to modeling and the methods, techniques, and pitfalls in scientific computing and numerical analysis. The course will emphasize projects, writing, technology, and applications. Topics include iterative and algorithmic processes, error analysis, numerical integration and differentiation, curve fitting, and numerical solutions to different equations. Required for mathematics majors with a concentration in computer science and for computer science majors with a concentration in scientific computing. Fulfills elective requirements in the systems curriculum and for majors in mathematics in environmental science and mathematics in secondary education. Prerequisites: COS I20, MAT 240. Offered fall semester of even years.

## MAT 312

## 4 hours

College Geometry
Advanced Euclidean plane geometry with a brief survey of some of the nonEuclidean geometries and vector and transformational geometry. Prerequisites: MAT 180 or 245. Offered spring semester of odd years.

## MAT 330

## 3 hours

Technology for Mathematics
A study of the use of software and graphing calculators in mathematics. Technological tools are used to explore various topics in mathematics including precalculus, business mathematics, probability and statistics, calculus, and linear algebra. Prerequisites: MAT 180 and 240.

## MAT 340

## 4 hours

Advanced Calculus
An introduction to a rigorous development of the fundamental concepts of calculus. The real number system, sequences, series, limits, differentiation, and integration are developed rigorously. Prerequisites: MAT 240; MAT 180 or 215. Offered spring semester of even years.

## MAT 352 <br> 4 hours

Mathematical Statistics
A theoretical, as well as applied, study of counting outcomes, probability, probability distributions, sampling distributions, confidence intervals, tests of hypotheses, linear regression, and correlation. Corequisite: MAT 240. Offered fall semester.

MAT 360
I-4 hours
Independent Study
An individualized, directed study involving a specified topic.

## MAT 370

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## MAT 382

## 3 hours

## Advanced Statistical Methods

Introduction to a variety of topics including nonparametric statistical methods and linear models, with simple linear regression, multiple regression, and analysis of variance as special cases of the linear model. The emphasis will be on translating applied questions into an appropriate statistical model, checking model assumptions, and interpreting analyses in applied contexts. Prerequisites: MAT 210 or 352; and MAT 146 or 151 .

## MAT 385

Mathematics of Finance
This course is an introduction to the mathematical models used in finance and economics with a focus on interest theory (discrete and continuous). The goal is to provide an understanding of the fundamental concepts of financial mathematics and how those concepts are applied in calculating present and accumulated values for various streams of cash flows. Topics include the mathematical foundations of interest theory, annuities, loans, stocks, financial markets, arbitrage, and financial derivatives. The course can be used as a foundation for the second actuarial exam. Prerequisites or Corequisites MAT 230; and MAT 210 or MAT 352. Offered fall semester of odd years.

## MAT 392 <br> I hour

Mathematics Seminar
Each student in the seminar researches a mathematical topic and makes a presentation to the entire group. Prerequisite: MAT 240. Offered fall semester.

## MAT 393

## I-4 hours

Practicum
Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during the summer.

## MAT 450

I-4 hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

## MAT 455

3 hours

## Abstract Algebra

The development of the postulates of group theory, rings, integral domains, and fields. Applications to cryptography. Prerequisites: MAT 180 and 240. Offered spring semester of odd years.

## MAT 456

## 3 hours

Advanced Algebra
A continued study of Abstract and Linear Algebra. Topics include Galois Theory, cryptography, and field extensions. Prerequisite: MAT 455.

## MAT 461

3 hours
Real Analysis
An advanced study of the real number system, topology, functions, sequences, limits, continuity, and the theory of differentiation and integration. Prerequisite: MAT 340. Offered spring semester of odd years.

## MAT 480

I-4 hours
Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

## MAT 490

I-2 hours

## Honors

Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## MAT 493

3 hours
Senior Capstone
An overview of mathematics with an emphasis on the integration of all areas in undergraduate mathematics with an exploration of the relationship between mathematics and the Christian faith. Open to senior status mathematics majors only. Offered during January interterm.

## Natural Science

The natural science area includes curricular offerings in biology, chemistry, computer science and engineering, mathematics, and physics and engineering for the major in natural science.

## Pre-Medical Technology Concentration (3-1 Program)

Advisor, Professor D. Hammond
A major in natural science with a pre-professional concentration in pre-medical technology is designed for students participating in 3-year preprofessional programs. Upon completion of three years at Taylor University, students then complete I-2 years of professional requirements at an approved accredited school. Upon receipt of an official transcript verifying the satisfactory completion of one year at an approved accredited school, the student is granted the baccalaureate degree by Taylor University.

All Taylor University degree requirements are applicable with the following exceptions: PHI 413 , the minimum of 42 hours of upper-division credit, the minimum 128 total-hour requirement, and the senior comprehensive examination. Normally, students complete all applicable requirements within three years, including a minimum of 96 total hours and a minimum of 35 major hours taken in courses offered in the natural science area. These courses must be selected in accordance with the unique requirements of the pre-professional program.

The medical technologist serves as a vital part of the hospital medical team, performing the lab tests that lead to successful diagnosis of illness. Taylor University maintains affiliations with Methodist Hospital of Indiana, located in Indianapolis, Indiana.

The National Accrediting Agency for Clinical Lab Sciences requires three years of college work as a minimum of pre-professional preparation. After satisfactory performance of preparatory courses specified by the hospital program of choice (usually an additional year or more), a baccalaureate degree will be granted by Taylor University. The student is then eligible to take a national certifying examination. Upon successfully passing the certification examination, the student will be certified as a registered medical technologist or its equivalent.

## Natural Science-Pre-Medical Technology Concentration (BS)

The bachelor of science degree with a major in natural science and a pre-medical technology concentration requires 35 hours of natural science with a minimum of 16 hours in biology and 16 hours in chemistry.

All Taylor University degree requirements are applicable with the following exceptions: PHI 413 ; the minimum of 42 hours of upper-division credit; the minimum 128 total-hour requirement; and the senior comprehensive exam. Students must complete a minimum of 96 total hours at Taylor prior to entering the hospital program.

Major Requirements

| Select at least 16 hours of biology: |  |  | Select one option from the following: |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BIO 101 | 4 | Principles of Cell Biology | MAT 140 | 3 | Fundamental Calculus for Applications |
| BIO 203 | 4 | Principles of Genetics | MAT 151 | 4 | Calculus I |
| BIO 244 | 4 | Human Anatomy and Physiology I |  |  |  |
| BIO 245 | 4 | Human Anatomy and Physiology II | tMAT 145 | 3 | Introduction to Functions and Calculus |
| BIO 471 | 4 | Microbiology and Immunology | and tMAT 146 | 3 | Functions and Calculus |
| Select at le | hours | of chemistry: | tMAT 145 \& 146 count as one option. |  |  |
| *CHE 201 | 4 | General, Organic, and Biochemistry I |  |  |  |
| *CHE 202 | 4 | General, Organic, and Biochemistry II | Some hospital programs also require at least one semester of physics. |  |  |
| *CHE 211 | 4 | College Chemistry 1 |  |  |  |

*CHE 212 4 College Chemistry II
CHE 301 Analytical Chemistry I
CHE 30IL I Analytical Chemistry I Lab
CHE $302 \quad 3$ Analytical Chemistry II
CHE 302L I Analytical Chemistry II Lab
CHE 3II 4 Organic Chemistry I
*CHE $2 I I / 2 I 2$ is the preferred combination; may not complete both CHE 20I/202 and CHE $2 I I / 2 / 2$

## Science Research Training Program

The purpose of the Science Research Training Program is to stimulate students beyond "normal education" with hands-on practical experiences, promote real-world industrial relationships (careers), and prepare future graduate students. As faculty, students and staff, our goal is to pursue excellence (world leadership in selected research areas) and thereby stay on the cutting edge of scientific research and thought.

We encourage scholarly research and crossover interactions between various disciplines, and we promote publications in professional journals by Taylor University faculty and students. Where possible, we relate science with society and apply science and technology to various mission field needs. Research activities are carried on quietly and often on a long-range basis, but are essential to leadership and progress. During the summer months, when faculty and students can devote more time to independent research, student stipends are available for research one-on-one with a faculty member. These projects include the areas of biology, chemistry, computers, engineering, environmental science, math, and physics.

## Natural Science Courses

NAS I70 I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course
offering. May count toward the departmental major and general education offering. May count toward the departmental major and general education requirements.

## NAS 220 <br> 4 hours

## Natural Science Research Methods

To introduce general science research in the fields of biology, chemistry, computer science, environmental science, mathematics, and physics/engineering. An overview of selected representative research topics, problem solving approaches, instrumentation, and analysis techniques. The lab emphasizes the use of scientific instrumentation and advanced computer software tools. For students enrolled in CRAM. Meets any general education lab science requirement.

## NAS 270 I-4 hours <br> Selected Topics

A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## NAS $309 \quad 2$ hours

## Science Education Methods

This is a junior-level science education methods course for biology, chemistry, and physics majors obtaining certification in secondary education. This course covers the philosophy of science, science educational psychology, the science standards (both national and state), science curriculum development, classroom management and assessment, laboratory management and development, and technology and professional development in the sciences. Prerequisite: EDU 150, 260 and approval into the teacher education program is required. Corequisite: EDU 309.

NAS 360
Independent Study
An individualized, directed study involving a specified topic.
NAS $370 \quad$ I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## NAS $393 \quad$ I-4 hours

Practicum
Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## NAS 450

## 1-4 hours

Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

## NAS 480 I hour

Natural Science Seminar
The integration of topics from contemporary science with an emphasis on recent research reports of interdisciplinary interest. Guest lecturers and faculty and student reports serve as the method of instruction.

NAS 490
1-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

# Physics and Engineering 

Chair, Professor K. Kiers<br>Professors R. Davis, H. Voss Associate Professor D. Boyajian Assistant Professor J. Gegner

The purpose of the physics and engineering department is to provide an educational experience within a Christian context that equips students with the ability to obtain knowledge and understanding about the physical world for use in research, graduate studies and careers and to positively impact society. The physics and engineering department offers instruction in physics, engineering, astronomy, and physical science. Space physics, theoretical high-energy physics, acoustics, advanced engineering instrumentation, structural engineering, power electronics, and microelectronics provide the major research interests in the department.

Departmental majors include: physics, engineering physics, environmental engineering, physics science education, physical science education/physics concentration, and physics/mathematics education.

## Physics (BA)

The bachelor of arts degree with a major in physics requires two years of one foreign language and 76-82 hours in the major.

| Major Requirements |  |  |
| :---: | :---: | :---: |
| PHY 211 | 4 | University Physics I |
| PHY 212 | 5 | University Physics II |
| PHY 311 | 4 | Modern Physics |
| PHY 321 | 3 | Electricity and Magnetism |
| PHY 322 | 3 | Waves and Physical Optics |
| PHY 330 | 2 | Advanced Lab |
| PHY 341 | 3 | Math Methods in Physics and Engineering |
| PHY 342 | 3 | Analytical Mechanics |
| PHY 350 | 4 | Thermodynamics and Statistical Mechanics |
| PHY 412 | 3 | Quantum Mechanics |
| PHY 493 | 3 | Physics Senior Capstone |
| Electives |  |  |
| Select 10 hours of physics and engineering elective courses from: |  |  |
| ENP 252 | 4 | Principles of Engineering |
| ENP 301 | 3 | Statics and Dynamics |
| ENP 321 | 2 | Applied Electromagnetics |
| ENP 331 | 4 | Introduction to Electronics |
| ENP 332 | 4 | Control Systems |
| ENP 341 | 4 | Microcomputer Interfacing |
| ENP 351 | 3 | Thermodynamics |
| ENP 352 | 3 | Materials Science and Solid State Physics |
| ENP 355 | 3 | Fluid Mechanics and Water Flow |
| ENP 370 | 1-4 | Selected Topics |
| ENP 431 | 4 | Advanced Electronics and Microcircuits |
| \#PHY 201 | 4 | Introductory Astronomy |
| PHY 313 | 2 | Nuclear Radiation Experimental Methods |
| PHY 370 | 1-4 | Selected Topics |
| PHY 413 | 2 | Quantum Mechanics II |
| PHY 441 | 3 | Advanced Mathematical Methods in Physics |
| PHY 450 | 1-4 | Directed Research |


| Additional Major Requirements |  |  |
| :---: | :---: | :---: |
| CHE 211 |  | College Chemistry I |
| CHE 212 | 4 | College Chemistry II |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| *ENP 104 | 2 | Introduction to Engineering and Software Tools |
| *ENP 105 | 1 | Introduction to Engineering Ethics |
| MAT 230 | 4 | Calculus II |
| MAT 240 | 4 | Calculus III |
| MAT 251 | 4 | Differential Equations |
| Select one course from the following: |  |  |
| NAS 480 | 1 | Natural Science Seminar |
| IAS 23 IH | 2 | Issues in Science and Religion (Honors) |
| Select one option from the following: |  |  |
| MAT 151 | 4 | Calculus I |
| tMAT 145 and | 3 | Introduction to Functions and Calculus |
| tMAT 146 | 3 | Functions and Calculus |

+MAT 145 \& 146 count as one option.
$\ddagger$ Special lab section required. Please see catalog course description for more details.
*ENP 104 and 105 will substitute for the general education COS 104 requirement; alternatively, COS 104 may be taken.
Additional courses in computer science, systems, engineering, and mathematics are strongly recommended.

## Physics (BS)

The bachelor of science degree with a major in physics requires 89-97 hours in the major.

| Major Requirements |  |  |
| :--- | :---: | :--- |
| ENP 370 | 1 | Preparation for the Physics GRE |
| PHY 2II | 4 | University Physics I |
| PHY 2I2 | 5 | University Physics II |
| PHY 3II | 4 | Modern Physics |
| PHY 32I | 3 | Electricity and Magnetism |
| PHY 322 | 3 | Waves and Physical Optics |
| PHY 330 | 2 | Advanced Lab |
| PHY 34I | 3 | Math Methods in Physics and Engineering |
| PHY 342 | 3 | Analytical Mechanics |
| PHY 350 | 4 | Thermodynamics and Statistical Mechanics |
| PHY 4I2 | 3 | Quantum Mechanics |
| PHY 4I3 | 2 | Quantum Mechanics II |
| PHY 44I | 3 | Advanced Mathematical Methods in Physics |
| PHY 493 | 3 | Physics Senior Capstone |
| Select one course from | the following: |  |
| PHY 393 | 2 | Practicum |
| PHY 450 | $2-4$ | Directed Research |

Technical Electives
Select at least II additional hours from the following:
CHE 43I
CHE 43IL
CHE 432
CHE 432L
ENP 200-499
I I-II
MAT 3I0
MAT 352
MAysical Chemistry I
MAT 382
$\ddagger$ Special lab section required. Please see catalog course description for more details.

Select one course from the following:
PHY $450 \quad 2-4 \quad$ Directed Research

| Additional Major Requirements |  |  |  |
| :--- | :--- | :--- | :---: |
| CHE 2II | 4 | College Chemistry I |  |
| CHE 212 | 4 | College Chemistry II |  |
| COS I20 | 4 | Introduction to Computational Problem Solving |  |
| *ENP 104 | 2 | Introduction to Engineering and Software Tools |  |
| *ENP 105 | I | Introduction to Engineering Ethics |  |
| MAT 230 | 4 | Calculus II |  |
| MAT 240 | 4 | Calculus III |  |
| MAT 245 | 4 | Linear Algebra |  |
| MAT 25I | 4 | Differential Equations |  |


| Select one course from the following: |  |  |
| :---: | :---: | :---: |
| NAS 480 | 1 | Natural Science Seminar |
| IAS 23 IH | 2 | Issues in Science and Religion (Honors) |
| Select one option from the following: |  |  |
| MAT 151 | 4 | Calculus I |
| †MAT 145 and | 3 | Introduction to Functions and Calculus |
| tMAT 146 | 3 | Functions and Calculus |
| tMAT 145 \& 146 count as one option. |  |  |
| *ENP 104 a |  | will substitute for the general education COS |

## Physics Minor

A minor in physics consists of 20 hours. This minor may not be awarded with a major from within the department.

| Minor Requirements |  | Electives |  |
| :--- | :---: | :--- | :--- |
| PHY 2II | 4 | University Physics I | Select at least II elective hours of upper-division (300- or $400-$ level) physics and |
| PHY 2I2 | 5 | University Physics II | engineering courses. |
|  |  |  | ENP 252 may also meet elective hours. |

## Engineering Physics (BS)

The bachelor of science degree with a major in engineering physics requires the completion of 104-105 hours and is a general engineering degree which prepares students for industry practice and/or graduate study in a variety of engineering disciplines. This program is accredited by the Engineering Accreditation Commission of ABET, I I I Market Place, Suite I050, Baltimore, MD 2I202-40I2; telephone (4I0) 347-7700.

## Program Objectives:

I. Develop Christian leaders who serve God and humanity through active service to their family, church, job, and global community.
2. Develop competent engineers who use their broad knowledge of engineering, science, and mathematics to work in industry and/or complete advanced degrees.
3. Develop engineers who apply their ability to acquire new knowledge and skills, and who are imbued with the required knowledge, attitude, and experience to continuously strengthen their capabilities.
4. Develop engineers who utilize their project experience to efficiently and satisfactorily solve engineering problems using good problem management and design abilities.
5. Develop engineers who have a strong work ethic, collaborate effectively, demonstrate effective communication skills, and act in an ethically responsible manner.
6. Develop engineers who have an attitude and practice of innovation by effectively developing new solutions with an open mind to creative problem resolution.

| Science and Math Requirements |  |  |
| :---: | :---: | :---: |
| CHE 211 | 4 | College Chemistry 1 |
| MAT 151 | 4 | Calculus I |
| MAT 230 | 4 | Calculus II |
| MAT 240 | 4 | Calculus III |
| MAT 251 | 4 | Differential Equations |
| PHY 211 | 4 | University Physics I |
| PHY 212 | 5 | University Physics II |
| PHY 311 | 4 | Modern Physics |
| PHY 321 | 3 | Electricity and Magnetism |
| PHY 341 | 3 | Math Methods in Physics and Engineering |
| Select one course from the following: |  |  |
| NAS 480 | 1 | Natural Science Seminar |
| IAS 231 H | 2 | Issues in Science and Religion (Honors) |
| Engineering Requirements |  |  |
| *ENP 104 | 2 | Introduction to Engineering \& Software Tools |
| *ENP 105 | 1 | Introduction to Engineering Ethics |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| ENP 252 | 4 | Principles of Engineering |
| ENP 301 | 3 | Statics and Dynamics |
| ENP 331 | 4 | Introduction to Electronics |
| ENP 332 | 4 | Control Systems |
| ENP 351 | 3 | Thermodynamics |
| ENP 352 | 3 | Materials Science and Solid State Physics |
| ENP 392 | 2 | Junior Engineering Project |
| ENP 393 | 2 | Practicum |
| ENP 491 | 1 | Review of the Fundamentals of Engineering |
| ENP 492 | 2 | Engineering Senior Capstone I |
| ENP 493 | 3 | Engineering Senior Capstone II |
| ENP 494 | 1 | Engineering Senior Capstone III |

*ENP IO4 and I05 will substitute for the general education COS 104 requirement.

Other Requirements

| ECO 201 | 4 | Principles of Microeconomics |
| :--- | :---: | :--- |
| IAS 330 | 3 | Human Relations in Organizations |

Tier A Electives
(Tier A must total at least 15 hours.)
ENP 3023 Strength of Materials and Machine Design
ENP $321 \quad 2 \quad$ Applied Electromagnetics
ENP 333 Introduction to Solid State Devices
ENP 341 44 Microcomputer Interfacing
ENP $355 \quad 3 \quad$ Fluid Mechanics and Water Flow
ENP 357 Heat Transfer
ENP $394 \quad$ 2-4 Advanced Engineering Project
ENP $431 \quad 4 \quad$ Advanced Electronics and Microcircuits
COS I21 4 Foundations of Computer Science
COS $230 \quad 3 \quad$ Missions Technology
COS 331 3 Data Communication
PHY $313 \quad 2 \quad$ Nuclear Radiation Experimental Methods
SYS $390 \quad 3 \quad$ Information Systems Analysis
SYS $403 \quad 3$ Operations Management

Tier B Electives
(Tier A plus B must total at least 18 hours.)
ENP 3453 Fundamentals of Space Systems
ENT 4223 New Venture Planning
MAT 245 Linear Algebra
MAT 3524 Mathematical Statistics
PHY $322 \quad 3 \quad$ Waves and Physical Optics
PHY 342 Analytical Mechanics
PHY $412 \quad 3 \quad$ Quantum Mechanics
PHY 44I 3 Advanced Mathematical Methods in Physics

## Environmental Engineering (BS)

The bachelor of science degree with a major in environmental engineering requires $99-101$ hours and provides a strong background in engineering and environmental science for students who plan to enter environment-related jobs or to attend graduate school.

| Physics/Engineering Requirements |  |  |
| :---: | :---: | :---: |
| *ENP 104 | 2 | Introduction to Engineering \& Software Tools |
| *ENP 105 | 1 | Introduction to Engineering Ethics |
| ENP 252 | 4 | Principles of Engineering |
| ENP 351 | 3 | Thermodynamics |
| ENP 355 | 3 | Fluid Mechanics and Water Flow |
| PHY 211 | 4 | University Physics I |
| PHY 212 | 5 | University Physics II |
| ENP 331 | 4 | Introduction to Electronics |
| ENP 392 | 2 | Junior Engineering Project |
| ENP 491 | 1 | Review of the Fundamentals of Engineering |
| ENP 492 | 2 | Engineering Senior Capstone I |
| ENP 493 | 3 | Engineering Senior Capstone II |
| ENP 494 | 1 | Engineering Senior Capstone III |
| Select at least three additional hours of electives not completed elsewhere from: |  |  |
| ENS 204 | 4 | Principles of Ecology |
| MAT 210 | 4 | Introductory Statistics |
| MAT 245 | 4 | Linear Algebra |
| MAT 310 | 3 | Mathematical Modeling with Numerical Analysis |
| MAT 352 | 4 | Mathematical Statistics |
| BIO | 3 | Any biology elective (excluding BIO 100 \& 200) |
| CHE | 3 | Any 300/400 chemistry elective |
| ENP | 3 | Any 300/400 engineering elective |
| ENS | 3 | Any 300/400 environmental science elective |
| PHY | 3 | Any 300/400 physics elective |
| *ENP 104 and 105 will substitute for the general education COS 104 requirement. |  |  |


| Environmental Science Requirements |  |  |
| :---: | :---: | :---: |
| ENS 231 | 4 | Introduction to Environmental Science |
| ENS 241 | 4 | Physical Geology |
| ENS 355 | 4 | Geospatial Analysis |
| ENS 402 | 4 | Environmental Law and Policy |
| Select eight hours of electives from: |  |  |
| CHE 320 | 3 | Environmental Chemistry |
| CHE 320L | 1 | Environmental Chemistry Lab |
| ENS 341 | 4 | Earth Materials |
| ENS 361 | 4 | Geomorphology |
| ENS 362 | 4 | Hydrogeology |
| ENS 363 | 4 | Applied Geology and Environmental Planning |
| Select one course from the following: |  |  |
| \#ENS 393 | 2 | Practicum |
| \#ENP 393 | 2 | Practicum |

$\ddagger$ Students double majoring in engineering physics and environmental engineering do not have to complete two practicum courses.

| Mathematics |  |  |  | Requirements |
| :--- | :---: | :--- | :---: | :---: |
| MAT 230 | 4 | Calculus II |  |  |
| MAT 240 | 4 | Calculus III |  |  |
| MAT 25I | 4 | Differential Equations |  |  |

Select one option from the following:
MAT $151 \quad 4 \quad$ Calculus I
tMAT 145 Introduction to Functions and Calculus
tMAT 1463 Functions and Calculus
†MAT / 45 \& / 46 count as one option.
Additional Requirements

| Additional Requirements |  |  |
| :--- | :---: | :--- |
| CHE 211 | 4 | College Chemistry I |
| CHE 212 | 4 | College Chemistry II |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| ECO 201 | 4 | Principles of Microeconomics |
| IAS 330 | 3 | Human Relations in Organizations |

## Physics Science Education (BS)

The bachelor of science degree with a major in physics requires $93-95$ hours of professional education courses and major courses. Secondary education majors must complete specific general education requirements as outlined by the education department on page 210 .

| Professional Education |  |  |
| :--- | :---: | :--- |
| EDU 150 | 3 | Education in America |
| EDU 210 | 3 | Reading and Writing for Professional Educators |
| EDU 260 | 3 | Educational Psychology |
| EDU 309 | 1 | Teaching in Secondary, Junior High/Middle Schools- <br>  <br> EDU 310 |
| Special Methods |  |  |


| Major Requirements |  |  |
| :--- | :---: | :--- |
| COS 120 | 4 | Introduction to Computational Problem Solving |
| ENP 331 | 4 | Introduction to Electronics |
| IAS 23IH | 2 | Issues in Science and Religion (Honors) |
| CHE 21I | 4 | College Chemistry I |


| Additional Major Requirements |  |  |
| :---: | :---: | :---: |
| MAT 230 | 4 | Calculus II |
| MAT 240 | 4 | Calculus III |
| PHY 211 | 4 | University Physics I |
| PHY 212 | 5 | University Physics II |
| PHY 311 | 4 | Modern Physics |
| PHY 330 | 2 | Advanced Lab |
| PHY 493 | 3 | Physics Senior Capstone |
| Select one option from the following: |  |  |
| MAT 151 | 4 | Calculus I |
| +MAT 145 and | 3 | Introduction to Functions and Calculus |
| †MAT 146 | 3 | Functions and Calculus |
| tMAT I 45 \& 146 count as one option. |  |  |
| Electives |  |  |
| Select $\underline{12}$ hours of electives from the following: |  |  |
| ENP 252 | 4 | Principles of Engineering |
| ENP 300-/400-level courses |  |  |
| PHY 300-/400-level courses |  |  |

## Physical Science Education/Physics Concentration (BS)

The bachelor of science degree with a major in physical science and an emphasis in physics requires 80-82 hours of professional education courses, a physical science core and physics/ mathematics courses. Secondary education majors must complete specific general education requirements as outlined by the education department on page 210 .

| Professional Education |  |  |
| :---: | :---: | :---: |
| EDU 150 | 3 | Education in America |
| EDU 210 | 3 | Reading and Writing for Professional Educators |
| EDU 260 | 3 | Educational Psychology |
| EDU 309 | I | Teaching in Secondary, Junior High/Middle SchoolsSpecial Methods |
| EDU 310 | 2 | Discipline and Classroom Management |
| EDU 328 | 2 | Assessment for Student Learning |
| EDU 332 | 3 | The Junior High/Middle School |
| EDU 431 | 15 | Supervised Internship in Secondary Schools |
| NAS 309 | 2 | Science Education Methods |
| SED 320 | 3 | Exceptional Children |
| Physics Concentration |  |  |
| IAS 23IH | 2 | Issues in Science and Religion (Honors) |
| MAT 240 | 4 | Calculus III |
| PHY 3II | 4 | Modern Physics |
| ENP 331 | 4 | Introduction to Electronics |


| Physical Science Core |  |  |
| :---: | :---: | :---: |
| CHE 211 | 4 | College Chemistry I |
| CHE 212 | 4 | College Chemistry II |
| MAT 230 | 4 | Calculus II |
| PHY 211 | 4 | University Physics I |
| PHY 212 | 5 | University Physics II |
| Select one option from the following: |  |  |
| MAT 151 | 4 | Calculus I |
| †MAT 145 and |  | Introduction to Functions and Calculus |
| $\dagger$ MAT 146 | 3 | Functions and Calculus |
| tMAT 145 \& 146 count as one option. |  |  |
| Electives |  |  |
| Select 4 hours of electives from the following: |  |  |
| ENP 252 | 4 | Principles of Engineering |
| ENP 300-/400-level courses |  |  |
| PHY 300-/400-leve | el cou |  |

## Physics/Mathematics Education (BS)

The bachelor of science degree with a major in physics/mathematics education requires 98-100 hours of professional education courses, physics and mathematics courses. Secondary education majors must complete specific general education requirements as outlined by the education department on page 210.

| Physics Core |  |  | Professional Education |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| COS 120 | 4 | Introduction to Computational Problem Solving | EDU 150 | 3 | Education in America |
| IAS 23IH | 2 | Issues in Science and Religion (Honors) | EDU 210 | 3 | Reading and Writing for Professional Educators |
| PHY 211 | 4 | University Physics I | EDU 260 | 3 | Educational Psychology |
| PHY 212 | 5 | University Physics II | EDU 309 | 1 | Teaching in Secondary, Junior High/Middle Schools- |
| PHY 311 | 4 | Modern Physics |  |  | Special Methods |
| ENP 331 | 4 | Introduction to Electronics | EDU 310 | 2 | Discipline and Classroom Management |
| Select one course from the following: |  |  | EDU 328 | 2 | Assessment for Student Learning |
| PHY 493 | 3 | Physics Senior Capstone | EDU 332 | 3 | The Junior High/Middle School |
| MAT 493 | 3 | Mathematics Senior Capstone | EDU 431 <br> SED 320 | 15 3 | Supervised Internship in Secondary Schools Exceptional Children |
| Mathematics Core |  |  | Select one course from the following: |  |  |
| MAT 230 | 4 | Calculus II | NAS 309 | 2 | Science Education Methods |
| MAT 240 | 4 | Calculus III | MAT 309 | 2 | Teaching Math in Secondary Schools |
| MAT 245 | 4 | Linear Algebra |  |  |  |
| MAT 251 | 4 | Differential Equations | Electives |  |  |
| MAT 280 | 3 | Mathematics in the Junior High/Middle School | Select four | f ele | es from the following: |
| MAT 312 | 4 | College Geometry | ENP 252 |  | Principles of Engineering |
| MAT 352 | 4 | Mathematical Statistics | ENP 300-/ | vel cour |  |
| Select one option from the following: |  |  | PHY 300-/400-level courses |  |  |
| MAT $\overline{151}$ | 4 | Calculus I |  |  |  |
| tMAT 145 <br> and <br> †MAT 146 | 3 | Introduction to Functions and Calculus |  |  |  |
|  | 3 | Functions and Calculus |  |  |  |
| tMAT I45 \& 1 | cou | one option. |  |  |  |

## Computer Engineering

Computer engineering is an interdisciplinary major offered jointly by the physics and engineering \& computer science and engineering departments. See computer science and engineering department (pages 177-I84) for program details.

## Physics Courses

## PHY 120 hours

Experiences in Physical Science
Intended for non-science majors. Selected topics from physical science are studied to afford insight into man's current understanding of natural phenomena, the models used to represent nature, and methods used in the quest to fathom the physical universe. Three hours of lecture and two hours of lab each week. Meets general education physical science requirement. Offered intermittently.

## PHY 170

## 1-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## PHY 201

## 3-4 hours

Introductory Astronomy
A descriptive course about the solar system, stars and stellar evolution, and galaxies and the universe. Recent findings of space exploration and radio astronomy are included. Telescopes are provided for viewing sessions. Two or three hours of lecture and two hours of lab. Physics majors wishing to take PHY 201 for elective credit must take the "majors-only" lab section that is offered periodically. Students interested in this option should consult with the department chair to determine availability of this special lab section. Students taking PHY 201 for elective credit should also check to ensure that they maintain the required minimum number of upper-division credit hours. Meets general education earth science requirement. Offered January interterm for three credit hours and fall semesters for four credit hours.

## PHY 203

## 4 hours

## General Physics

A study of mechanics, thermodynamics, waves and sound, electricity, magnetism, and optics. Assumes mathematics at the algebra-trigonometry level. For majors that do not require a calculus-based treatment of physics. Meets general education physical science requirement. Three hours of lecture and two hours of lab. Offered annually.

## PHY 204

4 hours
General Physics II
See PHY 203.

## PHY 211

## 4 hours

University Physics I
A calculus-based study of mechanics, waves and sound, electricity and magnetism, optics, fluids, and the structure of matter. Meets general education physical science requirement. Three hours of lecture and two hours of lab. Corequisite: MAT 146 or 15I. Offered annually.

## PHY 212

University Physics II
Four hours of lecture and two hours of lab. See PHY 2II. Prerequisite: PHY 211 .

## PHY 270

## 1-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## PHY 31I

## 4 hours

Modern Physics
An introduction to modern physics, including special relativity, quantum effects of radiation and particles, atomic structure, and elementary particles. Three hours of lecture and two hours of lab per week. Prerequisites: PHY 2II, 2I2. Offered fall semester.

## PHY 313

## 2 hours

Nuclear Radiation Experimental Methods
A study of nuclear radiation and detection and experimental methods of measuring nuclear radiation. One hour of lecture and two hours of lab per week. Prerequisites: PHY 2II, 2I2. Offered spring semester of odd years.

PHY 321
3 hours

## Electricity and Magnetism

The vector field approach to electromagnetic theory. Includes electrostatics, magnetostatics, induction, dielectric and magnetic materials, and Maxwell's equations. Co-requisites: MAT 25I and PHY 34I. Prerequisites: PHY 2II, 2 I2.
Offered fall semester of odd years.

## PHY 322

## 3 hours

Waves and Physical Optics
Applications of Maxwell's equations, including electromagnetic waves, wave guides, diffraction, and Fourier optics. Prerequisites: PHY 211,212 , and 321 .
Offered spring semester of even years.

## PHY 330 <br> I-2 hours

Advanced Lab
Students complete an open-ended project, laboratory experiment or research project. The individual project depends on student and faculty interests. Specific learning outcomes vary depending on faculty, student and project selected. Prerequisites: ENP 252 or 301 or PHY 3II and junior classification. Offered as needed for physics and engineering physics majors.

PHY 34I

## 3 hours

Math Methods in Physics and Engineering
An application of analytical and computational methods to various mathematical topics, including linear algebra, matrices, eigenequations, vector field theory, partial differential equations, Fourier series and transforms, orthogonal functions, and complex analysis. Use of a computer application such as MATLAB is required. Prerequisite: PHY 212. Corequisite: MAT 251. Offered spring semesters.

## PHY 342

## 3 hours

Analytical Mechanics
A formal treatment of mechanics covering harmonic motion, the translation and rotation of rigid bodies, noninertial reference frames, and gravitation. The course concludes with the Hamiltonian and Lagrangian formulations of mechanics. Prerequisites: PHY 2II, 2I2, 34I. Offered spring semester of even years.

## PHY 350 <br> 4 hours

Thermodynamics and Statistical Mechanics
Develops thermal physics and statistical mechanics, with application to solid state physics. In the thermal physics portion of the course, the three laws of thermodynamics are developed and applied to problems. In the statistical mechanics portion, the development of the partition function is accomplished through the microcanonical formalism. The partition function is then applied to various problems, such as: Bose-Einstein and Fermi-Dirac statistics, BoseEinstein condensation, blackbody radiation, and the behavior of electrons and phonons in solid materials. Prerequisite: PHY 34I. Offered fall of even years.

## PHY 360 <br> I-4 hours <br> Independent Study <br> An individualized, directed study involving a specified topic.

PHY 370
I-4 hours
Selected Topics
Current topics include: Astrophysics, Space Science, and Preparation for the Physics GRE.

## PHY 393

I-4 hours

## Practicum

Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## PHY 412

## 3 hours

## Quantum Mechanics

A quantum mechanical treatment of the free particle, harmonic oscillator and hydrogen atom. Includes creation and annihilation operators and an introduction to angular momentum. Prerequisites: PHY 21I, 212, 311 and 341 . Offered spring semester of odd years.

## PHY 413

## Quantum Mechanics II

An in-depth treatment of several advanced topics in quantum mechanics. Topics covered include spin, angular momentum, three-dimensional problems, matrix mechanics, the density matrix, and perturbation theory. Prerequisite: PHY 412. Offered fall semester of odd years.

## PHY 441

3 hours

## Advanced Mathematical Methods in Physics

Application of analytical and computational methods to various advanced mathematical topics in physics, such as: group theory, complex analysis, partial differential equations, Green's functions, the Gamma function, Bessel functions, Legendre functions, and Fourier analysis. Prerequisite: PHY 341. Offered fall of even years.

## PHY 450

I-4 hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

PHY 480
I-4 hours
Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

## PHY 490

I-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## PHY 493

3 hours
Physics Senior Capstone
A capstone course in which each senior's technical, analytical, and laboratory skills, along with coursework knowledge, are applied to an intensive physics or engineering project. Three weeks are devoted to the completion of the project, and the remainder of the term is spent off-campus, strengthening interpersonal relationships, integrating faith and learning, and examining topics critical to post-baccalaureate life. Prerequisite: Senior status.

## Engineering Physics Courses

## ENP 1042 hours

Introduction to Engineering and Software Tools
This course introduces the students to the engineering discipline, providing a hands-on over-view of the tools they will acquire and use over the course of their major. These tools include process and methodology tools, analytical tools, software tools, and hardware tools. A goal of the course is to provide the students with a frame-work for their engineering studies along with a practical 'hands-on' example of what engineering might "look like." This framework should help the student better understand the role, need, and benefit of each successive course in their major. A group hardware project will be carried out as part of the course, helping to engage the students' learning and interest, and re-enforcing the concepts taught in class. Offered January interterm every year.

## ENP $105 \quad$ I hour

Introduction to Engineering Ethics
Course introduces students to the ethical requirements of the engineering profession and the ethical issues associated with living in a technological intense digital society. Through the course, students should: appreciate the ethical use of computers and dangers of computer misuses, have knowledge of professional codes of ethics, be aware of the impact of technology on society, have an appreciation for the needs of society and how engineering can meet those needs, begin developing an understanding of how their Christian faith integrates with their engineering practice

## ENP 170

## I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## ENP 252 <br> 4 hours

Principles of Engineering
This course introduces students to the engineering profession and prepares students for summer internships and upper-division course work and design projects. Topics include: design methodology, parametric 3D modeling, oral and written communication and engineering ethics. The course also introduces Statics, Materials, Thermodynamics, Fluid Statics, Heat Transfer and Finite Element Methods. This course includes a semester-long design project that integrates design methodology, CAD, communication and expertise in various engineering disciplines. Prerequisites: ENP I04, MAT 230 and PHY 211 or permission of instructor. Offered spring semester.

## ENP 270

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## ENP 301

3 hours

## Statics and Dynamics

This course is a one-semester introduction to the statics and dynamics of particles and rigid bodies. Topics include: forces, moments, equilibrium, structures in equilibrium, energy, momentum, kinematics and dynamics in planar and 3D problems. Course makes applications to engineering and uses software tools for engineering mechanics. Prerequisite: ENP 252. Offered fall semester of even years.

## ENP 3023 hours

## Strength of Materials and Machine Design

Course investigates the fundamentals of strength of materials and machine design. The strength of materials section covers stress - strain relationships, axial loading, torsion, beam loading and linear buckling. The machine design portion applies the fundamental knowledge of statics, dynamics and strength of materials to mechanical components and integration of components into systems. Prerequisite: ENP 30 I.

## ENP 321 <br> 2 hours

Applied Electromagnetics
The course considers the application and technology of electromagnetic field theory to computing and communications systems. Topics may include wave propagation, transmission lines, fiber optics, high frequency communication networks, antennas, and satellite communications. Prerequisites: ENP 252, MAT $25 I$, and ENP 33I. Offered fall semester of even years.

## ENP 341

4 hours
Microcomputer Interfacing
Course develops the student's ability to design, build and test embedded systems. Hardware architecture and software programming of microcontrollers and other embedded system devices are studied. Operation and use of LCDs, AtoD and DtoA converters, keypads and other interface devices are investigated. Serial communication through 12C, OneWire, USB and RS232 are used. In addition, networking and RF techniques and protocols are studied. Prerequisite: ENP 331 or permission of instructor. Offered spring semester of odd years.

## ENP 331 <br> 4 hours <br> Introduction to Electronics

Introductory concepts and experiments designed to acquaint students with the operation and application of modern electronic devices and components. Experiments dealing with elementary concepts of electricity, electrical measurements, diodes, transistors, integrated circuits, and a variety of solid state devices, as well as digital electronics, are provided. Three hours of lecture and one three-hour lab each week. Prerequisites: PHY $211,212$. Offered fall semester.

## ENP 332

## 4 hours

## Control Systems

Linear and nonlinear systems with analytical methods, modeling, forcing functions, response analysis, feedback, stability, control systems, mechanical and fluid systems, electrical systems, three phase circuits and machines, transmission lines, and communications. MATLAB and Interactive Physics software tools are used. Prerequisites: ENP 252, MAT 25I, or permission of instructor. Offered fall semester of even years.

## ENP 333

## 3 hours

Introduction to Solid State Devices
The course emphasizes the physical foundations underlying properties and operation of modern electronic and photonic devices. The content includes: crystalline structures and quantum mechanics, energy bands in semiconductor (in comparison with metals and insulators), electrons and holes in semiconductors, doping ( p and n type), state occupation statistics, transport properties of electrons and holes, p-n junctions, bipolar transistors, MOSFETs and JFTs, In addition, metal devices (e.g., quantum interferometers) and optical devices (dielectrics and waveguides, and photonic crystals) will also be discussed. Prerequisite: ENP 331.

## ENP 3453 hours <br> Fundamentals of Space Systems

Course is an introduction to space systems, the atmosphere, and astronomy. Course includes study and lab experiments coupled to the atmospheric and space environments, atmospheric and space sensors, orbits, nanosatellites, remote sensing, and penetrating nuclear radiation. Two hours lecture and two hours of lab. Prerequisite: PHP 2I2. Meets general education earth science requirement.

## ENP 35I 3 hours

Thermodynamics
Course develops engineering thermodynamics including use of the first and second law, phase diagrams, properties, heat transfer, second law consequences, power and refrigeration cycles as well as other selected topics. Prerequisites: MAT 25I, PHY 2I2, ENP 252. Offered fall semester of odd years.

## ENP 352 <br> 3 hours <br> Materials Science and Solid State Physics

The structure, processing, and properties of engineering materials are studied, with an emphasis on metallic systems. This includes: crystal structure, defects, diffusion, phase transformations, deformation mechanisms, strength, and fracture toughness. Also covered are material selection, linear elastic fracture mechanics, and dislocation theory. Course contains a significant research component. Prerequisite: ENP 252. Offered spring semester of even years.

## ENP 355

3 hours

## Fluid Mechanics and Water Flow

An introduction to the basic properties of fluids in motion. Topics include: Differential fluid equations, streamlines, continuity, energy and linear angular momentum, incompressible viscous flow, potential flow, Navier-Stokes equations, open channel flow, pipe flow, laminar and turbulent boundary layers. Prerequisite: ENP 252. Corequisite: MAT 25I. Offered fall semester of odd years.

## ENP 357 <br> 3 hours

Heat Transfer
Course investigates the fundamentals of heat transfer and applies those fundamentals to engineering applications. Topics covered include modeling of conduction, convection, radiation and mixed mode heat transfer problems. Course covers both steady state and transient response and make applications to satellite thermal control and cooling of electrical devices. Prerequisite: ENP 252

## ENP 360

Independent Study
An individualized, directed study involving a specified topic

## ENP 370

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## ENP 392 2-4 hours

Junior Engineering Project
In the context of completing an engineering project, students learn and practice: elements of the design process, the ability to be innovative and think creatively, the ability to acquire new knowledge and skills, the ability to solve engineering problems, the application of analytical or software tools to engineering problems, and the ability to communicate effectively. Prerequisite ENP 252.

## ENP 393 I-4 hours

Practicum
Engineering Practicum is a supervised work experience which integrate significant activities in an industrial setting with principles and skills learned through the educational program. Practicum must involve a significant engineering work experience, and preference is given to an experience away from the Taylor campus. Practicum may be completed between either the sophomore and junior years or between the junior and senior years. Offered primarily during summer. Prerequisite: ENP 252.

## ENP 394 <br> 2-4 hours <br> Advanced Engineering Project

Students complete an open-ended project, laboratory experiment or research project. The individual project depends on student and faculty interest. Many projects are externally funded. Specific learning outcomes vary depending on faculty, student, and project selected. Prerequisite: ENP 252.

## ENP 431

## 4 hours

Advanced Electronics and Microcircuits
Theoretical analog and digital VLSI microcircuit design principles are studied. Implementation and advanced design of digital programmable logic arrays and layout of analog microchips is performed in the lab portion of this course. Electronics topics also include Karnaugh maps and minimization, sequential logic and state machines, device modeling with computer-aided design, controllers, computer hardware, architecture, memories, and interrupt systems. Prerequisites: ENP 252, ENP 331. Offered spring semester of even years.

## ENP 450

I-4 hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

ENP 480
I-4 hours
Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

## ENP 490 <br> Honors

-2 hours
Individualized study or research of an advanced topic within a student's major.
Open to students with at least a 3.00 GPA in the major field.

## ENP 491 I hour <br> Review of the Fundamentals of Engineering

Course reviews the fundamentals of engineering and prepares students to enter the engineering profession. Depending on students incoming ability, the course will review subjects from chemistry, computers, dynamics, electric circuits, engineering economics, ethics, fluid mechanics, materials science, mathematics, mechanics of materials, statics and thermodynamics. Prerequisite: Senior status. Offered fall of every year.

## ENP 492

2 hours
Engineering Senior Capstone I
Course is the first of a three-course culminating experience which prepares students for engineering practice through a major design experience based on the knowledge and skills acquired in earlier course work and incorporating engineering standards and realistic constraints that include most of the following considerations: economic, environmental, sustainability, manufacturability, ethical, health and safety, social and political. Prerequisites: Senior status. Offered fall semester

## ENP 493 <br> 3 hours <br> Engineering Senior Capstone II

Course is the second of a three-course culminating experience which prepares students for engineering practice through a major design experience based on the knowledge and skills acquired in earlier course work and incorporating engineering standards and realistic constraints that include most of the following considerations: economic, environmental, sustainability, manufacturability, ethical, health and safety, social and political. Course also prepares students to serve God and humanity through active service to their family, church, employer and global community. Prerequisite: ENP 492. Offered January interterm.

## ENP 494

I hour
Engineering Senior Capstone III
Course is the third of a three-course culminating experience which prepares students for engineering practice through a major design experience based on the knowledge and skills acquired in earlier course work and incorporating engineering standards and realistic constraints that include most of the following considerations: economic, environmental, sustainability, manufacturability, ethical, health and safety, social and political. Course focuses mainly on documenting and presenting work completed in the first two courses of the capstone experience. Prerequisite: ENP 493. Offered spring semester.

Notes


# School of Professional and Graduate Studies 

Connie D. Lightfoot, EdD, Dean

## EdUcAtion

Physical Education and Human Performance
Professional Writing
Social Work
Taylor University Online

Notes

## Education

Chair, Professor C. Tyner<br>Professors S. Abebe, A. Armstrong, A. Macomber, P. Medows, C. Siler, Q. White<br>Assistant Professor C. Sisson<br>Instructors J. Fernando, R. Kantaruk<br>Director of Teacher Certification N. Schwartz

Taylor University seeks to develop competent, caring, and reflective teachers prepared for world service. The belief that teachers who have experienced a vigorous professional preparation within the framework of evangelical Christian values will have a profound influence on the students they teach in public, private, or overseas schools pervades the education program approach. A comprehensive liberal arts curriculum provides the foundation for subject matter competence as well as lifelong learning, leadership and continued growth in the teaching profession. The department of education cooperates with other departments to ensure the development of high quality general education and major fields of study. Taylor University's teacher education program is accredited by NCATE (National Council for Accreditation of Teacher Education) and the Indiana Department of Education. Admission to, retention in, and completion of an approved teacher education program at Taylor University is coordinated by the Director of Teacher Education.

Students seeking teaching certification may fulfill the requirements while earning either a bachelor of arts or bachelor of science degree. The bachelor of arts degree requires the completion of two years of one foreign language. The bachelor of science degree must be combined with curriculum requirements in education.
The teacher education programs are accredited by the National Council for Accreditation of Teacher Education and the Indiana Department of Education.
Students wishing to explore or prepare for the teaching profession should become involved in the teacher education program as early as possible in their college careers. It is advised that initial steps be taken as an entering freshman or as soon as possible after entering Taylor. Upon declaring a major area of study (elementary or secondary), the student is assigned an academic advisor. This academic advisor continues to advise the student throughout the entire program. However, by use of the curriculum guide for the chosen area of study, much of the student's planning may be selfdirected. Curriculum guides containing course requirements for all teacher education programs offered at Taylor may be obtained from the department of education. The Teacher Education Program Student Handbook includes a 4 -year program timeline and course sequence for general education, major and professional education courses that assist the students in planning their teacher education programs.

The Indiana Department of Education has approved new teacher licensure rules, Rules for Educator Preparation and Accountability. Interpretation of the new licensure rules by the Indiana Department of Education is modified from time to time. Candidates must follow the most current curriculum guides and licensing tests as required by the Indiana Department of Education. The most current program information and licensure requirements can be obtained in the Education Department Office RC III and from the Director of Teacher Certification in RC II4.

## Admission to the Teacher Education Program: Step One

There is a formal admission procedure to the teacher education program. A student is admitted to the program upon completion of an official application form (initiated through the office of the Director of Teacher Certification) and favorable action by the Teacher Education Committee. The application should be completed during the first term of a student's sophomore year. Students are formally admitted to the teacher education program after completing three terms of college work, one of which must have been at Taylor. The Teacher Education Committee has established standards that students must meet in order to be admitted to and remain in the program. Factors encompassed by these standards are scholastic performance, communication skills, portfolio requirements, state qualifying scores for the Praxis I exam or state qualifying composite SAT or ACT scores, and departmental recommendation. Detailed explanations of these standards may be obtained from the department of education.

## Admission to Supervised Internship (Student Teaching): Step Two

Subsequent to admission to the program, there is a formal admission procedure to student teaching. The application is initiated and facilitated through the Office of the Director of Field Experiences and should be prepared and ready for consideration (by the Teacher Education Committee) by the beginning of the sixth term. The factors considered by the Teacher Education Committee include: (I) successful completion of prerequisite courses; (2) departmental recommendation; (3) portfolio requirements; and (4) scholastic performance. Detailed explanations of these standards may be obtained from the department of education.

## Scholastic Performance

Teacher education program standards include students passing all professional education and major courses with grades of C - or better. Also, a grade of C - or better in education courses must be achieved as a condition for taking sequential courses for which the course is a prerequisite.

## Transfer of Credit from Other Institutions

Students seeking admission to the Taylor teacher education program through transfer from another institution must meet the standards required of regularly enrolled students. Credits are assessed by the Registrar. The Director of Teacher Certification, after consultation with the appropriate department chair, will accept transfer credit when the courses taken are equivalent to requirements on a designated major curriculum guide.

## Field Experiences and Student Teaching

Field experiences with children and youth, with strong emphasis on multicultural education, are considered a vital part of teacher preparation. Beginning with the first professional education course and continuing through the senior year, such experiences are required for each prospective teacher. The culmination of these professional experiences occurs during the senior year with full-time student teaching. During this final experience, a student is expected to assume as much as possible the total responsibilities of a teacher. Student teaching is a 16 -week fall or spring term activity.
Opportunities are provided for overseas student teaching. After completing a 10 -week experience stateside, students may teach for six or more weeks in an overseas setting. Application for overseas student teaching must be submitted during the fall semester of junior year. Applications are available in the department of education.

## Junior Methods Practicum (JuMP)

All elementary education candidates will take the junior block field experience during both fall and spring of the junior year. Students will be placed in an all day field experience on Tuesday and Thursday.

## Comprehensive Exam Requirement

All elementary education majors are required to take the Elementary Education: Curriculum, Instruction, and Assessments Specialty Area Test (Praxis II) and score 165 or above. Any elementary education major who does not successfully pass is provided opportunity to participate in a tutorial-guided instruction program under the direction of the Academic Enrichment Center to prepare for retaking the test or a departmental exam.

In secondary education, the comprehensive examination is in the major teaching field. A student is allowed a maximum of three attempts to pass the comprehensive examination in any single major.

## Practicum

Opportunities for practicum experiences in rural, urban and overseas settings are available. A practicum is supervised learning involving a firsthand field experience or project. It is offered primarily during January interterm or summer with the consent of a supervising professor and the approval of the department chair. Under certain conditions a practicum may be required to demonstrate readiness for student teaching. In order to receive a grade, the experience or project must be supervised.

## Fields of Study

Curricula that meet the licensing standards of the Division of Professional Standards are listed on the curriculum guides available to each student. Preparation for standard teaching licenses in the following fields is provided at Taylor.

## Elementary Education (BA or BS)

Students seeking teaching certification may fulfill the requirements while earning either a bachelor of arts or bachelor of science degree. The bachelor of science degree must be combined with curriculum requirements in education. Additionally, the bachelor of arts degree requires the completion of two years sequential study in one foreign language.

The bachelor of arts or bachelor of science degree in elementary education (kindergarten through $6^{\text {th }}$ grade) requires a minimum of 128 hours. Students are required to complete an elementary education core, professional education, subject matter concentration/licensure/minor, general education, and elective courses. The major GPA is calculated using the courses marked with an asterisk (*). Majors must take CAS IIO to meet their general education speaking requirement.
Elementary Education Core
EDU $150^{*}$
EDU $200^{*}$
EDU $210^{*}$
EDU $221^{*}$
EDU $260^{*}$
EDU $310^{*}$
EDU $35 I^{*}$

| Additional Requirements |  |  |
| :---: | :---: | :---: |
| ART 300 | 2 | Art for Teachers |
| EDU 328 | 2 | Assessment for Student Learning |
| EDU 421 | 15 | Supervised Internship in Elementary Schools |
| EDU 493 | 3 | Elementary Education Senior Capstone |
| HIS 124 | 3 | History of the United States to 1877 |
| MUS 301 | 2 | Music in the Elementary Classroom |
| PHP 250 | 2 | Elementary School Health and Physical Education |
| Select one course from the following: |  |  |
| HIS 103 | 3 | World History I |
| HIS 104 | 3 | World History II |
| Select one of the following if EDU 243 was selected in the core: |  |  |
| COS 104 | 2 | Computing and Culture - Applications and Context |
| COS 106 | 2 | Computing and Culture - Applications and Context |


| Suggested Electives <br> EDU 1I5E <br> EDU 280 | 3 | Teaching About Religion in the Public Schools <br> Communications and Language Arts in the Preschool and <br> Kindergarten |
| :--- | :---: | :--- |
| EDU 290 | 3 | Social Studies, Science and Mathematics in the Preschool <br> and Kindergarten |
| EDU 393 | 4 | Practicum-Cross-Cultural <br> EDU 370 |
| HIS 125 | 3 | Selected Topics |
| SOC 220 | 3 | History of the United States since 1877 |
| Ethnic and Minority Issues |  |  |


| General Education Core |  |  |
| :---: | :---: | :---: |
| BIB 110 | 3 | Biblical Literature I |
| BIB 210 | 3 | Biblical Literature II |
| CAS 110 | 3 | Public Speaking |
| ENG 110 | 3 | Expository Writing |
| ENG 230 | 3 | World Literature |
| GEO 220 | 4 | Regional Geography |
| HUM 250 | I | Participation in the Arts |
| IAS 101 | 1 | New Student Orientation |
| IAS 110 | 3 | Foundations of Christian Thought |
| IAS 495 | I | Senior Seminar |
| PHI 413 | 3 | Contemporary Christian Belief |
| PHP 100 | 2 | Fitness for Life |
| PSY 240 | 3 | Child Psychology |
| REL 313 | 3 | Historic Christian Belief |
| Select one course from the following: |  |  |
| HUM 230 | 4 | Art as Experience |
| HUM 330 | 4 | Arts and Ideas |
| tSelect one course from the following: |  |  |
| BIO 100 | 4 | General Biology |
| ENS 200 | 3 | Environment and Society |
| tSelect one of the following physical or earth science courses: |  |  |
| CHE 100 | 4 | Chemistry for Living |
| CHE 201 | 4 | General, Organic, and Biochemistry I |
| CHE 211 | 4 | College Chemistry I |
| PHY 120 | 4 | Experiences in Physical Science |
| PHY 201 | 3-4 | Introductory Astronomy |
| PHY 203 | 4 | General Physics |
| PHY 211 | 4 | University Physics |
| ENS 241 | 4 | Physical Geology |
| ENS 242 | 4 | Geology of Indiana |
| GEO 210 | 4 | Physical Geography |
| GEO 240 | 3 | Introduction to Geology |

You must also complete one of the following areas: a licensure in ENL (TESOL), Middle School, or Special Education; or a concentration in Language Arts, Mathematics, Modern Language (Spanish or French), Music, Science, Social Studies, or Visual Arts; or a minor in Biology, Chemistry, Economics, English, French, Geography, History, Mathematics, Applied Music, Music Composition, Physics, Political Science, Psychology, Sociology, or Spanish.

| Language | Arts Concentration |  |
| :--- | :--- | :--- |
| ENG 110 | 3 | Expository Writing |
| ENG 230 | 3 | World Literature |
| ENG 240 | 3 | American Literature |
| EDU 355 | 3 | Early Literacy Experiences \& Assessments: K-3 |
| EDU 356 | 3 | Middle Childhood Literacy Experiences |
| EDU 371 | 3 | Literature for Children and Adolescents |

Mathematics Concentration

| MAT 120 | 3 | Investigations in Math |
| :--- | :--- | :--- |
| MAT 201 | 4 | Math for Elementary Teachers I |
| MAT 202 | 4 | Math for Elementary Teachers II |
| MAT 210 | 4 | Introduction to Statistics |
| MAT 280 | 3 | Mathematics for Middle School |

Modern Language (French) Concentration

| FRE IOI | 4 | Elementary French I |
| :--- | :--- | :--- |
| FRE I02 | 4 | Elementary French II |
| FRE 201 | 3 | Intermediate French I |
| FRE 202 | 3 | Intermediate French II |
| FRE | 4 | French Elective |

Modern Language (Spanish) Concentration

| SPA 10I | 4 | Elementary Spanish I |
| :--- | :--- | :--- |
| SPA 102 | 4 | Elementary Spanish II |
| SPA 201 | 3 | Intermediate Spanish I |
| SPA 202 | 3 | Intermediate Spanish II |
| SPA | 4 | Spanish Elective |

Music Concentration

| MUS 301 | 2 | Music in the Elementary Classroom |
| :--- | :---: | :--- |
| HUM 230 | 4 | Art as Experience |
| HUM 250 | I | Participation in the Arts |
| Select 10 credit hours from the following: |  |  |
| MUS 100/105 | I-2 | Applied Lesson |
| MUS 112P | I | Piano |
| MUS 124 | 3 | Music Theory and Harmony I |
| MUS 124L | I | Music Theory and Harmony I Lab |
| MUS 135 | I | Introduction to Music Education |
| MUS 201 | I | Computers, Technology, and Music |
| MUS 360 | I-4 | Independent Study |


| Science Concentration |  |  |
| :---: | :---: | :---: |
| BIO 100 | 4 | General Biology |
| ENS 200 | 3 | Environment and Society |
| CHE 100 | 4 | Chemistry for Living |
| EDU 221 | 3 | Teaching Science in Elementary Classroom |
| Select one of the following: |  |  |
| BIO 200 | 4 | Human Nutrition |
| GEO 210 | 4 | Physical Geography |
| GEO 240 | 3 | Introduction to Geology |
| PHY 201 | 3 | Introductory Astronomy |
| Social Studies Concentration |  |  |
| GEO 220 | 4 | Regional Geography |
| HIS 103 | 3 | World History I |
| HIS 104 | 3 | World History II |
| HIS 124 | 3 | History of the United States tol877 |
| HIS 125 | 3 | History of the United States since 1877 |
| Select one of the following: |  |  |
| ECO 190 | 3 | Issues in Economics |
| GEO 230 | 3 | Political Geography |
| POS 100 | 3 | American Politics |
| PSY 200 | 3 | Introduction to Psychology |
| SOC 220 | 3 | Ethnic and Minority Issues |
| Visual Arts Concentration |  |  |
| ART 101 | 3 | Drawing I |
| ART 151 | 3 | Two-Dimensional Drawing |
| ART 300 | 2 | Art for Teachers |
| HUM 230 | 4 | Art as Experience |
| HUM 250 | 1 | Participation in the Arts |
| Select $\underline{5}$ credit hours from the following: |  |  |
| ART 154 | I | Digital Tools: Illustrator |
| ART 156 | 1 | Digital Tools: Photoshop |
| ART 210 | 3 | Introduction to Art Education |
| ART 221 | 3 | Painting: Oil |
| ART 253 | 3 | Foundations of Photography |
| ART 271 | 3 | Three-Dimensional Design |
| ART 272 | 3 | Sculpture I |
| ART 281 | 3 | Ceramics: Handbuilt Forms |
| ART 309 | 2 | Secondary Art Methods |
| ART 322 | 3 | Painting: Watercolor |
| ART 380 | 3 | Ceramics: Wheel Throwing |
| ART | 3 | Any Art History course |

## Junior High/Middle School Licensure

Elementary education majors may obtain a junior high/middle school license along with the elementary license. The licensure can be in the areas of language arts, mathematics, science, and social studies. Candidates must pass a separate licensure test as determined by the Division of Professional Standards.
Licensure Requirements
EDU $332 \quad 3 \quad$ The Junior High/Middle School
Select at least one of the following content areas:

Select at least one of the following content areas:

| Language Arts |  |  | Science |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MCM 255 | 3 | Media and Society | BIO 100 | 4 | General Biology |
| ENG 211 | 3 | Introduction to Creative Writing | CHE 100 | 4 | Chemistry for Living |
| ENG 212 | 4 | Critical Approaches to Literature | ENS 200 | 3 | Environment and Society |
| ENG 230 | 3 | World Literature | Select two |  |  |
| ENG 240 | 3 | American Literature | BIO 200 | 4 | Human Nutrition |
| ENG 302 | 4 | Writing Theory and Grammar | GEO 210 | 4 | Physical Geography |
| Mathematics |  |  | GEO 240 | 3 | Introduction to Geology |
|  |  |  | PHY 201 | 4 | Introduction to Astronomy |
| MAT 201 | 4 | Mathematics for Elementary Teachers I |  |  |  |
| MAT 202 | 4 | Mathematics for Elementary Teachers II | Social Studies |  |  |
| MAT 210 | 4 | Introductory Statistics |  |  |  |  |  |
| MAT 280 | 3 | Mathematics in the Junior High/Middle School | GEO 220 | 4 | Regional Geography |
| Select one course from the following: |  |  | GEO 230 | 3 | Political Geography |
| MAT 120 | 3 | Investigations in Mathematics | HIS 103 | 3 | World History I |
| MAT 180 | 3 | Problem Solving | HIS 104 | 3 3 | World History II <br> History of the United States to 1877 |
| Select one option from the following: |  |  | HIS 125 | 3 | History of the United States since 1877 |
| MAT 140 | 3 | Fundamental Calculus for Applications | Select one course from the following: |  |  |
| MAT 151 | 4 | Calculus I |  |  |  |  |  |
| tMAT 145 and tMAT 146 | 3 | Introduction to Functions and Calculus | POS 100 | 3 3 | Assues in Economics |
|  |  |  | PSY 200 | 3 | Introduction to Psychology |
| tMAT 146 <br>  | 3 cou | Functions and Calculus one option. | SOC 220 | 3 | Ethnic and Minority Issues |

## Special Education-Mild Intervention Licensure

Requiring the completion of 18 credit hours, the department offers a special education-mild intervention licensure that may be added to the generalist: early and middle childhood, grades K-6 licensure. Licensure applicants must student teach with a licensed special education teacher.

## Licensure Requirements

| SED | 320 | 3 | Exceptional Children | SED 340 | 3 | Assessment of Exceptional Learners |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| SED 330 | 3 | Foundations of Special Education | SED 350 | 3 | Behavior Management and Disorders |  |
| SED | 335 | 3 | Critical Issues in Mild Intervention | SED 355 | 3 | Methods of Special Education |

## Teaching English to Speakers of Other Languages (TESOL) Licensure

## For Education Majors only

To receive the TESOL licensure, P-I2 education majors must complete the following courses, including student teaching. This licensure is needed to be able to teach English to Speakers of Other Languages (ESOL) in the American public school system. See the education department for more details.

## Licensure Requirements

| EDU 260 | 3 | Educational Psychology |
| :--- | :---: | :--- |
| EDU 328 | 2 | Assessment for Student Learning |
| EDU 384 | 1 | Perspectives on Diversity (Elementary Education only) |
| EDU 385 | 3 | Diversity in the Classroom (Elementary Education only) |
| EDU 42I/43I | I5 | Supervised Internship in Elementary/Secondary Schools (ESL) |
| TSL 201 | 3 | Introduction to TESOL |
| TSL 210 | 3 | Teaching English Language Learners in the P-I2 Classroom |
| TSL 302 | 3 | Language and Culture |
| TSL 303 | 3 | Methods of TESOL |
| TSL 304 | 3 | Second Language Acquisition |
| TSL 305 | 3 | Pedagogical Grammar in TESOL |
| TSL 482 | 2 | Practicum in TESOL (Secondary Education only) |

Select one additional course (Secondary Education only):
EDU 384 I Perspectives on Diversity
TSL 2ll I Teaching English Internationally
TSL 212 I Adult ESL Literacy Development

| Electives |  |  |
| :--- | :--- | :--- |
| Select $\underline{3}$ credits not taken from the following: |  |  |
| CAS 340 | 3 | Intercultural Communication |
| ENG 230 | 3 | World Literature |
| ENG 373 | 4 | Literature of Cultural Diversity |
| GEO 220 | 4 | Regional Geography |
| HIS 103 | 3 | World History I |
| HIS 104 | 3 | World History II |
| MUS 343 | 3 | Music and World Cultures |
| PHI 322 | 3 | World Religions: Western Traditions |
| PHI 323 | 3 | World Religions: Eastern Traditions |
| POS 150 | 3 | World Politics |
| REL 391 | 3 | Preparation and Strategy for Christian World Mission |
| SOC 200 | 3 | Cultural Anthropology |
| SOC 220 | 3 | Ethnic and Minority Issues |
| SWK 200 | 3 | Introduction to Social Work |
| TSL 211 | 1 | Teaching English Internationally |
| TSL 212 | 1 | Adult ESL Literacy Development |
| 300/400 | 3 | Any modern language course (upper-division) |

## Teaching English to Speakers of Other Languages (TESOL) Minor

## For non-Education Majors only

Open to all majors, except education majors, the TESOL minor requires completion of the following courses and will provide training to those interested in teaching English in international or non-public education contexts. The minor also provides additional cross-cultural and pedagogical training. See the education department for more details.

| Minor Requirements |  |  |
| :--- | :--- | :--- |
|  |  |  |
| TSL 201 | 3 | Introduction to TESOL |
| TSL 302 | 3 | Language and Culture |
| TSL 303 | 3 | Methods of TESOL |
| TSL 304 | 3 | Second Language Acquisition |
| TSL 305 | 3 | Pedagogical Grammar in TESOL |
| TSL 482 | 2 | Practicum in TESOL |

TSL 4822 Practicum in TESOL
Select one course from the following:
CED $242 \quad 3$ Psychological \& Educational Foundations for Christian Educational Ministries
EDU 2603 Educational Psychology
PSY 4II 3 Learning: Theory and Application
Select one course from the following:
TSL 210 I Teaching English Language Learners in the P-12 Classroom
TSL 211 I Teaching English Internationally
TSL 212 I Adult ESL Literacy Development

## Electives

| Select two electives from the following: |  |  |
| :--- | :--- | :--- |
| CAS 340 | 3 | Intercultural Communication |
| ENG 230 | 3 | World Literature |
| ENG 373 | 4 | Literature of Cultural Diversity |
| GEO 220 | 4 | Regional Geography |
| HIS 103 | 3 | World History I |
| HIS 104 | 3 | World History II |
| MUS 343 | 3 | Music and World Cultures |
| PHI 322 | 3 | World Religions: Western Traditions |
| PHI 323 | 3 | World Religions: Eastern Traditions |
| POS 150 | 3 | World Politics |
| REL 391 | 3 | Preparation and Strategy for Christian World Mission |
| SOC 200 | 3 | Cultural Anthropology |
| SOC 220 | 3 | Ethic and Minority Issues |
| SWK 200 | 3 | Explorations in Social Work |
| 300/400 | 3 | Any modern language course (upper-division) |

## Teaching English to Speakers of Other Languages (TESOL) Certificate

Requiring the completion of 14 credit hours, the department offers a Teaching English to Speakers of Other Languages (TESOL) certificate for all students who want to more effectively teach students for whom English is a second or foreign language. The TESOL certificate exists to provide a broad base to anyone interested in TESOL, introduces students to the ELT field in North America and worldwide, and provides basic understanding of cross-cultural relations and TESOL theory, methods, and materials. See the education department for more details.
The student will be responsible for demonstrating his or her completion of the certificate requirements by submitting a completed application along with a copy of his or her transcript to the program director. Work in progress will be accepted. This certificate is awarded by the education department and does not include a transcript entry.

| 硅tica |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TSL 302 | 3 | Mract and Culture | TSL 305 | 3 | I |
| TSL 303 | 3 | Methods of TESOL | TSL 482 | 2 | Practicum in TESOL |

## Educational Studies (BS)

The bachelor of science degree in educational studies requires a minimum of 128 hours. The educational studies degree does not lead to a teaching license. Majors must take CAS IIO to meet their general education speaking requirement. Students may not double major with elementary education.

| Major Requirements |  |  |
| :---: | :---: | :---: |
| ART 300 | 2 | Art for Teachers |
| CAS 110 | 3 | Public Speaking |
| EDU 210 | 3 | Reading and Writing for Professional Educators |
| EDU 371 | 3 | Literature for Children and Adolescents |
| EDU 384 | I | Perspectives on Diversity |
| EDU 385 | 3 | Diversity in the Classroom |
| ENG 110 | 3 | Expository Writing |
| ENG 230 | 3 | World Literature |
| GEO 220 | 4 | Regional Geography |
| HIS 124 | 3 | History of the United States to 1877 |
| HUM 250 | I | Participation in the Arts |
| MUS 301 | 2 | Music in the Elementary Classroom |
| Select one course from the following: |  |  |
| HIS 103 | 3 | World History I |
| HIS 104 | 3 | World History II |
| Select one course from the following: |  |  |
| HUM 230 | 4 | Art as Experience |
| HUM 330 | 4 | Arts and Ideas |
| Select one course from the following: |  |  |
| MAT IIO | 3 | Finite Mathematics |
| MAT 120 | 3 | Investigations in Mathematics |
| MAT 140 | 3 | Fundamental Calculus for Applications |
| MAT 145 | 3 | Introduction to Functions and Calculus |
| MAT 151 | 4 | Calculus I |
| MAT 180 | 3 | Problem Solving |
| MAT 210 | 4 | Introductory Statistics |
| MAT 220 | 4 | Ways of Knowing |
| SOC 355 | 4 | Applied Social Statistics |
| Select one courset from the following: |  |  |
| BIO 100 | 4 | General Biology |
| ENS 200 | 3 | Environment and Society |
| Select one of the following physical or earth science coursest: |  |  |
| CHE 100 | 4 | Chemistry for Living |
| CHE 201 | 4 | General, Organic, and Biochemistry I |
| CHE 211 | 4 | College Chemistry I |
| PHY 120 | 4 | Experiences in Physical Science |
| PHY 201 | 3-4 | Introductory Astronomy |
| PHY 203 | 4 | General Physics |
| PHY 211 | 5 | University Physics |
| ENS 241 | 4 | Physical Geology |
| ENS 242 | 4 | Geology of Indiana |
| GEO 210 | 4 | Physical Geography |
| GEO 240 | 3 | Introduction to Geology |
| tMust complete two science courses for a total of 7 credit hours. |  |  |
| Must complete one of the following if EDU 243 was selected in the core: |  |  |
| COS 104 | 2 | Computing and Culture - Applications and Context |
| COS 106 | 2 | Computing and Culture - Applications and Context |


| Professional Education |  |  |
| :---: | :---: | :---: |
| EDU 150 | 3 | Education in America |
| EDU 200 | 3 | Introduction to Early Childhood Programs |
| EDU 260 | 3 | Educational Psychology |
| EDU 310 | 2 | Discipline and Classroom Management |
| EDU 332 | 3 | The Junior High/Middle School |
| EDU 393 | 2-3 | Practicum |
| EDU 493 | 3 | Elementary Education Senior Capstone |
| SED 320 | 3 | Exceptional Children and Assessments: 4-6 |
| Select one course from the following: |  |  |
| EDU 242 | 3 | Computers in Educational Settings |
| EDU 243 | 1 | Computer Application in Elementary Education |
| Additional Requirements |  |  |
| CED 100 | 3 | Introduction to Christian Educational Ministries |
| CED 221 | 3 | Ministry to Youth |
| SWK 200 | 3 | Explorations in Social Work |
| Select one course from the following: |  |  |
| SWK 355 | 3 | Helping Troubled Families |
| SOC 381 | 3 | Marriage and Family Systems |
| General Education Core |  |  |
| BIB IIO | 3 | Biblical Literature I |
| BIB 210 | 3 | Biblical Literature II |
| IAS 101 | 1 | New Student Orientation |
| IAS 110 | 3 | Foundations of Christian Thought |
| IAS 495 | I | Senior Capstone |
| PHI 413 | 3 | Contemporary Christian Belief |
| PHP 100 | 2 | Fitness for Life |
| PHP 250 | 2 | Elementary School Health \& Physical Education |
| PSY 240 | 3 | Child Psychology |
| REL 313 | 3 | Historic Christian Belief |
| Suggested Electives |  |  |
| CED 312 | 2 | Evangelism in Youth Ministry |
| CED 322 | 2 | Discipleship in Youth Ministry |
| CED 371 |  | Leadership Development |
| EDU 280 | 3 | Communications and Language Arts in the Preschool and Kindergarten |
| EDU 290 | 3 | Social Studies,Science,and Mathematicsin the Preschooland Kindergarten |
| EDU 351 |  | Methods and Materials for Elementary Teachers |
| EDU 370 | 1-4 | Selected Topics |
| IAS 320 | 3 | Cross-Cultural Outreach |
| IAS 330 |  | Human Relations in Organizations |
| PSY 340 | 3 | Adolescent Psychology |
| PSY 350 |  | Child and Adolescent Psychology |
| REL 311 | 3 | Foundations of Christian World Mission |
| SED 330 | 3 | Foundations of Special Education |
| SOC 220 | 3 | Ethnic and Minority Issues |
| TSL 201 | 3 | Introduction to TESOL |

## Secondary Grades 5-12

The following areas offer majors: English, mathematics, biology, chemistry, physics, physics/mathematics, physical science, social studies (economics, geographical perspectives, government and citizenship, psychology, sociology, historical perspectives), and Spanish. The student preparing to teach in secondary schools will select a content major. Requirements for the secondary grades 5-12 license include general education, professional education, and subject matter concentration (see departmental curriculum guides for detailed requirements).

## All Grade and Secondary Education - General Education Requirements

Preparation is offered for all-grade (P-I2) education in music, physical education, and arts. Students completing an all grade education program must complete the following general education requirements in addition to the major requirements listed under each department's section of the catalog.
Students completing a secondary or all-grade education program must complete the following general education requirements in addition to the major requirements listed under each department's section of the catalog.

| General Education Core |  |  |
| :---: | :---: | :---: |
| BIB 110 | 3 | Biblical Literature I |
| BIB 210 | 3 | Biblical Literature II |
| CAS 110 | 3 | Public Speaking |
| COS 104 | 2 | Computing and Culture - Applications and Context |
| ENG 110 | 3 | Expository Writing |
| HIS | 3-5 | History Elective (see page 39) |
| HUM 250 | I | Participation in the Arts |
| IAS IOI | 1 | New Student Orientation |
| IAS 110 | 3 | Foundations of Christian Thought |
| IAS 495 | 1 | Senior Seminar |
| PHI 413 | 3 | Contemporary Christian Belief |
| PHP 100 | 2 | Fitness for Life |
| PHP 200x | I | General Physical Education |
| tPSY 340 | 3 | Adolescent Psychology |
| REL 313 | 3 | Historic Christian Belief |
| Select one course from the following: |  |  |
| CAT 200 | 3 | Performing Literature |
| ENG 230 | 3 | World Literature |
| ENG 233 | 3 | Literary London |
| ENG 240 | 3 | American Literature |
| ENG 250 | 3 | British Literature |
| Select one course from the following: |  |  |
| ECO 190 | 3 | Issues in Economics |
| ECO 201 | 4 | Principles of Microeconomics |
| ECO 202 | 3 | Principles of Macroeconomics |
| GEO 230 | 3 | Political Geography |
| POS 100 | 3 | American Politics |
| POS 150 | 3 | World Politics |
| POS 213 | 3 | International Political Economy |
| POS 331 | 3 | Public Policy |
| SOC 100 | 3 | Introduction to Sociology |
| SOC 210 | 3 | Contemporary Social Issues |
| SOC 220 | 3 | Ethnic and Minority Issues |
| SWK 200 | 3 | Explorations in Social Work |
| SWK 320 | 3 | Unleashing the Oppressed |


| Select one course from the following: |  |  |
| :---: | :---: | :---: |
| HUM 230 | 4 | Art as Experience |
| HUM 330 | 4 | Arts and Ideas |
| Select one course from the following: |  |  |
| MAT 110 | 3 | Finite Mathematics |
| MAT 120 | 3 | Investigations in Mathematics |
| MAT 140 | 3 | Fundamental Calculus for Applications |
| MAT 145 | 3 | Introduction to Functions and Calculus |
| MAT 151 | 4 | Calculus I |
| MAT 180 | 3 | Problem Solving |
| MAT 210 | 4 | Introductory Statistics |
| Select two lab science courses totaling at least $\underline{7}$ credit hours from two different areas: |  |  |
| Life Science |  |  |
| BIO 100 | 4 | General Biology |
| BIO 200 | 4 | Human Nutrition |
| BIO 243 | 5 | Human Anatomy and Physiology |
| BIO 244 | 4 | Human Anatomy and Physiology |
| ENS 200 | 3 | Environment and Society |
| ENS 231 | 4 | Introduction to Environment Science |
| Physical Science |  |  |
| CHE 100 | 4 | Chemistry for Living |
| CHE 201 | 4 | General, Organic, and Biochemistry I |
| CHE 211 | 4 | College Chemistry I |
| PHY 120 | 4 | Experiences in Physical Science |
| PHY 203 | 4 | General Physics |
| PHY 211 | 5 | University Physics |
| Earth Science |  |  |
| ENS 241 | 4 | Physical Geology |
| ENS 242 | 4 | Geology of Indiana |
| GEO 210 | 4 | Physical Geography |
| GEO 240 | 3 | Introduction to Geology |
| PHY 201 | 3-4 | Introductory Astronomy |
| †Art, Music, and Health and Physical Education majors must take PSY 350. |  |  |
| Complete at least two Speaking (SP) designated courses, including EDU 431. |  |  |
| Complete at least two Writing (WR) designated courses, including EDU 210. |  |  |
| Complete at | one | ss Cultural (CC) designated course. |

## Transition to Teaching

The Transition to Teaching Program is an alternate licensure process designed for individuals who have previously graduated from college and wish to obtain an Indiana Teaching License. The elementary program is for grades P-5, and the secondary program is for grades $6-12$. The program is composed of graduate courses and is online. Individuals interested in the Transition to Teaching Program should go to the following web address: http://www.taylor.edu/online.

## Certification

All teacher education programs have been designed to meet Indiana certification requirements and have been approved by the Indiana Department of Education. Students who meet graduation requirements, complete an approved teacher education program, successfully complete student teaching, and meet the Indiana qualifying scores on the required Praxis tests will be eligible for Indiana certification (a teaching license). The teacher certification office is responsible for verifying to the Indiana Department of Education that all requirements for certification have been met and for processing all applications for certification.

Indiana has an Interstate Agreement Contract with many states (reciprocity). However, additional requirements may need to be met in order to receive permanent certification in these states. Students who plan to teach outside of Indiana should obtain a current description of certification requirements from each state where they plan to teach, because requirements often change from year to year. Addresses and telephone numbers for every State Department of Education are available in the teacher certification office.

## Early Childhood Education (AA)

In addition to the baccalaureate degree programs maintained by the department, an associate of arts degree 2-year curriculum in early childhood education is offered for students who wish to qualify for leadership positions in daycare centers, Headstart and preschool programs.

This program blends a series of liberal arts courses with practical experiences in field centers and professional content to prepare early childhood workers. The program includes two curriculum workshops that integrate the early childhood curriculum in the liberal arts with a multicultural/ multiethnic emphasis, experience at field-based centers and a core curriculum. The student will spend at least three hours weekly in a field-based center (selected daycare, preschool, or Headstart facility). This degree requires a minimum of 64 hours. Students must take CAS IIO to meet their general education speaking requirement.

## Scholastic Performance

Associate of arts degree standards include students passing all professional education and major courses with grades of C- or better. Also, a grade of C - or better in education courses must be achieved as a condition for taking sequential courses for which the course is a prerequisite. Professional education courses are indentified with an asterisk ( ${ }^{*}$ ) in the listing below.

| Program and General Education Requirements |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ART 300 | 2 | Art for Teachers | Select one course from the following: |  |  |
| BIB IIO | 3 | Biblical Literature I | ENG 230 | 3 | World Literature |
| BIB 210 | 3 | Biblical Literature II | HUM 230 | 4 | Art as Experience |
| CAS 110 | 3 | Public Speaking |  |  |  |
| COS 104 | 2 | Computing and Culture - Applications and Context | Select one course from the following: |  |  |
| EDU 200* | 3 | Introduction to Early Childhood Programs | SOC 381 | 3 | Marriage and Family Systems |
| †EDU 223* | 4 | Supervised Field Experience in Early Childhood Education | SWK 355 | 3 | Helping Troubled Families |
| EDU 280* | 3 | Communication and Language Arts in the Preschool \& Kindergarten | Select one mathematics or science course |  |  |
| EDU 290* | 3 | Social Studies, Science, and Mathematics in the Preschool \& Kindergarten | Select enoug | , | meet degree requirement of 64 credit hours |
| EDU 384* | 1 | Perspectives in Diversity |  |  |  |
| SED 320* | 3 | Exceptional Children |  |  |  |
| ENG 110 | 3 | Expository Writing |  |  |  |
| HUM 250 | I | Participation in the Arts |  |  |  |
| IAS IOI | I | New Student Orientation |  |  |  |
| IAS IIO | 3 | Foundations of Christian Thought |  |  |  |
| MUS 301 | 2 | Music in the Elementary Classroom |  |  |  |
| PHP 100 | 2 | Fitness for Life |  |  |  |
| PHP 200 | 1 | General Physical Education |  |  |  |
| PSY 240 | 3 | Child Psychology |  |  |  |
| SOC 220 | 3 | Ethnic and Minority Issues |  |  |  |

## Education Courses

EDU 150
Education in America
A study of the historical, philosophical, and sociological foundations of education. The organization and role of the public school, P-12, in a multicultural society are examined. An analysis of teaching is made, including implications of some court cases related to teaching, concepts of teaching, and leadership roles. The course includes a study of multicultural and ethnic differences among students and the resulting effect on the teacher's role. Includes a field experience lab.

## EDU 170

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## EDU 200

## 3 hours

Introduction to Early Childhood Programs
This course deals with the history of early childhood education and also takes an in-depth look at the qualities needed to become an effective early childhood teacher. Students study the professional aspects of developing appropriate curriculum and physical settings for the preschool and kindergarten classroom. Methods that meet the physical, emotional, social, mental, and spiritual developmental growth of young children are explored. Includes weekly observation of and participation with children in preschool, kindergarten, and Headstart programs. Prerequisite: EDU I50

## EDU 210

3 hours

## Reading and Writing for Professional Educators

Course focus is on writing skills and content area reading skills necessary for the professional educator. The course includes a research component, reading and writing across the disciplines, and demonstration of knowledge and performance of adolescence literacy standards, based upon scientificallybased reading research. A grammar usage test must be passed at the 80 percent level during the course. Required for all elementary, secondary, and all-grade majors seeking certification. Prerequisite: ENG $1 / 0$.

EDU 221

## 3 hours

Teaching Science in the Elementary Classroom
This course is designed to introduce students to hands-on, inquiry based methods of teaching science in the elementary classroom. Content from physical sciences, life sciences, and earth/space sciences will be included. Course will include objectives and lesson plans linked to national and state standards; integration of reading, writing, and other content areas to science; and using a variety of assessment strategies. JuMP field experience. Prerequisite: EDU 150 and approval into the teacher education program.

## EDU 223

4 hours
Supervised Field Experience in Early Childhood Education
A full-time, four-week participation experience in a preschool, daycare center, or Headstart. The student assumes a position of leadership with children under the supervision of qualified early childhood teachers. Students pursuing the AA degree complete this January interterm course two times, once in a day care center or Headstart and once in a preschool. Prerequisite: EDU 280 or 290; or permission of instructor.

## EDU 242

## 3 hours

Computers in Educational Settings
Key concepts of learning theory that have a direct bearing upon using microcomputer software are reviewed. Students become aware of a variety of software and hardware and its application to classroom instruction. Opportunities to develop word processing and programming skills are provided in the Academic Enrichment Center computer lab. Meets the general education computer literacy requirement for elementary education majors.

## EDU 243

## I hour

Computer Applications in Elementary Education
The course includes topics of CAI, hypermedia-multimedia development, distance learning, and educational simulations. The course examines the pedagogical value of computers. EDU 243 fulfills the one hour of computer application general education requirement for elementary education majors. Prerequisite: COS 104 or 106.

## EDU 260 <br> 3 hours <br> ducational Psychology

The course focuses on the study and application of learning theories and psychological concepts and principles to the teaching-learning process. Developmental stages, age-level characteristics of students, gender differences, learning styles, contemporary views of intelligence, effects of ethnicity and social class on teaching and learning, principles of multicultural education, the teacher's role in accommodating special needs in the regular classroom, learning theories, various instructional approaches, theories of motivation, and various types of assessment (including standardized and high-stakes tests) are examined. Includes a field experience lab. Prerequisite: EDU 150 .

## EDU 270 <br> I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## EDU $280 \quad 3$ hours

## Communications and Language Arts in the Preschool and Kindergarten

This course deals with the many areas involved in developing positive forms of communicating, with emphasis on nonverbal and listening skills, and examines the many facets of the language arts curriculum in public/private preschools and kindergartens. These include language development (ethnic, cultural, and disability awareness), teaching strategies and techniques utilizing a variety of visuals, reading readiness programs, and evaluation forms for children. Weekly observation of and participation with children in preschool, kindergarten, or Headstart helps students become aware of the wide abilities within these classrooms. Offered every third semester.

## EDU $290 \quad 3$ hours

Social Studies, Science, and Mathematics in the Preschool and Kindergarten
The many areas of the child's immediate world, including development of positive self-concepts, which are then broadened to a worldview, are studied in this course. Various teaching approaches are utilized to help children become aware of the home, family, and aspects of cultural and ethnic influence within their communities and how these affect values, standards, and morals within their homes and schools. The past, present, and future areas of science and mathematical readiness are all viewed as aids in developing this worldview. Weekly observation of and participation with children in preschool, kindergarten, and Headstart helps students become aware of meaningful teaching modes and methods of the areas covered in this course. Offered every third semester.

## EDU 309

I hour
Teaching in Secondary, Junior High/Middle Schools-Special Methods
A junior level course taught in conjunction with the student's major department. Course focuses upon topics including diversity and multi-cultural education. The majority of course has student being placed in secondary schools for a laboratory field experience. Students will take the subject matter methods course during the same semester. Prerequisites: EDU 150 and EDU 260 and approval into the teacher education program.

## EDU $310 \quad 2$ hours

## Discipline and Classroom Management

This course is designed to assist students in developing practical skills and techniques for organizing the classroom and maintaining effective discipline. Students develop a plan for discipline and the classroom which utilizes a proactive approach based on positive ethical practices consistent with Christian and democratic principles. Several widely accepted discipline theories, along with the study of legal implications for teachers, are used in conjunction with observations and case studies to assist students in developing effective discipline skills. JuMP field experience. Prerequisite: EDU 150.

## EDU 315 I hour <br> An Exploration of Young Adult Literature

The course will explore the genre of young adult literature. Students will critically evaluate the strengths and weaknesses of young adult literature. Students will recognize current themes and topics of young adult literature.

## EDU 322

3 hours
Reading for Junior High/Middle School and Secondary Teachers
Designed to provide practical procedures for developing effective reading skills at the junior high, middle, and secondary school levels. Attention centers on understanding the relationships between the processes of reading and the learning of content. Suggestions on how to meet the total range of student reading needs in the classroom are addressed. Methods and materials to enhance advanced comprehension and study skills of adolescents in a multicultural society are presented. Includes a field experience lab. Prerequisites: EDU 150 and approval into the teacher education program.

## EDU $328 \quad 2$ hours

Assessment for Student Learning
Designed to assist students in developing practical skills and techniques to assess students in the P-I2 classroom for student learning. Topics will include development of teacher-made tests, alternative/authentic/summative/formative assessments, standardized testing, parent communication, and the role of homework. In addition, the course will focus upon the linkage among assessment, student learning, and instructional strategies. Prerequisites: EDU 150 and 260. Corequisite: EDU 42 I or 431 .

## EDU 332

The Junior High/Middle School
A study of the philosophy, development, and organization of middle schools and junior high schools. Examines through readings, seminars, field experiences, and classroom investigations the purpose, curriculum, and instructional strategies, including the use of appropriate media and technology, for effective teaching in junior high/middle schools. This course provides prospective teachers with knowledge and understanding of the adolescent, the school, and practical teaching activities. Includes a field experience lab. Prerequisites: EDU 150, 260. Must be completed prior to student teaching.

## EDU $351 \quad 3$ hours <br> Methods and Materials for Elementary Teachers

An integrative approach of utilizing a variety of effective instructional methods and resources with content areas, including science and social studies, appropriate for elementary children. Strategies for working with diverse student populations and incorporating current educational technology competencies are included. JuMP field experience. Prerequisites: EDU 150, 260, and approval into the teacher education program. Offered fall semester.

## EDU 355 <br> 3 hours

Early Literacy Experiences and Assessments: K-3
Course focuses upon the teaching and assessment of literacy in the early classroom. Topics include emergent literacy, word identification and recognition, fluency, and assessments. JuMP field experience. Prerequisites: EDU 150, 260, and approval into the teacher education program. Corequisite: EDU 37I. Offered fall semester.

## EDU 356

3 hours
Middle Childhood Literacy Experiences and Assessments: 4-6
Course focuses upon the teaching and assessment of literacy in the middle childhood classroom. Topics include vocabulary, comprehension, study skills, content area literacy, and assessments. JuMP field experience. Prerequisites: EDU I50, 260, 355 and approval into the teacher education program. Corequisite: EDU 35I. Offered spring semester.

## EDU 360

## I-4 hours

Independent Study
An individualized, directed study involving a specified topic.

## EDU 370

## 1-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## EDU 371

3 hours
Literature for Children and Adolescents
The various genres of children's literature and young adult literature are explored. Course focuses upon new literacy, multicultural literature, special needs, and other appropriate literature. Materials range from emergent books to young adult literature. JuMP field experience. Prerequisites: EDU 150, 260, and approval into the teacher education program. Corequisite: EDU 355. Offered fall semester.

## EDU 384 <br> I hour

Perspectives on Diversity
This seminar focuses on education in diverse settings. Emphasis is given to the impact of learning of social class, race/ethnicity, and English language proficiency through readings and discussions. The roles of local, state, and federal agencies in relationship to public educational policy are discussed and analyzed. Field-trip exploration of various schools and organizations serving diverse populations is a key component of the course. Prerequisite: EDU 150. Meets general education civic engagement requirement for elementary education majors. Offered fall and spring semesters. A class fee is necessary to cover field trip expenses.

## EDU 385

3 hours
Diversity in the Classroom
This course provides a pre-student teaching experience working in a public school. Placements are in diverse settings in an urban area. Emphasis is given to application of and written reflection on issues explored in EDU 384. Observation, participation, and a limited amount of supervised classroom teaching are expected. Prerequisite: EDU 260 and 384. Meets general education cross-cultural requirement. Offered January interterm.

## EDU 393

## I-4 hours

Practicum
Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Offered primarily during summer.

## EDU 421 <br> 15 hours

Supervised Internship in Elementary Schools
Full-time teaching experiences for the intern at two grade levels under the supervision of public and private school and college personnel. Multicultural/multiethnic education placement is required in one of the experiences. Prerequisites: (a) approval by the Teacher Education Committee; (b) EDU 150, 210, 260, 3IO, 35I, 355, 356. Corequisite: EDU 328. Credit only.

## EDU 431 <br> 15 hours <br> Supervised Internship in Secondary Schools

Full-time teaching experiences for the intern at two grade levels under the supervision of public school and college personnel. Prerequisites: (a) approval of the Teacher Education Committee; (b) EDU 150, 210, 260, 310, 312. See individual majors for additional prerequisite courses. Corequisite: EDU 328. Credit only.

## EDU 450

I-4 hours
Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

## EDU 480

1-4 hours
Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

EDU 490

- -2 hours

Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## EDU 493

## 3 hours

Elementary Education Senior Capstone
Students address current and future issues related to teaching through lectures, readings, school visits, and discussion. The integration of Christian philosophical concerns with the current role and responsibilities of teachers is emphasized. Required Washington D.C. field trip. Fee required. Prerequisites: Approval into the teacher education program. Offered January interterm only.

## Special Education Courses

## SED 320

Exceptional Children
This course is designed to prepare the teacher for the challenge of meeting the needs of exceptional children in the regular classroom. A general study of exceptional children focuses on mainstreamed and included special education students. Various topics included are identification of exceptional children, their characteristics and special needs, delivery of services, instructional methods and techniques, and evaluation. Prerequisite: EDU I50.

## SED 330

3 hours
Foundations of Special Education
A study of the profession of special education, this course deals with the philosophical, historical, ethical, and legal foundations of special education. The responsibilities and rights of students, their parents, all involved educators and other professionals are studied as they relate to meeting the needs of exceptional learners. Prerequisite: SED 320

## SED 335

## 3 hours

Critical Issues in Mild Intervention
The study of students with mild disabilities which include those with cognitive, learning and emotional disabilities as well as those on the autism spectrum. This class will examine historical, sociological, psychological and contemporary issues related to inclusion of students with mild disabilities in the general education classroom as well as the types of services they receive. Prerequisite: SED 320, 330, 340, 350, 355.

## 340 hours

Assessment of Exceptional Learners
This course focuses on formal and informal assessments used to identify, plan for, and teach students with exceptional needs, including the use of that information to develop individual education plans. Communication of that information with students, parents, and other professionals is discussed. Includes a field experience lab. JuMP field experience. Prerequisites: SED 320, 330

SED 350

## 3 hours

Behavior Management and Disorders
Managing the learning environment of students with special needs is the focus of this course. Topics covered include behavioral assessments and their use in developing behavior intervention plans for exceptional students, as well as the legal implications of laws and regulations regarding the implementation of these plans in various learning environments. Prerequisites: SED 320, 330

## SED 355

3 hours
Methods of Special Education
Methods and materials used in the intervention of exceptional learners are presented in this course. Strategies of instruction in the least restrictive environment, modification of curriculum, and collaboration and consultation across the spectrum of services are presented in conjunction with the daily teaching and planning required of students' individual education plans. Includes a field experience lab. JuMP field experience. Prerequisites: SED 320, 330. Offered fall semester.

## Teaching English to Speakers of Other Languages (TESOL) Courses

TSL 201
3 hours
Introduction to TESOL
Foundations of second language acquisition and teaching principles for those interested in Teaching English to Speakers of Other Languages (TESOL). Examines cross-cultural education dynamics, cultural competency skills, and both domestic and international teaching opportunities. Introduces elements of effective language teaching in the ELT classroom. Includes 10 hours of TESOL observation/cross-cultural experience

## TSL 210

I hour
Teaching English Language Learners in the P-12 Classroom Intended for future public school teachers, this course addresses teaching English language learners (ELLs) in the P-12 classrooms. Investigates TESOLrelated legislation and its effect on schools, students, and teachers, as well as types of ESOL programs used in US schools and their effectiveness. Presents effective ways of scaffolding and making accommodations for ELLs in contentand standards-based instruction, and available assessment instruments. Describes common factors affecting ELLs' performance, such as limited or interrupted schooling, and cultural differences. Studies effective advocacy, strategies for collaboration with families and non-ESOL colleagues and paraprofessionals, and helpful resources and services. Prerequisite: EDU 150 and TSL 201. Offered spring semester.

## TSL 211

## I hour

Teaching English Internationally
An analysis of background issues in teaching English to speakers of other languages outside the US. Examines various contexts in which English is taught as a foreign or second language, and the range of professional opportunities. Investigates employment- and education-related laws and policies, student needs and goals, different types of language programs, and the impact of international English language proficiency examinations. Studies cultural variables impacting education, differing working conditions, and available culturally-appropriate teaching resources. Offered fall semester of even years.

TSL 212
Adult ESL Literacy Development
Examines aspects of teaching literacy skills to adult ESL students such as refugees or immigrants with limited or interrupted education. Prerequisite: TSL 201. Offered fall semester of odd years.

## TSL 302

3 hours
Language and Culture
Introductory course providing brief overview of phonology, morphology, syntax, semantics and pragmatics. Examines areas of phonetics and language variations (such as language and power, socioeconomic status, regionalisms, ethnicity, bilingualism, multilingualism, globalization) in more depth. Prerequisite: TSL 201.

TSL 303
3 hours
Methods of TESOL
Teaching methods and techniques, curriculum development, educational technology and teaching language skills in TESOL settings. Examines aspects of planning, teaching, and evaluating in ESL settings. Includes a $15-20$ hour field experience lab. Prerequisite: TSL 201

## TSL 304

3 hours
Second Language Acquisition
Review of past and present language teaching methods and theories and issues in second language acquisition. JuMP field experience. Prerequisites: TSL 201, 302, 303.

TSL 305
3 hours
Pedagogical Grammar in TESOL
Provides students with an understanding of selected grammatical structures and how to teach English grammar to students for whom English is not their first anguage. Prerequisites: TSL 20I. Offered fall and spring semesters.

TSL 482
Practicum in TESOL
Supervised teaching experience totaling 80 hours in a TESOL setting. Prerequisites: TSL 201, 302, 303 and 305.

Notes

# Physical Education and Human Performance 

Chair, Associate Professor B. Pratt Professor D. Taylor<br>Associate Professors T. Krause, J. Marsee, P. Patterson<br>Assistant Professors E. Hayes, D. Johnson, M. Renfrow, A. Stucky Instructors B. Smith, G. Wolfe, B. Zarges

The physical education and human performance department has two major purposes: (I) to prepare competent, caring, and reflective Christian leaders for world service in exercise science, sport management, health and physical education, and coaching; and (2) to help students acquire the skills and attitudes for lifetime wellness, as well as wholesome and active use of their leisure time.

Baccalaureate degrees are offered in exercise science, sport management, and health and physical education (teacher education) as well as a sport management minor. A coaching minor is offered through the department for students who are interested in studying sport and coaching. Candidates for the bachelor of arts degree must complete two years of a foreign language.

The three credits of PHP requirements in general education must be met by taking PHP 100 and PHP 200 or one of the following to substitute for PHP 200: PHP 250, 300, 302, 333, or 334. Elementary education majors must take PHP 250.

## Health and Physical Education (Teacher Education)

To meet graduation requirements in the health and physical education teacher education program, students must successfully complete student teaching and meet the Indiana qualifying scores on the required Praxis I and Praxis II tests. Students meeting those criteria will be eligible for Indiana certification. The health and physical education teacher education program meets all of the Indiana Professional Standards Board performance standards. Students planning to be certified in states other than Indiana have the responsibility of determining certification requirements in those states. Detailed curriculum guides are available from the education department and the physical education and human performance department.

## Health and Physical Education (BS)

Students completing the bachelor of science degree with a major in health and physical education for $\mathrm{P}-\mathrm{I} 2$ certification must complete 128 total hours and 53-54 hours in the major. Secondary education majors must complete specific general education requirements as outlined by the education department on page 210.

| Professional Education Courses |  |  | Select one course from the following: |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| EDU 150 | 3 | Education in America | PHP 200SB | 1 | Beginning Swimming |
| EDU 210 | 3 | Reading and Writing for Professional Educators | PHP 200SF | 1 | Fitness Swimming |
| EDU 260 | 3 | Educational Psychology | PHP 302 | 2 | Lifeguard Training |
| EDU 309 | 1 | Teaching in Secondary, Junior High/Middle Schools-Special Methods | PHP 333 | 2 | Water Safety Instructor |
| EDU 310 | 2 | Discipline and Classroom Management |  |  |  |
| EDU 328 | 2 | Assessment for Student Learning | Select one cour | urs | from the following: |
| EDU 431 | 15 | Supervised Internship in Secondary Schools | PHP 231 | 2 | Officiating Sports |
| PHP 309 | 3 | Special Methods of Teaching Secondary Physical Education | PHP 361 | 2 | Coaching of Football |
| SED 320 | 3 | Exceptional Children | PHP 362 <br> PHP 363 | 2 | Coaching of Volleyball |
| Health and Physical Education Requirements |  |  | PHP 364 | 2 | Coaching of Baseball |
| BIO 244 | 4 | Human Anatomy and Physiology I | PHP 365 | 2 | Coaching of Softball |
| BIO 245 | 4 | Human Anatomy and Physiology II | PHP 366 | 2 | Coaching of Track and Field |
| PHP 111 | 3 | Introduction to Human Performance | PHP 370 | 2 | Selected Topics (approved) |
| PHP 213 | 2 | Substance Education |  |  |  |
| PHP 214 | 3 | Health and Sexuality | Select one course from the following: |  |  |
| PHP 225 | 3 | Care and Prevention of Athletic Injuries | PHP 393 | 1 | Practicum-A |
| PHP 252 | 3 | Methods of Teaching Elementary Physical Education | PHP 393 | I | Practicum-B |
| PHP 271 | I | CPR for Healthcare Providers |  |  | Practicum-B |
| PHP 275 | 3 | Methods of Sport Skills and Activities |  |  |  |
| PHP 301 | 3 | Methods of Teaching Secondary Health |  |  |  |
| PHP 316 | 3 | Applied Nutrition |  |  |  |
| PHP 324 | 2 | Motor Learning |  |  |  |
| PHP 380 | 2 | Evaluation of Physical Education |  |  |  |
| PHP 381 | 3 | Kinesiology |  |  |  |
| PHP 382 | 3 | Physiology of Exercise |  |  |  |
| PHP 392 | 2 | Adapted Physical Education and Recreation |  |  |  |
| PHP 402 | 3 | Administration of Human Performance |  |  |  |
| PHP 472 | 2 | Psychology of Coaching |  |  |  |

## Exercise Science

The exercise science major is designed to prepare students for two differing areas of this field: (I) as a preparatory degree to enter the field of occupational therapy, physical therapy, sports medicine, exercise physiology, cardiac rehab, physician assistant, nursing, or allied health-related graduate program studies; (2) for the student who wants to enter the field of health, sport science, human performance in biomechanics, strength and conditioning specialist, personal trainer, director of fitness, or other health-related programs.

## Exercise Science/Exercise and Fitness Concentration (BA)

The bachelor of arts degree with a major in exercise science and a concentration in exercise and fitness requires two years of sequential study in one foreign language and 51 hours in the major.

| Major Requirements |  |  | Suggested Electives for Areas of Specialization |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BIO 244 | 4 | Human Anatomy and Physiology I | ACC 241 | 3 | Accounting Principles I |
| BIO 245 | 4 | Human Anatomy and Physiology II | ACC 242 | 3 | Accounting Principles II |
| PHP 111 | 3 | Introduction to Human Performance | ENT 420 | 3 | Creativity and Concept Development |
| PHP 210 | I | Human Performance Technology | ENT 422 | 3 | New Venture Planning |
| PHP 213 | 2 | Substance Education | MAT 210 | 4 | Introductory Statistics |
| PHP 215 | 2 | Health, Exercise, and Aging | MCM 261 | 3 | Introduction to Public Relations |
| PHP 217 | 3 | Wellness Programs | MGT 201 | 3 | Business Basics Boot Camp |
| PHP 225 | 3 | Care and Prevention of Athletic Injuries | MGT 352 | 3 | Management Analysis and Practice |
| PHP 271 | I | CPR for Healthcare Providers | MKT 231 | 3 | Principles of Marketing |
| PHP 316 | 3 | Applied Nutrition | PHP 214 | 3 | Health and Sexuality |
| PHP 318 | 2 | Therapeutic Exercise and Rehabilitation | PHP 317 | 2 | EKG and Stress Testing |
| PHP 346 | 2 | Public and Community Health | PHP 324 | 2 | Motor Learning |
| PHP 353 | 3 | Physical Fitness Assessment | PHP 328 | 3 | Principles of Strength Training |
| PHP 381 | 3 | Kinesiology | PHP 355 | 2 | Research Methods in Exercise Science |
| PHP 382 | 3 | Physiology of Exercise | PHP 360 | 1-4 | Independent Study |
| PHP 393 | I | Practicum-A (approved) | PHP 370 | I-4 | Selected Topics |
| PHP 393 | I | Practicum-B (approved) | PHP 392 | 2 | Adapted Physical Education and Recreation |
| PHP 402 | 3 | Administration of Human Performance | PHP 472 | 2 | Psychology of Coaching |
| PHP 453 | 3 | Physical Fitness Prescription | PSY 200 | 3 | Introduction to Psychology |
| PHP 492 | 4 | Internship | PSY 250 | 3 | Life Span Development |
|  |  |  | PSY 370 | 3 | Health Psychology |
|  |  |  | PSY 410 | 3 | Motivation |
|  |  |  | PSY 441 | 3 | Physiological Psychology |

## Exercise Science/Exercise and Fitness Concentration (BS)

The bachelor of science degree with a major in exercise science and a concentration in exercise and fitness requires 65 hours in the major.

| Major Requirements |  |  |
| :---: | :---: | :---: |
| BIO 244 | 4 | Human Anatomy and Physiology I |
| BIO 245 | 4 | Human Anatomy and Physiology II |
| PHP 111 | 3 | Introduction to Human Performance |
| PHP 210 | 1 | Human Performance Technology |
| PHP 213 | 2 | Substance Education |
| PHP 215 | 2 | Health, Exercise, and Aging |
| PHP 217 | 3 | Wellness Programs |
| PHP 225 | 3 | Care and Prevention of Athletic Injuries |
| PHP 271 | 1 | CPR for Healthcare Providers |
| PHP 316 | 3 | Applied Nutrition |
| PHP 318 | 2 | Therapeutic Exercise and Rehabilitation |
| PHP 346 | 2 | Public and Community Health |
| PHP 353 | 3 | Physical Fitness Assessment |
| PHP 381 | 3 | Kinesiology |
| PHP 382 | 3 | Physiology of Exercise |
| PHP 393 | I | Practicum-A (approved) |
| PHP 393 | 1 | Practicum-B (approved) |
| PHP 402 | 3 | Administration of Human Performance |
| PHP 453 | 3 | Physical Fitness Prescription |
| PHP 492 | 4 | Internship |


| Electives |  |  |
| :---: | :---: | :---: |
| Select at least $\underline{14}$ hours from: |  |  |
| ACC 241 | 3 | Accounting Principles I |
| ACC 242 | 3 | Accounting Principles II |
| ENT 420 | 3 | Creativity and Concept Development |
| ENT 422 | 3 | New Venture Planning |
| MAT 210 | 4 | Introductory Statistics |
| MCM 261 | 3 | Introduction to Public Relations |
| MGT 201 | 3 | Business Basics Boot Camp |
| MGT 352 | 3 | Management Analysis and Practice |
| MKT 231 | 3 | Principles of Marketing |
| PHP 214 | 3 | Health and Sexuality |
| PHP 317 | 2 | EKG and Stress Testing |
| PHP 324 | 2 | Motor Learning |
| PHP 328 | 3 | Principles of Strength Training |
| PHP 355 | 2 | Research Methods in Exercise Science |
| PHP 360 | 1-4 | Independent Study |
| PHP 370 | 1-4 | Selected Topics |
| PHP 392 | 2 | Adapted Physical Education and Recreation |
| PHP 450 | 2 | Directed Research |
| PHP 472 | 2 | Psychology of Coaching |
| PHP 482 | 3 | Advanced Physiology of Exercise |
| PSY 200 | 3 | Introduction to Psychology |
| PSY 250 | 3 | Life Span Development |
| PSY 370 | 3 | Health Psychology |
| PSY 410 | 3 | Motivation |
| PSY 44I | 3 | Physiological Psychology |

## Exercise Science/Pre-Professional Concentration (BA)

The bachelor of arts degree with a major in exercise science and a pre-professional concentration requires two years of sequential study in one foreign language and 58-59 hours in the major.

| Major Requirements |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | CHE 201 | 4 | General, Organic, and Biochemistry I |
| BIO 101 | 4 | Principles of Cell Biology | CHE 202 | 4 | General, Organic, and Biochemistry II |
| BIO 244 | 4 | Human Anatomy and Physiology I | CHE 211 | 4 | College Chemistry I |
| BIO 245 | 4 | Human Anatomy and Physiology II | CHE 212 | 4 | College Chemistry II |
| PHP 111 | 3 | Introduction to Human Performance | CHE 311 | 4 | Organic Chemistry I |
| PHP 210 | 1 | Human Performance Technology | CHE 312 | 4 | Organic Chemistry II |
| PHP 225 | 3 | Care and Prevention of Athletic Injuries | CHE 41I | 3 | Biochemistry I |
| PHP 271 | 1 | CPR for Healthcare Providers | CHE 412 | 3 | Biochemistry II |
| PHP 316 | 3 | Applied Nutrition | ECOI90 | 3 | Issues in Economics |
| PHP 317 | 2 | EKG and Stress Testing | MAT 140 | 3 | Fundamental Calculus for Applications |
| PHP 318 | 2 | Therapeutic Exercise and Rehabilitation | MAT 145 | 3 | Introduction to Functions and Calculus |
| PHP 353 | 3 | Physical Fitness Assessment | MAT 146 | 3 | Functions and Calculus |
| PHP 355 | 2 | Research Methods in Exercise Science | MAT 151 | 4 | Calculus I |
| PHP 381 | 3 | Kinesiology | MCM 261 | 3 | Introduction to Public Relations |
| PHP 382 | 3 | Physiology of Exercise | MGT 352 | 3 | Management Analysis and Practice |
| PHP 393 | I | Practicum-A (approved) | MKT 231 | 3 | Principles of Marketing |
| PHP 393 | 1 | Practicum-B (approved) | PHP 213 | 2 | Substance Education |
| PHP 402 | 3 | Administration of Human Performance | PHP 215 | 2 | Health, Exercise, and Aging |
| PHP 450 | 2 | Directed Research | PHP 217 | 3 | Wellness Programs |
| PHP 453 | 3 | Physical Fitness Prescription | PHP 315 | 3 | Methods of Rehabilitation |
| PHP 482 | 3 | Advanced Physiology of Exercise | PHP 324 | 2 | Motor Learning |
| PHP 492 | 4 | Internship | PHP 327 | 3 | Physical Assessment |
| Select one course from the following: |  |  | PHP 346 | 2 | Public and Community Health |
| MAT 210 | 4 | Introductory Statistics | PHP 360 | 1-4 | Independent Study |
| PSY 330 | 3 | Statistics and Design in Psychological Research | PHP 392 | 2 | Adapted Physical Education and Recreation |
| SOC 355 | 3 | Applied Social Statistics | PHP 472 | 2 | Psychology of Coaching General Physics I |
| Recommended Electives for Areas of Specialization |  |  | PHY 204 | 4 | General Physics II |
| ACC 241 | 3 | Accounting Principles I | PHY 211 | 4 | University Physics I |
| ACC 242 | 3 | Accounting Principles II | PHY 212 | 5 | University Physics II |
| BIO 200 | 4 | Human Nutrition | PSY 200 | 3 | Introduction to Psychology |
| BIO 331 | 4 | Comparative Anatomy | PSY 220 | 3 | Sport Psychology |
| BIO 452 | 4 | Animal Physiology | PSY 250 | 3 | Life Span Development |
| BIO 471 | 4 | Microbiology and Immunology | PSY 300 | 4 | Abnormal Psychology |
|  |  |  | PSY 370 <br> PSY 410 | 3 3 | Health Psychology Motivation |
|  |  |  | SYS IOI | 3 | Introduction to Systems |

## Exercise Science/Pre-Professional Concentration (BS)

This course of study is recommended for students interested in preparing for graduate school for physical therapy, occupational therapy, cardiac rehabilitation, and other allied health fields. The bachelor of science degree with a major in exercise science and a pre-professional concentration requires 72-73 hours in the major.

| Major Requirements |  |  |
| :--- | :---: | :--- |
| BIO 101 | 4 | Principles of Cell Biology |
| BIO 244 | 4 | Human Anatomy and Physiology I |
| BIO 245 | 4 | Human Anatomy and Physiology II |
| PHP 111 | 3 | Introduction to Human Performance |
| PHP 210 | 1 | Human Performance Technology |
| PHP 225 | 3 | Care and Prevention of Athletic Injuries |
| PHP 271 | 1 | CPR for Healthcare Providers |
| PHP 316 | 3 | Applied Nutrition |
| PHP 317 | 2 | EKG and Stress Testing |
| PHP 318 | 2 | Therapeutic Exercise and Rehabilitation |
| PHP 353 | 3 | Physical Fitness Assessment |
| PHP 355 | 2 | Research Methods in Exercise Science |
| PHP 381 | 3 | Kinesiology |
| PHP 382 | 3 | Physiology of Exercise |
| PHP 393 | 1 | Practicum-A (approved) |
| PHP 393 | 1 | Practicum-B (approved) |
| PHP 402 | 3 | Administration of Human Performance |
| PHP 450 | 2 | Directed Research |
| PHP 453 | 3 | Physical Fitness Prescription |
| PHP 482 | 3 | Advanced Physiology of Exercise |
| PHP 492 | 4 | Internship |
| Select one course from | the following: |  |
| MAT 210 | 4 | Introductory Statistics |
| PSY 330 | 3 | Statistics and Design in Psychological Research |
| SOC 355 | 3 | Applied Social Statistics |

## Electives

Select at least 14 hours from:

| BIO 33I | 4 | Comparative Anatomy |
| :--- | :--- | :--- |
| BIO 47I | 4 | Microbiology and Immunology |
| CHE 20I | 4 | General, Organic, and Biochemistry I |
| CHE 202 | 4 | General, Organic, and Biochemistry II |
| CHE 21I | 4 | College Chemistry I |
| CHE 212 | 4 | College Chemistry II |
| CHE 31I | 4 | Organic Chemistry I |
| CHE 312 | 4 | Organic Chemistry II |
| CHE 41I | 3 | Biochemistry I |
| CHE 412 | 3 | Biochemistry II |
| MAT 140 | 3 | Fundamental Calculus for Applications |
| MAT 145 | 3 | Introduction to Functions and Calculus |
| MAT 146 | 3 | Functions and Calculus |
| MAT 15I | 4 | Calculus I |
| PHP 324 | 2 | Motor Learning |
| PHP 360 | I-4 | Independent Study |
| PHY 203 | 4 | General Physics I |
| PHY 204 | 4 | General Physics II |
| PHY 211 | 4 | University Physics I |
| PHY 212 | 5 | University Physics II |
| PSY 250 | 3 | Life Span Development |
| PSY 300 | 4 | Abnormal Psychology |

CHE 2014 General, Organic, and Biochemistry I
CHE 2024 General, Organic, and Biochemistry II
CHE 211 College Chemistry
CHE 2I2 4 College Chemistry II
CHE 31I 4 Organic Chemistry I
HI 411 Organic Chemistry II
Biochemistry I
MAT 1403 Fundamental Calculus for Applications
MAT 14533 Introduction to Functions and Calculus
MAT 1463 Functions and Calculus
MAT I51 4 Calculus I
PHP 324 Motor Learning
PHP 360 I-4 Independent Study
PHY 204
PHY 211 4 University Physics
PHY 212 University Physics II
PSY 250 Life Span Development

PSY $330 \quad 3 \quad$ Statistics and Design in Psychological Research
Applied Social Statistics

Exercise Science/Pre-Professional requirements continued from previous page

| Suggested Electives for Areas of Specialization |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| ACC 241 | 3 | Accounting Principles I | PHP 217 | 3 | Wellness Programs |  |  |  |  |  |
| ACC 242 | 3 | Accounting Principles II | PHP 315 | 3 | Methods of Rehabilitation |  |  |  |  |  |
| BIO 200 | 4 | Human Nutrition | PHP 327 | 3 | Physical Assessment |  |  |  |  |  |
| BIO 452 | 4 | Animal Physiology | PHP 346 | 2 | Public and Community Health |  |  |  |  |  |
| BIO 471 | 4 | Microbiology and Immunology | PHP 360 | I-2 | Independent Study |  |  |  |  |  |
| ECO190 | 3 | Issues in Economics | PHP 392 | 2 | Adapted Physical Education and Recreation |  |  |  |  |  |
| MCM 261 | 3 | Introduction to Public Relations | PHP 472 | 2 | Psychology of Coaching |  |  |  |  |  |
| MGT 352 | 3 | Management Analysis and Practice | PSY 200 | 3 | Introduction to Psychology |  |  |  |  |  |
| MKT 231 | 3 | Principles of Marketing | PSY 220 | 3 | Sport Psychology |  |  |  |  |  |
| PHI 201 | 3 | Logic | PSY 370 | 3 | Health Psychology |  |  |  |  |  |
| PHP 213 | 2 | Substance Education | PSY 410 | 3 | Motivation |  |  |  |  |  |
| PHP 215 | 2 | Health, Exercise, and Aging | SYS 101 | 3 | Introduction to Systems |  |  |  |  |  |

## Sport Management

The sport management major blends two disciplines: business and human performance. This major addresses the Taylor emphasis on Christian service in the growing area of sport business. The student will learn to identify and understand the internal and external factors that shape sports in a culture, apply management skills, and evaluate the goals of a variety of sport organizations (high school, college, and professional), and be able to apply fundamental marketing concepts to the sports industry. The student majoring in sport management will become familiar with the various agencies governing sports from the professional, collegiate, high school, and amateur levels. An internship is required for both baccalaureate degrees in sport management.

## Sport Management (BA)

The bachelor of arts degree with a major in sport management requires two years of one foreign language and 49 hours.

| Major Requirements |  |  | Electives |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ACC 241 | 3 | Accounting Principles I | Select $\underline{5}$ hours of electives from: |  |  |
| ECO 190 | 3 | Issues in Economics | ACC 242 | 3 | Accounting Principles II |
| MGT 311 | 3 | Business Law | CAS 201 | 3 | Professional Communication in Corporate Contexts |
| MKT 231 | 3 | Principles of Marketing | ECO 201 | 4 | Principles of Microeconomics |
| PHP 111 | 3 | Introduction to Human Performance | ECO 202 | 3 | Principles of Macroeconomics |
| PHP 210 | 1 | Human Performance Technology | FIN 361 | 3 | Corporate Finance |
| PHP 220 | 4 | Principles of Coaching | HRM 362 | 3 | Human Resources Management |
| PHP 350 | 3 | Sport Management | MAT 210 | 4 | Introductory Statistics |
| PHP 351 | 3 | Sport Public Relations | MCM 115 | 3 | Introduction to Media Writing |
| PHP 352 | 3 | Event and Facility Management | MCM 261 | 3 | Introduction to Public Relations |
| PHP 354 | 3 | Sport Finance | MGT 352 | 3 | Management Analysis and Practice |
| PHP 355 | 2 | Research Methods in Exercise Science | MGT 41I | 3 | Advanced Business Law |
| PHP 393 | 1 | Practicum-A (approved) | MGT 442 | 3 | Business Ethics |
| PHP 393 | 1 | Practicum-B (approved) | MGT 452 | 3 | Strategic Management |
| PHP 430 | 2 | Legal Issues in Sport | MKT 312 | 3 | Professional Selling |
| PHP 480 | 2 | Seminar in Sport Management | MKT 410 | 3 | Marketing Research |
| PHP 492 | 4 | Internship | MKT 412 | 3 | Advertising and Promotional Strategy |
|  |  |  | PHP 231 | 2 | Officiating Sports |
|  |  |  | PHP 360 | I-2 | Independent Study |
|  |  |  | PHP 402 | 3 | Administration of Human Performance |
|  |  |  | PHP 450 | 2 | Directed Research |
|  |  |  | PHP 472 | 2 | Psychology of Coaching |
|  |  |  | PSY 220 | 3 | Sport Psychology |

## Sport Management (BS)

The bachelor of science degree with a major in sport management requires 63 hours.

| Major Requirements |  |  |
| :---: | :---: | :---: |
| ACC 24I | 3 | Accounting Principles I |
| ACC 242 | 3 | Accounting Principles II |
| ECO 190 | 3 | Issues in Economics |
| MGT 31I | 3 | Business Law |
| MKT 231 | 3 | Principles of Marketing |
| PHP 111 | 3 | Introduction to Human Performance |
| PHP 210 | I | Human Performance Technology |
| PHP 220 | 4 | Principles of Coaching |
| PHP 350 | 3 | Sport Management |
| PHP 351 | 3 | Sport Public Relations |
| PHP 352 | 3 | Event and Facility Management |
| PHP 354 | 3 | Sport Finance |
| PHP 355 | 2 | Research Methods in Exercise Science |
| PHP 393 | I | Practicum-A (approved) |
| PHP 393 | I | Practicum-B (approved) |
| PHP 430 | 2 | Legal Issues in Sport |
| PHP 480 | 2 | Seminar in Sport Management |
| PHP 492 | 4 | Internship |
| Additional Major Requirements |  |  |
| MAT 210 | 4 | Introductory Statistics |
| SYS IOI | 3 | Introduction to Systems |


| Electives |  |  |
| :--- | :--- | :--- |
| Select IO | hours of electives from: |  |
| CAS 201 | 3 | Professional Communication in Corporate Contexts |
| ECO 201 | 4 | Principles of Microeconomics |
| ECO 202 | 3 | Principles of Macroeconomics |
| FIN 361 | 3 | Corporate Finance |
| HRM 362 | 3 | Human Resources Management |
| MCM 115 | 3 | Introduction to Media Writing |
| MCM 261 | 3 | Introduction to Public Relations |
| MGT 352 | 3 | Management Analysis and Practice |
| MGT 411 | 3 | Advanced Business Law |
| MGT 442 | 3 | Business Ethics |
| MGT 452 | 3 | Strategic Management |
| MKT 312 | 3 | Professional Selling |
| MKT 4IO | 3 | Marketing Research |
| MKT 412 | 3 | Advertising and Promotional Strategy |
| PHP 231 | 2 | Officiating Sports |
| PHP 360 | I-2 | Independent Study |
| PHP 402 | 3 | Administration of Human Performance |
| PHP 450 | 2 | Directed Research |
| PHP 472 | 2 | Psychology of Coaching |
| PSY 220 | 3 | Sport Psychology |

## Sport Management Minor

The department offers an I8-hour sport management minor.

| Minor Re | uir | ts | Select 5 cre | urs | the following: |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PHP 350 | 3 | Sport Management | ACC 24I | 3 | Accounting Principles I |
| PHP 351 | 3 | Sport Public Relations | ACC 242 | 3 | Accounting Principles II |
| PHP 352 | 3 | Event and Facility Management | ECO 190 | 3 | Issues in Economics |
| PHP 430 | 2 | Legal Issues in Sport | FIN 361 | 3 | Corporate Finance |
| PHP 480 | 2 | Seminar in Sport Management | MCM 115 | 3 | Introduction to Media Writing |
|  |  |  | MCM 261 | 3 | Introduction to Public Relations |
|  |  |  | MGT 311 | 3 | Business Law |
|  |  |  | MKT 231 | 3 | Principles of Marketing |
|  |  |  | PHP 210 | 1 | Human Performance Technology |
|  |  |  | PHP 220 | 4 | Principles of Coaching |
|  |  |  | PHP 231 | 2 | Officiating Sports |
|  |  |  | PHP 354 | 3 | Sport Finance |
|  |  |  | PHP 393 | 1-2 | Practicum (approved) |

## Coaching Minor

The department offers a 19 -hour coaching minor for any student interested in preparing for the coaching profession. Students from any major are eligible for this course of study. The minor helps prepare students for opportunities in coaching, leading camps, youth athletic ministry, and recreational leadership.

| Minor Requirements |  |  |
| :--- | :---: | :--- |
| PHP 220* | 4 | Principles of Coaching |
| PHP 225 | 3 | Care and Prevention of Athletic Injuries |
| PHP 27I | 1 | CPR for Healthcare Providers |
| PHP 275 | 3 | Methods of Sport Skills and Activities |
| PHP 393 | 4 | Practicum (approved by department-Coaching) |
| Select 2 credit hours from: |  |  |
| PHP 361 | 2 | Coaching of Football |
| PHP 362 | 2 | Coaching of Volleyball |
| PHP 363 | 2 | Coaching of Basketball |
| PHP 364 | 2 | Coaching of Baseball |
| PHP 365 | 2 | Coaching of Softball |
| PHP 366 | 2 | Coaching of Track and Field |
| PHP 370 | 2 | Coaching of... (approved by department) |


| Select an additional $\underline{2}$ credit hours from: |  |  |
| :--- | :---: | :--- |
| PHP 231 | 2 | Officiating Sports |
| PHP 324 | 2 | Motor Learning |
| PHP 361 | 2 | Coaching of Football |
| PHP 362 | 2 | Coaching of Volleyball |
| PHP 363 | 2 | Coaching of Basketball |
| PHP 364 | 2 | Coaching of Baseball |
| PHP 365 | 2 | Coaching of Softball |
| PHP 366 | 2 | Coaching of Track and Field |
| PHP 370 | 2 | Coaching of... (approved by department) |
| PHP 472 | 2 | Psychology of Coaching |

## Physical Education and Human Performance Courses

## Fitness for Life <br> A course on the importance of wellness, including the spiritual basis, and how

 individuals can achieve a state of wellness in their lives. Content includes the health-related components of physical fitness, hypokinetic diseases, nutrition, AIDS and sexuality, substance abuse, cancer, and stress management. Students are expected to engage in a program of regular physical activity during the semester, and a battery of tests is given to assess each student's level of physical fitness. This course, a requirement for all students, satisfies two of the three hours of general education requirements in PHP.
## PHP III

## 3 hours

Introduction to Human Performance
This course is an introduction to the fields of exercise science, sport management, and health and physical education. The content includes definitions, objectives, history, and philosophies of these fields; basic content of components of human performance; contemporary issues; and possible careers in these fields. Offered fall and spring semesters.

## PHP 170

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.
$\ddagger$ PHP 2001—The individualized physical education course is designed for students who fit into one of the following categories: (1) the student has a physical problem that prohibits completion of another PHP 200 course; (2) the student would like to do an activity that is not offered as an PHP 200 course; or (3) the student is near graduation and cannot schedule another PHP 200 course. Students design a program with the instructor's supervision and then engage in that program throughout the semester. Physical fitness assessments may be included as well as cognitive assignments. Students must apply for acceptance into the class and be approved by the instructor in order to register for the course. Prerequisite: PHP IOO.
$\ddagger$ PHP 200Z—The athletic participation course is designed for students who compete on an NAIA intercollegiate athletic team. Students must be approved by the athletic department and the PHP department to receive academic credit for this course. Credit is given during the sport season and credit will not be given retroactively for athletic participation from another season.

## PHP 200 I hour

## General Physical Education Activity Courses

These courses encourage students to adopt an active physical lifestyle and maintain physical fitness and wellness throughout their lives. Students learn about activities and develop skills for participation in lifetime sports. One PHP 200 course is taken after PHP 100 to meet the three-hour PHP general education requirement. Prerequisite: PHP 100.

PHP 200A
PHP 200AW
PHP 200B
PHP 200C
PHP 200CC
PHP 200D
PHP 200F
PHP 200FD
PHP 200FF
PHP 200FN
PHP 200G
PHP 200H
¥PHP 2001
PHP 200
PHP 200JG
PHP 200K
PHP 200L
PHP 200M
PHP 200N
PHP 200P
PHP 200PB
PHP 200Q
PHP 200R
PHP 200RU
PHP 200S
PHP 200SB
PHP 200SF
PHP 200T
PHP 200U
PHP 200 V
PHP 200W
PHP 200WA
PHP 200Y
\&PHP 200Z

Aerobic Conditioning
Aerobic Walking
Badminton
Weight Control and Fitness
Camping and Canoeing
Square Dance
Softball
Folk Dances of Other Cultures
Fly Fishing
Functional Fitness
Golf
Beginning Horsemanship
Individualized Physical Education
Acting
Jogging
Basketball
Bowling
Challenge Course Adventure
Total Fitness
Personal Fitness
Pickleball
Outdoor Activities
Racquetball
Running
Soccer
Beginning Swimming
Fitness Swimming
Tennis
Circuit Training
Volleyball
Weight Training
Well Aerobics
Cycling
Athletic Participation

## PHP 210 <br> hour

Human Performance Technology
Students are introduced to a variety of general and specialized applications of technologies available to the PHP major. Lab opportunities are provided. Prerequisite: COS 104 or 106. Offered fall and spring semesters.

## PHP 213

## 2 hours

## Substance Education

The course is designed to prepare professionals for drug education. The scope of the course is wide and includes the following basic areas: drug terminology, pharmacology, psychodynamics, legal and law enforcement perspectives, social and cultural determinants, ethical and moral alternatives, behavioral aspects, and educational strategies. A strong emphasis is placed on developing guidelines for decision making in our society. The purpose is to exchange the best amount of information on drug use, misuse, and abuse available. Offered spring semester of even years.

## PHP 214

## 3 hours

## Health and Sexuality

This course is designed to prepare future health educators to teach the relationship between health and human sexuality. The class activities will include lectures/discussions, peer teaching, development of an abstinence-based curriculum, and lectures by outside resource personnel. Offered fall semester of even years.

## PHP 215 <br> 2 hours

Health, Exercise, and Aging
The course is designed to examine common health-related physiological changes, current issues, and concerns as they pertain to the aging individual. Prerequisites: PHP IOO, PHP III, or permission of instructor. Offered spring semester of odd years.

## PHP 217 <br> 3 hours

## Wellness Programs

This course is a study of the philosophy, goals, objectives, organization, content, and methods of wellness programs. Characteristics of various clientele and how programs can be developed to meet their specific needs will be studied. Prerequisite: PHP II I. Offered spring semester of even years.

## PHP 220

4 hours

## Principles of Coaching

This course is a study of the duties and responsibilities of coaches and the potential problems and issues they may face. The content will include the four major areas of coaching certification programs: medical aspects, physiological aspects, psychological aspects, and organizational and administrative aspects. Methods and strategies of handling the responsibilities and the problems will be studied. Offered fall semester of even years.

## PHP 225

## 3 hours

Care and Prevention of Athletic Injuries
Instruction and practical lab experience dealing with the history; organizational and administrative concerns of sports medicine; the classifications and characteristics of athletic injuries; and the physiological responses and treatment of those injuries, as well as sport-specific concerns about emergency care, strength and conditioning, nutrition, and protective sports devices used by the coach and athletic trainer. Prerequisite: PHP II I. Offered fall and spring semesters.

## PHP 231

2 hours

## Officiating Sports

A study of the officiating skills and techniques needed for various sports. The opportunity to earn official's rating is provided. Offered fall semester of odd years.

## PHP 250

## 2 hours

Elementary School Health and Physical Education
A course designed to equip the elementary education student with a basic understanding of teaching concepts associated with physical education activities and appropriate health and safety practices. Fundamental content of the areas of physical education, health, and safety, as well as teaching methods, are explored. Prerequisite: PHP 100. Offered fall and spring semesters.

## PHP 252

## 3 hours

Methods of Teaching Elementary Physical Education
Students learn how to teach elementary physical education by studying and practicing various teaching methods with peers or other groups. The content of the elementary physical education curriculum, motor development, and characteristics of elementary school children are also studied. Prerequisite: PHP III. Offered fall semester of odd years.

## PHP 270

## I-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## PHP 271

I hour
CPR for Healthcare Providers
Successful completion of this course will certify participants in the techniques of CPR and AED use for adults, children, and infants; foreign body obstruction; and cardiac emergency management according to American Heart Association standards. Priority registration for this course is given to students in the PHP majors. Offered fall and spring semesters.

## PHP 272 <br> I hour

First Aid
Instruction and practical experience designed by the National Safety Council or American Heart Association to educate the layperson or healthcare worker in the fundamental knowledge and skills of first aid for victim assessment: bleeding wounds; poisoning; burns; cold and heat emergencies; bone, joint, and muscle injuries; victim transportation; and other first aid concerns. Priority registration for this course is given to students in the PHP majors.

## PHP 2753 hours

Methods of Sport Skills and Activities
This course is designed to teach the terminology, skills, rules, and teaching progressions in various sports and activities. Students will also be introduced to various teaching methodologies and instructional materials appropriate for teaching physical education. This course is designed to be taken second in the teaching methods sequences with the two other elementary and secondary physical education methods classes. Prerequisites: PHP 100 and 111 . Offered fall of even years.

## PHP 300

## I hour

Basic Swimming Skills
For PHP majors who have satisfactorily completed a basic swimming, intermediate swimming, or emergency water safety course at another institution. Students will receive credit for basic proficiency in swimming skills and water safety upon submission of official transcript.

## PHP 301 <br> 3 hours

Methods of Teaching Secondary Health
Students will learn how to teach health in the 6-12 classroom. Appropriate methods will be studied, and students will plan units and individual lessons, teach lessons to peers or other groups, and develop skills to manage the class. Prerequisites: PHP III, 2|3, 214, 216, 27I, 272, or permission of instructor. Offered fall semester of even years.

## PHP 302

## 2 hours

Lifeguard Training
This course is designed to train an individual in the proper methods for rescue, water safety, first aid, CPR, and other skills necessary for lifeguarding. Prerequisite: PHP 100. Offered spring semester.

## PHP 309

3 hours
Special Methods of Teaching Secondary Physical Education
Methods of teaching physical education at the secondary and junior high/middle school levels are taught in this course. Topics include teaching as a profession, professionalism, professional development, INTASC principles, Indiana Content Standards, the discipline of physical education, curriculum and curriculum models, planning for instruction, methods of instruction, characteristics of learners, teaching styles, diversity, psychomotor learning, parent/community relations, legal issues, and classroom management. Practical exercises, peer teaching, and school participation visits are used to give the candidates opportunities to practice various methods of teaching. Prerequisites: PHP 100 and III, EDU 150 and 260, and approval of the teacher education program. Offered spring semester.

## PHP 315

3 hours
Methods of Rehabilitation
A study of the exercise and rehabilitation approaches used in preventing and treating orthopedic injuries. The course also covers therapeutic modalities (electricity, sound, heat, cold, etc.) that are used in the rehabilitation process. Prerequisite: PHP II I or permission of instructor. Offered spring semester of odd years.

## PHP 316

## 3 hours

## Applied Nutrition

This course is a study of basic principles of human nutrition including fundamentals of digestion, absorption, and metabolism; nutrients and their roles for the lifespan; eating disorders; and nutrition for performance. Prerequisite: PHP II I or permission of instructor. Offered fall and spring semesters.

## PHP 317

2 hours
EKG and Stress Testing
This course is designed to provide the undergraduate exercise science student with the basic knowledge and skills needed to interpret resting and exercise EKG's. Emphasis will be placed on 1) learning normal vs. abnormal EKG patterns at rest and during exercise; and, 2) the effects of cardiovascular medication on the resting or exercise EKG and various physiologic responses to exercise testing. An additional purpose of the course is to introduce the undergraduate exercise student to selected cardiac assessment techniques. Prerequisite: PHP 382 or permission of instructor. Offered January interterm.

## PHP 318 <br> 2 hours <br> Therapeutic Exercise and Rehabilitation

A detailed study of the role exercise plays in preventing and treating chronic diseases and conditions including metabolic diseases, obesity, cardiovascular conditions, systemic inflammatory diseases, neurological diseases, cancer, orthopedic conditions, and aging. Prerequisite: PHP 382 or permission of instructor. Offered January interterm.

## PHP 324

## 2 hours

Motor Learning
A study of the theories and research of the processes of learning motor skills. The application of appropriate methods of teaching motor skills is studied and practiced to enable the students to understand how they can be used effectively. Prerequisite: PHP III or permission of instructor. Offered fall semester of odd years.

## PHP 327

## 3 hours

Physical Assessment
This course covers the evaluation of orthopedic injuries and medical conditions that occur in sports and to the physically active. Instruction and practice of assessment techniques will be done in the following areas: emergency medicine, pediatrics, dermatology, orthopedics, podiatry, sports medicine, and special needs. Guest speakers from various medical specialties will present. Prerequisite: PHP III or permission of instructor. Offered spring semester of even years.

## PHP 328

## 3 hours

## Principles of Strength Training and Conditioning

This course is the study of the essentials of strength training and conditioning for practitioners and prepares students for certification with the National Strength and Conditioning Association (NSCA). The course will cover the following: biomechanics of exercise, rehabilitation, bioenergetics of training, aerobic exercise prescription, resistance training, and speed and plyometric training. Prerequisites: PHP 100 and BIO 244. Offered spring semester.

## PHP 333

## 2 hours

Water Safety Instructor
Instruction in the skills, terminology, and progressions of teaching swimming strokes and water safety. The course includes knowledge of the skills, physical performance of the skills, and teaching skills. Successful completion of the American Red Cross requirements leads to certification in Red Cross WSI. Advanced swimming skills are necessary. Prerequisites: PHP 100 and permission of instructor. Offered spring semester.

## PHP 334

I hour
Lifeguard Training Instructor
Acquisition of the skills, terminology, and progressions for teaching American Red Cross Lifeguard Instructor Training. The course includes both knowledge of the skills and physical performance of the skills. Successful completion of the American Red Cross requirements leads to certification as a Red Cross LGI. Prerequisites: PHP 302 and permission of instructor.

## PHP 345

## 3 hours

Challenge Course Facilitator Certification
This class will allow for a challenge course adventure within a small group experience, and then model and teach the skills necessary for safe facilitation of an adventure course. This includes high- and low-course safety habits, equipment (personal safety gear), emergency procedures (rescues), knots, debriefing, creation of your own initiative, and operation of the Taylor University Escape to Reality course. Prerequisites: PHP IO0 and 200x.

## PHP 346

## 2 hours

Public and Community Health
This course illustrates how the health of populations is promoted and protected by organized public health practice. Students are acquainted with current evolving concepts and performance of these practices and are introduced to essential public health services. The problem-solving approach is emphasized through small-group interaction, case-study method, and critical thinking skills.

## PHP 350

## 3 hours

Sport Management
This course is a study of the roles, functions, and responsibilities of the person who manages sports programs. The emphasis is on how these functions can be successfully performed in various sports organizations. Prerequisite: PHP III. Offered spring semester of even years.

## PHP 351

3 hours
Sport Public Relations
This course is an introduction to the responsibilities of communicating with the public in a sports organization and the techniques and strategies that can be used to promote sports effectively. Assignments provide students with practical experiences with these techniques and strategies. Prerequisite: PHP III. Offered fall semester of odd years.

PHP 352
3 hours
Event and Facility Management
This course covers the duties that need to be performed in managing various types of sports events and different types of sports facilities. The process and features of designing new facilities and remodeling existing ones and the maintenance responsibilities of facility managers will also be studied. Prerequisite: PHP III or permission of instructor. Offered spring semester of odd years.

## PHP 353

## 3 hours

Physical Fitness Assessment
This course will provide a comprehensive study of the components of physical fitness and methods of assessing fitness levels within each component. Health assessment and risk analysis instruments will also be examined. The course consists of classroom work, practical assessment projects, and some field experiences. Each student will participate in "hands-on" fitness assessments of various population groups. Prerequisite: PHP 382. Offered fall and spring semester.

## PHP 354

3 hours
Sport Finance
A comprehensive analysis of financial and economic issues related to the sports industry. Topics include budgeting, capital structuring, planning processes, taxation, public funding, fundraising, and sponsorships. Also, topics of a macro perspective that affect various levels of sport and various leagues will be discussed. Prerequisite: PHP III or permission of instructor. Offered fall of even years.

## PHP 355 <br> 2 hours

Research Methods in Exercise Science
An exploration of the basic methods of research and data collection in exercise science in a lecture and lab format. Topics include defining a research question, reviewing and critically analyzing research, designing research, collecting data, and interpreting results. This is used for exercise science majors to plan the senior research capstone project and should be followed directly by PHP 450. Prerequisite: Permission of instructor. Offered fall semester.

## PHP 360

## I-4 hours

Independent Study
An individualized, directed study involving a specified topic.

## PHP 361

## 2 hours

## Coaching of Football

A presentation of the different offensive and defensive theories of modern football including the strengths and weaknesses of each. Includes a brief review of fundamentals, purchase and care of equipment, practice and program organization, and problems and challenges of the overall football program. Offered spring semester of odd years.

## PHP 362 <br> 2 hours

Coaching of Volleyball
This course provides the student with an understanding of the fundamental skills, strategies, and rules of volleyball. Also covered is philosophy of coaching, schedule making, practice planning, conditioning, statistics, care and choice of equipment, and techniques of team selection. Offered fall semester of even years.

## PHP 363 <br> 2 hours

Coaching of Basketball
A study of offensive and defensive play with an emphasis on modern trends in basketball. Rules, fundamentals, schedule making, scouting, care and choice of equipment, and techniques of team selection are included. Offered fall semester of odd years.

## PHP 364

## 2 hours

Coaching of Baseball
A course aimed at providing the student with an understanding of the general fundamentals of the game and a position breakdown of the important coaching points. The strategy of complete offensive and defensive performance is covered, as are problems and challenges common to the baseball coach. Offered fall semester of even years.

## PHP 365

## 2 hours

Coaching of Softball
A course aimed at providing the student with an understanding of the general fundamentals of the game and a position breakdown of the important coaching points. The strategy of complete offensive and defensive performance is covered, as are problems and challenges common to the softball coach. Offered fall semester of even years.

PHP 366

## Coaching of Track and Field

Consideration of all track and field events, with emphasis on teaching/coaching techniques for each. Includes demonstrations, form study, track and field meet management, scheduling advantages, and use and care of various equipment. Offered spring semester of even years.

## PHP 370

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering.
May count toward the departmental major and general education requirements.

## PHP 380

## 2 hours

## Evaluation of Physical Education

This course is a study of the methods of constructing, selecting, and administering cognitive, motor skill, motor ability, and physical fitness tests. Measurement in the affective domain and measurement of special population students are also studied, as are procedures for analyzing, converting, and evaluating students' scores for grading. Prerequisite: PHP III. Offered fall semester of even years.

## PHP 381

3 hours
Kinesiology
An analysis of human movement based on anatomic and mechanical principles.
Emphasis is given to the application of these principles to the understanding of athletic performance. Prerequisites: PHP I I I and BIO 244. Corequisite: BIO 245. Offered fall and spring semesters.

## PHP 382 <br> 3 hours

Physiology of Exercise
A study of how the body adapts and responds to acute and chronic exercise. Attention is given to skeletal muscle structure and function, neurological control of movement, metabolic systems, and cardiovascular and pulmonary systems. Prerequisites: BIO 244 or permission of instructor. Offered fall and spring semesters.

## PHP $392 \quad 2$ hours

Adapted Physical Education and Recreation
The course includes teaching methods of motor skill development with regard to various disabilities and various assessment techniques. Legal foundations and implications are also addressed. Prerequisite: PHP III. Offered spring semester of even years.

## PHP 393

## I-4 hours

## Practicum

Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Prerequisite: Permission of PHP department.

## PHP 402

## 3 hours

## Administration of Human Performance

The methods of organizing and administering physical education, intramurals, athletics, wellness, and exercise science are studied. Topics covered include philosophy, planning, organizing, budgeting, problem solving, leadership, personnel management, facility and equipment management, communication, marketing, and liability and risk management. Prerequisite: PHP III. Offered spring semester.

## PHP 430

Legal Issues in Sport 2 hours
This course includes a review of legal concepts and terms. Students will analyze legal cases and issues in the realm of sports, study how cases/issues are solved, and develop strategies for handling them. Prerequisites: PHP III, PHP 350, PHP 35I, and MGT 3II, or permission of instructor. Offered fall semester of odd years.

## PHP 450

## 1-4 hours

Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory. Prerequisite: Permission of instructor. Offered spring semester.

PHP 453

## 3 hours

Physical Fitness Prescription
This course provides a study of the prescription and development of appropriate exercise programs based on accurate assessment of each component. Appropriate programs for various populations groups will be considered. The course will consist of classroom work, practical prescription projects, and some field experiences. Each student will participate in "handson" prescription and program development for a variety of individuals. Corequisite or Prerequisite: PHP 353. Offered fall and spring semesters.

PHP 472
2 hours
Psychology of Coaching
A study of the nature of the coaching profession. The course emphasizes philosophy of sport, sports psychology, and coaching methods. Prerequisites: PHP III and a psychology course. Offered spring semester.

## PHP 480

2 hours
Seminar in Sport Management
Students examine contemporary issues in sport. Case studies, guest speakers, field trips, readings, etc., may be used to critically assess issues in sport and to explore strategies for managing them. Prerequisites: PHP III, 350, and 35I, or permission of instructor. Offered spring semester of odd years.

## PHP 482

## 3 hours

Advanced Physiology of Exercise
A seminar-style course examining the body's response to various environmental stressors as well as hormonal regulation of exercise and the effect of age and gender in relation to exercise. Emphasis will also be placed on a historical perspective of the field as well as recent biochemical and molecular/genetic developments within the field and the various chemical assays and the molecular techniques employed in the research setting. Prerequisite: PHP 382. Offered fall semester.

## PHP 490

I-2 hours
Honors
Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## PHP 492

## 4 hours

## Internship

This field experience is designed to have the students apply what they have learned in their courses and to extend that learning by working in an organization that is appropriate for their major. Students work on a regular basis at the organization under the supervision of approved staff members. Students are also under the supervision of a member of the Taylor University Department of Physical Education and Human Performance. Each student must comply with the guidelines for credit hours, clock hours, and other criteria that are specific for the internship in his/her major. To register for this internship, the student must submit a proposal for the internship and have it approved by the PHP department and the internship organization. Prerequisites: All designated prerequisites for the internship in that major.

# Professional Writing 

Director, Professor D. Hensley<br>Chair, Professor P. Jordan-Long

The professional writing department (PWR) offers courses designed to teach students how to write for a wide variety of media: newspapers, magazines, movies, stage plays, online publications, books, and other publications. All students take a set curriculum of courses in the professional writing department, with supplemental courses taken in related areas.

PWR majors become freelance writers, staff journalists, public relations writers, screenwriters, editors with magazines or book publishing houses, poets, reviewers and critics, playwrights, novelists, and literary agents. They build portfolios of their published works all four years they are in college, and they complete a practicum involving professional work as a writer or editor. Students are prepared upon graduation with their bachelor of science degree to begin working in the world of publishing or to begin graduate-level studies in English, film, journalism, or creative writing.

The success of the PWR major is based on the diversity of writing courses, the real-world experience of becoming published writers even as students, connections with leading authors and publishers, and training by professors who, themselves, are highly successful authors.

## Professional Writing (BS)

The bachelor of science degree with a major in professional writing requires 47 hours.

| Major Requirements |  |  | Select one of the following: |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PWR 101 | 3 | Introduction to Professional Writing | ART 253 | 3 | Foundations of Photography |
| PWR 201 | 3 | Foundations of Professional Writing | ENG 211 | 3 | Introduction to Creative Writing |
| PWR 215 | 3 | The Writer's Craft | ENG 320 | 3 | Poetry Writing |
| PWR 320 | 4 | Writing for Business | MCM 261 | 3 | Introduction to Public Relations |
| PWR 321 | 3 | Writing Commercial Fiction | MGT 201 | 3 | Business Basics Boot Camp |
| PWR 343 | 3 | Editing | MKT 231 | 3 | Principles of Marketing |
| PWR 393 | 4 | Practicum | PWR 313E | 3 | Article Writing I |
| tPWR 460 | 3 | Writing Seminar | PWR 314E | 3 | Article Writing II |
| tPWR 460 | 3 | Writing Seminar | PWR 370 | 3 | Selected Topics |
| PWR 472 | 4 | Freelance Writing | PWR 423E | 3 | Advanced Non-Fiction Writing |
| PWR 493 | 3 | Senior Capstone | PWR 427E | 3 | Advanced Fiction Writing |
| ART 156 | I | Digital Tools: Photoshop | PWR 460 | 3 | Writing Seminar |
| ART 157 | 1 | Digital Tools: InDesign | PWR 475 | 3 | Writing for Publication |
| MCM 115 | 3 | Introduction to Media Writing |  |  |  |
| MCM 332 | 3 | Layout and Design |  |  |  |

## Professional Writing Courses

## PWR IOI 3 hours <br> Introduction to Professional Writing

An introduction to the fundamentals of becoming a professional writer Instruction in manuscript formats, core elements of copyright laws, maintaining a writer's journal, creating a publications portfolio, reviewing books, movies, and music. Emphasis on time management, revision and mastering proofreading.

## PWR 170

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major.

## PWR 201

## 3 hours

Foundations of Professional Writing
Instruction in marketing manuscripts, managing finances, diversifying writing material, working with literary agents and negotiating contracts. Also includes presentations on co-authoring and ghostwriting as well as promoting published works. Prerequisite: PWR IOI.
PWR 215
The Writer's Craft
A study of the writer's art. Considers literary models from a writer's
perspective. Examines elements of fiction and discusses their application.

Emphasis on reading to develop skill in writing.

PWR $270 \quad$ I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major.

## PWR 320

4 hours
Writing for Business
Practice in the fundamentals of business communication. Students complete a variety of assignments exemplifying the types of writing routinely practiced in business settings including letters, resumes, news releases, reports, proposals, instructions, and other forms of business communication. Emphasis on real world experience and application.

## PWR 32I

3 hours
Writing Commercial Fiction
Focuses on writing and selling short stories, novellas, and novels for mass market readership and sales. Students will be guided through the publication process. Prerequisites: PWR IOI, PWR 201.

## PWR 343 - 3 hours

Editing
Provides training in editing for newspapers, magazines, e-zines, websites, and book publishers. Prerequisites: PWR IOI, PWR 201, MCM 115.

## PWR 370

$1-4$ hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major.

## PWR 393

I-4 hours

## Practicum

Supervised learning involving a first-hand field experience or a project.
Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. Prerequisites: PWR 333, PWR 343, PWR 472, MCM II5 and MCM 332.
PWR 460
Writing Seminar
Concentrated instruction in an area of specialized writing. Writers in
residence lead classes and writing workshops on such topics as Detective
Fiction, Inspirational Writing, Biography, Magazine Features, Screenplays, and
Writing for Children and Young Adults. Students may receive credit for
approved off-campus experiences such as the Los Angeles Film Studies
Program. Prerequisite: Permission of chair of professional writing department.

## PWR 470

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major.

PWR 472
4 hours
Freelance Writing
Experience in the techniques and strategies of freelance writing. Focuses on writing and marketing manuscripts for both religious and secular publications. Students will be required to submit work for publication. Prerequisites: PWR 101 and instructor permission.

## PWR 475

## 3 hours

## Writing for Publication

Intensive seminar on writing manuscripts for publication. Course offered in partnership with "Write to Publish" conference held in Wheaton each June. Students participate in conference and attend workshops with authors/editors/literary agents/publishers. Students then work closely with instructor to prepare manuscripts for publication. In addition to tuition, students must pay conference registration fee. Offered in summer.

PWR 493

## 3 hours

Senior Capstone
Designed as a culminating experience for Professional Writing majors wherein students evaluate the status and goals of their studies in a flexible forum exploring academic and professional issues. Senior projects are refined for submission to the department. Prerequisite 30 hours in the major. Offered during interterm.

## Social Work

Chair, Professor C. Harner<br>Professor L. Ressler<br>Assistant Professor R. Fernando

Social work is one of the major human service professions focused on enhancing the social functioning of individuals, families, groups, organizations and communities. Services are provided to all people with particular emphasis on disadvantaged populations. A variety of practice settings, including hospitals, family and children's service agencies, schools, residential facilities, healthcare facilities, home-based services, business and industry, mental health agencies and developmental disabilities agencies are used as service learning experiences.
The goals of the Taylor social work program are to: (1) prepare baccalaureate level social workers for beginning-level generalist practice including formal and informal lifelong learning; (2) integrate Christian values with professional values to challenge worldviews, personal beliefs and societal constructs; and (3) to globalize student perspectives and sensitize circles of influence to issues and experiences of diverse, vulnerable and marginalized population groups in an effort to advance social justice. The social work curriculum includes five content areas: human behavior and the social environment, practice, policy, research and field instruction.
Taylor's social work program is accredited by the Council on Social Work Education (CSWE) and offers a bachelor of arts (includes language requirement) or bachelor of science degree in social work. Graduates are prepared to apply for state credentialing (licensure, certification, or registration) as a beginning-level social work practitioner in most states.

## Program Entrance and Graduation Requirements

Entry into Taylor's social work education program begins during the sophomore year when students:
I. Satisfactorily complete the pre-entry courses-SWK 200 and 23 I; SOC 100 or 210; PSY 200.
2. Complete a minimum of 30 hours of volunteer experience, preferably at a social services agency.
3. Receive the approval of the social work education department.

Attainment of a minimum 2.50 GPA is required in the social work major.

## Social Work (BA or BS)

The bachelor of arts and bachelor of science degrees are offered in social work. Students considering work in areas that are bilingual are encouraged to take appropriate language courses. The bachelor of arts degree requires two years of one foreign language. Students in the social work major are expected to complete a minimum of 79 hours.

| Major Requirements |  |  |
| :--- | :---: | :--- |
| POS 33I | 3 | Public Policy |
| PSY 200 | 3 | Introduction to Psychology |
| PSY 250 | 3 | Life Span Development |
| PSY 300 | 4 | Abnormal Psychology |
| SOC 220 | 3 | Ethnic and Minority Issues |
| SOC 250 | 2 | Principles of Research and Analysis |
| SOC 350 | 3 | Social Research Methods |
| SOC 355 | 3 | Applied Social Statistics |
| SWK 200 | 3 | Explorations in Social Work |
| SWK 23I | 3 | Social Welfare: Historical Perspectives and Development |
| SWK 351 | 3 | Social Work Process and Practice I |
| SWK 354 | 3 | Social Work Process and Practice II |
| SWK 355 | 3 | Helping Troubled Families |
| SWK 362 | 3 | Social Policy |
| SWK 44I | 3 | Human Behavior and the Social Environment |
| SWK 45I | 3 | Social Work Process and Practice III |
| SWK 452 | 3 | Advanced Social Work Practice |
| SWK 482 | 2 | Integrative Social Work Seminar |
| SWK 492 | 12 | Senior Practicum |


| Select one course from the following: |  |  |
| :--- | :--- | :--- |
| SWK | 393 | 4 |$\quad$| Junior Practicum |
| :--- |
| SWK |
| SW |

Complete and document 30 hours of volunteer experience by the end of sophomore year.

## Social Work Courses

## SWK $170 \quad 1-4$ hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering.
May count toward the departmental major and general education requirements.

## SWK 200

## 3 hours

## Explorations in Social Work

This course intends to assist the prospective social worker in gaining awareness and understanding of basic tenets of the social work profession, Code of Ethics, guiding principles and values, and of practice settings. Throughout the course, students are given the opportunity to explore their interest in and potential for a career in social work. The course will also assist students in understanding social welfare systems and their development, and how social welfare policy affects people across the globe. As students learn about the various social issues that social workers help to change, students will explore how their Christian faith commands their reflection and action in tackling these issues.

SWK $231 \quad 3$ hours
Social Welfare: Historical Perspectives and Development
Follows the development of social welfare efforts from early civilizations to the present time. Focuses on the emergence of the profession of social work. Explores the question: "Am I my brother's keeper?" in the light of biblical principles. Offered spring semester.

## SWK 270

I-4 hours
Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## SWK 320

3 hours
Unleashing the Oppressed
This course is designed to provide the student with the necessary knowledge, values and skills to empower people who fall into "at-risk population" groups. Those groups who are at-risk for prejudice and discrimination typically include mental disability, developmental disability, sexual orientation, women, elderly and religious diversity. Service-learning component provides interaction with a variety of community-based agencies. Meets general education civic engagement or general social science requirement. Open to all students.

## SWK 340

3 hours
Working with Children
Overview of knowledge base important to effective interactions with children and adolescents. Socialization, development, welfare systems and services, legal systems, special populations and international comparisons are studied. Application to work settings is made through readings, role plays and personal experiences. Service-learning component creates interaction with community-based agencies serving children. Open to all students. Offered fall semester of odd years.

## SWK 35I <br> 3 hours

Social Work Process and Practice I
First in a 4-course practice sequence designed to provide the student with the necessary knowledge, values for ethical decision making and skills for successful practice with individuals at the generalist social work practitioner level. Develops understanding of the nature and process of social work practice, principles and techniques of the planned change process. Develops students' ability for self-awareness and for understanding the nature of clienthood. Prerequisites: CAS 110 or I20; SWK 200; SOC I00; PSY 200. Open to social work majors only. Offered fall semester.

## SWK 354

## 3 hours

Social Work Process and Practice II
Second in the 4 -course practice sequence. Enables further development of generalist social work skills with various client systems. Areas of group dynamics, ethical issues, developmental levels and diversity are emphasized. Participation in a group experience is required. Prerequisite: SWK 351 . Offered spring semester.

## SWK 355 <br> 3 hours <br> Helping Troubled Families

Introduces family systems theory, as well as the history and development of family interventions. Presents the major approaches of working with families and provides the opportunity to role play application of these approaches. Open to all students. Offered fall semester.

## SWK 360

I-4 hours
Independent Study
An individualized, directed study involving a specified topic.

## SWK 362

3 hours
Social Policy
Expands upon the concepts developed in Social Welfare and Public Policy to include social welfare policies that exist in today's society and how they impact those most dependent on social programs. Examines social programs in light of the problems they address, the service they provide and their effectiveness. Addresses contemporary social issues in light of public funding decisions. Prerequisites: POS 33I and SWK 23I. Offered spring semester.

## SWK 370

## 1-4 hours

Selected Topics
A course offered on a subject of interest but not listed as a regular course offering. May count toward the departmental major and general education requirements.

## SWK 380 <br> 3 hours <br> Understanding Suffering, Grief, and Loss

Provides a basic introduction to crucial issues related to suffering and affliction, both self-imposed and those related to the human condition. Bereavement, grief and loss across the life span will be explored. Contemporary issues related to death and dying and the roles of social institutions and services to persons affected by suffering, death and loss will be covered. Issues will be examined based on difference in gender, culture, ethnicity and religion and in light of historic and contemporary Christian faith. Open to all students. Offered spring semester of odd years.

## SWK 393

## 4 hours

Junior Practicum
During the January interterm of the junior year, students spend time in a social work setting learning how an agency functions, how professional social work practice is implemented, and how the professional interacts within an agency. This 140-hour field lab provides the student the opportunity for observation and practice. Prerequisites: SWK 35I and approval of the Junior Practicum coordinator. Pass/fail only.

## SWK 395

4 hours
International Practicum
During the January interterm of the junior or senior year, students would spend time in an international social work setting gaining knowledge of social work in a different country. They learn how an agency functions, how social work practice is implemented abroad, and specific needs within another culture. This practicum opportunity provides 140 hours of field lab work. Class fee assessed to cover travel and in country experience. Prerequisites: SWK 35 I and permission of Director of Social Work. Pass/fail only.

## SWK 441

## 3 hours

Human Behavior and the Social Environment
The primary purpose of this course is explore the question, "Why do people do behave as they do?" This question will be explored from a multidimensional systems perspective drawing from the prior social and natural science courses that have been taken. This course prepares students for globally sensitive multi-dimensional assessments that will be required for the senior field placement and generalist practice after graduation. The case method of analysis is used to bring together key social work concepts and life. The cases include situations presented in literature, an urban immersion experience to better understand urban ethnically oppressed groups, and exposure to global poverty. Prerequisites: PSY 250; BIO 244; SWK 362 and 354. Offered fall semester.

## SWK $450 \quad$ I-4 hours

Directed Research
Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.

## SWK 45I 3 hours

Social Work Process and Practice III
The third in the 4-course generalist social work practice sequence.
This course integrates social work practice, intervention and professional skills with regards to intervention and assessment at the organizational and community level. The course also focuses on macro social work practice, community organizing and development. Students will also participate in a grant writing project as they begin to develop grant writing and fundraising know-how and skills. As in the other courses in the practice sequence in our social work program, there will be a focus on the integration of micro, mezzo, and macro skills to empower students for effective generalist social work practice. Prerequisite: SWK 354. Offered fall semester.

## SWK 452

## 3 hours

Advanced Social Work Practice
Last in the 4 -course sequence for developing generalist practice skills. The professional helping relationship and interview process are emphasized. Simulated client-worker situations provide opportunities to practice skills. Employment interviews and strategies are also discussed. Beginning-level professional writing skills are developed through documentation exercises. Prerequisite: SWK 354. Offered fall semester.

## SWK 480

I-4 hours
Seminar
A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion.

## SWK 482 <br> 2 hours

Integrative Social Work Seminar
A seminar class taken by all social work majors during spring semester of the junior year. The focus is holistic integration of: (1) faith and the social work profession; (2) self and the social work profession; (3) liberal arts education and the knowledge and practice of social work; (4) self- and civic-mindedness; and (5) self as global citizen. Students begin to develop the CSWE content portion of their professional portfolio.. Focused presentations are conducted with regard to: (I) stress and time management and burnout prevention. Pass/fail only.

## SWK 490

I-2 hours

## Honors

Individualized study or research of an advanced topic within a student's major. Open to students with at least a 3.00 GPA in the major field.

## SWK 492

12 hours
Senior Practicum
A professional semester of supervised field practicum in a social work setting; 480 hours required. Prerequisite: Completion of all required courses in the social work major. Offered spring semester.

## Taylor University Online

## Dean, Jeff Groeling

Taylor University Online provides quality Christian higher education using innovative methods. With roots in the I930s, TU Online has since grown to offer over I50 courses and several programs. The online delivery format is flexible and convenient.

For additional information on Taylor University Online, visit http://www.taylor.edu/online.

Notes

## Admissions

## Application Process

The application process at Taylor University is more than paperwork. Through this process, students are invited to join Taylor's intentional Christ-centered community, developing minds for relentless discovery and a vision for engaging the world.

## Application Procedures

Students may apply to Taylor University anytime after the completion of their junior year of high school, but should apply early in the academic year preceding their desired enrollment. Application materials may be requested by phone, via email at ADMISSIONS@TAYLOR.EDU, or by writing the Office of Admissions, Taylor University, 236 West Reade Avenue, Upland, IN 46989. Students may also apply online at http://www.taylor.edu/admissions.

## Application Review

Admission to Taylor University involves a two-stage process:

- During the first stage of the review process, applications are assessed carefully to determine if they meet minimum requirements for admission to the university. Qualified students then continue to the second stage of the review process.
- During the second stage of the process, students from the pool of qualified applicants are selected for admission. Selection is based on a comprehensive review of the materials received. Academic preparedness, spiritual depth, and unique contributions to the community are important factors that are considered.


## Secondary School Preparation

Applicants to Taylor University should have graduated from an accredited secondary school and present satisfactory aptitude test scores. Aptitude test scores are used to help interpret a student's high school transcript, the primary document in the evaluation of academic potential. Applicants should have pursued a challenging college preparatory course load, including four years of English, three or four years of mathematics, three or four years of laboratory science, and two years of social science. Two years of foreign language are recommended. Also encouraged are introductory courses in music and art and skill courses in keyboarding and basic computing.

Required credentials include the application form, a personal statement of faith, official high school transcript (GED may also be accepted), recommendations from a guidance counselor and pastor, personal interview, and aptitude test scores (either SAT or ACT). For test scores to be considered official, they must be sent to the Admissions Office either through a high school guidance counselor or from the College Entrance Examination Board or the American College Testing Service. An official campus visit and personal interview are essential components of the decision making process. Interviews must be completed by April I of the applicant's senior year to be considered in evaluating an application for the April 20 notification.

Visit http://www.taylor.edu/admissions for specific admissions requirements or contact the Office of Admissions.

## Decisions and Notification

Prospective students will receive one of three types of notification:

## - Standard Notification

Students are notified of their application status by April 20 of their senior year. To be considered for this notification date, students must have their application completed by April I. Students are encouraged to complete their application as early as possible. An interview is recommended and required to be considered for special programs and specific scholarships. Students who apply after April I of their senior year are considered for admission as space permits.

## - Early Notification

A select group of applicants who have completed their applications early in the fall (including an interview) are considered for limited fall acceptances. Early notification deadines are November I and December I of the applicant's senior year. A personal interview is required for consideration for specific scholarships and special programs.

## - Denial

The review committee may feel that a student's success at Taylor is in question and that a denial is in the best interest of the student. In such cases, students are notified by mail of the committee's decision. Details regarding this policy may be obtained from the Dean of Enrollment Management.

## Provisional Acceptance

This admissions classification is for applicants who, because of unusual circumstances, do not meet the minimum academic standards for regular admission. Students admitted under this classification must earn a minimum GPA of 1.70 during the first year as a full-time student in order to remain at Taylor. Students accepted under this classification are given a prescribed schedule (less than 15 hours) and are assigned an advisor from the Academic Enrichment Center. Please contact the Admissions Office for additional information.

## Waiting Pool

Qualified students who have not been accepted by April I are placed in a waiting pool. If significant cancellations occur, students are accepted from the waiting pool based on their overall evaluation.

## Matriculation Fee

Matriculation fees are required for the following terms:

## - Fall

All applicants accepted for the fall semester are required to submit a $\$ 200$ matriculation fee ( $\$ 150$ toward tuition and $\$ 50$ housing deposit) that secures the student's place in the student body and begins the housing process. Students not living in university housing must submit a $\$ 150$ matriculation fee. All new students are required to live on campus unless they are commuting from their parents' home. The matriculation fee deadline for fall admission is May I. A new or readmitted student who cancels prior to May I will receive a full refund.

## - Spring

Students applying for the spring semester may pay their $\$ 200$ matriculation fee anytime after they have been accepted. A new or readmitted student who cancels prior to November I will receive a full refund.

## - Summer

Students enrolling for summer school may pay their matriculation fee of $\$ 20$ upon notification of acceptance. A new or readmitted student who cancels prior to the first day of classes will receive a full refund.

All refund requests must be submitted in writing.

## International Students

International students desiring admission should provide the following for consideration:

- TOEFL score of at least 550 on the paper-based test or 213 on the computer-based test. Scores must not be more than two years old. When registering, students should indicate code 1802 to have the scores sent directly to Taylor. The TOEFL may be waived if the student is a citizen of Great Britain, Australia, Canada, New Zealand, or the British West Indies, or if the student has studied in one of the abovementioned countries or in the United States within the last two years and has a good academic record.
- Certificate showing completion of secondary school, including the results of any examinations. Official English translations of the certificates are required.
- SAT or ACT scores. These scores are recommended for students who wish to be considered for merit scholarships. They are also used to determine proficiency requirements in math, reading, and writing.

An application will not be evaluated until the student submits a completed application (including essays), completed recommendation forms, official academic records and test scores, TOEFL scores, an affidavit of support, and a signed Life Together Covenant.

International students have to show evidence of financial support before full acceptance can be granted. The Form I-20 will not be issued until documentation showing sources of financial support is submitted. International students may work on campus part time during the academic year; however, the income generated will not be sufficient to cover education costs.

## Transfer Students

Transfer students must submit the transfer application form, a high school transcript, a pastor's recommendation, an official transcript from each institution previously attended, and the Transfer Verification Form, which includes a request for a report of good standing from the last college attended. Generally, a B- average is required. In addition, standardized test scores are required to determine proficiencies in math, reading, and writing.

See Transfer Credit Policy (pages 27-28) for information regarding the transfer of credit to Taylor University.

## Guest Status

Students are considered guests when they are not seeking a degree from Taylor University and fall into one of the following categories:

- Students who desire to take one or two courses at Taylor for the specific purpose of transferring the credit earned to another institution.
- High school students who wish to take college courses and apply these hours to credits-in-escrow.
- Students who attend one of the Christian College Consortium schools and desire to complement their preparation with course work at Taylor.
- Individuals who wish to take one or two courses solely for the purpose of self-improvement.

Guest students may earn no more than 24 credit hours with this status. Transfer credit is not accepted while the student holds guest status. Students who wish to apply credits toward a degree must apply for regular admission to the University through the Office of Admissions.

## Credits-in-Escrow

Junior and senior high school students may enrich and expand their educational experiences by enrolling at Taylor University on a space available basis for the fall and spring semesters. Students may take one or two classes per semester. Full college credit is awarded for all courses satisfactorily completed according to the University's established requirements and procedures. Escrow credits earned at Taylor may be transferred to other colleges and universities.

## Advanced Placement and Credit by Examination

See page 22 for Advanced Placement (AP) and Credit by Examination.

## Athletics

The University recognizes and accepts the educational, social, and promotional impact the athletic program has on the institution and its constituency. Athletics is an integral part of the "whole person" education at Taylor University. The athletic program complements the institution in its mission "to develop servant leaders marked with a passion to minister Christ's redemptive love and truth to a world in need."

The total development of the student athlete is paramount in the organization and implementation of the athletic program. Participation in intercollegiate athletics provides an arena whereby the student athlete may be developed, tested, and encouraged to achieve maximum physical, emotional, intellectual, and spiritual potential. The goal, through competition, is to assist and support student athletes in their understanding of a Christian response to a fundamental human experience.

The Taylor University philosophy of athletics is framed within the following understandings:
I. The athletic department is staffed by those who articulate and evidence a life committed to Jesus Christ. Further, they regard their profession, whether in or out of the classroom, as an opportunity to educate, mentor, and model the core values of what it means to be a man or woman of God. Commitment to Jesus Christ signifies a lifestyle and coaching style that calls for a standard of competitive excellence (Col. 3:23). It is intended that all coaches hold faculty rank and that all coaches function as educators.
2. Taylor University has a rich heritage of utilizing athletics as a means of Christian outreach and service. It is our intent to reaffirm, build upon, and create opportunities for Christian witness and discipleship through a successful intercollegiate athletic program.
3. The intellectual, spiritual, emotional, physical, and social well-being and development of our student athletes is paramount in our dealings with student athletes. Athletic participation is a platform not only for complementing our liberal arts and general education programs, but also for assuring that the core values (Biblically Anchored, Christ Centered, Faith Learning Integrated, Liberal Arts Grounded, World Engaging, Whole Person Focused, and Servant Leader Motivated) of the University are being developed.
4. A successful intercollegiate athletic program creates a strong sense of community spirit. Athletics significantly contributes to a positive campus ethos and to constituent goodwill. The University as a whole benefits by giving visibility to both the athletic programs and to the athletes involved in these programs. We endeavor to make our programs an enduring source of pride for the university, participants, alumni, and the greater Taylor community.
5. The development of student leadership has long been a hallmark of Taylor University objectives and Student Development. The dynamics of intercollegiate competition, coupled with mentoring by Christian coaches, represents the potential for a rich environment of leadership development that is personalized and tested.

## Intercollegiate Sports

Intercollegiate sports for men include baseball, basketball, cross-country, football, golf, soccer, tennis, and track and field; women compete in basketball, cross-country, soccer, softball, tennis, track and field, and volleyball.

## National/Conference Affiliations

Taylor holds membership in the National Association of Intercollegiate Athletics (NAIA). The men and women compete in the Mid-Central College Conference (MCC). The MCC consists of: Bethel College, Goshen College, Grace College, Huntington University, Spring Arbor University, University of Saint Francis (IN), Indiana Wesleyan University, Marian University, and Taylor University. Football competes in the Mid-States Football Association (MSFA). The Mideast League includes: Taylor University, Malone University, Marian University, Olivet Nazarene University, University of Saint Francis (IN), Saint Xavier University, Trinity International University, and Walsh University. The Midwest League includes: Grand View University, lowa Wesleyan College, McKendree University, Quincy University, St. Ambrose University, University of St. Francis (IL), Waldorf College, and William Penn University.

## Intramural Athletics Program

The Intramural Athletics Program, coordinated by Intercollegiate Athletics, provides a wide variety of activities for meeting the recreational and competitive needs of the entire Taylor student body. Team events include both a men's and a women's league for flag football, soccer, and basketball; coed leagues exist for volleyball and softball. Many other individual tournaments, such as pool, ping-pong, badminton, and racquetball, are held for both men and women.

Taylor's Intramural Athletics Program has extraordinarily high participation rates. For example, flag football alone has more than 800 men and women participants each year. Residence hall competition has been the driving force behind these high numbers. Intramural sports have proven to be a great outlet from the pressures of college life and have developed into a great social activity for the majority of the student body.

## Finance

We know the sacrifices made by each family are significant in obtaining a Taylor University education. We would like you to know that the charges billed cover approximately $90 \%$ of our costs for delivering a Taylor education. Alumni, friends, parents, and others provide the remaining $10 \%$ of our costs through gifts and other sources of revenue. We thank God for you and for the support of others as we prepare students to minister the redemptive love and truth of Christ to a world in need.

The University reserves the right to increase rates if and when necessary.

## Annual Costs

Refer to the Taylor University Tuition and Fee Schedule for the current costs for an academic year. This publication is available from the Office of the Bursar.

## Other Charges

Certain classes may require the student to purchase materials for specific projects or may require a basic materials charge. These costs vary by course and are charged equally to each student enrolled in the course. Certain other charges are assessed for courses requiring private or special instruction and for administrative costs for special services and transportation.

## Advance Payment

All returning students are required to pay an advance payment of $\$ 100$ to secure their registration for the fall semester. Advance payment is due by June I. Refund of the $\$ 100$ advance payment to returning students is granted as follows:

| Cancellation Date | Refund |
| :--- | :--- |
| Through June 30 | $100 \%$ |
| July I-I4 | $75 \%$ |
| July I5 and After | $0 \%$ |

## Advanced Placement (AP) Credit

A $\$ 20$ posting fee is assessed for each hour of AP credit awarded and posted to the Taylor transcript.

## College Level Examination Program (CLEP)

An examination fee of $\$ 77$ is charged for each test administered, plus a $\$ 15$ administration fee. A $\$ 20$ additional fee exists for each hour of CLEP college credit awarded and posted to the Taylor transcript.

## Change of Registration

A refund of charges will be given to students dropping from full-time to part-time status, or lowering their part-time hours, by the last date to drop a class without a transcript entry ("drop/add" period) for the fall and spring semesters. There is no reduction to the tuition charge for dropped hours after this drop/add period. Course fees are refundable only during the drop/add period. Off-campus program tuition and fees are refundable only in accordance with each program's specific refund policy.

## Emergency Funds

The Taylor Parents Association raises financial resources each year to be allocated for student emergencies. Medical costs not covered by insurance and emergency travel in case of death or severe sickness of immediate family are two of the most frequent reasons for allocations of this fund. Other emergency costs may be considered. Contact the Dean of Student Development for more information.

## Payment of Bills

The billing statement access information is emailed on or by the last day of each month to the student's TU email address, with payment due the 20th of the month. The initial billing statement for the fall semester is available in late July and is due in full by August 20.
The January interterm and spring billing statement is available in late December and is due in full by January 20.
Statements are issued each month for students who owe a balance or have had transactions to their account during that billing cycle. Any new charges that may occur are due the 20th of the month in which they are billed. Full account information is available through the portal and includes unbilled activity as well as statements. Payment can be submitted online through this secure site. There is no fee to pay with electronic check. Payment by credit card (MasterCard, Discover, or American Express) will incur a convenience fee. Visa is not accepted. It is the student's responsibility to provide access to this information to their parents.

Taylor University uses the @TAYLOR.EDU student email address to communicate, and students are responsible to check their Taylor email account regularly as they miss important information if they do not do so. Students can set up their preferred address for online billing and also authorize additional (e.g., parent) e-billing addresses by completing the authorization that can be accessed through their online account.

There are two payment options available:

- Payment in full by the due date (20th of the month for which charges are billed).
- Tuition Management Service (TMS): This method of payment provides for 10 monthly payments beginning in July in anticipation of fall enrollment. There is a nominal one-time enrollment fee paid to TMS; no interest charges are assessed by the University if the payment plan contract amount is sufficient to cover the balance due. Full TMS guidelines are available from the Office of Student Accounts or at http://www.afford.com.

Taylor charges a monthly penalty on late payments based on the following policy: Any account balance not paid by the due date when first billed, or deferred pursuant to one of the payment options described above, will be subject to a $\$ 5$ late fee or interest accrued at an annual percentage rate of 13 percent, whichever is greater.
A student's account must be current to avoid a Bursar hold on registration and housing, and a student's account must be paid in full for release of transcripts or diploma.

Additional information may be found in the Tuition and Fees Schedule available in the Office of the Bursar/Student Accounts.

## Refund Schedule (Fall and Spring Semesters)

| Withdrawals to the end of: | Tuition | Room | Board |
| :--- | :--- | :--- | :--- |
| First Week* | $90 \%$ | Prorated | Prorated |
| Second Week | $90 \%$ | $0 \%$ | Prorated |
| Third Week | $75 \%$ | $0 \%$ | Prorated |
| Fourth Week | $60 \%$ | $0 \%$ | Prorated |
| Fifth Week | $45 \%$ | $0 \%$ | Prorated |
| Sixth Week | $20 \%$ | $0 \%$ | Prorated |
| Seventh Week to end of semester | $0 \%$ | $0 \%$ | Prorated |

*First five class days of the fall/spring terms.

## Student Insurance

Taylor University requires all students to carry health insurance. Health insurance is charged to all enrolled undergraduate students and is available for their spouses and dependents at an additional cost. If a student is covered by health insurance via another method (e.g., parent coverage or other plan), and feels he or she has adequate coverage, the TU student health insurance must be declined by completion of a waiver at http://www.taylor.edu/parents/parent-resources.shtml. Failure to submit the required waiver by the deadline indicates the student's acceptance of the insurance policy and required premium. Coverage is also available for graduate students and their spouses and dependents. Information is available upon request from the Student Insurance Office located in the Center for Student Development.

## University Withdrawal Procedures

Withdrawal forms may be secured from the receptionist in the Office of Student Development.
In cases of withdrawal of full-time students from the University, refunds of student charges for tuition and room and board are based on the refund schedule. Basic fees are nonrefundable. No meals are refunded and no refund will be given for withdrawals after the end of the sixth week.

Refunds are based on the total term bill and on the date the official withdrawal form is completed. The matriculation fee and housing deposit are forfeited for students who complete registration but must withdraw before May I. Any deviations from the refund policy are at the discretion of the Office of the Bursar, School Dean, and the Dean of Student Development.
If a student is receiving financial aid, funds will be returned to the aid source(s) according to the Taylor University Return of Financial Aid Funds policy.

The following information regarding financial aid is accurate at the time of the catalog printing, but is subject to change due to changing federal and state regulations and institutional policies and budgetary constraints. For the most current information, please refer to the financial aid section of our website at http://www.taylor.edu/admissions/finaid or contact the Financial Aid Office.

The financial aid programs at Taylor recognize that it is the basic responsibility of students and their families to finance a college education. However, the rising cost of education has made it necessary for many students to enlist financial assistance outside their personal resources. Financial aid can help many qualified students attend Taylor regardless of financial circumstances.

The financial aid programs offer assistance to students in need in the form of scholarships, grants, loans, and employment. Financial aid is awarded primarily on the basis of financial need, except in the case of merit scholarships that require superior academic achievement and ability. If the student's aid package is based on financial need, the total aid package (including merit and outside scholarships) cannot exceed the student's financial need.

Financial need is defined as the difference between a family's resources and the total cost of attending college. If a difference exists between the total cost of attending Taylor (including all tuition, fees, room, board, books, supplies, and personal expenses) and the ability of the family to meet these educational costs, the student is determined to have financial need. An evaluation of financial need includes consideration of the parents' and student's income and assets, household size, and number of household members in college.

To determine the extent of the student's financial need and the family's ability to pay for educational expenses, Taylor uses the Free Application for Federal Student Aid (FAFSA). An analysis of this data determines the student's eligibility for need-based grants, loans, and work study.

Students enrolled in Taylor University's established off-campus programs will receive financial aid as though they were on campus. Students may only receive institutional financial aid for their first off-campus program. Federal financial aid is available for additional study abroad programs. No financial aid (federal or institutional) will be awarded to students attending off-campus programs not offered through Taylor University.

Students who plan to enroll on a part-time basis should consult the director of financial aid about the availability of financial aid programs. It should be noted that many aid programs require that a student be enrolled full time (a minimum of 12 credit hours per semester).

To continue to receive need-based financial aid, a student cannot be on extended academic probation and must meet the criteria established in the Taylor University Satisfactory Academic Progress Policy. A copy of this policy is available online at http://www.taylor.edu/admissions/undergraduate/tuition-financial-aid/forms-and-documents/. Satisfactory academic progress for financial aid applicants/recipients shall be measured both qualitatively and quantitatively. In order to maintain eligibility to receive financial aid, a student must successfully complete at least $50 \%$ of the credit hours attempted in a given term and $80 \%$ of the overall credit hours attempted. The student must also complete his/her undergraduate degree within 160 credit hours attempted, including transfer hours, AP and CLEP credit, and any other credits used to meet degree requirements.

## How to Apply for Financial Aid

Students should begin the application process for financial aid as soon as possible after January I. Those only interested in merit-based programs need not submit any financial aid forms. The Financial Aid Office automatically awards merit-based scholarships after receiving the students' SAT/ACT scores and high school GPA information from the Admissions Office.

In order to receive timely consideration in the awarding of financial aid, students must: (I) submit the indicated forms; (2) respond promptly to requests for additional information, documentation, etc.; and (3) comply with the following directives:

- Be accepted for admission to Taylor University. Students may apply for financial aid prior to their acceptance at Taylor, but financial aid will not be awarded until acceptance is finalized. Please note that transfer students must indicate Taylor University as a recipient of their Free Application for Federal Student Aid (FAFSA) information and have their financial aid forms received by the federal processor by March 10.
- Complete the FAFSA online at http://www.fafsa.ed.gov as soon as possible after January I. The federal processor must receive the FAFSA by March 10, in order to be considered for need-based institutional aid. Students whose forms are received after this date will only be eligible for the Federal Stafford Loan, Federal Pell Grant, Federal PLUS funds, and non-need merit-based aid. Please also consider the following:
I. In order to avoid unnecessary delays in processing, the Taylor Financial Aid Office strongly recommends that a family complete its income tax returns before completing the FAFSA. However, if this is not possible, the FAFSA must be completed using estimated tax information in order to meet the deadline.

2. The release of information to Taylor University should be clearly requested on the FAFSA (code \# 001838).
3. Additional forms may be required in order to receive state aid from Pennsylvania, Vermont, Alaska, Rhode Island, or Massachusetts. Students should check with their high school guidance officer regarding which forms are required by their state.
4. In order for Indiana residents to be considered for state aid, their FAFSA must be received by March IO. No other form is required.

Merit-based awards are presented to students who demonstrate outstanding scholarship. Financial need is not considered for this type of aid. The President Scholarship, Dean Scholarship, Faculty Scholarship, and Academic Merit Award are awarded to all students entering Taylor during the 20II-I2 academic year who meet the specified criteria. A student can only receive one academic scholarship from Taylor.

- The President Scholarship requires a minimum SAT combined math and reading score of 1450 or ACT composite score of 33 , plus a high school cumulative GPA of $3.80-4.00$. It is renewable if the student maintains a 3.20 GPA . The amount is $\$ 10,000$.
- The Dean Scholarship requires a minimum SAT combined math and reading score of 1200 or ACT composite score of 27 , plus a high school cumulative GPA of $3.80-4.00$ OR a minimum SAT combined math and reading score of II50 or ACT composite score of 25 , plus a high school cumulative GPA of $3.90-4.00$. It is renewable if the student maintains a 3.20 GPA. The amount is $\$ 8,000$.
- The Faculty Scholarship requires a minimum SAT combined math and reading score of II50 or ACT composite score of 25 , plus a high school cumulative GPA of $3.40-4.00$. It is renewable if the student maintains a 3.20 GPA. The amount is $\$ 6,000$.
- Academic Merit Awards are given to all National Merit Finalists. The amount is $\$ 10,000$. The Academic Merit Award is given in place of other Taylor academic scholarships.
- Class Merit Awards are given to the top 10 students, by GPA, in each of the sophomore, junior, and senior classes to students who are not already receiving an academic scholarship from Taylor. Awards range from $\$ 1,500$ to $\$ 3,000$.


## Need-Based Awards

The FAFSA determines need-based awards, which include need-based grants, loans, and work-study eligibility. The total aid package may not exceed the student's financial need as determined by the FAFSA.

- The only criterion for the Taylor Fund Grant is financial need. The amount will vary from year to year based on financial need as determined by the FAFSA.
- The maximum amount for the Taylor University Loan is $\$ 1,500$ per year according to financial need; repayment with a 7 percent interest rate begins six months after the student leaves school. This long-term, low-interest loan program is designed to assist students who demonstrate financial need as determined by the FAFSA. Repayment and interest on this loan begin after a student ceases to be enrolled on at least a half-time basis.
- To qualify for student employment, a student generally must demonstrate financial need. Exceptions include personnel assistants in residence halls or students who possess required skills, such as computer knowledge.


## Other Available Awards

Students may be eligible for other types of awards besides the merit-based and need-based scholarships:

- The Community Life Scholarship, for $\$ 3,000$, is awarded yearly to 50 incoming freshmen. Accepted students who have interviewed and completed an application for admission by February I are considered. Selection is based on leadership experience determined by the application and interview. This scholarship is renewable with a 2.60 GPA and continued involvement in specified leadership activities.
- The Church Matching Grant enables Taylor University to match 100 percent of a church's gift to a student, with Taylor's maximum match totaling $\$ 1,000$. A pledge form must be received by or submitted online to the Financial Aid Office by March I0, and the church gift must be received by June I.
- Athletic Scholarships are awarded by the coaches to students who demonstrate exceptional ability in athletics.
- Music Scholarships are awarded to students majoring in music who display special talent with musical instruments or voice and who show promise of superior accomplishments in this field. Students interested in applying should contact the chair of the music department.
- The Cultural Diversity Scholarship, ranging from $\$ 1,000$ to $\$ 3,000$, is awarded yearly to incoming freshmen who provide cultural enrichment to our campus community. The Office of Admissions coordinates the selection process. The scholarship is renewable with a 2.00 cumulative GPA.


## Federal Aid

Anyone may apply for federal aid by completing the Free Application for Federal Student Aid (FAFSA).

## Grants

Anyone may apply for the following grants by completing the Free Application for Federal Student Aid (FAFSA):

- The Federal Pell Grant is based on financial need as determined by the FAFSA. It offers a maximum of $\$ 5,550$ per year (amount subject to change on a yearly basis).
- The Federal Supplemental Educational Opportunity Grant is based on financial need as determined by the FAFSA. It replaces the Taylor General Grant. A maximum of $\$ 4,000$ per year is provided.


## Loans

Anyone may apply for the following loans by completing the appropriate applications:

- The Federal Perkins Loan is based on financial need as determined by the FAFSA. Taylor awards a maximum of $\$ 1,500$ per year according to financial need. Repayment begins nine months after the student leaves school or drops below half-time enrollment. A 5.0 percent interest rate is charged. Taylor University awards the loan, which must be signed for every year it is received.
- The Federal Direct Subsidized Stafford Loan is a student loan provided directly from the federal government. If you are interested in this loan, follow the instructions listed in your electronic award notification. To ensure disbursement for the August payment, you must apply online at https://myfa.taylor.edu by June 15. This loan is based on financial need as determined by the FAFSA. The loan provides a maximum of \$3,500 per year for freshmen; \$4,500 per year for sophomores; and \$5,500 per year for juniors and seniors, depending on financial need. Repayment begins six months after the student leaves school. This loan has a fixed interest rate of 3.4 percent.
- The Federal Direct Unsubsidized Federal Stafford Loan is not based on financial need. Interest accrues from the date of disbursement and will be capitalized into the loan. Otherwise, it operates the same as a subsidized loan. It cannot exceed maximum loan limits when combined with a subsidized loan. This loan has a fixed interest rate of 6.8 percent.
- The Federal Direct PLUS Loan is a loan for parents provided directly from the federal government, and a separate application must be completed online at https://myfa.taylor.edu. To ensure disbursement for the August payment, the online application must be completed by June 15. It is not based on financial need and may not exceed the cost of attendance minus other aid. Interest on each disbursement amount begins to accrue at the time of disbursement. Repayment begins 60 days after the final disbursement of the loan period. Federal PLUS has a fixed interest rate of 7.9 percent.


## State Aid

Students from Indiana may qualify for the following:

- The 21st Century Scholarship is based on financial need as determined by the FAFSA. It provides a maximum of $\$ 6,306$ per year (amount subject to change on yearly basis).
- The Frank O’Bannon Grant Program comprised of:
- The Higher Education Award, based on financial need as determined by the FAFSA. It provides a maximum of $\$ 706$ per year (amount subject to change on yearly basis).
- The Freedom of Choice Grant, based on financial need as determined by the FAFSA. It offers a maximum of $\$ 6,350$ per year (amount subject to change on yearly basis).

The following states offer applicable state grants: Pennsylvania, Massachusetts, Alaska, Rhode Island, and Vermont. These state grants are awarded to students even if they attend out-of-state colleges. These grants are based on financial need as determined by the FAFSA and additional forms.

## Work Study

Federal Work Study is based on financial need as determined by the FAFSA. Students are generally awarded a maximum of $\$ 2,400$ per year.

## Student Development

In keeping with the mission of Taylor University, the purpose of Student Development is to provide a life-changing student development program and services within a decidedly Christian residential community by caring for the needs of a diverse student body in ways that foster the holistic growth of each individual.

Student Development is committed to the following objectives:

- Provide the environment, resources, and programs that maximize the potential for Christian students to grow in their understanding and expression of their Christian faith.
- Provide programs that promote ethnic and cultural understanding.
- Provide professional counseling and healthcare services for students.
- Create a residence life program which encourages personal growth and fosters a living out of the Life Together Covenant.
- Provide safe, attractive, and comfortable housing facilities for students.
- Provide wellness programs, experiences, and information which help students to live healthy and balanced lives.
- Provide a campus community which is safe and secure for students.
- Provide orientation services that will aid students in their transition to Taylor University and college life.
- Enhance the overall educational experience of students through development of, exposure to, and participation in social, cultural, intellectual, recreational, athletic, and leadership programs.
- Assist students with career planning that will result in professional preparation for placement.
- Ensure a student body profile, both in numbers and quality, that is supportive of Taylor's strategic educational and institutional planning.


## American Ethnic Student Programs

The purpose of this office is to facilitate the academic success, spiritual development, and social well-being of American ethnic students. The intention of this office is to provide an environment in which students are assured support as well as advocacy relative to their unique concerns. Students are encouraged to engage in programs designed to affirm their ethnicity and are offered opportunities for leadership. This office also implements educational opportunities that promote diversity awareness and sensitivity throughout the campus community. Here, reciprocal relationships are cultivated with community leaders in order to establish student support linkages between local communities and Taylor University. This office seeks to aid all students on their journey of becoming culturally competent and globally minded Christians.

## Campus Ministries

Campus Ministries is an integral part of Taylor's whole person education. The office of Campus Pastor oversees the chapel and discipleship programs. Chapel for the entire community is held three times a week during the regular semesters. Spiritual renewal weeks, as well as other special emphasis weeks, are featured throughout the year. A campus-wide vesper service is held each Sunday night. Bible teaching is central to all these gatherings. The discipleship ministry provides coordinators in each residence hall. These leaders encourage regular Bible reading, prayer, and local church attendance among small groups, which are formed on each floor.

## Career Coaching

The Career Development Office, located in the Student Union, assists in all phases of career planning and professional development. Career professionals help educate students about their values, interests, personality, and skills and connect them to potential careers. The staff reviews resumes and cover letters, prepares students for professional interviews, conducts workshops, and facilitates networking opportunities to connect students with alumni and employers.

Taylor's career resources are available to serve students, faculty, and alumni. Resources include self-assessment tools, online resources, books, graduate school information, and employer and alumni contact information. The Career Development Office utilizes Career Direct, a Crown Financial Ministries assessment tool, and the Myers Briggs Type Indicator Career Report to assist students in identifying their passions and abilities. Career Development Connections is the online employment and internship database that connects students and alumni to current full-time, internship, and on-campus or off-campus part-time positions. For information, contact the Career Development Office (ext. 85382).

## Counseling Center

The Counseling Center offers students professional counseling services on a no-fee basis. Individual counseling, groups, premarital counseling, workshops, and educational programs are available. Care is given to approach all of life in the context of a biblical worldview. The Counseling Center is located on the lower level of the Rediger Auditorium. Students are seen by appointment and also on an emergency basis. Referrals can also be made to other qualified Christian professionals in the area.

## International Student Programs

The purpose of the office of International Student Programs is to facilitate the academic success, spiritual development, and social well-being of international students. The intention of this office is to provide an environment in which students are offered support as well as advocacy relative to their unique concerns and are encouraged to engage in programs designed to affirm their ethnicity and cultural backgrounds. The program also implements educational opportunities to promote diversity awareness throughout the campus community and cultivate reciprocal relationships with community leaders in order to establish student support linkages between local communities and Taylor University.

## Health Services

Indiana University Health Ball Memorial Physicians provide healthcare services for Taylor University students. Services include pharmacy, physical rehabilitation, laboratory, and rotating specialists clinic through the Taylor University Health Center housed in the Indiana University Health Ball Memorial Outpatient Center located across from campus. Emergency situations requiring urgent care are facilitated by Indiana University Health Blackford Hospital's emergency room.

A full-time student pays a health service fee each fall and spring semester and January interterm. This fee may be waived only if the student is married, a commuter from his or her parents' home, or studying away from campus. In order for this fee to be removed from the bill of an eligible student, a waiver must be obtained from the Bursar's Office and signed by the end of the second week of classes each semester. Health services are not available during summer sessions.

Student insurance is offered and billed separately from the health service fee. Questions regarding student insurance may be directed to Bev Guffey at (765) 998-5379 or BVGUFFEY@TAYLOR.EDU

Students are responsible for notifying their professors when their absence from class is due to illness. Health services staff will not issue written excused absences.

## Housing Information

Taylor University is a residential campus by design; therefore, all single undergraduate students must live in university-owned housing or with their parent/legal guardian in their home. Students who have been admitted to Taylor University and have paid the $\$ 200$ matriculation fee will receive a residence hall application from the Center for Student Development. This material is to be completed and returned to the Center for Student Development before housing assignments will be made. $\$ 50$ of the $\$ 200$ matriculation fee serves as a housing deposit and is returned when the student leaves Taylor or cancels his/her acceptance (see refund policy). Charges for damage to residence hall property and other university-administered facilities are deducted from this housing deposit.

In order to accommodate the entire student body, it is sometimes necessary to supplement campus residential facilities. Off-campus housing is considered overflow housing and is limited to the number of upperclassmen who cannot be accommodated in the residence halls. The number of students approved to live off campus is dependent on projected enrollment and retention. Because these figures change from year to year, an application and approval process has been established. Upperclassmen who have met the eligibility requirements are given the opportunity to apply (in February of a given year) to live off campus the following year. Students living off campus are expected to abide by both the biblical and Taylor University responsibilities outlined in the Life Together Covenant.

Married students and students over the age of 25 are automatically approved to live off campus. They must arrange to do so through the Center for Student Development, but may select housing that meets their particular needs. Any married student interested in living in a university-owned apartment must apply to do so in the Center for Student Development.

## Leadership Development

Taylor University has a long tradition of preparing servant leaders. This emphasis is born out of the mission statement and purposes of the University, in order to develop servant leaders marked with a passion to minister Christ's redemptive love and truth to a world in need.

The Office of Leadership Development provides all students with opportunities for leadership training and involvement. The Leadership Initiative of Taylor (LiT) is a four-level program that encourages students to achieve leadership goals during the four-year college experience. LiT supports the cognitive, spiritual, emotional, physical, vocational, social, and ethical development of students. Students are encouraged to combine their curricular and co-curricular experiences to integrate faith and learning in a holistic process. A student Leadership Development cabinet assists with planning on-campus leadership development opportunities, as well as the National Student Leadership Conference.

Taylor University's distinctive model of leadership is rooted in John 13:3-17. As Jesus knelt to wash the feet of his disciples, he provided an indelible example for generations of leaders to follow. In order to lead, one must serve others. The towel given to each graduating senior during commencement ceremonies represents Taylor's distinctive emphasis on service. Taylor University presents a dynamic servant leadership model, empowering students to grow in their abilities even as alumni.

## Residence Life

Taylor University is a residential campus with a strong emphasis on community living. The purpose of the Residence Life program is to provide safe, attractive, and comfortable physical facilities, structured educational programming, and an atmosphere conducive to unstructured learning experiences. In addition, Residence Life seeks to create an environment that fosters the basic values of Christian community. The residence halls serve as living-learning centers where students are challenged to grow and apply their faith through interaction with their neighbors. As living-learning centers, residence halls at Taylor are designed to fulfill two goals: the first is to provide a community living experience through which students are exposed to a variety of educational opportunities that transcend their chosen courses; second, they provide the resources and professional staff necessary to assist students in developing a high degree of self-direction and responsible citizenship.

There are eleven residence halls on campus housing almost 1,700 students. The halls have different room and floor configurations, affording students the opportunity to choose a living environment that best suits them. Room assignments are made prior to the beginning of the fall term. Room and roommate preferences are honored within the limits of available space. The University reserves the right to assign rooms when deemed appropriate. Individual rooms are furnished with window coverings, beds, mattresses, desks, chairs, and dressers.

Each residence hall has a leadership team that includes personnel assistants, discipleship coordinators, and representatives who serve on Student Senate. These student leaders are supervised by residence hall directors who work as educators, counselors, and members of Taylor University faculty.

## Student Clubs

Student clubs exist to provide a wide array of co-curricular experiences that meet social, academic, and practical needs of the Taylor University community. Club interests range from academic (Psychology, Social Work, Environmental Science, Art, German, and Pre-Med) to activityoriented (Equestrian, Lacrosse, etc.). Students who have special interests not represented on campus are encouraged to seek club status through the Student Senate approval process.

## Student Orientation

All incoming students are welcomed to the Taylor community as part of the orientation program. Summer Orientation provides all matriculated students and their parents an introduction to community life and a chance to meet administrators and faculty.

Welcome Weekend begins the school year with social events and informative activities. Each new freshman student is placed in a small group led by upper-class student leaders. These orientation groups meet in conjunction with New Student Orientation class during the first half of the fall semester. Through class lectures and small groups, relevant topics are discussed to assist with the transition to college life and provide a support network for the Taylor community.

## Student Programs

The Office of Student Programs at Taylor University provides dynamic student leadership experiences that cultivate faith, passion, and calling and service through relationships, learning, and excellent programs. The philosophy of our office is founded in the desire to develop thoughtful, Christ-centered leaders. Programs encourage whole-person student learning and are marked by educational out-of-the-class experiences that connect with and complement in-class experiences. Events build campus community through fun and meaningful activities that create a common context of experiences and values. Student leaders represent diverse needs and concerns to the Taylor University community and engage in collaborative efforts to address those issues. Our goal is to produce students who are equipped to engage the culture as passionate world-transformers according to their calling in Christ.

## Taylor University Police Department

Taylor University Police Department provides a variety of services to the students, faculty, and staff of Taylor University. The University employs full- and part-time police officers and security officers to provide 24/7/365 law enforcement and security services. As the chief law enforcement office for Taylor, the Chief of Police works in conjunction with local, state, and federal law enforcement agencies to ensure a safe campus environment. Taylor University Police Department also oversees the campus motor pool, lost and found, and identification card system, as well as the after-hours emergency telephone, motor vehicle registration, and parking programs. Taylor University complies with the Crime Awareness and Campus Security Act of 1990.

## Taylor Student Organization

The Director of Student Programs and the Student Body President provide the leadership for the Taylor Student Organization (TSO). Through innovative and educational opportunities, activities, and services, TSO addresses diverse student needs, encourages whole-person learning, and builds community. TSO is comprised of over 100 students serving in the following areas:

- Office of the Student Body President
- Media and Marketing Services Board
- Global Engagement
- Integration of Faith \& Culture Programs
- Leadership Development Cabinet
- Office of Global Engagement
- Student Senate
- Multi-Ethnic Student Association
- Office of Finance
- Student Activities Council
- Inter-class Council


## Taylor World Outreach

Taylor World Outreach (TWO) emphasizes practical experience in ministry and leadership. Eight student-led departments are committed to leadership development and outreach:

- Acting on AIDS
- Community Outreach
- Global Outreach
- Carpenter's Hands
- Lighthouse (sponsoring January interterm mission trips)
- Spring Break Missions
- World Opportunities Week
- Youth Conference


## Board of Trustees

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David Boyer, Attorney at Law, Boyer and Boyer, Fort Wayne, Indiana.
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Dr. Rhonda Jeter-Twilley, Department Chair and Associate Professor of Counseling, Bowie State University, Bowie, Maryland.

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Douglas Rupp, Director, Finance \& Administration, Sauder Woodworking, Inc., Archbold, Ohio.

Mark Soderquist, Director, U.S. Urban and Ethnic Ministries, International Teams, Chicago, Illinois.

Mark Taylor, President, Tyndale House Publishers, Wheaton, Illinois.
Karen Thomas, Christian Laywoman/Homemaker, Lexington, Kentucky.
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Dan Wolgemuth, President, Youth for Christ, Englewood, Colorado.

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Paul A. Steiner, Retired Chairman and President, Brotherhood Mutual Insurance Company, Fort Wayne, Indiana.

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Paul W. Wills, Retired Chairman, Toledo World Terminals, Birmingham, Alabama.

Dr. James H. Woods, General and Vascular Surgeon, Hartland, Wisconsin.

Paul Zurcher, President, Zurcher's Tire, Inc., Monroe, Indiana.

## Administration

## Executive Administration

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Stephen S. Bedi, Provost
Stephen R. Mortland, Vice President for Enrollment Management and Marketing
Stephen P. Olson, Vice President of Finance / CFO
Ben Sells, Vice President for University Advancement
Ronald B. Sutherland, Vice President of Business Administration
C. Skip Trudeau, Vice President of Student Development and Dean of Students

## Campus Administration

Lawrence J. Belcher, Dean of School of Business and Arthur Hodson Chair
Christopher P. Bennett, Dean of International Programs, and Director, Spencer Centre for Global Engagement
Mark L. Biermann, Dean of Natural and Applied Sciences
Daniel Bowell, University Librarian
Faye E. Chechowich, Dean of Faculty Development and Director, Center for Teaching and Learning Excellence
L. Angela Fincannon, Director of Intercollegiate Athletics and Assistant to the Provost for the Bahamian Global Engagement Program

Sherri Harter, Associate Vice President for Development
Thomas G. Jones, Dean of Liberal Arts
Connie D. Lightfoot, Dean of Professional and Graduate Studies
Rob Linehan, Chief Information Officer
Cathy Moorman, University Bursar/Manager of Student Accounts
Timothy A. Nace, Associate Dean of Enrollment Management and Director of Financial Aid
David Ritchie, Associate Vice President for Campaigns
Brent Rudin, Associate Vice President for Alumni and Parent Relations
Janet Shaffer, University Registrar
Joyce Wood, Associate Vice President for University Relations and Marketing

## Academic Schools

## GRADUATE SCHOOL

## School of Graduate Studies

Connie D. Lightfoot, Dean of Professional and Graduate Studies
Timothy W. Herrmann, Graduate Chair, Master of Arts in Higher Education
Evan Wood, Interim Graduate Chair, Master of Business Administration
E. Richard Squiers, Graduate Chair, Master of Environmental Science

## UNDERGRADUATE

## School of Business

Lawrence J. Belcher, Dean of Business and Arthur Hodson Chair

## School of Liberal Arts

Thomas G. Jones, Dean of Liberal Arts
R. Philip Loy, Associate Dean, Social Sciences, and Chair, Political Science and International Relations

Jonathan Bouw, Chair, Art
Kathy Bruner, Co-Chair, Media Communication
Mark Cosgrove, Chair, Psychology
Nancy Dayton, Chair, English
Donna Downs, Co-Chair, Media Communication
Michael Harbin, Chair, Biblical Studies, Christian Education, and Philosophy
Albert Harrison, Chair, Music
Roger Jenkinson, Chair, Geography
Michael Jessup, Chair, Sociology
Hadley Mitchell, Chair, Economics
Jessica Rousselow-Winquist, Chair, Communication
Daniel Treber, Chair, Modern Languages
Alan Winquist, Chair, History, International Studies, and Social Studies

School of Natural and Applied Sciences
Mark L. Biermann, Dean of Natural and Applied Sciences
Mark Colgan, Chair, Mathematics
Daniel Hammond, Chair, Chemistry and Biochemistry
Kenneth Kiers, Chair, Physics and Engineering
Jan Reber, Chair, Biology
Paul Rothrock, Chair, Earth and Environmental Sciences
William Toll, Chair, Computer Science and Engineering

School of Professional Studies
Connie D. Lightfoot, Dean of Professional and Graduate Studies
Jeff Groeling, Dean, Taylor University Online
Dennis Hensley, Director, Professional Writing
Cathy Harner, Chair, Social Work
Pamela Jordan-Long, Chair, Professional Writing
Bruce Pratt, Chair, Physical Education and Human Performance
Cynthia Tyner, Chair, Education

Academic Support
Barbara Bird, Director of Writing Center
Daniel Bowell, University Librarian
Gerald Friesen, Director of Academic Technology
Scott Gaier, Coordinator, Academic Enrichment Center
Trina Stout, Director of Academic Advising
R. Edwin Welch, Coordinator, Academic Support Services

## Faculty of Instruction

The year appearing immediately after each name indicates the first year of full-time faculty service at Taylor.

## School of Business

Scott A. Adams, 2000. Associate Professor of Business. BA, Otterbein College, 1991; MA, University of Toledo, 1999; DBA, Anderson University, 2005.

Michael J. Bates, 2004. Director of Innovative Enterprises Program, Assistant Professor of Business. BS, United States Military Academy (West Point), 1979; MBA, Regent University, 2004; additional graduate studies, George Fox University.

Lawrence J. Belcher, 201I. Dean of Business, Professor of Economics and Hodson Chair of Business. BA, Hanover College, 1978; MS, Auburn University, 1979; PhD, Indiana University, 1987.

Lee E. Erickson, 1979. Professor of Economics. BA, University of Washington, 1968; MA, University of Washington, 1970; PhD, University of Michigan, 1975.

Mary Jo Hirschy, 2005. Assistant Professor of Business. BA, DePauw University, 1997; MA, DePaul University, 2003, additional graduate studies, Regent University.

Kim A. Miller, 2008. Assistant Professor of Accounting. BS, Indiana University-Fort Wayne, 1985; MBA, Indiana University-Fort Wayne, 1989.

Hadley T. Mitchell, 1993. Professor of Economics. BA, Houghton College, 1969; MBA, University of Colorado, 1975; MAR, Westminster Theological Seminary, 1980; MA, Villanova University, I984; MA, University of Tennessee, 1985; PhD, University of Tennessee, 1993.

David R. Poucher, 2007. Assistant Professor of Accounting. BS, Taylor University, I98I; MA, Fuller Theological Seminary, 1986; MBA, University of North Carolina at Chapel Hill, 1999.

Jeffrey F. Sherlock, 2007. Professor of Business. BBA, Ohio University, 1988; MBA Ohio University, I990; EdD, Ball State University, 1997.

Evan D. Wood, 2009. Associate Professor of Management (MBA). BA, Cedarville University, I997; MBA, Indiana University-Fort Wayne, 2004; PhD, Indiana State University, 2010.

## School of Liberal Arts

Christopher G. Bade, 2004. Professor of Music. BME, Illinois Wesleyan University, 1980; MM, University of Akron, 1982; DMA, University of Illinois, 1989.

Beulah P. Baker, 1979. Professor of English. BA, Spring Arbor College, 1967; MA, Michigan State University, 1969; PhD, Michigan State University, 1976.

Barbara J. Bird, 200I. Professor of English. BA, Taylor University, I999; MA, Ball State University, 200I; PhD, Ball State University, 2005.

Steven P. Bird, 1993. Professor of Sociology. BS, Boise State, 1986; MA, University of Washington, I990; PhD, Purdue University, 1993.

Larry L. Blakely, 1998. Assistant Professor of Art. BFA, Ball State University, 1988; MFA, Southern Illinois University, 1991.

Jonathan H. Bouw, 2007. Associate Professor of Art. BA, Nyack College, I987; MFA, School of Visual Arts, 1990.

Daniel R. Bowman, Jr., 2011. Assistant Professor of English. BA, Roberts Wesleyan College, 200I; MA, University of Cincinnati, 2006; MFA, Seattle Pacific University, 201 I.

Sara E. Brookshire, 2011. Instructor of Media Communication. BS, Taylor University, 1993; MA, Ball State University, 2003.
A. John Bruner, 2005. Assistant Professor of Media Communication. BA, Asbury College, 1987; MA, Asbury College, 2004.

Kathleen M. Bruner, 2005. Assistant Professor of Media Communication. BA, Asbury College, 1987; MA, Baylor University, 1988.

Chin Chang, 2004. Associate Professor of Modern Languages. BA, Korea University, 1992; MA, Instituto Caro y Cuervo, 1995; PhD, University of Texas at Austin, 2003.

Faye E. Chechowich, 1989. Dean of Faculty Development and Director, Center for Teaching and Learning Excellence, Professor of Christian Education. BA, Taylor University, I974; MRE, Trinity Evangelical Divinity School, 1988; PhD, Indiana University, 1999.

Dana L. Collins, 1992. Professor of Music. BM, University of Toronto, 1976; MM, California State (Fullerton), I980; DMus, Indiana University, 2002.
jennifer L. Collins, 2003. Director of Lighthouse Programs, Associate Professor of Missions. BS, Taylor University, I989; MAR, Trinity Evangelical Divinity School, 2000.

Philip J. Collins, 1999. Professor of Christian Education. BA, Taylor University, 1982; MA, Trinity Evangelical Divinity School, 1993; PhD, Purdue University, 2005.

Mark P. Cosgrove, 1976. Professor of Psychology. BA, Creighton University, 1969; MS, Purdue University, I97I; PhD, Purdue University, 1973.

Nancy C. Dayton, 1988. Professor of English. BA, Marion College, 1985; MA, Indiana University, 1987; PhD, Miami University, Ohio, 1996.

Kevin S. Diller, 2009. Assistant Professor of Philosophy and Religion. BA, Taylor University, 1993; MDiv, Princeton Theological Seminary, I997; ThM Calvin Theological Seminary, 200I; PhD, University of St Andrews, 2008.

Karen A. Dowling, 2011. Assistant Professor of Modern Languages. BA, Ball State University, 1997; MA, Ball State University, 2004; additional graduate studies, Ball State University.

Donna J. Downs, 200I. Associate Professor of Media Communication. BA, Indiana University, 1980; MA, Ball State University, 1988; EdD, Ball State University, 2005.

Diane E. Dungan, 2000. Associate Professor of Psychology. BA, Indiana University, 1993; PhD, Texas Tech University, 2001.

Curtis E. Ellis, 2010. Associate Professor of Art. BA, Greenville College, 1983; BFA, Western Michigan University, 1989; MFA, University of Michigan, 1995.

Michael A. Harbin, 1993. Professor of Biblical Studies. BS, U.S. Naval Academy, 1969; ThM, Dallas Theological Seminary, 1980; ThD, Dallas Theological Seminary, 1988; MA, California State University, 1993.

Albert D. Harrison, 1978. Professor of Music. BM, Virginia Commonwealth University, 1973; MS, University of Illinois, 1978; EdD, University of Illinois, I986.

Leon A. Harshenin, 1998. Professor of Music. BA, Dominican College of San Rafael, I98I; BM, Juilliard School, I984; MM, Juilliard School, I985; DMA, University of Michigan, 1998.

Kathryn A. Herrmann, 1998. Assistant Professor of Art. BS, Taylor University, 1976; MA, Ball State University, 1998.

William A. Heth, 1987. Professor of Biblical Studies. BA, University of Michigan, 1974; ThM, Dallas Theological Seminary, 1982; ThD, Dallas Theological Seminary, 1986.

Tracy L. Hoskins, 2005. Assistant Professor of History. BS, University of South Alabama, 1980; MDiv, Trinity Evangelical Divinity School, 1991; MA, Ohio State University, 1994; additional graduate studies, Ohio State University.

Aaron J. Housholder, 2007. Instructor of English. BA, Anderson University, I995; MA, Ball State University, 1998; MA, Ball State University, 2007; additional graduate studies, Ball State University.

Roger L. Jenkinson, 1965. Professor of Geography. BS, Taylor University, 1960; MA, Ball State University, 1962; EdD, Oklahoma State University, 1974.

Michael M. Jessup, 1996. Professor of Sociology. BA, Idaho State University, 1985; MS, lowa State University, 1987; PhD, Southern Illinois University, 1992.

Thomas G. Jones, 1988. Dean of Liberal Arts, Associate Professor of History. BA, Taylor University, 1971; MA, University of Notre Dame, 1976; EdD, Ball State University, 1998.

Dale S. Keller, 2000. Professor of Communication Arts. BS, Arizona State University, 1976; MDiv, Fuller Theological Seminary, 1979; MA, Wheaton College, 1985; PhD, University of Kansas, 1995.

Nicholas B. Kerton-Johnson, 2010. Assistant Professor of Political Science. BA, University of Cape Town, 1996; MA, Kings College London, 1999; PhD, University of Bristol, 2008.

Gregory D. Klotz, 2007. Assistant Professor of Modern Languages. BA, Concordia College, 1979; MDiv, Concordia Seminary, 1984; MTh, Luther Northwestern Theological Seminary, 1989; additional graduate studies, Indiana University.

Sheri L. Klouda, 2006. Graduate Chair, Master of Arts in Religious Studies, Associate Professor of Biblical Studies. BA, Criswell College, 1997; MA, Criswell College, 1998; PhD, Southwestern Baptist Theological Seminary, 2002.

Yin Ling Eva Kwan, 2011. Assistant Professor of Music. BS, Cheltenham and Gloucester College of Higher Education, UK, 1998; MM, Rider University Westminster Choir College, 1997; DME, Indiana University, 2007.
R. Philip Loy, 1964. Associate Dean for Social Sciences, Professor of Political Science. BA, Taylor University, I962; MA, Indiana University, I964; additional graduate studies, Indiana University.

Joe W. Lund, 1973. Professor of Psychology. BA, Grace College, 1972; MA, Ball State University, 1973; PhD, Indiana University, 198I.

Gregory S. MaGee, 2008. Assistant Professor of Biblical Studies. BA, Rice University, 1992; ThM, Dallas Theological Seminary, 2005; PhD, Trinity Evangelical Divinity School, 2009.

Vance E. Maloney, 1981. Professor of Psychology. BA, Cedarville College, 1979; MA, Ball State University, I98I; PhD, Ball State University, 1989.

Linda E. Manganello, 2004-07, 2008. Assistant Professor of Communication Arts. BS, Taylor University, 1999; MA, Central Michigan University, 2004; additional graduate studies, Capella University.

Tracy S. Manning, 201I. Instructor of Communication. BA, Taylor University, I992; MLSt, Indiana University, 201 I.

Edward P. Meadors, 1995. Professor of Biblical Studies. BA, Wheaton College, 1986; MA, Wheaton College Graduate School, 1988; PhD, University of Aberdeen, Scotland, 1993.

Elizabeth B. Messer, 1988. Professor of Modern Languages. BA, Trinity College, 1978; MA, Florida State University, 1984; PhD, Florida State University, 1989.

Stephen C. Messer, 1990. Professor of History. BA, Trinity College, 1977; MA, Florida State University, 1982; MS, Florida State University, 1984; PhD, Florida State University, 1987.

James W. Miles, II, 2008. Assistant Professor of Art. BA, Indiana Wesleyan University, 1990; MA, Regent University, 1994; MA, Ball State University, 1999.

Scott L. Moeschberger, 2003-04, 2005. Associate Professor of Psychology. BS, Taylor University, 1997; MA, Trinity Evangelical Divinity School, 2000; PhD, Ball State University, 2006.

Lorne R. Mook, 2001. Associate Professor of English. BS, Taylor University, 1987; MFA, University of Maryland, 1994; PhD, University of Cincinnati, 2003.

Mary N. Muchiri, 2001. Associate Professor of English. BA, University of Nairobi, 1969; MEd, Victoria University of Manchester, 198I; PhD, University of Lancaster, 1994.

Joseph K. Pak, 2008. Assistant Professor of Biblical Studies. BS, Virginia Tech, 1985; MDiv, Liberty Baptist Theological Seminary, I988; STM, Dallas Theological Seminary, I993; PhD, Dallas Theological Seminary, 2001.

JoAnn K. Rediger, 1996. Professor of Music. BS, Taylor University, 1971; MMEd, James Madison University, 198I; DA, Ball State University, 1994.

Joseph M. Ricke, 2001. Professor of English. AA, Central Arizona College, 1971; BA, Nyack College, 1977; MA/PhD, Rice University, 1982.

Roger W. Ringenberg, 2009. Associate Professor of Biblical Studies. BA, Fort Wayne Bible College, 1969; MDiv, Trinity Evangelical Divinity School, 1973; ThM, Grace Theological Seminary, 1982; DMiss, Trinity Evangelical Divinity School, 1992.

Patricia C. Robertson, 1998. Professor of Music. BS, University of Maine, 1977; MM, Ball State University, 1989; DA, Ball State University, 1998.

Jessica L. Rousselow-Winquist, 1967. Professor of Communication Arts. BA, Northwestern College, 1962; MA, University of Minnesota, 1965; PhD, University of Minnesota, 1980.

Michael L. Saunier, 2008. Assistant Professor of Media Communication. BA, Asbury College, 1980; BA, University of Kentucky, 1985; MA, Regent University, 2004.

Bradley N. Seeman, 2007. Associate Professor of Philosophy. BA, Wheaton College, 1990; MA, Trinity Evangelical Divinity School, 1995; MA, Loyola University, 2006; PhD, Loyola University, 2009.

Michael K. Severe, 2011. Assistant Professor of Christian Education. BS, Multnomah Bible College, 1999; MA, Wheaton College, 2004; PhD, Trinity Evangelical Divinity School, 2008.

Jeanne R. Sigworth, 2007. Assistant Professor of Communication Arts. BS, Oklahoma Wesleyan University, I979; MS, Indiana Wesleyan University, 1993.

Carol B. Sisson, 2008. Assistant Professor of Psychology and Education. BA, Taylor University, 1988; MA, Ball State University, 1990; EdS, Ball State University, 1991; EdD, Regent University, 2008.

Rachel Hostetter Smith, 1998. Professor of Art and Gilkison Family Chair in Art History. BA, Michigan State University, 198I; MA, Michigan State University, 1991; PhD, Indiana University, 1996.

Richard G. Smith, 2001. Associate Professor of Biblical Studies. BSA, University of Arkansas, 1988; ThM, Dallas Theological Seminary, 1996; PhD, University of Cambridge, 2000.

Stephen J. Snyder, 1982. Professor of Psychology. BA, Cedarville College, 1980; MA, Trinity Evangelical Divinity School, I982; PhD, Indiana University, I991.

James S. Spiegel, 1993. Professor of Philosophy and Religion. BS, Belhaven College, I985; MA, University of Southern Mississippi, 1988; PhD, Michigan State University, 1993.

Daniel R. Treber, 2002. Professor of Modern Languages. BA, Earlham College, 1986; MA, Yale University, 1990; PhD, Yale University, 1995.

Colleen A. Warren, 1992. Professor of English. BA, Olivet Nazarene University, 1981; MA, University of Florida, 1987; PhD, University of Florida, 1992.

Joshua G. Welker, 2010. Assistant Professor of Art. BFA, Webster University, 2000; MA, Covenant Theological Seminary, 2003; MFA, University of Texas-Austin, 2009.

Mark E. West, 2005. Associate Professor of Modern Languages. BA, Murray State University, 1984; MA, University of Kentucky, 1988; PhD, University of Tennessee, 1995.

Shederick L. Whipple, 2006. Associate Professor of Music. BS, Mercer University, I999; BA, Mercer University, I999; MM, University of Kentucky, 2002; DMA, Cleveland Institute of Music, 2006.

Alan H. Winquist, 1974. Professor of History. BA, Wheaton College, 1964; MAT, Northwestern University, I965; PhD, New York University, 1976.

## School of Natural and Applied Sciences

Felix Aguilar, 1999. Professor of Computer Science and Engineering, Director of Systems program. BS, Virginia Polytechnic Institute and State University, 1967; MS, Virginia Polytechnic Institute and State University, 1969; MS, Virginia Polytechnic Institute and State University, 1973; PhD, Virginia Polytechnic Institute and State University, 1976.

Ronald M. Benbow, 1987. Professor of Mathematics. BA, Marion College, 1973; MAE, Ball State University, 1977; PhD, Indiana University, 1996.

Mark L. Biermann, 2008. Dean of Natural and Applied Sciences, Professor of Physics. BS, University of Rochester, 1984; MS, University of Rochester, 1989; PhD, University of Rochester, I99I.

David Boyajian, 2009. Associate Professor of Physics and Engineering. BS, California State University, 1993; MS, California State University, 1996; PhD, West Virginia University, 2002.
S. Stefan Brandle, 1999. Professor of Computer Science and Engineering. BA, Wheaton College, 1986; MS, Illinois Institute of Technology, 1992; PhD, Illinois Institute of Technology, 1998.

Jeremy S. Case, 1995. Professor of Mathematics. BA, Taylor University, 1987; MA, Miami University (OH), 1989; MS, PhD, University of Minnesota, 1995.

Mark D. Colgan, 1992-98, 1999. Professor of Mathematics. BA, Anderson University, 1985; MA, Indiana University, 1988; PhD, Indiana University, 1991.

Kenneth B. Constantine, 2003. Professor of Mathematics. BS, Eastern Nazarene College, 1977; MS, Purdue University, 1979; PhD, Purdue University, 198I.

Jeffry P. Cramer, 1998. Associate Professor of Computer Science and Engineering. BS, Taylor University, 1990; MS, Indiana University, 1998; PhD, Purdue University, 2007.

Robert E. Davis, 1995. Professor of Physics. BS, Illinois State University, 1976; MS, Purdue University, 1982; PhD, Purdue University, 1988.

Matthew E. DeLong, 1998. Professor of Mathematics. BA, Northwestern University, 1993; MS, University of Michigan, 1996; PhD, University of Michigan, 1998.

Brian J. Dewar, 2010. Assistant Professor of Biology. BS, Geneva College, 1998; PhD, University of North Carolina at Chapel Hill, 2007.

Joel P. Gegner, 2007. Assistant Professor of Engineering. BS, Wheaton College, I989; MS, University of Illinois at Chicago, I997; PhD, University of Illinois at Chicago, 1997.

Jonathan G. Geisler, 2002. Associate Professor of Computer Science and Engineering. BS, Taylor University, 1994; MS, Northwestern University, 1999; PhD, Northwestern University, 2003.

Michael D. Guebert, 1999. Professor of Geology and Environmental Science. BS, University of Illinois, 1985; MS, Penn State University, 1988; PhD, Penn State University, I99I.

Daniel G. Hammond, 1981. Professor of Chemistry and Biochemistry. BA, Bethel College (IN), 1973; PhD, Wayne State University, 198I.

Elizabeth D. Hasenmyer, 2006-07, 2008. Instructor of Labs (Biology). BS, Taylor University, 2000; MS, Ball State University, 2005.

Kenneth A. Kiers, 1998. Professor of Physics. BS, McMaster University, 1991; PhD, University of British Columbia, 1996.

Daniel A. King, 2005. Associate Professor of Chemistry and Biochemistry. BS, Huntington College, 1998; PhD, University of Georgia, 2002.

LeRoy C. Kroll, 1979. Professor of Chemistry and Biochemistry. BA, Lafayette College, 1969; PhD, Michigan State University, 1974.

John M. Moore, 1992. Professor of Biology. BS, Taylor University, 1972; MA, Ball State University, I978; EdD, Ball State University, 1989.

Philip P. Mummert, 2007. Assistant Professor of Mathematics. BS, Cedarville University, 200I; PhD, Purdue University, 2007.

Thomas B. Nurkkala, 2008. Associate Professor of Computer Science and Engineering. BS, Michigan Technological University, 1985; MA, Bethel Theological Seminary, 1990; MS, University of Minnesota, 1992; PhD, University of Minnesota, 1996.

Jan M. Reber, 1994. Professor of Biology. BA, Taylor University, 1989; MS, Purdue University, I99I; PhD, Purdue University, 1994.

Robert T. Reber, 1996. Director of Laboratories/Technician in Earth and Environmental Science Department, Assistant Professor. BS, University of Illinois, 1989; MSF, Purdue University, 1991; additional graduate studies, Purdue University.

Jeffrey L. Regier, 1999. Professor of Biology. BA, Taylor University, 1988; PhD, Michigan State University, 1993.

Paul E. Rothrock, 1981. Professor of Environmental Science and Biology. BA, Rutgers University, 1970; MS, Pennsylvania State University, 1973; PhD, Pennsylvania State University, 1976.

Patricia L. Stan, 2006. Assistant Professor of Chemistry and Biochemistry. BS, Houghton College, I985; AM, Washington University, 1987; PhD, Washington University, 1990.

Donald K. Takehara, 2004. Director of Center for Research and Innovation, Associate Professor of Research. BS, Purdue University, 1982; MS, Northwestern University, 1986; PhD, Northwestern University, 1988.

Donna J. Toll, 2004. Assistant Professor of Mathematics. BS, Purdue University, 1973; MA, Eastern Kentucky University, 198I; additional graduate studies, Eastern Kentucky University.

William E. Toll, 1990. Professor and Ronald McDaniel Chair of Computer Science and Engineering. BA, Taylor University, 1971; MS, Purdue University, 1975; MS, University of Kentucky, 1989; PhD, University of Kentucky, 1998.

Henry D. Voss, 1994. Professor of Physics and Engineering. BS, Illinois Institute of Technology, 1972; MS, University of Illinois at Urbana, 1974; PhD, University of Illinois at Urbana, 1977.

Andrew P. Whipple, 1984. Professor of Biology. BS, Ohio State University, 1971; BA, Taylor University, 1999; MS, State University of New York at Albany, 1974; PhD, State University of New York at Albany, 1979.

Arthur J. White, 1984. Professor of Computer Science and Engineering. BS, Christian Heritage College, 1979; MS, Ball State University, 198I; MA, Ball State University, I984; EdD, Ball State University, 1985.

## School of Professional and Graduate Studies

Solomon Abebe, 2000. Professor of Education. BA, Goshen College, 1979; MS, Eastern New Mexico University, I982; PhD, New Mexico State University, 1987.

Alexandria J. Armstrong, 1997. Professor of Education. AA, San Diego Mesa College, 1980; BA, San Diego State University, 1982; MA, San Diego State University, 1983; EdD, University of Northern Colorado, 1988.

Stephen S. Bedi, 1991. Provost, Professor of Education. BS, Taylor University, 1965; MEd, University of Maryland, 1970; EdD, George Washington University, 1982.

Christopher P. Bennett, 1989. Dean of International Programs, and Director, Spencer Centre for Global Engagement, Professor of Business. BS, University of Oregon, 1971; MBA, University of California at Los Angeles, 1974; PhD, Union Institute, 1998.

Jody L. Fernando, 2006. Instructor of Education. BS, Taylor University, 1998; MEd, George Mason University, 2003.

Rukshan N. Fernando, 2004. Assistant Professor of Social Work. BS, Taylor University, 1998; MSW, University of Michigan, 2000.
L. Angela Fincannon, 1992. Director of Intercollegiate Athletics and Assistant to the Provost for the Bahamian Global Engagement Program. BS, Ball State University, 1983; MA, Ball State University, 1989; EdD, Ball State University, 2004.

Eugene B. Habecker, 2005. President, Professor of Higher Education. BA, Taylor University, 1968; MA, Ball State University, 1969; PhD, University of Michigan, I98I; JD, Temple University, 1974.

Cathy J. Harner, 1992. Professor of Social Work. BS, Philadelphia College of Bible, 1978; MSW, Indiana University, 1984; PhD, University of Illinois, 1991.

Erik S. Hayes, 1998. Assistant Professor of Physical Education and Human Performance. BA, Asbury College, 1996; MS, Indiana State University, 1997; PhD, Ball State University, 2010.

Dennis E. Hensley, 1997. Professor of Professional Writing. AA, Delta College, I968; BA, Saginaw Valley State University, 1969; MA, Central
Michigan University, 1973; PhD, Ball State University, 1982.

Timothy W. Herrmann, 1999. Graduate Chair, Master of Arts in Higher Education, Professor of Higher Education. BA, Taylor University, 1975; MA, Ohio State University, 1977; PhD, Indiana State University, 2005.

Denise L. Johnson, 2004. Assistant Professor of Physical Education and Human Performance. BA, Eastern Illinois University, 1984; MS, Eastern Illinois University, I989; MA, Ball State University, 2007.

Pamela L. Jordan-Long, 1992. Professor of Professional Writing. BS, Taylor University, 1978; MA, Ball State University, I982; MA, Indiana Wesleyan University, 1992; PhD, Ball State University, 1997.

Renata Kantaruk, 20IO. Instructor of ESL. BA, Jagiellonian University (Poland), 1993; MA, Adam Mickiewicz University (Poland), 200I.

Tena M. Krause, 1989. Associate Professor of Physical Education and Human Performance. BS, Greenville College, I980; MS, Eastern Illinois University, 1988; MA, Ball State University, 1996.

Connie D. Lightfoot, 1982-93, 2008. Dean of Professional and Graduate Studies, Professor of Computer Science. BS, Taylor University, 1974; MA, Ball State University, 1976; EdD, Ball State University, 1993.

Angia E. Macomber, 1999. Professor of Education. BA, University of lowa, 1986; MEd, Rutgers University, 1988; BA, University of Kansas, 1990; PhD, Michigan State University, 2003.

Jeffrey W. Marsee, 1987-90, 1994. Associate Professor of Physical Education and Human Performance. BA, Carson-Newman College, 1983; MA, Western Michigan University, I984; DHE, A.T. Still University, 2009.

Pamela L. Medows, 1997. Professor of Education. BS, Indiana Wesleyan University, 1972; MAE, Ball State University, 1992; EdD, Ball State University, 1997.

Paul W. Patterson, 1979. Associate Professor of Physical Education and Human Performance. BS, Hanover College, 1964; MS, Central Missouri State, 1965; additional graduate studies, Morehead State University.

Bruce A. Pratt, 1992. Associate Professor of Physical Education and Human Performance. BS, Taylor University, 1974; MA, Ball State University, 1978; EdD, Ball State University, 2001.

Matthew S. Renfrow, 2010. Assistant Professor of Physical Education and Human Performance. BS, Belmont University, 2005; MS, Middle Tennessee State University, 2006; PhD, Middle Tennessee State University, 2009.

Lawrence E. Ressler, 2010. Professor of Social Work. BA, Eastern Mennonite University, 1976; MSW, Temple University, 1979; PhD, Case Western Reserve University, 1990.

Carl R. Siler, 1996. Professor of Education. BS, Indiana University, 1969; MAT, Indiana University, 197I; EdD, Ball State University, 1985.

Brittany H. Smith, 2005. Instructor of Social Work. BA, Taylor University, 2000; MSW, University of Michigan, 2003.
E. Richard Squiers, 1976. Graduate Chair, Master of Environmental Science, Professor of Environmental Science. BA, State University of New York at Binghamton, 1970; MS, Rutgers University, 1973; PhD, Ohio University, 1976.

Amy M. Stucky, 1997. Assistant Professor of Physical Education and Human Performance. BA, Taylor University, 1992; MA, Ball State University, 1998.

Donald L. Taylor, 1991. Professor of Physical Education and Human Performance. BS, Lock Haven University, 1972; MS, Springfield College, 1979; EdD, Penn State University, 1992.

Cynthia A. Tyner, 1996. Professor of Education. BS, Taylor University, 1976; MA, Ball State University, 1978; EdD, Ball State University, 1996.
W. Quinn White, 1999. Professor of Education. BS, Taylor University, I988; MA, Ohio State University, I996; PhD, Ohio State University, 2005.

Gregory J. Wolfe, 2007. Instructor of Physical Education and Human Performance. BA, Wheaton College, 2003; MA, Ohio State University, 2005.

Bradford P. Zarges, 2010. Instructor of Physical Education and Human Performance. BS, Houghton College, 1992; MA, East Tennessee State University, 1999.

## Student Development Faculty

Stephen W. Austin, 1995. Director of Student Programs, Assistant Professor. BS, Taylor University, I995; MA, Ball State University, 2002.

Jonathon J. Cavanagh, 2007. Director of University Apartments and Coordinator of Off-Campus Housing, Instructor. BA, Taylor University, 1998; MDiv, Winebrenner Theological Seminary, 2008.

Jennifer L. Collins, 2003. Director of Lighthouse, Associate Professor. BS, Taylor University, 1989; MAR, Trinity Evangelical Divinity School, 2000.

Jacob J. Drake, 2005. Residence Hall Director, Instructor. BA, Taylor University, 2005; MBA, Taylor University, 2010

Shawnda D. Freer, 2005. Director of New Student Programs, Career Development Advisor, Assistant Professor. BA, Taylor University, 1991; MA, Liberty University, 1995.

Jill L. Godorhazy-Smith, 2004. Associate Dean of Students and Director of Career Development, Assistant Professor. BA, Taylor University, 1990; MSEd, University of Dayton, 1992.

Randall J. Gruendyke, 2002. Campus Pastor and Associate Dean, Assistant Professor. BA, Wheaton College, 1982; MDiv, Talbot School of Theology, 1987.

Sara J. Hightower, 2010. Residence Hall Director, Instructor. BA, Taylor University, 2007; MA, Taylor University, 2009.

Sara E. James, 2010. Residence Hall Director, Instructor. BA, Taylor University, 2002; MA, Taylor University, 2010.
S. Anila Karunakar, 2010. Director of International Student Programs, Instructor. BA, Northwestern College, 2002; MA, Geneva College, 2010.

## Academic Support

Daniel J. Bowell, 2000. University Librarian, Associate Professor. BA, Western Kentucky University, 1973; MA, Western Kentucky University, 1978; MA, Northern Illinois University, I984.

Shawn D. Denny, 2006. Information Services Librarian, Assistant Professor. BA, Taylor University, I990; MLS, Indiana University, 1994.

Gerald W. Friesen, 2002. Director of Academic Technology, Associate Professor. BS, Taylor University, 1975; MA, Miami University, 1977.

Scott E. Gaier, 2006. Coordinator of the Academic Enrichment Center, Associate Professor. BA, Huntington College, 1994; MS, Purdue University, 1996; PhD, Purdue University, 2003.

Linda J. Lambert, 2001. Reference and Instructional Services Librarian, Associate Professor. BA, DePauw University, 1975; MLS, Indiana University, 1978; MA, Wheaton College, 1987.
R. Edwin Welch, 1992. Coordinator of Academic Support Services, Professor. BS, Marion College, 1985; MS, Indiana University, 1991; PhD, Indiana University, 1997.

Lana J. Wilson, 2007. Librarian, Assistant Professor. BA, Taylor University, 2005; MLS, Indiana University, 2006.

Laurie J. Wolcott, 1983. Technical Services Librarian, Associate Professor. BS, Taylor University, 1980; MLS, Ball State University, 1984; MA, Christian Theological Seminary/Butler University, 1993; MDiv, Christian Theological Seminary, 2006.
H. Leon Adkison, Professor of Systems, 1974-2008.

Eleanor A. Barrick, Professor of Modern Languages, 1990-2005.

Robert P. Benjamin, Associate Professor of Business, 1979-2005.
Ray E. Bullock, Professor of Art, 1966-1991.
Stanley L. Burden, Professor of Chemistry and Biochemistry, 1966-2010.

Timothy J. Burkholder, Professor of Biology, 1970-2010.

Walter E. Campbell, Assistant Professor, 1969-2004.

Mildred S. Chapman, Professor of Education, 1956-1961, 1975-1991.
Winfried Corduan, Professor of Philosophy and Religion, 1977-2009.

Barbara C. Dickey, Professor of Music, 1961-2003.
Timothy C. Diller, Professor of Computing and System Sciences, 1981-2005.
Edward E. Dinse, Associate Professor of English, 1970-1992.

Richard Dixon, Professor of Modern Languages, 1982-2002.

Theodore M. Dorman, Professor of Biblical Studies, 1988-2010.

Frances W. Ewbank, Professor of English, 1964-1982.
William Ewbank, Professor of Mathematics, 1964-1987.

Richard W. Gates, Associate Professor of Health, Physical Education, and Recreation, 1969-1991.

George A. Glass, Associate Professor of Physical Education, 1960-1999.
Carl E. Gongwer, Associate Professor of Spanish, 1966-1988.

Robert V. Gortner, Professor of Business, 1980-1995.

Paul M. Harms, Associate Professor of Mathematics, 197I-1997.

George W. Harrison, Professor of Biology, 1978-1994.
Barbara A. Heavilin, Associate Professor of English, 1991-2009
Larry R. Helyer, Professor of Biblical Studies, 1979-2008.

David D. Hess, Associate Professor of Education, 1967-1997.
M. Jane Hodson, Associate Professor of Education, 1966-1997.

Stephen P. Hoffmann, Professor of Political Science, 1976-77, I981-2010.

Alice K. Holcombe, Associate Professor, Library, 1946-1950, 1952-1983.

Dale M. Jackson, Professor of Communication Arts, 1966-2000.
Dwight Jessup, Professor of History and Political Science, 1993-2004.

Jay Kesler, President Emeritus, 1985-2000; Chancellor, 2000-2003.

Charles B. Kirkpatrick, Professor of Communication Arts, 1979-2002.

Patricia E. Kirkpatrick, Associate Professor, Academic Enrichment Center, 1982-2004.

William R. Klinger, Professor of Mathematics, 1989-2007.

Philip K. Kroeker, Professor of Music, 1963-1996.
James B. Law, Associate Professor of Health, Physical Education, and Recreation, 1982-1997.

Wynn A. Lembright, Assistant Professor, 1983-2008.
Janet C. Loy, Associate Professor of Modern Languages, 197I-2005.
Billie J. Manor, Associate Professor, Academic Enrichment Center, 1976-2005.

Craig W. Moore, Associate Professor of Art, 1979-20I0.

Rebecca S. Moore, Instructor of Education, 1990-2007.

David L. Neuhouser, Professor of Mathematics, 197I-I993.
E. Herbert Nygren, Professor of Religion, 1969-199।.

Richard A. Parker, Professor of Music, 1974-2010.
Roger W. Phillips, Associate Professor, Library, 1982-2006.

Janice L. Pletcher, Assistant Professor of Communication Arts, 1987-2005.
Elisabeth Poe, Professor of Biology, 1953-1983.
Carl W. Rice, Professor of Education, 1969-1985.
William C. Ringenberg, Professor of History, 1967-2008.

Joe W. Romine, Professor of Physical Education and Human Performance, 1981-2010.

Roger W. Roth, Associate Professor of Physics, 1965-1998.

Frederick B. Shulze, Professor of Music, 1970-2002.

Kenneth D. Swan, Professor of English, 1968-200I.
Dan P. Smith, Assistant Professor of Chemistry, 1992-2007.
Dale E. Wenger, Associate Professor of Mathematics, 1963-1989.

Larry E. Winterholter, Associate Professor of Physical Education and Human Performance, 1979-2010.

Charles R. Wilson, Professor of Religion and Philosophy, 1965-1983.
Robert C. Wolfe, Associate Professor of Physics, 1962-1993.
Daryl R. Yost, Professor of Education and Administrative Officer, 1983-2003.

## Compliance

Taylor University complies with applicable federal and state statutes related to institutions of higher education, including the Student Right to Know Act of 1990, as amended; Higher Education Act of 1965, as amended by the Higher Education Opportunity Act of 2008; the Federal Family Rights and Educational Privacy Act of 1974, as amended; the Americans with Disabilities Act of 1990, as amended; Section 504 of the Rehabilitation Act of 1973; and all federal and state nondiscrimination laws.

## Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights include:
I. The right to inspect and review the student's education records within $\mathbf{4 5}$ days of the day the University receives a request for access. Students should submit to the Registrar, dean, head of the academic department, or other appropriate official, written requests that identify the record(s) they wish to inspect. The University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the University official to whom the request was submitted does not maintain the records, that official shall advise the student of the correct official to whom the request should be addressed. At the post-secondary level, the right to inspect is limited solely to the student. Records may be released to parents only under the following circumstances: 1) through the written consent of the student; 2) in compliance with a subpoena; and 3) by submission of evidence that the parents declare the student as a dependent on their most recent Federal Income Tax form.
2. The right to request the amendment of the student's education records that the student believes are inaccurate or misleading. Students may ask the University to amend a record that they believe is inaccurate or misleading. They should write to the University official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent. One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisory, academic, or research or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the University has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. Upon request, the University may disclose education records without consent to officials of another school in which a student seeks or intends to enroll.
4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Taylor University to comply with the requirements of FERPA. The name and address of the office that administers FERPA is: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue, SW, Washington, D.C. 20202-4605.

## Intellectual Property Policy

The Taylor University Intellectual Property Policy designates that students retain copyright to most creative work for which they are solely responsible. Exceptions can include work done while employed by the University or under other extenuating circumstances. Although students retain intellectual property rights to most creative work submitted for academic credit, matriculation in the University entails an obligation for students to allow their writing or similar creative work to be used for University academic assessment. Procedures will be followed to preserve the anonymity of students for such assessment. The content and analysis of student writing or similar creative work selected for assessment will be used primarily for internal review of academic programs. Observations and derivative findings from such analysis may be reported to accreditation agencies or disseminated through professional publication but without reference to the authorship of individual students.

## Notice of Non-discrimination

Taylor University does not discriminate on the basis of race, color, national origin, sex, disability, or age in its programs and activities. The following person has been designated to handle inquires regarding the non-discrimination policies:
C. Skip Trudeau, Vice President of Student Development and Dean of Students

236 West Reade Avenue
Upland, IN 46989
(765) 998-5368

## Public Notice Designating Directory Information

Taylor University may release without written consent the following items which have been specified as public or directory information for current and former students: name, address, email address, telephone listing, photograph, field of study, grade level, enrollment status, date and place of birth, dates of attendance, degree, honors and awards, previous educational agency or institution attended, participation in officially recognized activities and sports, and weight and height of members of athletic teams.

A current student can request that the University not release any directory information about him or her. This designation must be furnished in writing to the Registrar by the end of the first week of classes in the semester. Request to withhold prevents the disclosure of all directory information. Regardless of the effect upon the student, the institution assumes no liability for honoring the student's instructions that such information be withheld

## Services for Students with Disabilities

Taylor University complies with the federal mandates outlined in Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. Reasonable accommodations are made to give students with documentation of their disabilities an equal opportunity for success. These services are provided through the Academic Enrichment Center located in the Zondervan Library.

## Student Consumer Information

The Higher Education Act of 1965, as amended by the Higher Education Opportunity Act of 2008 (HEOA), requires institutions participating in federally funded financial aid programs to make information about the institution available to current and prospective students. Taylor University has created a webpage entitled Student Consumer Information to provide resources and information for parents, students, employees, and the Taylor community in fulfillment of these mandates. This site will continue to be updated as we build more information that is useful and required.

## Student Right to Know Act of 1990

The Student Right to Know Act of 1990 (Public Law IOI-542 as amended) requires colleges and universities to maintain records of student enrollment, graduation, and participation in athletically related financial aid. This data is available upon request from the Office of Institutional Research, Taylor University, 236 West Reade Avenue, Upland, IN 46989, (765-998-4627).

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[^0]:    †Departmental approval required

[^1]:    *COS 371 requires SYS 390 which does not count toward the major.

