Tri-Valley University

Catalog

2008-2010

Tri-Valley University

Academic Catalog 2008-2010

This catalog contains information regarding university mission, institutional objectives, philosophy, admission, application, registration, academic calendar, academic programs, university regulations, degree requirements, fees, policies, procedures and course offerings of Tri-Valley University. Tri-Valley University will give adequate advanced notice of change in any of these areas, whenever possible, to permit adjustment. However, the Advisory Board and the Administration of Tri-Valley University reserve the right to modify, revoke or add policies or procedures at any time. Tri-Valley University reserves the right to make changes at any time in its courses, personnel listed in the catalog.

Tri-Valley University

Catalog 2008-2010

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A Message from the President

Located at the beautiful Tri-Valley area surrounded with championship golf courses and fine vineyards, as well as an extension of Silicon Valley, Tri-Valley University is a Christian higher education institution offering quality academic programs in Engineering, Business, Ministry, Law and Medicine at a Christian learning environment. The undergraduate/graduate degree and non-degree programs at Tri-Valley University are designated with the key of integration: integration of Christian faith with academics, academic principles with industry practical application, integration of career pursuit with spiritual growth. Instructors and speakers at TVU are with both academic and industry background, many are well-known and respected leaders and professionals in the field.

Tri-Valley University also offers dual educational instruction with residential classroom instruction, on-site research program complimented with virtual live distance classroom access to facilitate the unique program. Tri-Valley University's live synchronous distance learning facility makes its undergraduate/graduate courses available to the globe audience. People from all different country around the world can register the courses and attend the living virtual classroom to hear what the experts have to say. Students can have living access to classroom instruction with no limitation of location and share a worldwide network of intellectuals in the professional field.

Tri-Valley University enhances the intellectual, practical and spiritual capabilities of the individuals. Each program and course at TVU is designed to give you three things: the sound and clear principle understanding of the subject; fluent and skilful capability of practical application tool as well as a passion for in-depth research and the career in the field with Christ-like faith, character and compassion. My warm welcome to you, best wishes for every success of study at Tri-Valley University, future's excellence in career as well as happiness and prosperity in life!

Susan Xiao-Ping Su

Susan Xiao-Ping Su Ph.D.
Founder and President of TVU

Mission

Faith Statement

Tri-Valley University is a Christian Higher Education Institution offering quality higher education programs including undergraduate/graduate degree and non-degree program in Engineering, Business, Ministry, Law and Medicine with academic programs centripetal in Trinity, centrifugal and radiating from Trinity, the Center, to encompass diverse spheres of academic study and learning.

Mission Statement

Tri-Valley University offers undergraduate degree program (Bachelor of Science), graduate degree program (Master and Doctor Degree) and non-degree programs (Certificate Program and Open-Enrollment) in Engineering (Electrical Engineering, Computer Science and Mechanical Engineering), Business, Christian Ministry, Law and Nurse. As a Christian Higher Education Institution, Tri-Valley University's education programs integrate Christian faith with the Academics; integrate the biblical worldview and principles with all academic programs, therefore emphasis both academic challenge and personal spiritual development. Our mission is to make effective Christian scientists, engineers, business leaders and lawyers for the glory of God, equipping them with both solid academic abilities and the Christianity faith, therefore to live out Chris-like Character, value and compassion in the world, and to make an impact in the society shining as its light.

Tri-Valley University academic programs reflect the integration of academic principle and industry practical application. Our main programs are designed to motivate adults to pursue graduate study and attain graduate degrees, and therefore inspire them to reach the most potential in their careers and lead a fulfilled personal life. Tri-Valley University provides students with an up-to-date curriculum which challenges the student to integrate his/her learning with his/her professional goals; a curriculum which is both intellectually challenging and has applications in industry, especially semiconductor industry. While the graduate degree program emphasizes the in-depth research capability of the students, all of the courses are designed to give students academic principles understanding, industrial practical training, as well as spiritual growth.

Tri-valley University's on-site classroom instruction is complimented with live synchronous on-line access. The cutting-edge distance learning facility allows world wide access to our live quality classroom instruction. Tri-Valley University's dual on-site/on-line classroom instruction makes it possible to deliver the unique education programs to the global audience and participants. At Tri-Valley University, we endeavor to develop an operational environment that is professionally managed, competently supervised, continually evaluated and appropriately modified, constantly improved to accomplish our stated mission.

Education Philosophy

Tri-Valley University equips individuals with intellectual, practical and spiritual capabilities emphasizing high academic standards, practical application and spiritual development with Christian worldview. The purpose of the institution is to lead students to the attainment of substantive educational objectives with solid academic principle understanding, skillful industrial application practices and in-depth research capability at a Christian learning environment. Tri-Valley University cultivates individual life-time learning and in-depth research capability as well as personal spiritual development, strengthening Christ-like characters, values and compassion leading to career and life excellence.

The institution strives to provide quality higher education, achieving the goal by overcoming and removing many barriers. Many classes are scheduled in evenings or weekends to meet the need of both part-time and full-time working students. The on-site classroom instructions are complimented with virtual live synchronous on-line access. Besides dual instructional course work, on-site research facility fulfills the in-depth research requirement in Graduate Degree Program.

Institutional Objectives and Purpose Statement

Our institutional objective is to provide sound quality higher education degree and non-degree programs to individual with both academic principle and industrious application integrated course and research work embedded in Christian faith and worldview. Our goal is to deliver the programs with faculty of experienced professionals and experts in the professional field who are also dedicated to imparting the very best of their knowledge and experience to others, providing guidance to practical research work directly related to the industrial application. In course work, we require that students demonstrate, through the assignments and various projects, the acquisition of the requisite knowledge appropriate to the rigor expectation of the level of degree pursued, the ability to think critically in the analysis and the syntheses of information, to make sound analyses, informed decisions and reasoned judgments, therefore to achieve high academic standards, practical application, and spiritual development to live lives of personal fulfillment.

Value

Academic Excellence
Tri-Valley University promotes academic and professional excellence and aims to create, through our work and our relationships, an environment that cultivates individual's intellectual growth. Tri-valley University encourages and motivates individual to soar academically, to live lives of personal fulfillment, to be successful in career and productive in community, national, and world venues.

Character Integrity
Tri-Valley University commits to maintaining a community of faculty, staff, and students which recognizes the inherent dignity and worth of each individual as being in the image of God. With a global involvement of the Christian higher education, Tri-Valley University strives to cultivate a culture center on Christ-like character integrity, emphasizing the importance of honest investigation, reflection, and intellectual inquiry.

Compassion
Tri-Valley University emphasizes individual's Christ-like compassion, cultivating individual a love for God, a love for academic learning and research, and a love for career, and a love for the community, neighbors and coworker.

Inclusion
Tri-Valley University advocates the principle of racial, cultural and economic inclusion and does not discriminate on the basis of age, gender, race, color, physical disability, national or ethnic origin in the administration of its educational programs, hiring policies, admission policies and other school-administered programs. In all programs and services, the institution is racially, socially, and culturally diverse. We encourage each individual with no regard to age, racial, sex, nationality and citizenship, to continue the pursuit of a higher graduate degree in his/her chosen professional field. We deliver good quality of academic program to our students, work together with our students to overcome all of the barriers to succeed in this pursuit. We welcome the participation of individuals from all nationalities, races, and creeds, especially with our world wide Open Enrollment program.

Integration
Tri-Valley University program reflects the key of integration, integration of academic study with spiritual growth, integration of academic principle with industry practical application, integration career development with spiritual maturity.

University Accreditation and Licensure

Tri-Valley University is accreditted by International Association of Bible Colleges and Seminaries (IABCS). Some individual academic programs also apply for specific accreditation, such as the J.D. program is seeking provisional accreditation status with American Bar Association (ABA). The Department of Pharmacy is seeking accreditation with Accreditation Council for Pharmacy Education (ACPE). Tri-Valley University is licensed to operate in Pleasanton, California. According to State of California Education Code with the Bureau for Private Post-Secondary and Vocation Education, California has state religious exemption provision. Tri-Valley University is also authorized by the Federal Government to admit international students and issuing I20 for F-1 Visa.

University Location

Tri-Valley University main campus is located at the beautiful Tri-Valley area which is 50 miles east from San Francisco, 30 mile north form San Jose area. Tri-Valley is an extension of Silicon Valley and is the home and residential area of many engineers, professions, high level executives who work at Silicon Valley. Tri-Valley area offers good quality life with decent residential facilities, high-scored schools, championship golf courses, fine wine and vineyard. Tri-Valley University offers quality high education academic programs including undergraduate/graduate degree and non-degree programs in engineering, business, ministry, law and nurse also reflects those natures.

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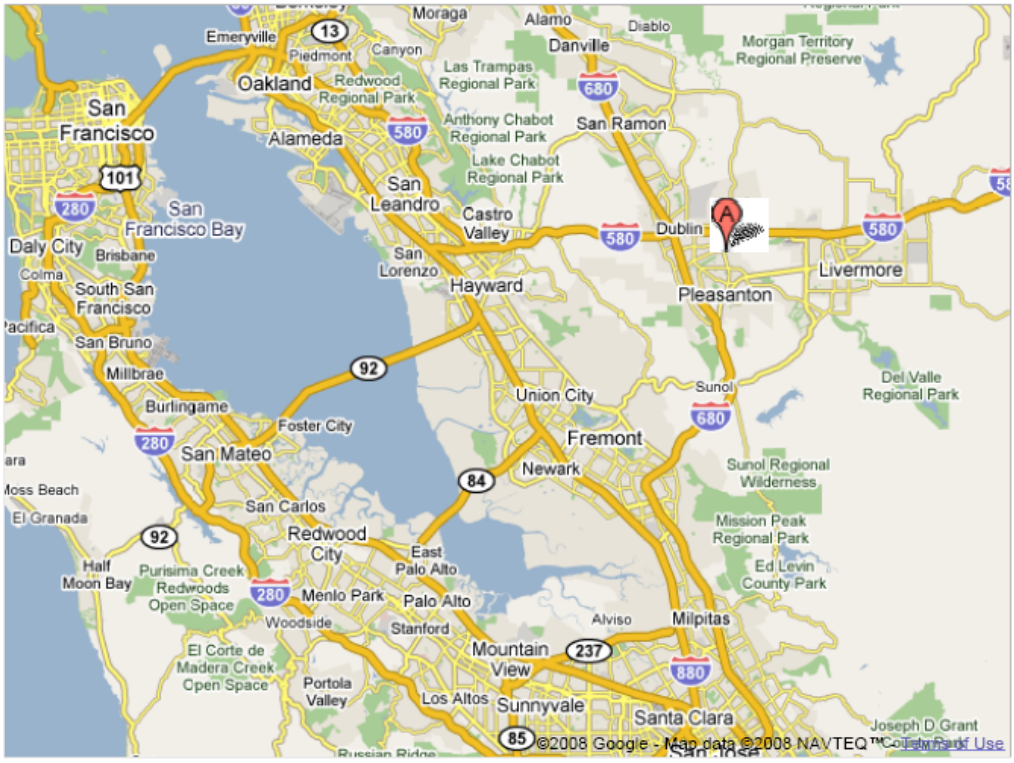

Academic Calendar

Traditional Trimester Scheduling

Tri-Valley University runs a Traditional Trimester System consisting of three 15-week terms scheduled throughout the academic year with normally two weeks of recession in between.

Academic Year 2008

Academic Events	School Year 2008	
	Summer Term **May 12 – Aug. 23**	**Fall Term** **Sept. 8 – Dec.20**
Registration	4/27 - 5/11/08	8/25 – 9/8/08
Application due day	5/11/08	9/7/08
1st day of class	5/12/08	9/8/08
Last day for registration	5/24/08	9/20/08
Last day add/drop class	5/31/08	9/27/08
Next trimester registration	7/20 – 8/2/08	11/10 – 11/22
Last day file for graduation	8/8/08	11/29/08
Final Exam Week	8/18 - 8/23/08	12/15 – 12/20
Trimester Recess	8/24 - 9/7/08	12/21/08-1/3/09

Academic Year 2009

Academic Events	School Year 2009		
	Spring Term 1/12/09-4/25/09	**Summer Term** (5/11-8/23/09)	**Fall Term** (9/7-12/19/09)
Registration	12/21/08-1/13/09	4/26 – 5/9/09	8/23- 9/7/09
Application due day	1/12/09	5.10.09	9/6/09
1st day of class	1/12/09	5/11/09	9/7/09
Last day for registration	1/25/09	5/23/09	9/12/09
Last day add/drop class	2/2/09	5/31/09	9/19/09
Next trimester registration	3/15– 3/28/09	7/12-7/25/09	11/8-11/21/09
Last day file for graduation	4/5/09	8/9/09	11/28/09
Final Exam Week	4/20 – 4/25/09	8/17 – 8/23/09	12/14 -12/19/09
Trimester Recess	4/26 – 5/9/09	8/23- 9/6/09	12/20-1/3/10

Academic Year 2010

Academic Events	School Year 2010		
	Spring Term 1/11/10-4/25/10	**Summer Term** (5/10-8/22/10)	**Fall Term** (9/7-12/19/10)
Registration	12/21/09-1/13/10	4/26 – 5/9/10	8/23- 9/7/10
Application due day	1/12/10	5.10.10	9/6/10
1st day of class	1/11/10	5/11/10	9/7/10
Last day for registration	1/25/10	5/23/10	9/12/10
Last day add/drop class	2/2/10	5/31/10	9/19/10
Next trimester registration	3/15– 3/28/10	7/12-7/25/10	11/8-11/21/10
Last day file for graduation	4/5/10	8/9/10	11/28/10
Final Exam Week	4/19 – 4/25/10	8/16 – 8/22/10	12/13 -12/19/10
Trimester Recess	4/26 – 5/9/10	8/23- 9/6/10	12/20-1/3/11

15 weeks of instruction each trimester and 2 weeks of recession in between
Last day for register: 2nd week after 1st day of class,
Also the due day for accepting Admission Application
Last day for add/drop: 3rd weeks after 1st day of class Next trimester register: 10th -11th week
Last day file for graduation: 13th week Final Exam: 15th week

I. Admissions

Admissions Policies:

TVU degree program and non-degree programs are available to all qualified individual globally. TVU encourages the applications and admits all qualified individuals into the university program without regard to race, religion, sex, ethnic origin, or physical handicap.

Application form can be found from the TVU website application section (http://www.trivalleyuniversity.org/application.html). On-line application is also available for non-degree open enrollment program. The application due day is posted in the every term's academic calendar section. Application fee is $50 for all domestic and international undergraduate and graduate degree programs. Open enrollment program registration fee is $20.00 for each course. Tuition and fees are required to be paid at the time of on-line application. Late registration fee charge is specified in the tuition and fee section.

Trimester Admissions:

Applicants may apply for admissions into any of the three Trimester Terms each year for undergraduate and graduate degree program (B.S., M.S. and Ph.D.). The application due day normally is the first day of instruction of the trimester. After the first day of instruction, applicant can apply for next trimester's admission.

Application Procedure:

The applicant for undergraduate study must be in possession of a high school diploma or its equivalent. Applicants whose native language is not English and who have not earned a degree from an appropriately accredited institution where English is the principal language of instruction must receive a minimum score of 500 on the paper-based Test of English as a Foreign Language (TOEFL)

To apply for the graduate degree program, applicant need to submit an application package which generally includes the filled and signed Graduate Admission Application Form, transcript, Test Scores, letter of recommendation, statement of study, as well as financial support information for international students. For Master degree and Doctorate Degree, the specific application package details are listed in the following section. Transcripts and test score copies can be used for admission evaluation only, the formal registration and admission is contingent upon receiving the official ones. Each applicant will be evaluated by the admission committee; both e-mail and a written letter will be mailed to the applicant regarding the final decision on his/her application.

- **Application Package**

Submit the application package; see the following item lists for each program. For the transcript and TEST score, copies can be submitted for admission evaluation purpose, the

admission status is contingent on receipt of official version.

- **International Applicants**

The following additional documents are required for the international applicant's application package:

(I) For first time international applicant, financial support document – either the applicant's bank statement or a certified affidavit of support (form I-134 or equivalent) from a financial sponsor indicating a minimum amount of $15,000 available for the applicant to pursue his/her study in the first academic year at TVU.

(II) Proof of English competency for students for whom English is not the first language. This is normally measured by the Test of English as a Foreign Language (TOEFL). The minimum score required 500 (paper test), and scores submitted must be less than two years old. Waivers are not normally granted from this requirement. However, if a waiver is authorized, applicants then become subject to the same standardized testing requirements as their native English-speaking counterparts. Applicants should weigh this prospect carefully before requesting a waiver from the TOEFL. Waiver requests must be submitted in writing to the Office of Admission at least three months (90 days) prior to the application deadline date in order to allow sufficient time for testing if the request is denied. Failure to submit qualifying test scores by application deadlines may result in outright denial of admission or postponement of application decision to a subsequent semester.

(III) A refundable fee of $300. If the student is admitted to study at Tri-Valley University, the $300 will pay to the first trimester tuition. If the student is declined admission, the $300 will be refund to the student. As for 2009, this requirement is cancelled.

- **Transfer International Student**

A transfer international student is required to submit the following item beside the application package: (i) a photocopy of his/her previous I-20 form and request the previous international student advisor to complete the International Student Transfer Record form for TVU and conduct the required SEVIS transfer process, and (ii) Photocopies of the student's passport, visa, and I-94 (admission & departure) document.

- **Admission Evaluation**

The admission committee for each doctoral degree program will conduct an admission evaluation for each applicant based on the overall official background records received from the applicant.

- **Notification of Admission**

  Normally, prospective students may expect to receive notification of admission status in written within two weeks after filing complete application materials with the Admissions Office.

Re-Admission:

If an applicant is accepted into a graduate degree program for a given semester and does not begin classes in that semester, admission will automatically be canceled. The prospective student's application records (transcripts from previous colleges, financial support documents for international students, and standardized test scores) are kept on file for a period of six months from the semester start date. If the applicant then wishes to be considered for readmission in a later semester, he/she will be required to resubmit an Application Form and pay a re-application fee. A reevaluation of admission will be made for the applicant.

Ability-to-Benefit Criteria:

TVU recognizes that there are prospective students who do not meet the established admissions criteria, but who should be given an opportunity for a university education, such as has extensive industry experiences. Consequently, policies and procedures have been established by the faculty whereby consideration will be given to accepting a limited number of applicants who demonstrate potential success of study at TVU provided adequate support is provided. An admission policy has been developed related to ability-to-benefit students. The application will be reviewed and recommended by the Admission Committee, and approved by the Academic Officer. When a student is admitted under the ability-to-benefit program, his work will be carefully monitored to ensure that needed services are provided.

Full Time Status Requirement:

The minimum requirement of a Full Time graduate degree enrollment status are as follows: enrolling in 9 credit units – e.g. 3 courses at 3 units/course – in each of two out of the three trimester terms throughout one year of study per 12 month period, starting from the student's first day of class attendance.

Enrollment Agreement:

Upon admission, a student is required to sign the Enrollment Agreement Form. Both the student and the university keep the signed copy.

General Admission Requirements for Bachelor Degree Program

- **General Admission Requirement**

The minimum and general requirements for admission to Bachelor Degree program at TVU are as follows:

(1) Evidence of achieved high school graduation: High School Diploma and High School Official Transcript. An official transcript of the applicant's high school record is to be mailed directly from the office of a recognized high school certifying graduation. This transcript must show a minimum of sixteen units satisfactorily completed. A mature individual may be admitted on the basis of a high school equivalency diploma from any state, subject to close academic supervision. The General Education Development Test (G.E.D.) may be used for anyone who did not complete high school. Applicants submitting their scores on the G.E.D. test shall be evaluated on an individual basis. Students having been involved in a home school program rather than a traditional public or private high school may apply for admission to Tri-Valley University without either a GED or a high school diploma but must achieve a score on the SAT or ACT that is acceptable to the Committee on Academic Standards and Admissions.

(2) Test Scores. Applicants who do not possess a degree from a postsecondary institution where English is the principal language of instruction must take the TOEFL exam and receive a minimum score of 500 on the Test of English as a Foreign Language (TOEFL).

- **Application Package**

For consideration for admission to the Bachelor degree study, the application package includes the following items:

(1) The filled and signed Undergraduate Admission Application FORM.
(2) A non-refundable application fee of $50.
(3) High School Diploma copy.
(4) High School Official Transcript.
(5) Test score of SAT or TOEFL.
(6) International applicant is also required to submit the additional documents as listed in the general admission section.

- **Transfer Credit**

Students are allowed to transfer a maximum of 60 units from another recognized institution towards the B.S. degree program at TVU. The minimum required grade is C. Transfer credit must be from an appropriately accredited institution. Student who transfers into TVU must study at TVU for a minimum of 2 years prior to graduation.

- **Entrance Examinations**

Tri-Valley University entrance examinations are required of all applicants who do not qualify for admission by regular high school certificate. For these special students with an irregular educational background, the examination results serve as a basis for academic counseling. The entrance examinations consist of a battery of five standard tests administered at the beginning of each trimester. These examinations include an ability examination, an English Diagnostic test and general achievement tests in social studies, natural sciences and mathematics. Satisfactory scores on these examinations are construed as meeting all entrance requirements.

General Admission Requirements for Master Degree Program

- **General Admission Requirement**

The minimum and general requirements for admission to Master Degree program at TVU are as follows:

(1) Evidence of an earned baccalaureate degree related field from an accredited institution with a GPA of 3.0 or "B".
(2) The Graduate Record Examination (GRE) or GMAT general test is preferred, but not required.
(3) Applicants enrolling in U.S. institutions who do not possess a degree from a postsecondary institution where English is the principal language of instruction must take the TOEFL exam and receive a minimum score of 550 on the Test of English as a Foreign Language (TOEFL).

- **Application Package**

For consideration for admission to the Master degree study, the application package includes the following items:

(1) The filled and signed Graduate Admission Application FORM.
(2) A non-refundable application fee of $50.
(3) Diploma copy of the earned Bachelor's degrees.
(4) Official Transcript from the attended institution.
(5) Test score of GRE, GMAT or TOEFL (GRE and GMAT test is preferred, but not required).
(6) International applicant is also required to submit the additional documents as listed in the general admission section.

- **Transfer Credit**

Credit units earned at other universities, colleges and educational institutions may be transferred in TVU toward the M.S. program course requirement at TVU. A maximum of 9 semester units (three 3-unit graduate courses) or 14 quarter units (quarter units are normally 10 week of 3-hour instruction) of graduate course from another institution are allowed to transfer. The minimum GPA of the credits must be 3.0 (B). The credit must also be from a graduate level course from an accredited institution and not used for a previous degree.

General Admission Requirements for Doctorate Degree (Ph.D.)

- **General Admission Requirement**

The minimum and general requirements for admission to Doctorate Degree (Ph.D.)

program at TVU are as follows:

(1) Evidence of an earned master degree or baccalaureate degree in the same or related engineering field with a GPA of minimum 3.0 or at least "B" average in prior academic work.
(2) The statement of purpose of study included in the graduate admission application form.
(3) At least two original recommendation letters.
(4) GRE test scores (Graduate Record Examination general and subject test) and GMAT is preferred, but not required.
(5) TOELE scores, Applicants enrolling in U.S. institutions who do not possess a degree from a postsecondary institution where English is the principal language of instruction must take Test of English as a Foreign Language (TOEFL) exam and receive a minimum score of 550 on the TOEFL exam.

- **Application Package**

For consideration for admission into the Doctorate Degree (Ph.D.) Program, the application package needs to include the following items:

(1) The filled and signed graduate admission application form.
(2) A non-refundable application fee of $50.
(3) Two letters of recommendation.
(4) Diploma copy of the earned Bachelor's or Master's degrees.
(5) Official transcripts from the attended institutions.
(6) Test scores of GRE, GMAT or TOEFL.
(7) International applicants are also required to submit the additional documents as listed in the general admission section.

- **Transfer Credit**

Credit units earned at other universities, colleges and educational institutions may be transferred into TVU up to 12 semester units toward the Doctorate Degree program requirement at TVU. The minimum GPA of the credits must be 3.0 (B). The credit must also be from a graduate level course from an accredited institution and have not been used for a previous degree.

II. Financial Information

Tuition and Fees per Trimester

Tuition and fee at TVU are listed in the following table. Tuition for per unit graduate credit is the same for Certificate program, Master Degree program and Doctorate Degree program, as well as for the open enrollment program (or auditing program).

Tuition and Fees

	Items	Fees
Tuition		
	Graduate course per trimester credit unit	$ 300.00
	Undergraduate course per trimester credit unit	$ 200.00
Application Fee		
	Application Fee (Same for Re-Application Fee)	$50.00
	Late Application Fee (total)	$80.00
	Readmission Fee	$50/$80(late)
Registration Fee		
	Registration Fee	$50.00
	Open Enrollment Registration Fee per course	$20.00
	Early Registration Fee	$30.00
	Late Registration Fee	$70.00
	Add Course	$10.00
	Drop Course	$10.00
Graduation Fee		
	Graduation Fee for B.S, M.S. and Doctor Degree	$100.00
Student Life		
	Student Association Fee (Per Semester)	$15.00
	E-Library Card Fee	$20.00
	Transcript Fee (each)	$10.00
	Student ID card Fee	$5.00
Other Fees		
	Late Payment Fee	$20.00
	Return Check Fee	$50.00

The estimated yearly cost for full-time student enrolled at TVU is $15,000/year including tuition and living expenses. The calculation is based on a minimum estimation; fees can easily go highly than the estimation. For domestic students who attend TVU while working or take the classes through distance learning, the cost will be less (not counting the living expenses and/or health insurance cost). Following is the estimated budge calculation.

Yearly Estimated Cost for Study at TVU

Budget Items	Budget
Tuition Yearly	
3 courses each semester (three trimesters)	$ 9000.00
Living Expenses	
Renting and other living expenses	$4000.00
Health Insurance Plan	$1000.00
Others Cost	
Registrations, Textbook, and others	$ 500.00
Misc.	
Transportation or any other cost	$500.00
Yearly Estimated Fee Total	$15000.00

Refund Policies

The first-time application fee and every trimester's registration fees are all nonrefundable, regardless of the number of units registered. The first semester's tuition for all TVU International Students is non-refundable from the date of registration or enrollment (what ever comes first).

However, for the rest trimesters other than the first one, students may formally withdraw from a class by completing a Course Drop Form. If a student withdraws from a course (i.e. drops the course by processing the withdraw form), he/she may be eligible to receive a refund according to the following chart for the refund policies. The last class date or lecture hour (whichever is later) before the Course Drop Form is received will be used to calculate the refund. Student is also required to return all the checked out items such as library books and equipment prior to refund. The detailed refund schedule for a typical 3 credit unit class is as follows:

Refund Policies	
Time Frame(After weeks)	**Refund Percentage**
1st week	80%
2nd week	70%
3rd week	60%
4th week	50%
5th week	40%
6th week	30%
7th week	20%
8th week	10%
9th week	0%

Financial Aid

Student Loan

Students may apply financial aid for their studies and living expenses through a variety of commercial bank student loan programs. These student loan programs are "credit-based" as opposed to government guaranteed federal-sponsored financial aid loans which is ‘need-based”. Student loans are an important resource, but should be considered as a last resort. It is danger to borrow too much and accumulating high indebtedness. Other options such as employment, work-study, internship are encouraged for our graduate students to pursue.

TVU Student Work-Study Opportunities

TVU offers a series of work-study opportunities for graduate student such as Teaching Assistantships (TAs) and Laboratory Assistantships (LAs) and Research Assistantships (RAs). These assistantships are offered primarily on the basis of outstanding academic and professional achievement. Items considered include student’s achievement, work history, awards & accolades, GPA, letters of recommendations, transcript records and most importantly the heart for helping fellow students study. Every semester the administrative staff works with the faculty member to select and appoint TAs, and LAs to assist faculty and students in classes and labs. TAs and LAs are appointed for each trimester while RAs can be appointed for an academic year consisting of two or three trimesters. Recipients are expected to devote 20 hours per week of services for a half-time (50%) appointment. For a half-time teaching or research assistantships, students are paid with a stipend and a tuition fee waiver is not included. Hourly work-study payments are typically $10-15/hour. Applications are made through the Administration Office.

TAship: TAs’ duties are to assist both the instructors and the students. The TAs hold office hours to answer students questions or give discussion sections. They provide additional assistance to the faculty and the students after class including grading homework, keeping student attendance records, printing lecture notes etc. They also assist the instructors to maintain the online learning resource information for their assisted courses such as updating the class website.

LAship: An LA’s duties are to conduct laboratory sessions for courses which have labs as an integral part of the courses. They are not required to give discussion section, but mostly help students working on the practical laboratory assignment.

RAship: Research assistantship is normally arranged with a faculty member. Sometimes, it

can be a form of combination of research assistant and internship from the industry.

Industry Internships

Students can apply for internship with local companies at the trimester while he/she is enrolled as a part-time graduate student. Many of our faculty members are from industry and at the management level and internship can be arranged with a faculty member.

Low-Income Financial Aid

As one of the giving-back to our community program, TVU offers up to 50% tuition waiver financial aid to low income students. To apply, submit the W-2 Form and a statement of your financial situation along the application form for consideration.

Student Tuition Recovery Fund

California law requires that a fee be assessed in relation to the cost of tuition upon enrollment. The Student Tuition Recovery Fund (STRF) was established by the Legislature to protect any California Resident who attends a private postsecondary institution from losing money if the student prepaid tuition and suffered a financial loss as a result of the school: closing; failing to live up to its enrollment agreement; or, refusing to pay a court judgment. To be eligible, the student must be a "California resident" and reside in California at the time the enrollment is signed or when the student receives lessons at a California mailing address from an approved institution offering correspondence instruction. Students may be reimbursed by STRF only for prepaid but unused tuition. It is important that you keep a copy of any enrollment agreement, contract, or application to document enrollment; tuition receipts or canceled checks to document the total amount of tuition paid; and records which will show the percentage of the program which has been completed. Such records would substantiate a claim for reimbursement from the STRF, which, to be considered, must be filed within one year following school closure. If a student has obtained a judgment against the institution for any violation of the law and the student certifies that the judgment cannot be collected after diligent effort, a claim can be made to the STRF within two years after the date upon which the judgment became final. For further information or instructions, contact: Bureau for Private Postsecondary and Vocational Education, P. O. Box 980818, West Sacramento, CA 95798. Phone: (916) 445-3427.

III. Academic Regulations

Degree and Non-degree Program Enrollment and Transferring

TUV offers undergraduate and graduate degree program including Bachelor of Science (B.S), Master Degree (M.S.) and Doctor of Philosophy Degree (PhD) in Electrical Engineering, Computer Science & Engineering and Mechanical Engineering, Business Administration and Ministry, Law and Nurse as well as non degree program in these fields. The non-degree programs include Certificate Program and Open Enrollment program. To enroll in the undergraduate/graduate degree program, one needs to go through the undergraduate/graduate admission process (submitting application package, being evaluated by the admission committee and formally informed the admission decision). To enroll in the non-degree program, one just needs to register the class through the on-line registration. If a person in the non-degree program wants to pursue a graduate degree, he/she still need to go through the admission process and meet the entire admission requirement. The credit earned before can be transferred to the degree program up to the maximum as specified in the degree program requirement. Beyond the maximum transferred units, degree students are not permitted to take courses at other institutions. However, it is not permitted for a degree enrolled student to transfer into the non-degree program. If such a case arises due to financial or other important reasons, the case needs to be reviewed approved by the chief academic officer at TVU.

Degree Time Limit

Bachelor of Science degree at Tri-Valley University normally is completed in 4 years. For the Master graduate degree program, a student is expected to complete it in two to three years. However, full-time student (taking 4 courses each trimester) without any transferred credit units can complete the program in one year. The minimum time requirement is within no less than one year. Part-time student need to complete the program within no more than 7 years from the beginning of the enrollment.

The Ph.D. is normally earned over three to five years or the equivalent. However the doctorate degree program need to be completed in no fewer than two years from the date of initial enrollment and no more than ten years from the date of initial enrollment at TVU.

Transferring Credits Limits

The policies and procedures for transferring credit equally apply for each transferring institution's credit. Each specific academic program at TVU also has specific policies governing acceptance of the transferring credit which are describing in the degree program curriculum section. For Bachelor degree, a maximum of 60 units can be transferred from another accredited institution. For the Master degree program, the maximum transferring credits allowed from another institution is 9 semester units, equivalent to 14 quarter units. For Doctorate Degree, the maximum transfer units are 12 semester units, equivalent to 18 quarter units. The specific courses transferred need to be approved by the academic officer at TVU. All of the transferred credits must be from graduate course work at an accredited institution. The grade received for those units must be at least 2.7, which is B-. Also the graduate course work did not form part of a degree previously awarded at another institution.

Credits Transferring Procedure

Tri-Valley University accepts transferring credit from other institution with the limit of each degree program allowed. To be considering for acceptance, the student needs to submit the official transcript to the Academic Officer for review. The Academic Officer may request more information such as course syllabus of the same from the transferring institution. Accreditation of the transferring institution is one of the major consideration factor, but not the sole determinate of the transfer decision. The other consideration factors include the timeline of the course, topics coverage, textbook selection and the qualification of the instructor. In special situation, such as non-credited institution, accredited institution only at the time the credit was earned, the attention shall bring to the Chief Academic officer for review and decision. Not all transfer credit request will be granted. Non-related course material, non-compatible course content, and/or not qualified instructor may lead to refusal of acceptance of transfer credits.

Credits Transferring to Other Institutions

Student taking course at TVU through open enrollment may transfer to other institution for credit accounting toward their degree study there. Tri-Valley University establishes course transfer articulation agreements with several institutions. TVU will issue the standard transcript for the open enrolment program students.

Academic Advisor and Research Advisor

All students enrolled in the graduate degree program must have a research advisor. The

research advisor is responsible to define and supervise the student research, and approve the report, M.S. thesis or dissertation. Graduate students have the options to select their own research advisor approved by the institution; alternatively, the institution will appoint the research advisor to the graduate student in case the students do not find one by him/herself. M.S. student can have one faculty member serving as the main research advisor responsible for advising the M.S. research and signing the report and thesis. All doctorate students need to have a dissertation advisor committee responsible for advising his/her doctorate research and dissertation. The dissertation committee consists of three faculty members, the chair research advisor and two faculty members. The chair research advisor must be in the same major study field. Among the two other faculty members, one must be from a different department. Student does not have to identify the research advisor, chair research advisor and dissertation committee at the first trimester of the student's study. But they have to be identified and formed when the student starts the research work and before completing the thesis or dissertation.

There is one academic advisor in the Department who is responsible in advising the student in study plan and course work planning. For each trimester, student enrolled in both Master Degree program and Doctorate Degree program need to have the academic advisor's approval on the courses selected before registering for those classes.

Study Plan

Every undergraduate has a study plan for the 4 years of course selection advised by the academic officer. After enrolled in the graduate degree program, either Master degree program or Doctorate Program, the academic advisor will discuss with the student the major field of study to facilitate a practical study plan including course work plan to fulfill the major /minor area requirement and research plan such as when to start the research work and who will be the research advisor. The electronic file of the student's study plan will be maintained as student's record as the student continues his/her study at TVU. Student can access the study plan while log in his/her data base. The student is advised to check his/her online study plan regularly and report any error to the administrative staff immediately.

Registration

Registration procedures and class schedules are published in the Class Schedule each trimester and students are responsible for the complete and accurate registration according to the guidelines published therein and within the assigned due time. Pre-registration generally occurs in

November for the spring semester, in March for the summer sessions and in April for the fall semester. Final registration normally occurs during the week before the beginning of the semester. New students who pursue a graduate degree need to be admitted into the degree program before registering classes. New students may register during the designated period at the beginning of their first term or during the late registration period. Currently enrolled students should register during the pre-registration period in the previous term or the registration period of the current term. Continuing students who wait to register at late registration will be imposed a late registration fee. For the degree program, the maximum credits units a graduate student can register every trimester are 12 units (4 courses). Students who want to register more than 12 units need to be approved by the TVU academic officer.

For the non-degree program, open enrollment program and the certificate program, applicant can just register the class of interest, pay the registration fee and tuition and enroll in the class without seeking a formal admission as long as he/she meets the prerequisite of the class. There are no limits on the credit units which person in the certificate program or open enrollment program can take. The tuition and fees and refund policies are the same for the degree program (M.S. and Ph.D. Program) and the non-degree program (Certificate Program and Open Enrollment Program).

Challenge Test Option

At the discretion of the instructor and with the approval of the Academic committee, TVU offers a Challenge Test Option for students with course deficiencies to see if he/she has the proper background and prerequisites for the advanced courses. If a student fails this test, he/she cannot retake the test for this course again and must enroll and pass the corresponding prerequisite course. If he/she passes the test, he/she can have the specific prerequisite course waived.

Student Orientation

In the beginning of each trimester, there is a student orientation. The Orientation program is recorded and posted in the website. All new students, TVU faculty members and administration team are required to participate in the orientation program. Students are introduced to the programs of the institution, the student services available, the faculty members are theory courses, research projects.

Course Load

Students devoting full time to their studies usually enroll 9 to 12 units of graduate course and/or research credit unit hours. Domestic students can choose to enroll either full-time or part-time. However, all international students must be enrolled as full-time students for the purposes of enrollment certification to the Bureau of Citizenship and Immigration Services, U.S. Department of Homeland Security. TVU considers a foreign student to be pursuing a full-time program of study if the student registers as a full time student for Fall trimester and either Spring or Summer trimester.

Adding and Dropping Courses

To add or drop a class or to change a class schedule, a student must submit an ADD/DROP form, which s available in the registrar's office and website. The last day to add a class is usually the end of the second week of classes. Unless special case and circumstance approved by the Academic Officer, students are not allowed to add any courses after the sixth week of instruction in the trimester. Students who wish to drop a course must do so before the fourth week of instruction without affecting their grades. Dropping a course after the fourth week of instruction will result in a grade of WP or WF, depending on whether the student passed or failed the course before the time of dropping. Refund of tuition will be issued for a dropped course as stated in the Tuition Fee and Refunds section. The add/drop procedure starts by the student filling an add/drop class petition form and obtaining approval by the academic advisor. The add/drop class policy applies to all student including those enroll in both degree and non-degree programs.

Holders of fellowships, assistantships, tuition and fee waivers, and student visas must maintain the required number of credit hours or risk losing their tuition and fee waiver for the term. Students who lose the privileges must pay the full cost of tuition by themselves.

Class Scheduling Hours

Most classes at TVU are taught between 5 and 10 p.m. Monday through Friday, or on the weekend, meeting one day per week. The schedule is designated to allow both non-working students and working professionals to pursue their graduate degree studies during after-work hours. A few courses are scheduled between 9 a.m. to 7 p.m. (Please consult the department office for details). All the classes can be accessed live through the virtual distance learning facility.

Attendance Policy

Students enrolled at TVU are required to attend all assigned classes regularly either on-site

or through on-line virtual classroom. In the beginning of every class, the instructor will check the student's attendance at both on-site and via distance on-line. TVU makes all the effort to deliver the graduate programs overcoming all the barriers, it is so important for student to attend class, especially now everyone can attend the classroom at his/her own computer. TVU allows and encourages instructors to include attendance and class participation into their grading structure. To reinforce the importance of class attendance and classroom participation, the instructor can weigh at least 20% of the grade on the attendance of the student for each class. If a student has a medical or other emergency he/she should, if possible, contact the instructor and inform them of their absence ahead of time.

Courses Credit Units

Academic credits are measured in terms of trimester credit hours. One credit hour is equivalent to one trimester term hour. One 3 trimester credit unit class consists of 15 weeks of instruction, three hours of instruction each week.

Grading System

Tri-Valley University's grading system is based on the traditional letter grades system.

A = Highest level, excellence and outstanding work: superior achievement of course objectives

B = Designates good work: commendable achievement of course objectives

C = Designates acceptable work: satisfactory achievement of course objectives.

D = Designates minimal work: marginal achievement of course objectives.

F = (Fail) Designates failure: unacceptable work Course requirements have not been met.

I = Incomplete. Used only for reasons beyond student's control. An I that is not removed will remain on the student's record as an I, with no credit hours earned, and is not computed for the overall GPA.

P/NP = Pass/Not pass. Used as an alternative grading option for students. P/NP option is not available for required core courses. Passing mark earns grade points towards graduation, but is not calculated in the overall GPA calculation. No grade points are earned for the NP mark, and the grade is not computed in the GPA. All research work also use P/NP grading option.

NR – Used by the Office of Admissions and Records to indicate no grade was reported.

WF – Failed the course at the time of withdrawal. No grade points are earned and the grade is not computed in the GPA.

WP – Passed the course at the time of withdraw. No grade points are earned and the grade is not computed in the GPA.

The grade points for each letter grade for GPA (grade point average) calculation are listed as follows:

A = 4.0 grade points per credit hour

A- = 3.7 grade points per credit hour
B+ = 3.3 grade points per credit hour
B = 3.0 grade points per credit hour
B- = 2.7 grade points per credit hour
C+ = 2.3 grade points per credit hour
C = 2.0 grade points per credit hour
C- = 1.7 grade points per credit hour
D+ = 1.3 grade points per credit hour
D = 1.0 grade points per credit hour
D- = 0.7 grade points per credit hour
F = 0 (failure; not accepted as degree credit hour)

Grades assigned by the instructor conform to individual policies as stated in the published course syllabus. A grade submitted to the institution by the instructor is considered final and may be changed only for one of the following reasons:

(1) Error in recording a score for a student product (test, quiz, project, etc.)
(2) Miscalculation of a score, including the cumulative score for a semester.
(3) Omission from consideration of valid student products that were submitted in time.

Only courses in which a student has earned at least a grade of C- and P are counted towards the master's and/or doctor's degree. However, all registered credit hours are counted as credit hours attempted, and all grades except I, P, NP, WP, WF, AUD and NR are used in computing the GPA. A graduate student must earn a cumulative 3.0 GPA of course work to be granted the master's and/or doctor's degree.

All courses require letter grades except research work and those specifically designated. For deficiency courses, a letter grade should be given although not counted in the student's overall GPA. A grade of C- or better constitutes a passing grade for a deficiency course. All deficiency courses can be completed at any accredited institution.

Student examination answers and course grades are determined individually based upon the intrinsic quality of each student's work evaluated relative to the course requirements and evidence of the student's comprehension of the areas of studied in each course. TVU does not employ a mandatory grading curve that creates failing or passing grades based on a student's standing in the class. Grades applicable to university courses, examinations and papers are determined according to the criteria presented in this section.

Good Standing Status

Graduate Students are considered to be in good standing if they:

- meet all admissions requirements including paying all the fees.
- are not on academic probation; and
- are making satisfactory progress towards degree requirements.

Satisfactory Academic Progress

TVU will monitor the academic progress of all students at the end of each term. For the satisfactory academic progress of student, TVU adopts the Academic probation mechanism, to warn students that their GPA has fallen below the minimum standard. A graduate student will be put on academic probation if the student's GPA is less than 2.0. The evaluation will be conducted at the end of each semester. The student will be dismissed if he/she is on probation for four consecutive semesters. Students will be notified in writing of their probationary status.

If a student takes the failed course more than once, the higher grade will be used in calculating the cumulative GPA (CGPA). However, all credit hours, whether the subject is original or the repeated course, are included as credits attempted. Students under academic probation are still eligible for some financial aid, but not those with specific GPA requirement bar-lines. Students who reestablish satisfactory progress will be removed from academic probation. To address mitigating or special circumstances, students may appeal any of the decisions of the Academic Committee by petitioning consideration to TVU in writing.

Incomplete Grade

If a student wishes to receive a grade of "I" instead of normal letter grade of a course, he/she must file a petition with the Registrar prior to the final examination week after obtaining written approval from the instructor of the course. The grade "I" is used only for circumstances or situations beyond the student's control. An "I" that is not removed will remain on the student's record as an "I", with no credit earned, and will not be computed in the student's GPA.

Repetition of Courses

Students can repeat a course for credit if:

- The course is designated with the phrase ―May be repeated for credit, e.g. EE390, CS390 etc.
- The course is one in which a grade of I, D, F, WF or WP was received. In such cases, the course can be repeated and counted only once toward the degree requirements if the student passes the class. Student may drop the lower grade for the higher of the two.
- With the permission of the Academic Officer in case of special situation or circumstance.

Withdraw and Re-entry

In special circumstance such as pregnancy or other urgency event, students can withdraw

from TVU for a maximum of one trimester and re-entry to continue the degree program by filing the petition for withdraw form. Any student who withdraws from TVU for more than one semester before resuming studies at a later date must submit a new Application for Admissions form.

International students who plan to transfer to another institution must complete a "Transfer Out Record" form and submit it to the Records Office in order for the international student advisors at TVU to properly report the students' status in the student record as required by the U.S. Citizenship and Immigration Services.

Graduation

When a degree enrolled student is at a position approaching to complete all the required course work and research work and have the report/thesis/dissertation ready, he/she may file for graduation in the trimester. Prior to filing, the graduate student needs to discuss his/her academic progress with the academic advisor and the research advisor. The filing graduation form needs approval and signatures from both the academic and research advisor (or chair research advisor). There is a one-time non-refundable fee of $100 for filing for graduation.

If the student is unable to complete the rest of his/her course or research work by the approved graduation trimester or due to any unforeseen circumstances under which he/she does not graduate as planned (such as in case an international student wishes to enrich his/her knowledge and skills by taking courses in addition to the minimum graduation requirements beyond the approved graduation date), he/she will need to re-petition for graduation when he/she is ready. The trimester in which a student fulfills the graduation requirements, including course requirements, research work with approved and signed report/thesis/dissertation, and any financial obligations, is the trimester the student graduates and is the date that is shown on the diploma. The student will not have his/her degree awarded or diploma or transcript released until all University fees have been paid. A student must be enrolled with TVU in the trimester he/she graduates. Students may pick up their diplomas 60 days after graduation and after they have cleared their accounts. For each year there is a graduate ceremony, students who have filed graduation petition with the university can sign up to participate.

IV. University Policies and Regulations

Academic Integrity

TVU is dedicated to higher education of learning and research, and hence is committed to truth and accuracy. Integrity and intellectual honesty in scholarship and scientific investigation are, therefore, of paramount importance. These standards require intellectual honesty in conducting research, writing of research results and in relations with colleagues. Academic misconduct includes cheating, plagiarism, falsification of data, etc., are prohibited and can cause severe result including separation from the University.

Confidentiality of Student Records

When a student is admitted to TUV, disclosure of information from student education records is governed by the Federal Family Educational Rights and Privacy Act of 1974. Education records are all files, records, or documents maintained by the school, which contain information directly related to the students, such as name, address, phone number, and major field of study. According to the 1974 Act, in general, most of the information in student's record is confidential, and can be released to third parties only with the prior written consent of the student. The school may release student information without written consent of the students to the follows official access:

(a) Other schools and TVU officials who have legitimate educational interests.
(b) Other schools where students have applied for admission.
(c) Authorized representatives of the Department of Education or the Comptroller General of the United States.
(d) Veterans Administration.
(e) State and local authorities where required.
(f) Accrediting agencies.
(g) Parents of students who are their dependents for purposes of the Internal Revenue Code. However, the school is not required to release such records.
(h) Appropriate persons or agencies in connection with student applications for or receipt of financial aid.
(i) Courts in compliance with a court order or subpoena, provided that a reasonable attempt is made to notify the student prior to compliance.
(j) Appropriate persons or agencies in the event of a health or safety emergency, where such release without consent is necessary under the circumstances.
(k) Organizations conducting studies to develop, validate, and administer predictive tests, to administer student aid programs, or to improve instruction.

Under the authority of the Family Educational Rights and Privacy Act of 1974, as amended, students have the right to examine certain files, records or documents maintained by the school

which pertain to them. The school must permit students to examine such records within forty-five days after submission of a written request, and to obtain copies of such records upon payment of a reproduction fee. Students may request that the school amend their education records on the grounds that they are inaccurate, misleading, or in violation of their right of privacy. However, certain records are excluded by law from inspection. Specifically, those created or maintained by a physician, psychiatrist, or psychologist in connection with the treatment or counseling of a student. More specifically, students do not have access to:

- Information provided by a student's parent relating to applications for financial aid or scholarship;
- Physicians', psychiatrists', or psychologist reports;
- Instructors' personal records regarding a student.

TVU will safely keep student records for an indefinite period. Students may direct complaints regarding academic records to the Registrar. Students have the right to file complaints with the U.S. Department of Education concerning the school's alleged failure to comply with the Act.

Nondiscrimination Policy

TVU is to comply fully with applicable federal and state nondiscrimination and equal opportunity laws, orders and regulations. The commitment of TVU to the most fundamental principles of academic freedom, equality of opportunity, and human dignity requires that decisions involving students and employees be based on individual merit only and be free from discrimination in all forms, whether or not specifically prohibited by law. TVU will not discriminate in programs and activities against any person because of race, color, religion, gender identity, marital status, sexual orientation, medical condition, sex, pregnancy/childbirth, national origin, citizenship, ancestry, age, marital status, handicap, unfavorable discharge from the military, or status as disabled veteran or veteran of Vietnam era. This nondiscrimination policy applies to admission, employment, and access to and treatment in University programs and activities. It also covers faculty and staff in their employment. Complaints of invidious discrimination prohibited by university policy shall be resolved exclusively within existing TVU procedures.

Sexual Discrimination and Harassment

Sexual harassment is prohibited under federal and state discrimination laws and the regulations of the Equal Employment Opportunity Commission. It is the policy of Tri-Valley University to provide an educational, employment environment free of unwelcome sexual advances, request for sexual favors, and other verbal or physical conduct or communications constituting sexual harassment and/or sex discrimination as defined and otherwise prohibited by federal and state law.

Sexual harassment is defined as any unwanted sexual gesture, physical contact or other verbal communication of sexual nature that:

- Is made either explicitly or implicitly as a term or condition of an individual's educational status or employment;
- Is used as a basis for educational or employment decisions affecting such individual;
- Has the purpose or the effect of unreasonably interfering with an individual's educational or work performance or which creates an intimidating, hostile, or offensive educational or work environment.

It should be noted that sexually harassing behavior is not limited to overt physical aggression towards strangers. It can occur among acquaintances, friends, even lovers. In some cases it may not be maliciously intended; it may not even be conscious on the part of its perpetrator. Its undesirable consequences include mental and emotional stress or discomfort as well as occasional bodily harm. It is usually felt by its victims to be demeaning, or coercive, or punitive. As the National Advisory Council on Women's Educational programs reported to the federal government in 1980, the sexual harassment of postsecondary students is an increasingly visible problem of great dimensions, which is correctly viewed as a form of illegal sex-based discrimination. In addition to its possible legal consequences and to the more direct form of mental, emotional, or physical anguish caused to its victims, sexual harassment can seriously interfere with freedom of educational or social opportunity.

Sexual discrimination is defined as the differential treatment on the basis of sex in employment, educational programs, and activities. Examples of sexual discrimination in the treatment of students includes, but not limited to, admission, access to programs and facilities, vocational education; physical education; graduation requirement; students rules, regulations and benefits; treatment of married and/or pregnant students; financial assistance; extracurricular activities; or comments consistently targets at one gender.

TVU will not tolerate sexual harassment or discrimination of students or employees and will take action to provide remedies when such harassment is discovered. We believe that reaffirmation of a firm stand against sexual harassment and discrimination and the establishment of procedures specifically designed to resolve complaints of sexual harassment are extremely important for the University. In order to assure that TVU is free of sexual harassment, TVU will respond to every complaint of sexual harassment reported. Sanctions will be taken against anyone who engages in sexual harassment and/or sex discrimination.

Handicap Access and Policy

It is the policy of Tri-Valley University not to discriminate on the basis of handicap in its education programs, admissions, activities, or employment practices.

The Americans with Disabilities Act of 1990, as amended, and its implementing regulations provide that no qualified individual with a disability shall, on the basis of the disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity.

The Act and regulations also require an entity to "make reasonable modifications in

policies, practices, or procedures when the modifications are necessary to avoid discrimination on the basis of disability, unless the public entity can demonstrate that making the modifications would fundamentally alter the nature of the service, program, or activity."

Tri-Valley University will provide access to programs and make reasonable accommodations for the needs of students with disabilities. Students must self-identify by completing a health form prior to enrollment. These students should follow up by contacting the Chief Academic Officer for an interview to determine their needs before registration. Each student is responsible for identifying his or her needs to each professor the first day of class. If problems arise, they should notify the Chief Academic Officer. Faculty members will be sensitive to the special needs of students with disabilities and will be willing to make reasonable accommodations for their students.

Encumbrance of Registration and Records

Students who owe any money to TVU will not be permitted to register, will not be entitled to receive an official transcript of their credits, will not be entitled to receive their diplomas, and will not be entitled to receive certification for practical training for foreign students until their indebtedness has been paid.

Academic Grievance Procedures

An academic grievance procedure defines an administrative process through which students or employees may seek resolution of complaints or grievances arising from a decision made about them. A student or an employee who has a complaint or request is expected first to resolve the complaint informally. The effort must include discussions with the specific faculty member, teaching assistant or staff member involved. A demonstrated lack of good faith by any party in attempting to resolve complaints informally may be considered with all other factors in reaching an ultimate decision on the merits of any grievance.

If the situation is unable to be resolved through any reasonable informal method, a student or employee may escalate it to a formal grievance. A formal grievance must be filed within 45 days from the time the student believes, or reasonably should have known, that an occurrence has affected his/her status. This period of 45 days includes all informal efforts to resolve the grievance. The student must submit the grievance in writing to the Administration Office. A proper administrator will conduct an investigation of the grievance and may interview the student for further clarification. After the investigation, the administrator may either grant or deny the redress sought or provide remedies. The decision will be issued no later than 14 days following receipt of the written grievance. If the administrator does not grant redress satisfactory to the student, the student has 14 days to appeal the decision to university president upon written receipt of the appeal. The president has 14 days to notify the student of his decision, either grant or deny the redress sought or provide other remedies. The president's decision is final. The student will be further advised that any unresolved grievances may be directed to the Bureau for Private Postsecondary and Vocational Education, 1027 Tenth Street, Fourth Floor, Sacramento, CA 95814-3517.

Student Discipline

The University subscribes to relevant portions of the California Administrative Code as it applies to the California State University System. Inappropriate conduct by students or by applicants for admission is subject to discipline as provided in portions of Sections 41301 and 41303. The applicable parts of these sections are as follows:

41301. Expulsion, Suspension, and Probation of Students

(a) Cheating or plagiarism in connection with an academic program.

(b) Forgery, alteration, or misuse of campus documents, records, or identification, or knowingly furnishing false information to the University.

(c) Misrepresentation of oneself or of an organization to be an agent of another school.

(d) Obstruction or disruption of the campus educational process, administrative process, or other campus function, whether on or off campus.

(e) Physical abuse on/off campus of the person or property of any member of the campus community or of members of his/her family or the threat of such physical abuse.

(f) Theft of, or non-accidental damage to campus property, or property in the possession of, or owned by, a member of the campus community.

(g) Unauthorized entry into, unauthorized use of, or misuse of campus property; unauthorized entry into classes.

(h) On campus property, the sale or knowing possession of dangerous drugs, restricted dangerous drugs, or narcotics as those terms are used in California statutes, except when lawfully prescribed pursuant to medical or dental care, or when lawfully permitted for the purpose of research, instruction, or analysis.

(i) Knowing possession or use of explosives, dangerous chemicals, or deadly weapons on campus or at a campus function without prior authorization of the President.

(j) Engaging in lewd, indecent, or obscene behavior on campus property or at a campus function, either in person or by correspondence.

(k) Abusive behavior directed toward, or hazing of, a member of the campus community.

(l) Violation of any order of the President of the University, notice of which has been given prior to such violation and during the academic term in which the violation occurs, either by publication, or by posting on an official bulletin board designated for this purpose, and which order is not inconsistent with any of the other provisions of this section.

41303. Conduct by Applicants for Admission

Notwithstanding any provision in this chapter to the contrary, admission or readmission may be denied to any person who, while not enrolled as a student, commits acts which, was he or she enrolled as a student, would be the basis for disciplinary proceedings pursuant to Section 41301. Admission or readmission may be denied to any person who, while a student, commits acts that are subject to disciplinary action pursuant to Section 41301.

V. Academic Degree Programs

Tri-Valley University now has School of Engineering, School of Business, School of Art, School of Law and School of Medicine with undergraduate and graduate degree program (Bachelor of Science, Master Degree and Doctor of Philosophy Degree) and non-degree program (Certificate Program and Open Enrollment Programs). The School of Engineering has Department in Electrical Engineering, Computer Science and Engineering and Mechanical Engineering with Master of Science and Doctor of Philosophy (Ph.D.) in each department.

School of Engineering

The School of Engineering at Tri-Valley University consists of three departments, Electrical Engineering Department (EE), Computer Science and Engineering Department (CS) and Mechanical Engineering Department. Each department offers Bachelor of Science (B.S.), Master of Science Degree program (M.S.) and Ph.D. Program. For each graduate degree program, there are three emphasis areas of study for course and research work concentrations.

The following is a list of TVU School of Engineering's undergraduate and graduate degree programs:

Bachelor of Science Degree Program (B.S.)

- Bachelor of Science in Electrical Engineering (BSEE)
- Bachelor of Science in Computer Science and Engineering (BSCS)
- Bachelor of Science in Mechanical Engineering (BSME)

Master of Science Degree Program (M.S.)

- Master of Science in Electrical Engineering (MSEE)
- Master of Science in Computer Science and Engineering (MSCS)
- Master of Science in Mechanical Engineering (MSME)

Doctorate of Philosophy Degree Program (Ph.D.)

- Doctor of Philosophy Degree in Electrical Engineering (Ph.D. in EE)
- Doctor of Philosophy Degree in Computer Science and Engineering (Ph.D. in CS)
- Doctor of Philosophy Degree in Mechanical Engineering (Ph.D. in ME)

The three emphasis areas of study in each department are listed as follows:

- **Electrical Engineering Department MSEE Concentration areas:**
  - Area A Analog IC Design
  - Area B VLSI and Digital IC
  - Area C Green Energy Technology
  - Area D Micro/Nano-Electro-Mechanical System (MEMS/NEMS)

- Area E Nanotechnology

Ph.D.EE Major fields

- Area A Analog IC Design
- Area B VLSI and Digital IC
- Area C Micro/Nano-Electro-Mechanical System (MEMS/NEMS)

- **Computer Science and Engineering Department (MSCS& Ph.D. CS)**
  - Area A: Software Programming
  - Area B: VLSI System
  - Area C: Data Mining

- **Mechanical Engineering Department (MSME & Ph.D. ME)**
  - Area A: Mechanical Design
  - Area B: Engineering Mechanics
  - Area C: Micro-Electro-Mechanical System (MEMS)

School of Business

The School of Business at Tri-Valley University offers Bachelor of Science in Business Administrating (BSBA), Master of Business Administration (MBA) and Doctor of Philosophy in Business Administration (Ph.D.) graduate degree Program as well as certification program in the 5 emphasis areas. There are 5 emphasis areas of study for the MBA program: A. Accounting, B. Finance, C. Marketing, D. Economy, E. Business Administration and Management. Ph.D. Program has three major areas: Major A Business Administration, Major B, Accounting and Finance, Major C Economics and Marketing.

The following is a list of TVU School of Business's undergraduate and graduate degree programs:

Bachelor of Science in Business Administrating (BSBA)

Master of Business Administration (MBA)

- MBA Emphasis Area A: Accounting
- MBA Emphasis Area B: Finance
- MBA Emphasis Area C: Marketing
- MBA Emphasis Area D: Economics
- MBA Emphasis Area E: Business Administration

Doctor of Philosophy in Business Administration (Ph.D. in BA)

- Ph.D. in BA Major Field A: Business Administration
- Ph.D. in BA Major Field B: Accounting and Finance
- Ph. D. in BA Major Field C: Economy and Marketing

School of Art

The School of Art at Tri-Valley University has degree programs and non-degree programs, primarily in Christian Ministry, with programs designed to prepare man and woman for biblically rich and culturally sensitive Christian Ministry at the modern world. The master level degree programs are Master of Art in Biblical Studies, Church History, Systematic Theology, Christian Counseling and Ministry. Doctor of Philosophy Degree (Ph.D.) is mainly focus on Biblical Studies, Christina Counseling and Ministry. The Master of Art program requires a total of 36 graduate course and research work, and Ph.D. requires a total of 60 course and research work. The graduate degree programs in Ministry are committed both to academic excellence and practical relevance, both to personal piety and social responsibility, such that the knowledge leaned, the spiritual nourishment developed and ministry skills strengthened through the programs are for the serve and glory of God.

- **Master of Art (MA)**
  - **Biblical Studies**
  - **Systematic Theology**
  - **Church History**
  - **Christian Counseling**
  - **Ministry**

- **Master of Art (MA) In Library Science**
  - **Academic Library**

- **Doctor of Philosophy Degree (Ph.D.)**
  - **Biblical Studies**
  - **Christian Counseling**
  - **Ministry**

School of Law

School of Law at Tri-Valley University offers three graduate degree programs: Master of Laws (LL.M.), Juris Doctor (J.D.) and Ph.D. in Law. TVU School of Law program emphasizes three major field areas: Business Law, Family Law and Intellectual Property Law.

- **Master of Law (LL.M.)**
- **Juris Doctor (J.D.)**
- **Ph.D. in Law**

School of Law at Tri-Valley University has three Major field Areas:

- **Business Law**
- **Family Law**
- **Intellectual Property Law**

School of Medicine

School of Medicine at Tri-Valley University has Department of Health Care and Nurse . Department of Health Care and Nurse at Tri-Valley University offers degree programs: B.S. in Nurse (BSNS), Master of Science in Nurse (MSNS) and Ph.D. in Nurse. Practice Nurse Certificate program is also offered as the non-degree program. The Department of Health Care and Nurse program has three major emphasis areas: Family Nurse Practitioner (FNP), Nurse Administrator and Nurse Educator.

- **Bachelor of Science in Nurse (BSNS)**
- **Master of Science in Nurse (MSNS)**
  Family Nurse Practitioner (FNP)
  Nurse Administrator
  Nurse Educator
- **Ph.D. in Health Care and Nurse (Ph.D. in Nurse)**
  Nurse Administrator and Nurse Educator

The graduate degree program curriculum and course description in each department are elaborated in the following sections.

Tri-Valley University

School of Engineering

Department of Electrical Engineering

- **Bachelor of Science in Electrical Engineering (BSEE)**
- **Master of Science in Electrical Engineering (MSEE)**
- **Doctorate of Philosophy Degree in Electrical Engineering (Ph.D. in EE)**
- **Electrical Engineering Courses**

School of Engineering

Department of Electrical Engineering

Bachelor of Science in Electrical Engineering (BSEE)

I. Program Description

The Bachelor of Science in Electrical Engineering (BSEE) program at Tri-Valley University prepares students for a career in design and analysis of electrical devices, circuits, and systems. It encompasses a thorough study of electrical fundamentals, solid state devices, integrated circuits technology and design. It is designed for students interested in integrated circuits, including fabrication technology, solid state devices, digital and analog circuits analysis and design, VLSI design, and IC manufacturing and microelectromechanical systems. It prepares the student for an entry-level job in electrical engineering or for further graduate study in a specific design area. The total unit requirement for the B.S. degree is 120 trimester units among which 60 units (20 courses) are from Electrical Engineering concentration field. Also at least 45 units (15 courses) are in general education spreading in areas of humanities/fine arts, behavioral/social sciences, communications, and natural sciences. The rest are elective courses. The Bachelor of Science degree normally can be earned over a period of nine trimesters or in 4 years.

II. Admission Requirements

The applicant for Bachelor of Science in Electrical Engineering (BSEE) degree program must be in possession of a high school diploma or its equivalent. Applicants whose native language is not English and who have not earned a degree from an institution where English is the principal language of instruction must receive a minimum score of 500 on the paper-based Test of English as a Foreign Language (TOEFL).

III. Transfer Units

Students are allowed to transfer a maximum of 60 units from another recognized institution towards the B.S. degree program at TVU. The minimum required grade is B. Transfer credit must be from an appropriately accredited institution.

IV. Bachelor of Science in Electrical Engineering (BSEE) Curriculum

The total units required for BSEE degree are 120 trimester units of courses and research work among which 60 units (20 courses) must be from Electrical engineering major area, at least 45 unit (15 courses) in general education, and the rest can be elective courses. Among the 60 unit (20 courses) of course in Electrical Engineering Major Field, at least 30 units (10 courses) must be upper-level courses (course number above EE200).

A. The minimum required 45 units (15 courses) in general education must include minimum units requirements from each of the following areas:

a. Math (6 courses)

MATH 100	Calculus
MATH 101	Elementary Algebra
MATH 102	Intermediate Algebra
MATH 103	Differential Equations
MATH 104	Linear Algebra
MATH 107	Fourier Transfer and Transformation Theory

b. Physics

PHYS 100	Physics I
PHYS 101	Physics II
PHYS 103	Solid-State Physics

c. Social Sciences (3 courses)

HIS100	History of the United States
CHR100	Old Testament Message
CHR101	New Testament Message

d. English (3 courses)

ENG100	Composition and Reading
ENG101	Composition and Research

e. Humanities & Art (4 courses)

HUM100	Principle of Ethics

B. Low-Level Required Courses (3 courses)

EE 100	Semiconductor Physics
EE 101	Introduction to Microelectronics
EE 102	Linear Circuit Analyses

C. Upper-Level Required Courses (10 courses)

EE 200	Introduction to Analog Design
EE 201	Introduction to Digital Electronics
EE 202	Introduction to PSPICE
EE 203	Introduction to Integrated Circuit Layout
EE 204	Introduction to Integrated Circuit Technology
EE 205	Linear Control Systems
EE 206	Introduction to Verilog HDL
EE 207	IC Test and Measurement
EE 208	Microsystems Packaging
EE 209	Signals and Systems

D. Elective Courses (12 courses), can be combined with business elective courses, general education courses, or courses from other departments, such as law, Computer Science departments.

EE 210	Wireless Communication System
EE 211	Fiber Optic Communication
EE 212	Electromagnetic Theory
EE 213	Programmable Logic Controllers
EE 214	Communications Circuits Design
EE 215	Microprocessor Interfacing
EE 216	Embedded Systems
EE 217	Microprocessor Architecture
EE 218	Communication Systems
EE 219	Digital Signal Processing
EE 220	Application Specific Integrated Circuit Design
EE 221	Microwave Solid Circuit Design

EE 222 Asynchronous Circuit Design

BSEE Sample Curriculum

YEAR	TERM: TRIMESTER (Total 120 Units)			
	FALL	**SPRING**	**SUMMER**	UNITS
FRESHMAN	**HUM 100**Principle of Ethics **ENG100** Composition and Reading **EE 100** Semiconductor Physics **MATH 100** Calculus	**ENG101**Composition and Research **MATH 101** **Elementary Algebra** **CHR100** Old Testament Message	**MATH 102** Intermediate Algebra **EE 101** Introduction to Microelectronics **CHR101**New Testament Message	**30**
SOPHOMORE	**PHYS 100** Physics **I** **MATH 103** Differential Equations **ART100** Western Art **HIS100** History of the United States	**PHYS 101** Physics **II** **MATH 104** Linear Algebra **EE 102** Linear Circuit Analysis	**MATH 107** Fourier Transfer and Transformation Theory **PHYS 103** Solid-State Physics **EE 200**Introduction to Analog Design	**30**
JUNIOR	**EE 201** Introduction to Digital Electronics **EE 202** Introduction to PSPICE **EE 203** Introduction to Integrated Circuit Layout **EE 204** Introduction to Integrated Circuit Technology	**EE 205** Linear Control Systems **EE 206** Introduction to Verilog HDL **EE 207** IC Test and Measurement	**EE 208** Microsystems Packaging **EE 209** Signals and Systems **EE 210** Wireless Communication System	**30**
SENIOR	**EE 220** Application Specific Integrated Circuit Design **EE 221** Microwave Solid Circuit Design **BA 209** Introduction to Employment Law	**EE 214** Communications Circuits Design **EE 215**Microprocessor Interfacing **EE 216** Embedded Systems	**EE 217** Microprocessor Architecture **EE 218** Communication Systems **EE 219** Digital Signal Processing **EE 298** Senior Design Project	**30**

V. Graduation Requirements

For BSEE degree, students need to maintain an overall grade point average (GPA) of 3.0.

School of Engineering

Department of Electrical Engineering

Master of Science in Electrical Engineering (MSEE)

I. Program Description

The Master of Science in Electrical Engineering (MSEE) program at Tri-Valley University aims to provide graduate student both in-depth and breadth mastery of subject matter and an understanding of related research and research methodology in each specific area of study in Electrical Engineering. The MSEE program emphasizes 5 areas of study which are: A. Analog Integrated Circuit Design; B. VLSI and Digital Integrated Circuit Design; C Green Energy Technology; D. MEMS/NEMS Design; E. Nanotechnology. Students are required to complete a total of 36 semester units of graduate course and research work among which at least 30 units are graduate courses work. Students are also required to complete 6 units of research work and write a thesis with the guidance of a faculty member. However, a student may elect to take one additional course in lieu of partial research unit and complete a M.S. research project, or a complete course work plan. A full-time student is able to complete the program in one year taking 4 courses each trimester. A part-time student needs to complete the program requirement within a maximum of 5 years in order to be granted the degree.

II. Admission Requirements

The applicant must have a bachelor's degree in Electrical Engineering, Computer Science, or a related engineering field with a minimum of "B" or 3.0 GPA. Student who holds a B.S. degree in other fields need to consult the graduate advisor on taking the pre-required courses.

Students are allowed to transfer a maximum of nine (9) graduate semester units from another recognized institution towards the M.S. degree program at TVU. The minimum required grade is B.

III. MSEE Curriculum

The total units required for MSEE degree are 36 semester units of graduate courses and research work beyond the bachelor degree including 30 units of course work and 6 units of research work, alternatively a complete course work plan. The 10 courses (30 trimester units) courses work are 5 (15 units) required courses as general requirement, 3 core courses (12 units) in the emphasis study area, 2 elective courses (6 units) from other area of emphasis (the elective course can from other engineering programs as well). The 6 units of graduate research include two semester 3-unit graduate research work, with the guidance of a faculty member, leading to an approved M.S. thesis. Students can also choose to complete a M.S. project (3 units) combining with one more elective course, or complete course work.

The 5 required courses (15 semester units) are:

EE300 Semiconductor Physics and Devices	3 units
EE303 IC Fabrication Technology	3 units
EE305 Analog Integrated Circuit Design	3 units
EE313 VLSI I	3 units
CM361 Christian Faith	3 units

The 3 core courses are required from each emphasis study area (9 semester units):

Area A	Analog IC Design
Area B	VLSI and Digital IC
Area C	Green Energy Technology
Area D	MEMS/NEMS Design
Area E	Nanotechnology

The 2 elective courses (6 units) can be from the same emphasis area or other emphasis areas in the engineering program. M.S. Thesis Option requires 6 units of graduate research leading to an approved M.S. thesis by a faculty member. M.S. Project Option requires 3 units of M.S. project plus one more elective graduate course in engineering. M.S. Plan III requires complete course work. Total credit requirement for MSEE are 36 semester units with minimum 30 units of graduate course work.

MSEE Program Curriculum: Total 36 Semester Units					
30 Units Course Work (10 Courses)			6 Units Research Work		
Required Course	Core Course	Elective Course	M.S. Thesis Plan I	M.S. Project Plan II	M.S. Plan III
5 courses	3 Courses	2 Courses	EE399 (6 units)	EE398 (3units)	2 more elective courses
15 Units	9 Units	6 Units		One elective course (3 units)	Complete course plan

The five concentration areas and the courses in each area are lists as follows:

- Emphasis Area A Analog IC Design
- Emphasis Area B VLSI and Digital IC Design
- Emphasis Area C Green Energy Technology
- Emphasis Area D Micro/Nano-Electro-Mechanical System (MEMS/NEMS)
- Emphasis Area E Nanotechnology

Emphasis Area A: Analog IC Design

Course #	Course Name	Core Course	Units
EE302	**Microelectronics and Integrated Circuit**	X	3

EE 305	**Analog Integrated Circuit Design**	X	3
EE305	**Advanced Analog Integrated Circuit Design**	X	3
EE307	**Operational Amplifier (Op-Amp) Design**	X	3
EE308	**Phase Lock Loop (PLL) Design**	X	3
EE309	**ADC/DAC Design**	X	3
EE310	**RF Circuit Design**	X	3
EE311	**Power Electronics**	X	3
EE311B	**Power Circuit Design**	X	3
EE311C	**Advanced Power Circuit Design**	X	3
EE312	**I/O and ESD Design**	X	3

Emphasis Area B: VLSI and Digital IC Design

Course #	Course Name	Core Course	Units
EE 313	**VLSI I**	X	3
EE314	**VLSI II**	X	3
EE 315	**VLSI III**	X	3
EE316	**Digital System Design with Verilog**	X	3
EE317	**FPGA Design**	X	3
EE318	**Static Time Analysis**	X	3
EE319	**Design Verification Principles and Practice**	X	3
EE320	**Logic Synthesis Principle**	X	3
EE321	**PCB DESIGN**	X	3
EE322	**CMOS Memory Circuit Design**	X	3
EE 323	**Magnetoresistive Random Access Memory (MRAM)**	X	3
EE302	**Microelectronics and Integrated Circuit**	X	3
EE351	**Nanoelectronics**	X	3

Emphasis Area C: Green Energy Technology

Course #	Course Name	Core Course	Units
EE301	**Advanced Semiconductor Devices**	X	3
EE304	**Advanced IC Fabrication Technology**	X	3
EE311	**Power Circuit Design**	X	3
EE370	**Green Energy Technology**	X	3
EE 371	**Solar Cell Design**	X	3
EE372	**Solar Power System**	X	3
EE373	**Wind Energy**	X	3
EE 374	**Fuel Cell Technology**	X	3
EE 375	**Hydrogen Storage Materials**	X	3

Emphasis Area D: MEMS/NEMS Design

Course #	Course Name	Core Course	Units
EE 324	**Introduction to MEMS**	X	3
EE 325	**Design of MEMS**	X	3
EE304	**Advanced IC Fabrication Technology**	X	3
EE301	**Advanced Semiconductor Devices**	X	3
EE326	**Resonant Sensor Design**	X	3
EE327	**Acoustic Sensor Design**	X	3
EE328	**Data Acquisition System Design**	X	3
EE329	**Microfluidic Devices**	X	3
EE330	**MEMS-based PCR**	X	3
EE331	**RF-MEMS**	X	3
EE332	**Introduction to Bio-MEMS**	X	3

Emphasis Area E: Nanotechnology

Course #	Course Name	Core Course	Units
EE350	**Nanotechnology**	X	3
EE351	**Nanoelectronics**	X	3
EE304	**Advanced IC Fabrication Technology**	X	3
EE 375	**Hydrogen Storage Materials**	X	3
EE323	**MRAM**	X	3

Sample curriculum and study plans for emphasis area of study are tabled in the following page.

IV. Graduation Requirements

For MSEE degree, students need to maintain an overall grade point average (GPA) of 3.0 and a M.S. thesis or project approved and signed by the advisor faculty member or pass the comprehensive exam.

Master of Science in Electrical Engineering

Emphasis Area A: Analog IC Design (Sample Curriculum)

Course #	Course Name	Required Course	Core Course	Elective Course	Units
EE 300	**Semiconductor Physics and Devices**	X			3
CM361	**Christianity Faith**	X			3
EE 303	**IC Fabrication Technology**	X			3
EE 305	**Analog Integrated Circuit Design**	X			3
EE313	**VLSI I**	X			3
5 (15 semester units) Required Courses					
EE 306	**Advanced Analog Integrated Circuit Design**		X		3
EE307	**Operational Amplifier (Op-Amp) Design**		X		3
EE308	**Phase Lock Loop (PLL) Design**		X		3
EE309	**ADC/DAC Design**		X		3
EE310	**RF Circuit Design**		X		3
EE311	**Power Circuit Design**		X		3
EE311 B	**Power Circuit Design II**		X		3
EE311 C	**Advanced Power Circuit Design**		X		3
EE312	**I/O and ESD Design**		X		3
EE323	**Introduction to MEMS**			X	3
Select 3 (9 units) core courses and 2 (6 units) elective courses (elective can be any EE courses)					
EE 398	**M.S. Project**				3
M.S. project program require 3 units plus one more elective course.					
EE 399	**Graduate Research**				6
M.S. thesis program requires 6 units of graduate research work					
	Total Semester Units				36

Master of Science in Electrical Engineering

Emphasis Area B: VLSI & Digital Integrated Circuit (Sample Curriculum)

Course #	Course Name	Required Course	Core Course	Elective Course	Units
EE 300	**Semiconductor Physics and Devices**	X			3
CM361	**Christian Faith**	X			3
EE 303	**IC Fabrication Technology**	X			3
EE 305	**Analog Integrated Circuit Design**	X			3
EE313	**VLSI I**	X			3
5 (15 semester units) Required Courses					15
EE314	**VLSI II**		X		3
EE 315	**VLSI III**		X		3
EE316	**Digital System Design with Verilog**		X		3
EE317	**FPGA Design**		X		3
EE318	**Static Time Analysis**		X		3
EE319	**Design Verification Principles and Practice**		X		3
EE320	**Logic Synthesis Principle**		X		3
EE321	**PCB DESIGN**		X		3
EE322	**CMOS Memory Circuit Design**		X		3
EE 323	**Magnetoresistive Random Access Memory (MRAM)**		X		3
EE351	**Nanoelectronics**		X		3
Select 3 (9 units) core courses and 2 (6 units) elective courses (elective courses can be any EE courses)					
EE 398	**M.S. Project**				3
M.S. project program require 3 units plus one more elective course.					
EE 399	**Graduate Research**				6
M.S. thesis program requires 6 units of graduate research work					
	Total Semester Units				36

Master of Science in Electrical Engineering
Emphasis Area C: MEMS/NEMS (Sample Curriculum)

Course #	Course Name	Required Course	Core Course	Elective Course	Units
EE 300	**Semiconductor Physics and Devices**	X			3
CM361	**Christian Faith**	X			3
EE 303	**IC Fabrication Technology**	X			3
EE 305	**Analog Integrated Circuit Design**	X			3
EE313	**VLSI I**	X			3
5 (15 semester units) Required Courses					**15**
EE 324	**Introduction to MEMS**		X		3
EE 325	**Design of MEMS**		X		3
EE350	**Nanotechnology**		X		3
EE351	**Nanoelectronics**		X		3
EE304	**Advanced IC Fabrication Technology**		X		3
EE301	**Advanced Semiconductor Devices**		X		3
EE326	**Resonant Sensor Design**		X		3
EE327	**Acoustic Sensor Design**		X		3
EE328	**Data Acquisition System Design**		X		3
EE329	**Microfluidic Devices**		X		3
EE330	**MEMS-based PCR**		X		3
EE331	**RF-MEMS**		X		3
EE332	**Introduction to Bio-MEMS**		X		3
Select 3 (9 units) core courses and 2 (6 units) elective courses					
EE 398	**M.S. Project**				3
M.S. project program require 3 units plus one more elective course.					
EE 399	**Graduate Research**				6
M.S. thesis program requires 6 units of graduate research work					
				Total Semester Units	36

School of Engineering
Department of Electrical Engineering
Doctor of Philosophy Degree in Electrical Engineering (Ph.D. in EE)

❖ Objective

The Doctorate of Philosophy Degree in Electrical Engineering (Ph.D. in EE) at Tri-Valley University is a research-emphasized graduate degree program designed to provide students mastery of a very specific subject, theory, and methodology in Electrical Engineering field with in-depth knowledge and research in the subject. The program is designed to enforce student research capability and gain in-depth knowledge in one specific area in Electrical Engineering and at the same time gaining broad knowledge in engineering field. There are three major fields of study for the Ph.D. in EE: Major Area A: Analog IC Design; Major Area B. VLSI and Digital IC Design; Major Area C Nanotechnology, Micro/Nano-Electro-Mechanical System (MEMS/NEMS) Design. The awarding of the Ph.D. in EE signifies that the student has completed the advanced academic requirements in a given field, attained specialized and practical competence which qualifies the recipient for opportunities and additional responsibilities beyond the master's degree level.

❖ Length of Study

The doctorate degree normally is earned over three to five years or the equivalent. However the Ph.D. in EE must be completed in no fewer than two years from the date of initial enrollment and no more than ten years from the date of initial enrollment.

❖ Admissions

- **Admission Requirement**

  A Baccalaureate or Master's degree in the same or related field earned at an appropriately accredited institution with a minimum GPA of 3.0 or "B" is required for admission to a doctoral degree program besides the admission requirement in the general admission requirement for doctorate program.

- **Transfer of Credit.**

  A maximum of 12 units of credit for appropriate master's or doctorate-level course work from another accredited institution can be transferred towards the doctorate degree program at TVU. The minimum GPA requirement for transferred credit is B.

- **Tuition and fee**

  Tuition and fee as well as refund policy for course work and research work for Ph.D. EE at TVU are the same as the tuition fee per units specified in the university general tuition and fee list. However, there is a graduation fee of $100.00 when student complete the course and research work and file for graduation.

❖ Degree Requirement

The Doctor of Philosophy Degree in Electrical Engineering (Ph.D. in EE) program requires both graduate course work and research work at a total of 60 units beyond M.S. degree or 90 total graduate semester units after the baccalaureate degree. Among the 60 units, 15 units need to be graduate research work and 45 units of course work. Student admitted into the Ph.D. in EE program with a bachelor degree need to complete a total of 90 units of course and research work among which maximum 15 units can be graduate research. In general for graduate research, the Ph.D. study requires a Qualify exam and an approved dissertation.

➢ Course Work

The Ph.D. in Electrical Engineering program requires at least 45 units (15 courses) of course work beyond M.S. degree in one major and two minor fields. One of the two minors can be from the other department or disciplinary of study. Among the 15 required courses, 7 Courses (21 Units) need to be from the major program of study (electrical engineering), 4 course (12 units) from each minor field (the minor field can be from computer science or mechanical engineering program). Students admitted into doctorate program with a baccalaureate degree need to complete a total of 25 courses (75 units) distributed in the specified major/minor field.

- Major: 7 Courses 21 units
- Minor I 4 Courses 12units
- Minor II 4 Courses 12 units

Total 45 units course work beyond M.S. (Total 75 units after B.S.)

➢ Research Work

To be awarded the Ph.D., student need to conduct quality research work in the field toward an approved dissertation. A total of 15 units research work under the guidance of a chair faculty member in the major filed are required.

- Qualify Exam: The dissertation should be based on original, or applied research. The topic of the dissertation shall be approved by the chair dissertation advisor. Prior to enter into doctorate research work, student needs to take a Qualify exam. There is no time requirement for a student admitted in Ph.D. program with a M.S. degree to take Qualify exam to start the research work. However, for student admitted into Ph.D. program with a baccalaureate degree need to complete minimum of 30 units graduate-level course work before taking the exam and starting the research. The Qualify Exam normally covers 3 areas of fundamental knowledge and in close book format for 6 hours, with 2 hours in each area. Student with a Master degree normally take the exam at the second tri-meter of enrollment. Student with a Bachelor degree normally can take the Qualify exam within the first year. If a student fails the first time,

he/she can try another time. If he/she fails the second time, it will disqualify him/her to pursue the Ph.D. study.

- Dissertation Committee: For the doctoral degree, a supervisory dissertation committee of at least three faculty members must be formed for each student. At least one committee member must be from the major field serving as the chair dissertation advisor, and at least one committee member must be outside the major field. All committee members must have demonstrated appropriate scholarship, experience, or practice in the subject area. Students have the option of nominating their dissertation members or major professors for university final approval.

- An oral defense of the doctoral candidate's final project or dissertation with the dissertation committee is required. This may be conducted in person or at a distance. TVU will not award the Ph.D. unless a majority of the dissertation committee approves the student's dissertation.

❖ Curriculum

The Ph.D. Degree in Electrical Engineering program requires a total of 60 units of graduate study beyond M.S. degree and a total of 90 units of graduate study after bachelor degree. The three major field of study in Electrical Engineering and the major field course are listed as follows:
Major Area A Analog IC Design
Major Area B VLSI and Digital IC Design
Major Area C Nanotechnology/Micro/Nano-Electro-Mechanical System (MEMS/NEMS)

<table>
<tr><th colspan="4">Ph.D. in Electrical Engineering Curriculum</th></tr>
<tr><td colspan="3">45 Units Graduate Course Work (15 Courses)</td><td>15 Units Research Work</td></tr>
<tr><td>Major Field</td><td>Minor I</td><td>Minor II</td><td rowspan="3">An approved Dissertation & at least one publication (Conference or Journal paper)</td></tr>
<tr><td>7 courses</td><td>4 Courses</td><td>4 Courses</td></tr>
<tr><td>21 Units</td><td>12 Units</td><td>12 Units</td></tr>
<tr><td colspan="4">Total 60 Semester Units</td></tr>
</table>

Major Area A: Analog IC Design

Course #	Course Name	Core Course	Units
EE 306	**Advanced Analog Integrated Circuit Design**	X	3
EE305	**Analog Integrated Circuit Design**	X	3
EE307	**Operational Amplifier (Op-Amp) Design**	X	3
EE308	**Phase Lock Loop (PLL) Design**	X	3

EE309	**ADC/DAC Design**	X	3
EE310	**RF Circuit Design**	X	3
EE311	**Power Electronics**	X	3
EE311B	**Power Circuit Design**	X	3
EE311C	**Advanced Power Circuit Design**	X	3
EE312	**I/O and ESD Design**	X	3
EE302	**Microelectronics and Integrated Circuit**	X	3
EE304	**Advanced IC Fabrication Technology**	X	3
EE301	**Advanced Semiconductor Devices**	X	3
EE303	**IC Fabrication Technology**	X	3
EE300	**Semiconductor Physics and Devices**	X	3

Major Area B: VLSI and Digital IC Design

Course #	Course Name	Core Course	Units
EE 313	**VLSI I**	X	3
EE314	**VLSI II**	X	3
EE 315	**VLSI III**	X	3
EE316	**Digital System Design with Verilog**	X	3
EE317	**FPGA Design**	X	3
EE318	**Static Time Analysis**	X	3
EE319	**Design Verification Principles and Practice**	X	3
EE320	**Logic Synthesis Principle**	X	3
EE321	**PCB DESIGN**	X	3
EE322	**CMOS Memory Circuit Design**	X	3
EE 323	**Magnetoresistive Random Access Memory (MRAM)**	X	3
EE302	**Microelectronics and Integrated Circuit**	X	3
EE351	**Nanoelectronics**	X	3

EE304	**Advanced IC Fabrication Technology**	X	3
EE301	**Advanced Semiconductor Devices**	X	3
EE303	**IC Fabrication Technology**	X	3
EE300	**Semiconductor Physics and Devices**	X	3

Major Area C: Nanotechnology and NEMS/MEMS

Course #	Course Name	Core Course	Units
EE 324	**Introduction to MEMS**	X	3
EE 325	**Design of MEMS**	X	3
EE350	**Nanotechnology**	X	3
EE351	**Nanoelectronics**	X	3
EE304	**Advanced IC Fabrication Technology**	X	3
EE301	**Advanced Semiconductor Devices**	X	3
EE303	**IC Fabrication Technology**	X	3
EE300	**Semiconductor Physics and Devices**	X	3
EE326	**Resonant Sensor Design**	X	3
EE327	**Acoustic Sensor Design**	X	3
EE328	**Data Acquisition System Design**	X	3
EE329	**Microfluidic Devices**	X	3
EE330	**MEMS-based PCR**	X	3
EE331	**RF-MEMS**	X	3
EE332	**Introduction to Bio-MEMS**	X	3

❖ Graduation Requirements

To be awarded the Ph.D. in EE degree, students need to maintain an overall grade point average (GPA) of 3.0 in course work. For research, student needs to write a dissertation approved and signed by the dissertation committee members. To reflect the quality of the research, student is encouraged to have at least one publication at a conference or peer-reviewed journal.

Electrical Engineering Courses

EE 100 Semiconductor Physics (3 credits)
This course focuses on the basic of semiconductor physics. Topics cover Crystal structure and crystal binding, quantum statistics, energy band theory, phonon theory of crystal vibrations, equilibrium carrier statistics, recombination-generation processes, carrier transport, drift and diffusion, doping, quantum theory of electrical conduction. Prerequisite: A course in college physics

EE 101 Introduction to Microelectronics (3 credits)
This course focuses on the fundamental circuit concepts and analysis techniques. Topics include Kirchhoff's laws, nodal analysis; independent and dependent sources; Thévenin, Norton equivalent circuits; transient and AC analysis; speed and power. Phases, Bode plots and transfer function; Operational Amplifiers; Diode physics: Gauss's Law and Poisson Equation; Depletion approximation; IV characteristics.

EE 102 Linear Circuit Analysis (3 credits)
This course focuses on the fundamental of linear circuit analysis. Topics covers inductors, capacitors, duality, first-order RL and RC circuits, second-order linear circuits, resonant and bandpass circuits, magnetically coupled circuits and transformers, two-port models and principle of basic filters.

EE 200 Introduction to Analog Design (3 credits)
This course provides an understanding of analog design fundamentals, principles, applications, current practice and standard. Topics cover transistor design and small signal analysis, layout considerations, filters,op-amps, DAC/ADC etc.

EE 201 Introduction to Digital Electronics (3 credits)
This course focuses on electronic circuit elements, theory and digital circuits applications. Topics include Digital signals, logic gates, switching, and Logic circuits: CMOS logic gates; flip-flops, registers, counters, and adder.

EE 202 Introduction to PSPICE (3 credits)
This course focuses on PSPICE simulation of a various circuits. Topics include PSPICE simulate, verify, examine, and design of wide-swing bias circuits, comparators circuits, sequential digital circuits, such as DFFs and C2MOS latches.

EE 203 Introduction to Integrated Circuit Layout (3 credits)
This course focuses on CMOS circuit layout fundamentals, techniques and issues. Topics include layout of resistors, capacitors, bipolar transistors, diodes, MOSFET, floor plan and top-level interconnection.

EE 204 Introduction to Integrated Circuit Technology (3 credits)
This course focuses on the fundamental of IC fabrication technology and process. Topics cover principles, processes, equipment, engineering practice; history and current status of semiconductor industry, semiconductor and process materials, crystal growth and wafer preparation, contamination control and yield, oxidation, rapid thermal processing,

photolithography etc.

EE 205 Linear Control Systems (3 credits)
This course provides an introduction to the linear control systems. Topics include system representation, time and frequency response, stability, and application of state variables.

EE 206 Introduction to Verilog HDL (3 credits)
This course is a study of the fundamental of Verilog HDL language with basic building blocks of modern digital systems. Topics include Verilog HDL basics, Logic modeling, state machine design and memory modeling using Verilog HDL, FPGA architectures, device vendors, FPGA design tools, and FPGA applications.

EE 207 IC Test and Measurement (3 credits)
This course provides an introductory to mixed-signal IC test and measurement. Topics cover IC test and DC and parametric measurement, tester hard wares, sampling theory, DSP-based testing, analog channel testing, focused calibration, DAC/ADC testing, DIB design and Design for test.

EE 208 Microsystems Packaging (3 credits)
This course provides an introductory to microsystem packaging fundamentals. Topics cover single chip, multichip packaging, wafer-level packaging, chip-scale packaging, sealing and encapsulation, board assembly and packaging manufacturing.

EE 209 Signals and Systems (3 credits)
This course is a study of the basic concepts and principles of signals and systems. Topics include analog signals and systems, digital signals and systems, LTI systems, Fourier transform, Z-transform, FFT, system stability, digital filter design, and network. Matlab software will be used to implement some of the DSP algorithms.

EE 210 Wireless Communication System (3 credits)
This course gives an introduction to wireless technologies. Topics cover frequency re-use, wireless communication channel characteristics, speech coding, modulation and demodulation for wireless communications.
Prerequisite: A course in college physics

EE 211 Fiber Optic Communication (3 credits)
This course focuses on the fundamentals of optical communication systems and components. Topics cover optical process, optical communication systems and components, semiconductor laser, photo detectors, electrical and optical amplifiers and optical storage devices.

EE 212 Electromagnetic Theory (3 credits)
This course focuses on the foundation in the basic theory of electromagnetic field. Topics include electrostatics, magnettostatics, electro-dynamics, electromagnetic, electrodynamics, Coulomb's Law, Gauss's law, conductors and dielectric, Poisson's Equation.

EE 213 Programmable Logic Controllers (3 credits)
This course is a study of programmable controllers and their interfacing with the environment.

EE 214 Communications Circuits Design (3 credits)
This course gives an analysis of circuits used in generating, amplifying, modulating, demodulating, and signal processing in modern communication systems, including AM and FM.

EE 215 Microprocessor Interfacing (3 credits)
This course provides an introduction to hardware characteristics of microprocessors. Topics include design of interfaces including memory, I/O timers, DMA, interrupt controllers, A/D & D/A conversions.

EE 216 Embedded Systems (3 credits)
This course is a study of the embedded system design including hardware, software and hardware/ software code design. Topics cover the characteristics and design of embedded systems, designing portable device interfaces for Windows and UNIX, designing cross-platform user applications, developing desktop user application, hardware development, PIC prototype, and cross-platform applications.

EE 217 Microprocessor Architecture (3 credits)
This course is a study of the basic microprocessor architecture focusing on the fetch-decode-execute cycle. Project involves writing a program which simulates the workings of a microprocessor including instruction decoding, addressing techniques, interrupt processing, etc.

EE 218 Communication Systems (3 credits)
This course covers the fundamental knowledge of communication theories and systems with special emphasis on the modulation schemes of analog and digital communication systems. Topics include Fourier analysis, filtering and signal distortion, spectral density and correlation, digital coding and analog waveforms, modulation techniques, probability theory and random process, noise in analog modulation, optimum receivers for data communication, and data communication.

EE 219 Digital Signal Processing (3 credits)
This course is a study of the concepts in deterministic and statistical techniques for describing, analyzing, and characterizing generic signals and their applications. Topics include signal processing, continuous and discrete Fourier analysis, and fundamentals of sampling methods. Additional coverage includes the fundamentals of the algorithms and computational methods for digital FIR/IIR filter design and basic signal analysis techniques.

EE 220 Application Specific Integrated Circuit Design (3 credits)
This course provides an introductory study of the ASIC design methodologies. Topics include introduction of ASIC, FPGA and PLD, CMOS logic, ASIC library design,

programmable ASIC and ASIC Logic Cells, I/O cells, interconnect, programmable ASIC design software and ASCI construction.

EE 221 Microwave Solid Circuit Design (3 credits)
This course provides an introductory to the fundamentals of microwave solid circuit design. Topics include transmission lines and lumped elements, resonators, impedance transformation, hybrids and couplers, filters, active/passive devices, oscillators, amplifier, detectors and mixer, microwave control circuits, frequency multipliers and dividers, RF MEMS devices and circuit applications.

EE 222 Asynchronous Circuit Design (3 credits)
This course provides an introductory to asynchronous circuit design. Topics include communication channel and protocols, graphical representations, Huffman circuits, Muller circuits, timed circuits, verification and application.

EE 298 Senior Design Project (3 credits)
Student proposes a design project approved by the project advisor. The student work through the project with the period of research, implementation, testing, report writing, and related procedures, and meet with the advisor regularly.

EE 299 Research Project (3 credits)
Student proposes research topic approved by the project advisor. The student work through the project with the period of research, implementation, testing, report writing, and related procedures, and meet with the advisor regularly

EE 300 Semiconductor Physics and Devices (3 credits)
This course focuses on the basic of semiconductor physics and devices. Topics cover band theory, drift and diffusion, doping, P-N junctions in equilibrium forward and reverse bias, MOS capacitor, MOSFET, and bipolar junction transistor, MOSFET scaling. J-FET.
Prerequisite: A course in college physics

EE 301 Advanced Semiconductor Devices (3 credits)
This course cover advanced topics in semiconductor devices. Optoelectronic and photovoltaic devices, solar cell physics and design principles, photodectors, Light emitting diode, laser diode, photonics, WDM De-multiplexers and photo receivers, semiconductor power devices.
Prerequisite: EE300

EE 302 Microelectronics and Integrated Circuit (3 credits)
This course covers the basic microelectronics components, fabrication technology, design rules and mask layout as well as IC design flow. Topics include analysis of passive devices, resistors, capacitors, diode, MOSFETS and BJT, their principle, fabrication technology and small signal modeling. Design rule and mask layout, Complete IC design flow, from schematic, simulation to layout, DRC/LVS RC Extraction and pre/ post simulation.
Prerequisite: Instructor's Consent

EE 303 IC Fabrication Technology (3 credits)
The course covers basic IC fabrication technology and semiconductor process. Topics include crystal growth and wafer preparation, oxidation, lithography, wet/dry etching, diffusion, ion implantation, thin-film deposition CVD, PVD, EPI, and chemical mechanical polishing. Also joint listed as ME303.
Prerequisite: A course in college physics or instructor's consent.

EE 304 Advanced IC Fabrication Technology (3 credits)
This course focuses on advanced topics in IC fabrication. Topics cover manufacturing technology and packaging; design, hardware, software control and process engineering aspect of semiconductor fabrication equipment. PVD magnetron design, Plasma Etching, DRIE, ICP; Surface micromaching and Bulk micromachining, sacrificial layer etching.
Prerequisite: EE303

EE 305 Analog Integrated Circuit Design (3 credits**)**
This course emphasizes fundamental concept, basic theory and principles of analog circuit analysis, simulation and design. Topics cover fundamentals of analog integrated circuits including frequency response, feedback, stability, noise, nonlinearity, analog layout and matching issues. Basic building blocks include single/multiple-transistor amplifier, cascade and folded cascade, differential pairs, current sources/sink, current mirrors, current/voltage reference, output stages.
Prerequisite: EE302 or EE300

EE 306 Advanced Analog Integrated Circuit Design (3 credits**)**
The class focuses on in-depth discussion of practical and theoretical aspects of design modern CMOS analog integrated circuit. Topics include noise analysis, switching capacitor circuit, linear and switching regulator, analog filters including first-order/second order filter, inverse chebyshew and cauer filters, delay filters, LC ladder filters.
Prerequisite: EE305

EE307 Operational Amplifier (Op-Amp) Design (3 credits)
This course covers operational amplifier design from basic components to advanced high-performance op-amp design. Topics include amplifier topography, op-amp stability and compensation, simulation and measurement of op-amp, high performance op-amp design, such as high-speed/frequency op amp, differential-Output op amp and low-noise /low-voltage op amp.
Prerequisite: EE305

EE308 Phase Lock Loop (PLL) Design (3 credits)
This course focuses the component and in-depth design and analysis of Phase Lock Loop. Phase Detectors, filters and charge pump, Oscillators including ring oscillator, LC oscillator, cross-coupled oscillator, colpitts Oscillator, voltage controlled oscillators and tuning, PLL topography, jitter in PLL, linear PLL, frequency multiplication and synthesis, modulation and demodulation.
Prerequisite: EE305

EE309 ADC/DAC Design (3 credits)
This course emphasizes board level analog circuit analysis, design, and simulation. Topics include sample and hold circuit, comparators, characterization of DAC/ADC, parallel and series DAC, series ADC, medium/high speed ADC, DAC/ADC testing.
Prerequisite: EE305

EE310 RF Circuit Design (3 credits)
This course emphasizes Radio Frequency circuit and component design. Topics cover passive/active RF components, antennas, transmission lines, transceiver architectures, heterodyne/homodyne/image-reject/digital-IF/subsampling receivers, direct-conversion, two-step transmitters
Prerequisite: EE305

EE311 Power Electronics (3 credits)
This course focuses on power electronics and device design. Topics include power diode, thyristors, power bipolar transistors, power MOSFET, rectifiers, DC-DC converters (step-down, step-up, buck-boost, cuk converter), AC-AC Converters and control method for power circuits.
Prerequisite: EE305

EE311B Power Circuit Design
This course focuses on the fundamentals of power electronics system design. Topics include stead-state converter circuit modeling, converter circuits, AC equivalent circuit modeling, controller design, line-commutated rectifiers, the ideal rectifier, low harmonic rectifier modeling and control.
Prerequisite: EE305

EE311C Advanced Power Circuit Design
This course focuses on the modern advanced power electronics design. Topics include power semiconductor devices, AC machines for drives, diode and phase-controlled converters, voltage-fed and current-fed converters, and AI techniques: expert system principles and applications, fuzzy logic, neural network principles and applications.
Prerequisite: EE311C

EE312 I/O and ESD Circuit Design (3 credits)
This course covers I/O and ESD circuit and principles. Topics include input buffer, output buffer, tri-state buffer, high-speed I/O design, ESD models (HBM, MM, CDM, SDM) and testing, ESD circuit elements (resistors, diodes, transistor),SCR operation, FPDs, GCNMOS, GDNMOS, design and layout of ESD circuit, advanced protection design.
Prerequisite: EE305

EE313 VLSI I (3 credits)
The first class of the VLSI design series introduces the basic CMOS VLSI design principles and methodologies. Topics include CMOS circuits and device theory, VLSI technology, circuit characterization and performance analysis, combinational logic,

static and dynamic CMOS logic circuits, sequential CMOS logic gate, interconnection, power and clock distribution. Cadence's Virtuoso, HSPICE and Mentor's Caliber will be used for all homework assignments and design projects. Also listed as CS313.
Prerequisite: EE302

EE314 VLSI II (3 credits)
This course is a continuation of EE313 and the second course of VLSI series. Course cover advanced topics and issues in VLSI circuits design, standard cell library design and characteristics, data path and arithmetic building blocks, timing issues. Project includes design a Standard Cell Library, Data path and other special circuits that can be used as intellectual properties (IP) building blocks for ASIC, SOC (system on chip) and DSP (digital signal processing) applications. Cadence Virtuoso, HSPICE and Mentor's Caliber will be used for homework assignment and projects.
Prerequisite: EE313

EE315 VLSI III (3 credits)
The third course in the VLSI design series focuses on ASIC place and route. The course introduces the state-of-the-art physical design automation tools and techniques. Topics include design flow, library review, tool graphical interface, floor planning, power planning, timing driven placement, static time analysis (STA), CT-Gen, special routing, final routing, engineering change order (ECO), and run batch mode jobs. Cadence Encounter is used for exercises and projects.
Prerequisite: EE313

EE316 Digital System Design with Verilog (3 credits)
This course focuses on design and simulation of digital systems using hardware description language - Verilog HDL with both principle and practice approach. In principle, topics cover Switching algebras, combinational circuits, and sequential circuits with state machines. Analysis of synchronous sequential circuits, counters, shift registers, etc. In practice, students are acquainted with Cadence Verilog tool. Also listed as CS316.
Prerequisite: EE313

EE317 FPGA Design (3 credits)
This course focuses on the FPAG design with Xilinx Spartan 3 board and webpack. Topics cover the basic concept of FPGA such as architecture, design flow and the advantages vs. its limitations. By working on a series of mini-project modules, students can develop solid understanding and hands-on experience in the FPGA design area. Xilinx and SPANTON board are used for class projects and labs. Also listed as CS317.
Prerequisite: EE316

EE318 Static Time Analysis (3 credits)
This course introduces various approaches to Static Timing Analysis (STA). Topics cover constrains, assertions, exception definition, delay calculation and advanced timing features. Primetime is commonly used in the entire design flow from post-synthesis gate level design to post-route design. Also listed as CS318.
Prerequisite: EE316

EE319 Design Verification Principles and Practice (3 credits)

This course covers the design verification methodologies commonly used in system-on-chip (SOC) design. Topics include design verification basics, introduction of various verification strategies, verification of soft and hard IP blocks, hardware verification evolution and test-bench automation methodology, random, constrained and directed testing, test-bench re-use, constrained randomization stimulus and measuring coverage, layered test-bench and object-oriented design.
Prerequisite: EE316

EE320 Logic Synthesis Principle (3 credits)

This course covers both the algorithmic aspect and the practical application aspect of logic. Topics include Verilog HDL constructs for logic synthesis, resource sharing, Verilog HDL coding style for synthesis, special case handling, generic module generation, notation and basic concepts in logic synthesis, two-level logic optimization, Heuristic minimization of two- level logic, binary decision diagram (BDD) and related topics, and multi-level synthesis. Synopsys complier is used synthesis high-level language into gates.
Prerequisite: EE316

EE321 PCB DESIGN (3 credits)

This course covers the concepts of advanced technology in high speed digital system design with emphasis on the applications of advanced PCB and high speed packaging design. The course objective is to develop the students' abilities to work on high speed PCB and packaging design. Course teaches PCB design and layout with Cadence ORCAD.
Prerequisite: EE313

EE322 CMOS Memory Circuit Design (3 credits)

This course covers CMOS memory building block circuits design as well as memory system design. Topics covers memory cell of SRAM, DRAM, FLASH, MRAM etc, and sense amplifier, address decoder, memory peripheral circuits, such as voltage regulator, charge pump and bootstrap circuits. Memory systems including DRAM, FLASH and MRAM are introduced with different architecture.
Prerequisite: EE313

EE323 Magnetoresistive Random Access Memory (MRAM) (3 credits)

This course focuses on MRAM design. Topics cover various MTJ core cell design, multiple bit MRAM core cells, toggle MRAM, cross-point architecture, read and writing circuits, process integration, other design issues and MRAM past/current development and future.
Prerequisite: EE322

EE324 Introduction to MEMS (3 credits)

The course focuses on fundamentals of Micro-Electro-Mechanical System (MEMS) design. Topics cover the background of MEMS, micromachining technology, MEMS special process and integrated process runs; assembly processes, MEMS components and devices design sensing and actuation principle(capacitive, resonant, piezoresistive,

piezoelectric, thermal, magnetic) and microfluidics systems, principle of miniaturization. Also listed as ME324.
Prerequisite: EE303

EE325 Design of MEMS (3 credits)
This course focuses on structure, process design and testing of micromachined sensors and system. Topics include design and fabrication of mechanical transducers, thermal sensors and actuators, optical and microfluidic systems. Design includes structure design, analysis and simulation to physical layout and fabrication to testing as well as on-chip signal process circuit design and integration. Also listed as ME325.
Prerequisite: EE324

EE326 Resonant Sensor Design (3 credits)
Course focuses on resonant accelerometer and gyros design. Topic covers resonant sensor principle, beam theory, mechanical structure design and simulation with Ansys, mask layout with Ledit or Cadence, on chip process circuit design ,manufacture technology and process integration. Also listed as ME327.
Prerequisite: EE324

EE327 Acoustic Sensor Design (3 credits)
The course focuses on acoustic sensor design. Topics cover acoustic wave theory, piezoelectricity, TSM, and Surface Acoustic Wave, APM, FPM devices; acoustic wave based chemical and biological sensors. Also listed as ME328.
Prerequisite: EE324

EE328 Data Acquisition System Design (3 credits)
The course focuses on the design of a data acquisition system from hardware to software design, topics covers computer architectures, hardware interface with A/D D/Aboard, digital I/O, data analysis, sampling technique, filtering, numerical integration and differentiation, data acquisition with Labview. Also listed as ME328.
Prerequisite: CS312

EE329 Microfluidic Devices (3 credits)
The course focuses on the design of microfluidic component and devices, emphasizing analytical applications of microfluidic technology. Topics cover micromachining methods, microfluidic operations, sample preparation and injection methods, detection technology, and various chemical and biological analyses, microvalve, microchannel, lab-on-chip from design, fabrication to application; electrokinetic separation techniques on chip, DNA analysis, cell analysis, microreactors and mass spectrometer interfacing. Also joint listed as ME329.
Prerequisite: EE324

EE330 MEMS-based PCR (3 credits)
The course focuses on the MEMS application in biological devices including a miniaturized PCR (Polymerase Chain Reaction) design. Topic covers miniaturization in biologic devices, DNA coping theory, PCR principle and procedure, miniaturization. Also joint listed as ME330.

Prerequisite: EE324

EE331 RF-MEMS (3 credits)
The course focuses on the MEMS-based RF component design and application. Topics cover MEMS-based capacitor, inductors, switches, resonator, antennas, MEMS-based phase shifter, filter, and oscillators. Application in wireless system. Also joint listed as ME331.
Prerequisite: EE324

EE332 Introduction to Bio-MEMS (3 credits)
The course gives an introduction to the design and application of MEMS technology in Biological and medical areas, providing engineers with an understanding of the biological challenges and the engineering challenges of this burgeoning technology. Topics cover non-silicon process, microfluidic components and sensing technologies for sample preparation, delivery, and analysis; various applications and systems at the leading edge of BioMEMS technology in a variety of areas such as genomics, drug delivery, and proteomics.
Prerequisite: EE324

EE350 Nanotechnology (3 credits)
This course focuses on nano fabrication technology and nano devices. Nano fabrication techniques, E-beam lithography, carbon nanotubes growth, characterization and application in chemical sensor and AFM, manipulation of individual carbon nanotubes, at nanoscale. Top-down and bottom-up approaches to nanotechnology.
Prerequisite: EE303

EE351 Nanoelectronics (3 credits)
This course focuses on the current state-of-art of silicon nanoelectronics. With advanced MOSFET scaled to nanometer and beyond in the ultra-large-scale integration (ULSI), it is critical for students, designers, researcher to have a clear view and understanding on what happens at nano-scale and beyond, what is the limitation. Topics covers submicron MOSFET device models, MOSFEL scaling, and limits, direct source-drain tunneling, quantum behavior and effect in MOSFET, threshold voltage adjustment, quantum dot single-electron device, fabrication of nanoscale vertical FETs, resonant tunneling in Si nanodevices, single electron transistor and memory, silicon memory based on quantum and single-electron effect.
Prerequisite: EE313

EE 370 Green Energy Technology (3 credits)
This is an introductory course to Green Energy Technology. Topics cover Energy systems trends and directions, solution to the world most compelling issues: energy security, climate change; green power, green buildings, green fuels & transportation, green IT, clean technology, renewable energy from wind energy, hybrid car to solar panel.

EE 371 Solar Cell Design (3 credits)
This course focuses on solar cells and panel design. Topics cover solar cell physical

principle, solar module layout design, solar cell materials to fabrication process and performance factors, measurement and characterization

EE 372 Solar Power System (3 credits)
This course focuses on solar power system design. Topics include solar system analysis and installation, tyerrestrial and extra-terrestrial solar radiation; radiative and optical properties of materials; basic and advanced flat plate solar thermal converters, focusing converters, solar-electric converters, solar photovoltaic cells, thermal storage; applications to building heating systems, industrial heat and central electric plants.

EE 373 Wind Energy (3 credits)
This course covers modern wind energy and its origins, wind characteristics and resources. Topics include wind data analysis and resource estimation, aerodynamics of wind turbines, momentum theory, blade element theory, generalized rotor design procedure, wind turbine design, power curve prediction, wind turbine sitting, system design and integration, operation issues.

EE 374 Fuel Cell Technology (3 credits)
This course covers principle and operation of various types of fuel cells as well as fuel cell system design, optimization and economics. Topics include alkaline, proton exchange membrane, phosphoric acid, molten carbonate, solid oxide, and direct methanol fuel cells, configuration of individual cell, stack and fuel cell system, electrochemical kinetics, transport-related phenomena and conservation equations for reacting multi-component systems.

EE 375 Hydrogen Storage Materials (3 credits)
This is an introductory course to hydrogen storage material and system. Topics include advantages of nanomaterials for hydrogen storage, properties of hydrides, characterization of the hydrogen storage properties of metal and complex hydrides, non-metallic absorbers such as carbon/graphite structures including nanotubes, hydrogen storage properties of metallo-organic frameworks (MOFs)

EE 390 Special Topics in Electrical Engineering (3 credits)
The course provides an opportunity for a faculty member or a visiting scholar to offer a relatively new subject that is not currently available in the catalog, but is of great relevance to electrical engineering. It may consist of lectures, reading, homework, presentation and project determined by the instructor. It also may be a seminar.
Prerequisite: As specified in class schedule. Can be taken repeatedly.

EE 399 Graduate Research (3 credits)
By arrangement with research advisor. Conduct independent research of an approved topic in electrical engineering with the guidance of the research advisor. Can be taken repeatedly.
Prerequisite: Graduate standing

Tri-Valley University

School of Engineering

Department of Computer Science and Engineering

- **Bachelor of Science in Computer Science and Engineering (BSCS)**
- **Master of Science in Computer Science and Engineering (MSCS)**
- **Doctorate of Philosophy Degree in Computer Science and Engineering (Ph.D. in CS)**
- **Computer Science and Engineering Courses**

School of Engineering

Department of Computer Science and Engineering

Bachelor of Science in Computer Science and Engineering (BSCS)

I. Program Description

The Bachelor of Science in Computer Science and Engineering (BSCS) at Tri-Valley University is designed for students with interests in computer science, including design and analysis of algorithms, artificial intelligence, computer graphics, database systems, and software programming. It encompasses a thorough study of the aspect of computer science in a Christian learning environment. It prepares the student for an entry-level job in Computer Science or for further graduate study in a specific area. The total unit requirement for the B.S. degree is 120 trimester units among which 60 units (20 courses) are from Electrical Engineering concentration field. Also at least 45 units (15 courses) are in general education spreading in areas of humanities/fine arts, behavioral/social sciences, communications, and natural sciences. The rest are elective courses. The Bachelor of Science degree normally can be earned over a period of eight trimesters or in 4 years.

II. Admission Requirements

The applicant for Bachelor of Science in Computer Science and Engineering (BSCS) degree program must be in possession of a high school diploma or its equivalent. Applicants whose native language is not English and who have not earned a degree from an appropriately accredited institution where English is the principal language of instruction must receive a minimum score of 500 on the paper-based Test of English as a Foreign Language (TOEFL).

III. Transfer Units

Students are allowed to transfer a maximum of 60 units from another recognized institution towards the B.S. degree program at TVU. The minimum required grade is B. Transfer credit must be from an appropriately accredited institution.

IV. Bachelor of Science in Business Administration Curriculum

The total units required for BSCS degree are 120 trimester units of courses and research work among which 60 units (20 courses) must be from Computer Science and Engineering major area, at least 45 unit (15 courses) in general education, and the rest can be elective courses. Among the 60 unit (20 courses) of course in Computer Science and Engineering Major Field, at least 30 units (10 courses) must be upper-level courses (course number above EE200).

A. The minimum required 45 units (15 courses) in general education must include minimum units requirements from each of the following areas:

a. Math (4 courses)

MATH 100 Calculus
MATH 101 Elementary Algebra
MATH 102 Intermediate Algebra
MATH 104 Linear Algebra

b. Physics (2 Courses)

PHYS 100 Physics I
PHYS 101 Physics II

c. Social Sciences (3 courses)

HIS100 History of the United States
CHR100 Old Testament Message
CHR101 New Testament Message

d. English (3 courses)

ENG100 Composition and Reading
ENG101 Composition and Research
ENG102 Advance Composition

e. Humanities & Art (3 courses)

HUM100 Principle of Ethics
COM100 Interpersonal Communication
ART100 Western Art

B. Low-Level Required Courses (3 courses)

CS 100 Computer Applications
CS 101 Introduction to Operating Systems
CS 102 Introduction to UNIX Programming

C. Upper-Level Required Courses (10 courses)

CS 200 Visual Basic Programming
CS 201 Photoshop
CS 202 Network Administration
CS 203 Introduction to Database Management Systems
CS 204 Programming Language Design
CS 205 C Programming Language
CS 206 Introduction to Java Programming Language
CS 207 Introduction to C++ Language
CS 208 Web Intelligence Principle
CS 209 Web Intelligence Practice

D. Elective Courses (12 courses), can be combined with business elective courses, general education courses, or courses from other departments, such as law, Computer Science departments.

CS 210 Introduction to Oracle Programming
CS 211 Software Development
CS 212 Introduction to Artificial Intelligence
CS 213 Web Service Security
CS 214 Wireless Network System
CS 215 Data and Computer Communication
CS 216 Basic Assembly Language
CS 217 Intermediate Assembly Language
CS 218 Introduction to Computer Graph
CS 219 Arithmetic and Logic in Computer Systems
CS 220 Optical Network Technology

BSCS Sample Curriculum

YEAR	TERM: TRIMESTER (Total 120 Units)			
	FALL	**SPRING**	**SUMMER**	**UNITS**
FRESHMAN	**HUM 100**Principle of Ethics **ENG100** Composition and Reading **CS 100** Computer Applications **MATH 100** Calculus	**ENG101**Composition and Research **MATH 101** Elementary Algebra **CHR100** Old Testament Message	**MATH 102** Intermediate Algebra **CS 101**Introduction to Operating Systems **CHR101**New Testament Message	
SOPHOMORE	**PHYS 100** Physics **I** **CS 102** Introduction to UNIX Programming **ART100** Western Art **HIS100** History of the United States	**PHYS 101** Physics II **MATH 104** Linear Algebra **CS 200** Visual Basic Programming	**ART100**WesternArt **PHYS 103** Solid-State Physics **CS 201** Photoshop	**30**
JUNIOR	**ENG102**Advance Composition **CS 202** Network Administration **CS 203** Introduction to Database Management Systems **COM100** Interpersonal Communication	**CS 204** Programming Language Design **CS 205**CProgramming **Language** **CS 206** Introduction to Java Programming Language	**CS 207**Introduction to C++ Language **CS 208** Web Intelligence Principle **CS 209** Web Intelligence Practice	**30**
SENIOR	**CS 210** Introduction to Oracle Programming **CS 211** Software Development **CS 212** Introduction to Artificial Intelligence	**CS 213** Web Service Security **CS 214** Wireless Network System **CS 215** Data and Computer Communication	**CS 216** Basic Assembly Language **CS 217**Intermediate Assembly Language **CS 218** Introduction to Computer Graph **CS 298** Senior Design Projects	**30**

V. Graduation Requirements

For BSCS degree, students need to maintain an overall grade point average (GPA) of 3.0.

School of Engineering

Department of Computer Science and Engineering

Master of Science in Computer Science and Engineering (MSCS)

I. Program Description

Tri-Valley University (TVU) offers the Master of Science in Computer Science &Engineering (MSCS) program. The MSCS program aims to provide graduate student the mastery of subject in Computer Science and Computer Engineering as well as an understanding of related research and methodology. The Computer Science program at TVU mainly focuses on three areas: software programming, VLSI system and data mining.

For MSCS degree requirement, students need to complete a total of 36 semester units of graduate course and research work. Among the 36 units, at least 30 units are graduate courses work and the rest can be research work. For Master Plan I, Students are also required to write a thesis with the guidance of a faculty member. However, a student may elect to take additional course in lieu of partial research unit and complete a M.S. research project with Master Plan II, or the Master Plan II where all 36 units are complete course work. A full-time student is able to complete the program in one year by taking 4 courses each trimester. Part-time students need to complete the program requirement within a maximum of 5 years in order to be awarded the MSCS degree.

II. Program Admission

1. Admission Requirements

The applicant must have a bachelor's degree in Computer Science or a related engineering field a minimum of "B" or 3.0 GPA. Student who holds a B.S. degree in other field need to consult the graduate advisor on taking the pre-required courses.

2. Transferred Credits

Students are allowed to transfer a maximum of nine (9) graduate semester units from another recognized institution towards the M.S. degree program at TVU. The minimum required grade is B.

III. MSCS Curriculum

The total units required for MSCS degree are 36 semester units of graduate courses and research work beyond the bachelor degree including 30 units of course work and 6 units of research work. The 10 courses (30 units course work) include 5 (15 units) required courses as general requirement, 3 core courses (12 units) in the emphasis study area, 2 elective courses (6 units) from other area of emphasis (the elective course can from other engineering program as well). The 6 units of graduate research include two semester 3-unit graduate research work with the guidance of a faculty member leading to an approved M.S. thesis. Students can also choose to complete a M.S. project (3 units) combining with one more elective course with M.S. plan II. Alternatively, students can choose to take 36 units of course work with Master Plan III.

<table>
<tr><th colspan="6">MSCS Curriculum</th></tr>
<tr><td colspan="3">30 Units Course Work (10 Courses)</td><td colspan="2">6 Units Research Work</td><td></td></tr>
<tr><td>Required Course</td><td>Core Course</td><td>Elective Course</td><td>M.S.Thesis Plan I</td><td>M.S. Project Plan II</td><td>M.S. Plan III Complete Course work</td></tr>
<tr><td>5 Courses</td><td>3 Courses</td><td>2 Courses</td><td rowspan="2">CS399 (6 units)</td><td>CS399 (3 units)</td><td></td></tr>
<tr><td>15 Units</td><td>9 Units</td><td>6 Units</td><td>One elective course</td><td>2 more elective course</td></tr>
<tr><td colspan="5">Total 36 Semester Units</td><td></td></tr>
</table>

The 5 required courses (15 semester units) are listed in the following table:

Course #	Course Name	Required Course	Units
CS 300	**Computer Architecture**	X	3
CS 302	**Operating System**	X	3
CS313	**VLSI I**	X	3
CS311	**Data Mining**	X	3
CM361	**Christian Faith**	X	3
	5 (15 semester units) Required Courses		

Three (3) core courses are required from the chosen emphasis area of study (9 semester units). The three emphasis area of study in Computer Science and courses in each area are as follow.

- Area A: Software Programming
- Area B: VLSI System
- Area C: Data Mining

Emphasis Area A: Software Programming

Course #	Course Name	Core Course	Units
CS 301	**Advanced Computer Architecture**	X	3
CS 303A	**Introduction to Linux**	X	3
CS 303B	**Advanced Linux Programming**	X	3
CS 304	**Distributed Systems**	X	3
CS 305A	**Unix Programming**	X	3
CS 305B	**Advanced Unix Programming**	X	3
CS306A	**Software Engineering I**	X	3
CS306B	**Software Engineering II**	X	3
CS307	**Computer Algorithms**	X	3
CS308	**Computer Networks**	X	3
CS310	**Compiler Design**	X	3
CS312	**PERL Programming**	X	3
CS314A	**Programming in C++**	X	3
CS314B	**Advanced Programming in C++**	X	3
CS315	**Software Testing & Quality Engineering**	X	3
CS319	**Java Programming**	X	3
CS311A	**Web Design with Dreamweaver I**	X	3
CS311B	**Web Design with Dreamweaver II**	X	3
CS323	**Oracle Programming**	X	3
CS324	**Adobe Photoshop**	X	3
CS325	**Game Design**	X	3
CS326	**Advanced Game Design**	X	3

Emphasis Area B: VLSI System

Course #	Course Name	Core Course	Units

CS312	**PERL Programming**	X	3
CS313	**VLSI I**	X	3
CS314A	**Programming in C++**	X	3
CS314B	**Advanced Programming in C++**	X	3
CS316	**Digital System Design with Verilog**	X	3
CS317	**FPGA Design**	X	3
CS318	**Static Time Analysis**	X	3
CS 303A	**Introduction to Linux**	X	3
CS 303B	**Advanced Linux Programming**	X	3
CS 305A	**Unix Programming**	X	3
CS 305B	**Advanced Unix Programming**	X	3

Emphasis Area C: Data Mining

Course #	Course Name	Core Course	Units
CS314A	**Programming in C++**	X	3
CS314B	**Advanced Programming in C++**	X	3
CS319	**Java Programming**	X	3
CS309A	**Database Systems I**	X	3
CS309B	**Database Systems II**	X	3
CS320	**Data Mining I**	X	3
CS320	**Data Mining II**	X	3
CS320	**Data Mining III**	X	3
CS306A	**Software Engineering I**	X	3
CS306B	**Software Engineering II**	X	3
CS315	**Software Testing & Quality Engineering**	X	3

The 2 elective courses (6 units) can be the same emphasis area or other emphasis areas in the engineering program (The elective courses can be from electrical engineering or computer science program).

M.S. Thesis Option requires 6 units of graduate research leading to an approved M.S. thesis by a faculty member. M.S. Project Option requires 3 units of M.S. project plus one more elective graduate course in engineering. Total graduate course and research work requirement for MSCS are 36 semester units (minimum 30 units of graduate course work).

III. Graduation Requirements

For MSCS degree, students need to maintain an overall grade point average (GPA) of 3.0 and a M.S. thesis or project approved and signed by the advisor faculty member.

Department of Computer Science and Engineering
Doctor of Philosophy Degree in Computer Science and Engineering (Ph.D. in CS)

❖ Objective

The Ph.D. in Computer Science and Engineering program at Tri-Valley University is a practice-oriented research-emphasized degree program designed to provide students mastery of a very specific subject, theory, and methodology in Computer Science and Engineering field. The program is designed to enforce student research capability and help them gain in-depth knowledge in one specific area in Computer Science and Engineering as well as broad knowledge in engineering field. There are three major field of study of Ph.D. in CS: Major Area A Software Programming; Major Area B VLSI System; Major Area C Date Mining. The awarding of the Ph.D. in CS signifies that the student has completed the advanced academic requirements in a given field, attained specialized and practical competence which qualifies the recipient for opportunities and additional responsibilities beyond the master's degree level.

❖ Length of Study

The doctorate degree normally is earned over three to five years or the equivalent. However the Ph.D. in CS must be completed in no fewer than two years from the date of initial enrollment and no more than ten years from the date of initial enrollment.

❖ Admissions

➢ Admission Requirement

A Baccalaureate or Master's degree in the same or related field earned at an appropriately accredited institution with a minimum of "B" or "3.0" GPA is required for admission to a doctoral degree program besides the admission requirement in the general admission requirement for doctorate program.

➢ Transfer of Credit.

A maximum of 12 units of credit for appropriate master's or doctorate-level course work from another accredited institution can be transferred towards the doctorate degree program at TVU. The minimum GPA requirement for transferred credit is B-.

➢ Tuition and fee

Tuition and fee as well as refund policy for course work and research work for Ph.D. in CS at TVU are the same as the tuition fee per units specified in the university general tuition and fee list. There is a graduation fee of $100 when students complete the course and research work and file for graduation.

❖ Degree Requirement

The Ph.D. in Computer Science and Engineering program requires both graduate course work and research work at a total of 60 units beyond M.S. degree or 90 total graduate semester units after the baccalaureate degree. Among the 60 units, 15 units need to be graduate research work and 45 units of course work. Students admitted into the Ph.D. program with a bachelor degree need to complete a total of 90 units of course and research work among which maximum 15 units can be graduate research. In general for graduate research, the Ph.D. study requires a Qualify exam and an approved dissertation.

➢ Course Work

The Ph.D. in Computer Science and Engineering program requires at least 45 units (15 courses) of course work beyond M.S. degree in one major and two minor fields. One of the two minors can be from the other department or disciplinary of study. Among the 15 required courses, 7 Courses (21 Units) need to be from the major program of study (electrical engineering), 4 course (12 units) from each minor field (the minor field can be from computer science or mechanical engineering program). Students admitted into Ph.D. program with a baccalaureate degree need to complete a total of 25 courses (75 units) distributed in the specified major/minor field. Total 45 units course work beyond M.S. (Total 75 units after B.S.)

- Major: 7 Courses 21 units
- Minor I 4 Courses 12units
- Minor II 4 Courses 12 units

➢ Research Work

To be awarded the Ph.D., students need to conduct quality research work in the field toward an approved dissertation. A total of 15 units research work under the guidance of a chair faculty member in the major field are required.

- The Qualify Exam: The dissertation should be based on original, or applied research. The topic of the dissertation shall be approved by the chair dissertation advisor. Prior to enter into doctorate research work, student needs to take a Qualify exam. There is no time requirement for a student admitted in Ph.D. program with a M.S. degree to take Qualify exam to start the research work. However, for student admitted into Ph.D. program with a baccalaureate degree need to complete minimum of 30 units graduate-level course work before taking the exam and starting the research. The Qualify Exam normally covers 3 areas of fundamental knowledge and in close book format for 6 hours, with 2 hours in each area. Student with a Master degree normally take the exam at the second tri-meter of enrollment. Student with a Bachelor degree normally can take the Qualify exam within the first year. If a student fails the first time, he/she can try another time. If he/she fails the second time, it will disqualify him/her to pursue the Ph.D. study.

- Dissertation Committee: For the doctoral degree, a supervisory dissertation committee of at least three faculty members must be formed for each student. At least one committee member must be from the major field serving as the chair dissertation

advisor, and at least one committee member must be outside the major field. All committee members must have demonstrated appropriate scholarship, experience, or practice in the subject area. Students have the option of nominating their dissertation members or major professors for university final approve.

- An oral defense of the doctoral candidate's final project or dissertation with the dissertation committee is required. This may be conducted in person or at a distance. TVU will not award the Ph.D. unless a majority of the dissertation committee approves the student's dissertation.

❖ Curriculum

The Ph.D. in Computer Science and Engineering program requires a total of 60 units of graduate study beyond M.S. degree and a total of 90 units of graduate study after bachelor degree. The major/minor field of study in Computer Science and Engineering and the major field course are listed as follows.

Major Area A Software Programming
Major Area B VLSI System
Major Area C Data Mining

<table>
<tr><th colspan="4">Ph.D. in Computer Science and Engineering Curriculum</th></tr>
<tr><td colspan="3">45 Units Graduate Course Work (15 Courses)</td><td>15 Units Research Work</td></tr>
<tr><td>Major Field</td><td>Minor I</td><td>Minor II</td><td rowspan="3">An approved Dissertation & at least one publication (Conference or Journal paper)</td></tr>
<tr><td>7 courses</td><td>4 Courses</td><td>4 Courses</td></tr>
<tr><td>21 Units</td><td>12 Units</td><td>12 Units</td></tr>
<tr><td colspan="4">Total 60 Semester Units</td></tr>
</table>

Major Field A: Software Programming

Course #	Course Name	Core Course	Units
CS 301	**Advanced Computer Architecture**	X	3
CS 302	**Operating System**	X	3
CS 303A	**Introduction to Linux**	X	3
CS 303B	**Advanced Linux Programming**	X	3
CS 304	**Distributed Systems**	X	3
CS 305A	**Unix Programming**	X	3
CS 305B	**Advanced Unix Programming**	X	3
CS306A	**Software Engineering I**	X	3

CS306B	**Software Engineering II**	X	3
CS307	**Computer Algorithms**	X	3
CS308	**Computer Networks**	X	3
CS310	**Compiler Design**	X	3
CS312	**PERL Programming**	X	3
CS314A	**Programming in C++**	X	3
CS314B	**Advanced Programming in C++**	X	3
CS315	**Software Testing & Quality Engineering**	X	3
CS319	**Java Programming**	X	3
CS311A	**Web Design with Dreamweaver I**	X	3
CS311B	**Web Design with Dreamweaver II**	X	3
CS323	**Oracle Programming**	X	3
CS324	**Adobe Photoshop**	X	3
XS325	**Game Design**	X	3
CS326	**Advanced Game Design**	X	3

Major Field B: VLSI System

Course #	Course Name	Core Course	Units
CS312	**PERL Programming**	X	3
CS313	**VLSI I**	X	3
EE314	**VLSI II**	X	3
EE 315	**VLSI III**	X	3
CS314A	**Programming in C++**	X	3
CS314B	**Advanced Programming in C++**	X	3
CS316	**Digital System Design with Verilog**	X	3
CS317	**FPGA Design**	X	3
CS318	**Static Time Analysis**	X	3

CS 312	**PERL Programming**	X	3
CS 303A	**Introduction to Linux**	X	3
CS 303B	**Advanced Linux Programming**	X	3
CS 305A	**Unix Programming**	X	3
CS 305B	**Advanced Unix Programming**	X	3

Major Field C: Data Mining

Course #	Course Name	Core Course	Units
CS314A	**Programming in C++**	X	3
CS314B	**Advanced Programming in C++**	X	3
CS319	**Java Programming**	X	3
CS309A	**Database Systems I**	X	3
CS309B	**Database Systems II**	X	3
CS 300	**Computer Architecture**	X	3
CS 301	**Advanced Computer Architecture**	X	3
CS 302	**Operating System**	X	3
CS306A	**Software Engineering I**	X	3
CS306B	**Software Engineering II**	X	3
CS320	**Data Mining I**	X	3
CS321	**Data Mining II**	X	3
CS322	**Data Mining III**	X	3
CS315	**Software Testing & Quality Engineering**	X	3

❖ Graduation Requirements

To be awarded the Ph.D. in CS degree, students need to maintain an overall grade point average (GPA) of 3.0 in course work. For research, student needs to write a dissertation approved and signed by the dissertation committee members. To reflect the quality of the research, student is encouraged to have at least one publication at a conference or peer-reviewed journal.

Computer Science & Engineering Courses

CS 100 Computer Applications (3 credits)
This course focuses on basic computer literacy concepts and computer hardware structure, the World Wide Web, and Microsoft Office tools Word, Excel, Access, and PowerPoint. Topics cover standard word processing, spreadsheet, and presentation applications in a Windows setting include introduction to computer components, input/output, data storage, the Internet and the WWW.

CS 101 Introduction to Operating Systems (3 credits)
This course is a study of modern operating systems. Topics include interrupt systems and memory, processor, and device management, threads, microkernel, concurrency and file system.

CS 102 Introduction to UNIX Programming (3 credits)
This course provides an introduction to tools and languages used to develop software for Unix-based operating systems. Topics cover a spectrum of techniques ranging from shell scripting to systems programming in C, with an emphasis on secure programming practices.

CS 200 Visual Basic Programming (3 credits)
This course focuses on the fundamental visual basic language programming with in Microsoft Access. Topics include introduction to Access VBA, conditions, lop structure, functions, data structure, debugging, Microsoft Jet SQL, data access and security,

CS 201 Photoshop (3 credits)
This course focuses on the fundamentals of Photoshop. Topics include using layers, painting tools, blending modes, tonal corrections, retouching and sharpening images and real world production and collaring techniques.

CS 202 Network Administration (3 credits)
This course focuses on administration issues that impact the planning, setup, and maintenance of computer networks. Topics cover account policies, storage management, security, licensing, performance monitoring, providing support for a large user community, providing network services, etc. You will gain experience setting up a network with both UNIX and Windows servers.

CS 203 Introduction to Database Management Systems (3 credits)
This course provides an introduction to database management systems. Topics includes Information modeling and database design techniques; commercial multiuser database management system.

CS 204 Programming Language Design (3 credits)
This course is a study of programming language concepts from the imperative, functional, logic, and object-oriented paradigms, with an analysis of their suitability to various

problem domains. Topics include a study of formal theory, as well as language efficiency and implementation details.

CS 205 C Programming Language (3 credits)
This course provides an introduction to C programming. Topics include types, operators and expressions, control flow, functions and program structure, pointers and arrays, structures, input and output and UNIX system interface.

CS 206 Introduction to Java Programming Language (3 credits)
This course provides an introduction to Java programming language. Topics include Java language fundamentals, Java operators, expression and control structures, Java classes and methods, interface and package, Java exceptions, threads, Java AWT and APPLET

CS 207 Introduction to C++ Language (3 credits)
This course is an introduction to C++ programming language. Topics include objects, data abstraction, initialization, function overloading, constants, name control, operator overloading, dynamic object creation, inheritance and composition.

CS 208 Web Intelligence Principle (3 credits)
This course provides an introduction to the principle of intelligent technology for web applications. Topics include recommender systems, concept-based web search, and fuzzy logic approach to answer retrieval, fuzzy inference based server selection in content distribution networks, fuzzy clustering and intelligent search, web using mining, proximity-based supervision for flexible web page categorization, intelligent content-based audio classification.

CS 209 Web Intelligence Practice (3 credits)
This course provides an introduction to the practical systems of web intelligence. Topics include a multi-regional Chinese medical portal, multiplicative adaptive user preference retrieval, and scalable learning methods to extract biological information, iMASS, networking support for neural network-based web monitoring and filtering, web-based BISC decision support system, and intelligent technology for content monitoring.

CS 210 Introduction to Oracle Programming (3 credits)
This course covers the basics of professional Oracle programming. Topics include Oracle architecture and storage, using SQL, handling multiple users, database design basic, Oracle security, installing Oracle, SQL.

CS 211 Software Development (3 credits)
This course provides an introduction to methodologies and tools for efficient design, development, and testing of object-oriented software. Topics cover current software engineering best practices for developing medium-to large scale business systems, including requirements analysis and project management.

CS 212 Introduction to Artificial Intelligence (3 credits)

This course provides an introduction to artificial intelligence. Topics include logics, planning, theoretical methods, search, reasoning and uncertainty, natural language processing, machine learning, knowledge discovery and data mining, evolutionary computation, artificial life and hybrid systems.

CS 213 Web Service Security (3 credits)
This course provides an introduction to expert web service security in .net platform. Topics cover web services and XML standard, windows security, ASP.NET architecture, security tools and tips, web services over SSL, using SQL server with ASP.NET, .NET IL obfuscation and intellectual property.

CS 214 Wireless Network System (3 credits)
This course provides an introduction to 802.11 wireless network surveying and installation. Topics include WLAN architectures, site survey technology, installing WLAN components.

CS 215 Data and Computer Communication (3 credits)
This course covers the principle, design approaches and standards of data and computer communication. Topics include data transmission, data encoding, data communication interface, wide-area networks, local area networks, communication architectures and protocols.

CS 216 Basic Assembly Language (3 credits)
This course covers the fundamentals of assembly language programming. Topics include constants, variables, character strings, arrays, records, dates and time, files, procedures, managing large programs, integer arithmetic, and calculation via table lookups.

CS 217 Intermediate Assembly Language (3 credits)
This course covers the intermediate assembly language programming. Topics include advanced high-level control structures, intermediate procedures, advanced arithmetic, bit manipulation, string instruction, and domain specific embedded language, mixed language programming.

CS 218 Introduction to Computer Graph (3 credits)
This course covers the fundamentals of computer graphic. Topics include overview of graphic systems, output primitives, 2-d geometric transformations, structures and hierarchical modeling, GUI and interactive input methods, 3-D object representations and computer animation.

CS 219 Arithmetic and Logic in Computer Systems (3 credits)
This course covers the fundamentals of arithmetic and logic blocks in computer systems. Topics include computer number systems, addition and subtraction, high-sped adder, sequential multiplication, parallel multiplication, sequential division, fast array dividers, floating point operations, residue number operations, logarithms, signed-digit number operations.

CS 220 Optical Network Technology (3 credits)
This course provides an introduction to the emerging optical network technologies. Topics include network architectures, optical packet switching, optical burst switching, signals protocols and network operation, traffic grooming, protection and restoration and testbeds.

CS 221 Database Design (3 credits)
This course covers database concepts, design, and applications. Topics include database architecture, relational model, structured query language (SQL), data manipulation (DML), data definition language (DDL), database design, ER modeling, database normalization, denormalization, and physical database design. Popular database systems, such as Oracle and Microsoft SQL server, are used for hands-on exercises and projects.

CS 222 Software Engineering (3 credits)
This course covers the engineering approach to the development of large, high-quality software projects. Topics include software life cycle, development process, requirement specifications, design and testing techniques, verification and validation, and software management.

CS 298 Senior Design Projects (3 credits)
Student proposes a design project approved by the project advisor. The student work through the project with the period of research, implementation, testing, report writing, and related procedures, and meet with the advisor regularly.

CS 299 Research Projects (3 credits)
Student proposes a research topic approved by the project advisor. The student work through the project with the period of research, implementation, testing, report writing, and related procedures, and meet with the advisor regularly.

CS 300 Computer Architecture (3 credits)
The course focuses on the basic computer architecture. Topics cover digital functional units, arithmetic/logic units, datapath and control, micro-operations and register transfer language, instruction format and execution, memory system design, computer I/O and interface, CPU design.
Prerequisite: A course in basic logic design

CS 301 Advanced Computer Architecture (3 credits)
The course covers the advanced computer architecture design principles and application. Topics include instruction-level parallelism, memory and input-output subsystems; advanced architectures, pipeline and vector processing; array processors; multiprocessor architecture and programming, distributed multicomputing.
Prerequisite: CS300

CS 302 Operating System Design (3 credits)
This course covers the principle and hands-on experience in modern operating system design and implementation. Topics include process, memory, file system, I/O, deadlocks, modern distributed and network system architectures, case studies of operating system implementations, communication and synchronization in distributed systems, threads and processor allocation,

scheduling in distributed operating systems, distributed file systems.
Prerequisite: CS 300

CS 303A Introduction to Linux (3 credits)
This course covers the administration and application of Linux systems including. all substantial user, programming, administration, and networking commands for the most common Linux distributions. Topics include booting, package management, Bash and Korn shell, pattern matching, Emacs, vi, sed, gawk editors, source code management and version control.
Prerequisite: CS302

CS 303B Advanced Linux Programming (3 credits)
This course covers advanced concept and techniques of Linux programming. Topics include interaction with the execution environment, writing and using libraries, process, threads creation, interposes communication, Linux system calls, Inline Assembly Code and security.
Prerequisite: CS303A

CS 304 Distributed Systems (3 credits)
The course covers the principle and paradigms of distributed system. Topics include computer communications networks and their protocols, processing, naming, event ordering and synchronization, consistency and replication, network operating systems and languages for distributed computing, distributed databases, fault tolerance and recovery strategies
Prerequisite: EE302

CS 305A UNIX Programming (3 credits)
This course covers Unix Context, Design, Tools, and Community. Topics include history, contrasts, modularity, textuality, transparency, multiprogramming, minilanguages, generation, configuration and interface, tools and portability.
Prerequisite: EE303

CS 305B Advanced UNIX Programming (3 credits)
This course covers the advanced programming techniques in UNIX environment. Topics include process environment, control and relationship, signal, Thread and control, advanced I/O, network IPC, advanced IPC.
Prerequisite: EE303

CS306A Software Engineering I (3 credits)
This course covers the fundamental of modern approaches to software development. Topics include software process and project metrics, software project planning, risk analysis and management, software quality assurance, analysis concepts and principles, architecture design, user interface design and software testing techniques.
Prerequisite: CS302

CS306B Software Engineering II (3 credits)
This course covers advanced software development. Topics include object-oriented software concept, principle, analysis and design, clean room software engineering, component-based and client-server software engineering and computer-aided software engineering.
Prerequisite: CS306A

CS307 Computer Algorithms (3 credits)
This course covers provides a comprehensive introduction to the modern study of computer algorithms with algorithms analysis, design and application. Topics include shortest paths,

maximum flows, minimum cuts, matching, and assignment problem, efficient implementation of combinatorial algorithms, sorting, searching, and geometric problems, and branch and bound algorithms.
Prerequisite: CS302

CS308 Computer Networks (3 credits)
The course provides an in-depth coverage on network principle and practices. Topics include network standard, protocols, media and hardware, WAN, network OS, TCP/IP network, network security, implementing and managing network.
Prerequisite: CS302

CS309A Database Management I (3 credits)
This course provides an introduction to database management system including design, tuning and implementation of relational database applications, as well as in-depth coverage of the state of the art in currently available commercial systems. Topic includes basic of database system, relational models, relational queries, SQL queries and programming, data storage and index.
Prerequisite: CS302

CS309BDatabase Management II (3 credits)
This course provides an in-depth coverage to database system design, tuning and transaction management. Topics include physical database design and tuning, security, transaction management, crash recovery, parallel & distribute database, internet database, and spatial databases.
Prerequisite: CS309A

CS310 Compiler Design (3 credits)
The course provides an in-depth coverage of the theory and principle of complier design. Topics include theory of compiler design and construction, techniques in error correction and recovery, code generation and optimization.
Prerequisite: CS302

CS311AWeb Design with Dreamweaver I (3 credits)
The first course in web design with dream weaver cover the fundamental of static web design with Dreamweaver CS3. Topics include setting-up the site, server, preference, building style sheet web pages, working with text, inserting imaging, and adding advanced design futures such as table, form and using frames.
Prerequisite: CS302

CS311BWeb Design with Dreamweaver II (3 credits)
The second course in web design with dream weaver cover the dynamic web design with Dreamweaver CS3. Topics include incorporating dynamic data, including multimedia element such as Photoshop, firework, flash, shockwave elements, adding video and audio on the web site, as well as customizing Dreamweaver.
Prerequisite: CS311A

CS312 PERL Programming (3 credits)
This course covers rules, conventions, standards, and practices of PERL programming. Topics include basic PERL data structures, flow control, basic I/O, operators, strings, arrays, regular expressions and subroutines, testing and debugging.
Prerequisite: CS302

CS313 VLSI I (3 credits)

The first class of the VLSI design series introduces the basic CMOS VLSI design principles and methodologies. Topics include CMOS circuits and device theory, VLSI technology, circuit characterization and performance analysis, combinational logic, static and dynamic CMOS logic circuits, sequential CMOS logic gate, interconnection, power and clock distribution. Cadence's Virtuoso, HSPICE and/or Mentor's Caliber will be used for all homework assignments and design projects. Also listed as EE313.
Prerequisite: EE302

CS314A Programming in C++ (3 credits)

This course covers the introduction of Object Oriented Programming through general C++. Topics include specification and implementation of classes, access modifiers to support information hiding, constructors, destructors and memory management, class inheritance, virtual functions and runtime binding; overloaded operators, iostream library, data types, expression, statements, functions, program scope, run-time memory allocation, function overloading, template functions, class mechanism, derivation, inheritance, and migration from C to C++.
Prerequisite: CS302

CS314B Advanced Programming in C++ (3 credits)

This course covers advanced topics of C++ programming. Topics include organizing program and data, using sequential container, library algorithms, associative container, managing memory, using dynamic binding.
Prerequisite: CS314A

CS315 Software Testing & Quality Engineering (3 credits)

This course covers the principles of software testing, quality assurance (QA), measurement and analysis to close the feedback loop fro QA and quality improvement. Topics include concepts of QA, testing management and automation, control flow and data flow testing, transaction based and finite state testing, domain testing, reliability testing, software reliability models, tools and automation.
Prerequisite: CS302

CS316 Digital System Design with Verilog (3 credits)

This course focuses on design and simulation of digital systems using hardware description language - Verilog HDL with both principle and practice approach. In principle, topics cover switching algebras, combinational circuits, and sequential circuits with state machines. Analysis of synchronous sequential circuits, counters, shift registers, etc. In practice, students are acquainted with the use of programmable logic devices and related design tools including Xilinx. Also listed as EE316.
Prerequisite: EE313

CS317/EE317 FPGA Design (3 credits)

This course covers the basic concept and practical approach to FPGA. Topics include FPGA architecture, design flow and the advantages, limitations. By working on a series of mini-project modules, students can develop solid understanding and hands-on experience in this exciting digital design area. Xilinx and SPANTON board are used for class projects and labs. Also listed as EE317.
Prerequisite: EE316

CS318 Static Time Analysis (3 credits)

This course introduces various approaches to Static Timing Analysis (STA). Topics cover

constrains, assertions, exception definition, delay calculation and advanced timing features. PrimeTime is commonly used in the entire design flow from post-synthesis gate level design to post-route design. Also listed as EE318.
Prerequisite: CS17

CS319 **Java Programming** (3 credits)
The course covers introduction to fundamental Java to advanced Java language features. Topics include Java programming basics, array and matrices, inheritance, I/O, GUI, exception, simulation, modeling with matrices.
Prerequisite: CS302

CS320 **Data Mining I** (3 credits)
Data preparation and dimension reduction; graphical and numerical exploratory statistical analysis including two-sample t tests, ANOVA, and Chi-square test of independence; linear regression and its related issues.
Prerequisite: CS300

CS321 **Data Mining II** (3 credits)
Association rules, cluster Analysis, and other unsupervised learning algorithms; generalized linear models with focus on logistic regression; decision trees.
Prerequisite: CS300, CS320

CS322 **Data Mining III** (3 credits)
Extension of recursive partitioning (boosting, bagging, random forests), generalized additive models, multivariate adaptive regression splines (MARS), projection pursuit, neural networks, support vector machine, optionally, an introduction to genetic algorithm.
Prerequisite: CS300; CS321

CS323 **Oracle Programming** (3 credits)
This course covers the fundamental of Oracle database architecture and programming techniques. Topics include Oracle architecture, SQL, database design, Oracle security, index and constraints, functions, PL/SQL, Object relational interactions with Oracle.
Prerequisite: CS302

CS324 **Adobe Photoshop** (3 credits)
This course covers the fundamental of Oracle database architecture and programming techniques. Topics include Oracle architecture, SQL, database design, Oracle security, index and constraints, functions, PL/SQL, Object relational interactions with Oracle.
Prerequisite: Graduate standing

CS325 **Game Design** (3 credits)
This course covers the fundamental of computer or video game design and programming from basics to advanced topics. Specific Topics include basic of game design, building terrain, architecture and spaces, lighting and atmosphere effects, dialogue and story, polishing.
Prerequisite: Graduate standing

CS326 **Advanced Game Design** (3 credits)
This course covers the advanced 2D and 3D game programming techniques. Topics include DirectX foundation, 2D graphics and algorithms, Game programming techniques and data structures, multithreaded programming, artificial intelligence, physics modeling, using 3D acceleration hardware.

Prerequisite: CS325

CS327 Discrete Mathematics (3 credits)
This course covers the principles and practicality of discrete mathematics. Topics include mathematical reasoning, combinatorial analysis, discrete structures, algorithmic thinking, and applications and modeling.
Prerequisite: Instructor's consent

CS 390 Special Topics in Computer Science and Engineering (3 credits)
The course provides an opportunity for a faculty member or a visiting scholar to offer a relatively new subject that is not currently available in the catalog, but is of great relevance to computer science and engineering. It may consist of lectures, reading, homework, presentation and project determined by the instructor.
Prerequisite: As specified in class schedule and can be taken repeatedly.

CS 399 Graduate Research (3 credits)
By arrangement with thesis advisor. Conduct independent research of an approved topic in electrical engineering. Can be taken repeatedly.
Prerequisite: Graduate standing

Tri-Valley University

School of Engineering

Department of Mechanical Engineering

- **Bachelor of Science in Mechanical Engineering (BSME)**
- **Master of Science in Mechanical Engineering(MSME)**
- **Doctorate of Philosophy Degree in Mechanical Engineering (Ph.D. in ME)**
- **Mechanical Engineering Courses**

School of Engineering

Department of Mechanical Engineering

Bachelor of Science in Mechanical Engineering (BSME)

I. Program Description

The Bachelor of Science in Mechanical Engineering (BSME) program at Tri-Valley University provides extensive training and broad knowledge in mechanics, mechanical design, and electrical material within the Christian learning environment. The program prepares students for a career and further graduate study in mechanical design, engineering mechanics, Micro-electro-mechanical-system (MEMS), Nano-Electro-Mechanical-System (NEMS). The total unit requirement for the B.S.M.E. degree is 120 trimester units (40 courses) among which 60 units (20 courses) need to be from Mechanical Engineering concentration field. At least 45 units (12 courses) are from general education including humanities/fine arts, behavioral/social sciences, communications, and natural sciences. The rest are elective courses. The Bachelor of Science degree normally can be earned over a period of nine trimesters or in 4 years.

II. Admission Requirements

The applicant for Bachelor of Science in Mechanical Engineering (BSME) degree program must be in possession of a high school diploma or its equivalent. Applicants whose native language is not English and who have not earned a degree from an appropriately accredited institution where English is the principal language of instruction must receive a minimum score of 500 on the paper-based Test of English as a Foreign Language (TOEFL).

III. Transfer Units

Students are allowed to transfer a maximum of 60 units from another recognized institution towards the B.S. degree program at TVU. The minimum required grade is B. Transfer credit must be from an appropriately accredited institution.

IV. Bachelor of Science in Mechanical Engineering Curriculum

The total units required for BSME degree are 120 trimester units of courses and research work among which 60 units (20 courses) must be from Mechanical Engineering major area, at least 45 unit (15 courses) in general education, and the rest can be elective courses. Among the 60 unit (20 courses) of course in Mechanical Engineering Major Field, at least 30 units (10 courses) must be upper-level courses (course number above ME200).

A. The minimum required 45 units (15 courses) in general education must include minimum units requirements from each of the following areas:

a. Math (6 courses)

MATH 100 Calculus
MATH 101 Elementary Algebra
MATH 102 Intermediate Algebra
MATH 103 Differential Equations
MATH 104 Linear Algebra
MATH 106 Probability and Statistics

b. Physics (3 Courses)

PHYS 100 Physics I
PHYS 101 Physics II
PHYS 102 Quantum Mechanics

c. Social Sciences (3 courses)

HIS100 History of the United States
CHR100 Old Testament Message
CHR101 New Testament Message

d. English (2 courses)

ENG100 Composition and Reading
ENG101 Composition and Research

e. Humanities & Art (1 courses)

HUM100 Principle of Ethics

B. Low-Level Required Courses (3 courses)

ME 100 Engineering Dynamics
ME 101 Classical Mechanics
ME 102 Introduction to Mechanical Design

C. Upper-Level Required Courses (10 courses)

ME 200 Strength of Materials
ME 201 Applied Mechanics
ME 202 Thermodynamics
ME 203 Introduction to Fluid Mechanics
ME 204 Introduction to Micromechanics
ME 205 Introduction to Solid Mechanics
ME 206 Material Characterization
ME 207 Introduction to Product Development
ME 208 Fundamentals of Micro-Electro-Mechanical System Design
ME 209 Introduction to Nanomaterials

D. Elective Courses (12 courses), can be combined with business elective courses, general education courses, or courses from other departments, such as Electrical engineering, Computer Science departments.

ME 210 Computational Fluid Dynamics
ME 211 Introduction to Thin Film
ME 212 Properties of Electronic Materials
ME 213 Analytical Mechanics
ME 214 Vibration Theory
ME 215 Robot Mechanism
ME 216 Introduction to Automatic Control
ME 217 Microscale Heat Transfer
ME 218 Continuum Mechanics

BSME Sample Curriculum

YEAR	TERM: TRIMESTER (Total 120 Units)			
	FALL	**SPRING**	**SUMMER**	**UNITS**
FRESHMAN	**HUM 100**Principle of Ethics **ENG100** Composition and Reading **ME 100** Engineering Dynamics **MATH 100** Calculus	**ENG101**Composition and Research **MATH 101** **Elementary Algebra** **CHR100** Old Testament Message	**MATH 102** Intermediate Algebra **ME 101** Classical Mechanics **CHR101**New Testament Message	**30**
SOPHOMORE	**PHYS 100** Physics I **MATH 103** Differential Equations **ME 102** Introduction to Mechanical Design **HIS100** History of the United States	**PHYS 101** Physics II **MATH 104** Linear Algebra **ME 200** Strength of Materials	**MATH 106** Probability and Statistics **PHYS 102** Quantum Mechanics **ME 201** Applied Mechanics	**30**
JUNIOR	**ME 202** Thermodynamics **ME 203** Introduction to Fluid Mechanics **ME 204** Introduction to Micromechanics **ME 205** Introduction to Solid Mechanics	**ME 206** Material Characterization **ME 207** Introduction to Product Development **ME 208** Fundamentals of MEMS Design	**ME 209**Introduction to Nanomaterials **ME210**Computational Fluid Dynamics **ME 211**Introduction to Thin Film	**30**
SENIOR	**ME 212** Properties of Electronic Materials **ME 213** Analytical Mechanics **ME 214** Vibration Theory	**ME 215** Robot Mechanism **ME 216**Introduction to Automatic Control **ME 217** Microscale Heat Transfer	**ME 218** Continuum Mechanics **EE204**Introduction to Integrated Circuit Technology **EE 208** Microsystems Packaging **ME 298** Senior Design Projects	**30**

V. Graduation Requirements

For BSME degree, students need to maintain an overall grade point average (GPA) of 3.0.

School of Engineering
Department of Mechanical Engineering
Master of Science in Mechanical Engineering (MSME)

I. Program Description

Tri-Valley University (TVU) offers the Master of Science in Mechanical Engineering (MSME) program. The MSME program aims to provide graduate students the mastery of subject in Mechanical Engineering as well as an understanding of related research and research methodology. The Mechanical Engineering program at TVU mainly focuses on three areas: Mechanical Design, Engineering Mechanics and MEMS. Program in each area of study is developed to master both classic mechanical principle theory and the practical tools. Most of the course work in mechanical engineering is designed to focus specifically on the classical mechanical principles and their application in semiconductor industry.

Programs developed including both graduate courses and research projects are closely related to electrical engineering and computer science. For MSME degree requirement, students need to complete a total of 36 semester units of graduate course and research work. Among the 36 units, at least 30 units are graduate courses work and the rest can be research work. Students are also required to write a thesis with the guidance of a faculty member. However, a student may elect to take additional course in lieu of partial research unit and complete a M.S. research project. Alternatively, student can complete a total of 36 course work with M.S. Plan III. A full-time student is able to complete the program in one year by taking 4 courses each trimester. A part-time student needs to complete the program requirement within a maximum of 5 years in order to be awarded the MSME degree.

II. Program Admission

1. Admission Requirements

The applicant must have a bachelor's degree in Mechanical Engineering or a related engineering field with a minimum GPA of "3.0" or "B". Student who holds a B.S. degree in other fields need to consult the graduate advisor on taking the pre-required courses.

2. Transferred Credits

Students are allowed to transfer a maximum of nine (9) graduate semester units from another recognized institution towards the M.S. degree program at TVU. The minimum required grade is B.

III. MSME Curriculum

The total units required for MSME degree are 36 semester units of graduate courses and research work beyond the bachelor degree including 30 units of course work and 6 units of research work. The 10 courses (30 units courses work) include 5 (15 units) required courses as general requirement, 3 core courses (12 units) in the emphasis study area, 2 elective courses (6 units) from other area of emphasis (the elective course can be from other engineering program as well). The 6 units of graduate research include two semester 3-unit graduate research work with the guidance of a faculty member, leading to an approved M.S. thesis. Students can also choose to complete a M.S. project (3 units) combed with one more elective course with Plan II or complete total 36 course work with plan III.

<table>
<tr><th colspan="6">MSME Curriculum</th></tr>
<tr><td colspan="3">30 Units Course Work (10 Courses)</td><td colspan="2">6 Units Research Work</td><td></td></tr>
<tr><td>Required Course</td><td>Core Course</td><td>Elective Course</td><td>M.S. Thesis Plan I</td><td>M.S. Project Plan II</td><td>M.S. Plan III Complete Course</td></tr>
<tr><td>5 courses</td><td>3 Courses</td><td>2 Courses</td><td rowspan="2">ME399</td><td>ME398</td><td></td></tr>
<tr><td>15 Units</td><td>9 Units</td><td>6 Units</td><td>One elective course</td><td>2 more elective courses</td></tr>
<tr><td colspan="6">Total 36 Semester Units</td></tr>
</table>

The 5 required courses (15 semester units) are:

Course #	Course Name	Required Course	Units
ME300	**Dynamics**	X	3
ME310	**FEA with ANSYS**	X	3
ME324	**Introduction to MEMS**	X	3
ME303	**Micromachining**	X	3
CM361	**Christianity Faith**	X	3
5 (15 semester units) Required Courses			

Three (3) core courses (9 semester units) are required from the chosen emphasis area of study. The three emphasis area of study in mechanical engineering and courses in each area are as follow.

- Area A Mechanical Design
- Area B Engineering Mechanics
- Area C Micro-Electro-Mechanical System (MEMS)

Emphasis Area A Mechanical Design

Course #	Course Name	Core Course	Units
ME303	**Mechanism Design**	X	3
ME304	**Mechanical Behavior of Material**	X	3
ME311A	**Computer-Aided-Design with AutoCAD I**	X	3
ME311B	**Computer-Aided-Design with AutoCAD II**	X	3
ME326	**Resonant Sensor Design**	X	3
ME328	**Data Acquisition System Design**	X	3
ME309	**Spatial Mechanism**	X	3
ME312	**Computer-Aided-Design with Solid-Work**	X	3
ME313	**Computer-Aided-Design with Pro-E**	X	3
ME314	**Control Theory**	X	3
ME315	**Advanced Control Theory**	X	3

Emphasis Area B: Engineering Mechanics

Course #	Course Name	Core Course	Units
ME310	**FEA with ANSYS**	X	3
ME327	**Acoustic Sensor Design**	X	3
ME329	**Microfluidic Devices**	X	3
ME301	**Advanced Dynamics**	X	3
ME302	**Engineering Mechanics**	X	3
ME305	**Heat Transfer**	X	3
ME306	**Fracture Mechanics**	X	3
ME307	**Solid Mechanics**	X	3
ME308	**Fluid Mechanics**	X	3

Emphasis Area C: MEMS/NEMS

Course #	Course Name	Core Course	Units
ME324	**Introduction to MEMS**	X	3
ME325	**Design of MEMS**	X	3
EE350	**Nanotechnology**	X	3
EE304	**Advanced IC Fabrication Technology**	X	3
EE301	**Advanced Semiconductor Devices**	X	3
EE303	**IC Fabrication Technology**	X	3
EE300	**Semiconductor Physics and Devices**	X	3
ME326	**Resonant Sensor Design**	X	3
ME327	**Acoustic Sensor Design**	X	3
ME328	**Data Acquisition System Design**	X	3
ME329	**Microfluidic Devices**	X	3
ME330	**MEMS-based PCR**	X	3
ME331	**RF-MEMS**	X	3
ME332	**Introduction to Bio-MEMS**	X	3

The 2 elective courses (6 units) can be from the same emphasis area or other emphasis areas in the engineering program (The elective courses can be from electrical engineering or computer science program).

M.S. Thesis Option requires 6 units of graduate research leading to an approved M.S. thesis by a faculty member. M.S. Project Option requires 3 units of M.S. project plus one more elective graduate course in engineering. Total graduate course and research work requirement for MSME are 36 semester units (minimum 30 units of graduate course work).

III. Graduation Requirements

For MSME degree, students need to maintain an overall grade point average (GPA) of 3.0 and a M.S. thesis or project approved and signed by the advisor faculty member or pass the comprehensive exam.

IV. MSME Curriculum Example

The detailed study plans for emphasis area of Mechanical Design are tabled as follows as an example curriculum. The detailed study plans for other emphasis areas are not listed.

Emphasis Area: Mechanical Design (Complete Listing)

Course #	Course Name	Required Course	Core Course	Elective Course	Units
ME300	**Dynamics**	X			3
CM361	**Christianity Faith**	X			3
ME310	**FEA with ANSYS**	X			3
ME324	**Introduction to MEMS**	X			3
ME303	**Micromachining**	X			3
5 (15 semester units) Required Courses					
ME303	**Mechanism Design**		X		3
ME304	**Mechanical Behavior of Material**		X		3
ME311	**Computer-Aided-Design with AutoCAD**		X		3
ME326	**Resonant Sensor Design**		X		3
ME328	**Data Acquisition System Design**		X		3
ME309	**Spatial Mechanism**		X		3
ME312	**Computer-Aided-Design with Solid-Work**		X		3
ME313	**Computer-Aided-Design with Pro-E**		X		3
ME314	**Control Theory**		X		3
Select 3 core courses (9 units) and 2 elective courses (6 units)					
ME399	**M.S. Project**				3
M.S. project program require 3 units plus one more elective course.					
ME399	**Graduate Research**				6
M.S. thesis program requires 6 units of graduate research work					
	Total Semester Units				36

Department of Mechanical Engineering

Doctor of Philosophy Degree in Mechanical Engineering (Ph.D. in ME)

❖ Objective

Tri-Valley University offers the Doctor of Philosophy Degree in Mechanical Engineering (Ph.D. in ME) as a practice-oriented research-emphasis degree designed to provide students mastery of a specific subject, theory, and methodology in Mechanical Engineering field. The program is designed to enforce student research capability and help them gain in-depth knowledge in one specific area in Mechanical Engineering at the same time gain broad knowledge in engineering field. There are three major field of study of Ph.D. in Mechanical Engineering: Major Area A: Mechanical Design; Major Area B: Engineering Mechanics; Major Area C: Micro-Electro-Mechanical System (MEMS). The awarding of the Ph.D. signifies that the student has completed the advanced academic requirements in the mechanical engineering field, attained specialized and practical competence which qualifies the recipient for opportunities and additional responsibilities beyond the master's degree level.

❖ Length of Study

The doctorate degree normally is earned over three to five years or the equivalent. However the Ph.D. in ME must be completed in no fewer than two years from the date of initial enrollment and no more than ten years from the date of initial enrollment.

❖ Admissions

- **Admission Requirement**

  A Baccalaureate or Master's degree in the same or related field earned at an appropriately accredited institution with a minimum GPA of "3.0" or "B" is required for admission to a doctoral degree program besides the admission requirement in the general admission requirement for doctorate program.

- **Transfer of Credit.**

  A maximum of 12 units of credit for appropriate master's or doctorate-level course work from another accredited institution can be transferred towards the doctorate degree program at TVU. The minimum GPA requirement for transferred credit is B.

- **Tuition and fee**

Tuition and fee as well as refund policy for course and research work for Ph.D. ME at TVU are the same as the tuition fee per units specified in the university general tuition and fee list. There is a graduation fee of $100 when the student completes the course and research work and file for graduation.

❖ Degree Requirement

The Ph.D. in Mechanical Engineering program requires both graduate course work and research work at a total of 60 units beyond M.S. degree or 90 total graduate semester units after the baccalaureate degree. Among the 60 units, 15 units need to be graduate research work and 45 units of course work. Student admitted into the Ph.D. program with a bachelor degree need to complete a total of 90 units of course and research work among which maximum 15 units can be graduate research. In general for graduate research, the Ph.D. study requires a Qualify exam and an approved dissertation.

➢ Course Work

The Ph.D. in Mechanical Engineering program requires at least 45 units (15 courses) of course work beyond M.S. degree in one major and two minor fields. One of the two minors can be from the other department or disciplinary of study. Among the 15 required courses, 7 Courses (21 Units) need to be from the major field of study, 4 course (12 units) from each minor field. Students admitted into Ph.D. program with a baccalaureate degree need to complete a total of 25 courses (75 units) distributed in the specified major/minor field area.

- Major: 7 Courses 21 units
- Minor I 4 Courses 12units
- Minor II 4 Courses 12 units

Total 45 units course work beyond M.S. (a total of 75 units after B.S.)

➢ Research Work

For Ph.D. requirement, students need to conduct quality research work in the field toward an approved dissertation. A total of 15 units research work under the guidance of a chair faculty member in the major field are required.

- Qualify Exam: The dissertation should be based on original, or applied research. The topic of the dissertation shall be approved by the chair dissertation advisor. Prior to enter into doctorate research work, student needs to take a Qualify exam. There is no time requirement for a student admitted in Ph.D. program with a M.S. degree to take Qualify exam to start the research work. However, for student admitted into Ph.D. program with a baccalaureate degree need to complete minimum of 30 units graduate-level course work before taking the exam and starting the research. The Qualify Exam normally covers 3 areas of fundamental knowledge and in close book

format for 6 hours, with 2 hours in each area. Student with a Master degree normally take the exam at the second tri-meter of enrollment. Student with a Bachelor degree normally can take the Qualify exam within the first year. If a student fails the first time, he/she can try another time. If he/she fails the second time, it will disqualify him/her to pursue the Ph.D. study.

- Dissertation Committee: For the doctoral degree, a supervisory dissertation committee of at least three faculty members must be formed for each student. At least one committee member must be from the major field serving as the chair dissertation advisor, and at least one committee member must be outside the major field. All committee members must have demonstrated appropriate scholarship, experience, or practice in the subject area. Students have the option of nominating their dissertation members or major professors for final approval by TVU.

- An oral defense of the doctoral candidate's final project or dissertation wit h the dissertation committee is required. This may be conducted in person or at distance. No Ph.D. will be awarded by TVU unless a majority of the dissertation committee members approves the dissertation.

❖ Curriculum

The Ph.D. in Mechanical Engineering program requires a total of 60 units of graduate study beyond M.S. degree and a total of 90 unit graduate study after bachelor degree. The three major field of study in Mechanical Engineering are: Mechanical Design, Engineering Mechanics and Micro-Electro-Mechanical System.

Major Area A: Mechanical Design
Major Area B: Engineering Mechanics
Major Area C: Micro-Electro-Mechanical System (MEMS)

<table>
<tr><th colspan="4">Ph.D. in M. E. Curriculum</th></tr>
<tr><td colspan="3">45 Units Graduate Course Work (15 Courses)</td><td>15 Units Research Work</td></tr>
<tr><td>Major Field</td><td>Minor I</td><td>Minor II</td><td rowspan="3">An approved Dissertation & at least one publication (Conference or Journal paper)</td></tr>
<tr><td>7 courses</td><td>4 Courses</td><td>4 Courses</td></tr>
<tr><td>21 Units</td><td>12 Units</td><td>12 Units</td></tr>
<tr><td colspan="4">Total 60 Semester Units</td></tr>
</table>

Major Area A: Mechanical Design

Course #	Course Name	Core Course	Units

ME303	**Mechanism Design**	X	3
ME304	**Mechanical Behavior of Material**	X	3
ME311A	**Computer-Aided-Design with AutoCAD I**	X	3
ME311B	**Computer-Aided-Design with AutoCAD II**	X	3
ME328	**Data Acquisition System Design**	X	3
ME309	**Spatial Mechanism**	X	3
ME312	**Computer-Aided-Design with Solid-Work**	X	3
ME313	**Computer-Aided-Design with Pro-E**	X	3
ME314	**Control Theory**	X	3
ME315	**Advanced Control Theory**	X	3
ME324	**Introduction to MEMS**	X	3
ME325	**Design of MEMS**	X	3
ME300	**Dynamics**	X	3
ME301	**Advanced Dynamics**	X	3

Major Area B: Engineering Mechanics

Course #	Course Name	Core Course	Units
ME310	**FEA with ANSYS**	X	3
ME327	**Acoustic Sensor Design**	X	3
ME329	**Microfluidic Devices**	X	3
ME301	**Advanced Dynamics**	X	3
ME302	**Engineering Mechanics**	X	3
ME305	**Heat Transfer**	X	3
ME306	**Fracture Mechanics**	X	3
ME307	**Solid Mechanics**	X	3
ME308	**Fluid Mechanics**	X	3
ME324	**Introduction to MEMS**	X	3

ME325	**Design of MEMS**	X	3
ME300	**Dynamics**	X	3
ME301	**Advanced Dynamics**	X	3

Major Area C: MEMS/NEMS

Course #	Course Name	Core Course	Units
ME324	**Introduction to MEMS**	X	3
ME325	**Design of MEMS**	X	3
EE350	**Nanotechnology**	X	3
EE304	**Advanced IC Fabrication Technology**	X	3
EE301	**Advanced Semiconductor Devices**	X	3
EE303	**IC Fabrication Technology**	X	3
EE300	**Semiconductor Physics and Devices**	X	3
ME326	**Resonant Sensor Design**	X	3
ME327	**Acoustic Sensor Design**	X	3
ME328	**Data Acquisition System Design**	X	3
ME329	**Microfluidic Devices**	X	3
ME330	**MEMS-based PCR**	X	3
ME331	**RF-MEMS**	X	3
ME332	**Introduction to Bio-MEMS**	X	3
ME300	**Dynamics**	X	3
ME301	**Advanced Dynamics**	X	3

❖ Graduation Requirements

In order to be awarded the degree, students need to maintain an overall grade point average (GPA) of 3.0 in course work. For research, student needs to write a dissertation approved and signed by the dissertation committee members. To reflect the quality of the research, student is encouraged to have at least one publication at the conference or per reviewed journal.

Mechanical Engineering Courses

ME 100 Engineering Dynamics (3 credits)
This course focuses on the fundamentals of engineering dynamics. Topics include kinematics and kinetics of particles, systems of particles, and rigid bodies using vector analysis; energy and momentum methods.

ME 101 Classical Mechanics (3 credits)
This course focuses on the fundamental of classical mechanics. Topics include Newtonian mechanics and a single particle, three Newton's laws of motion, linear oscillations, energy conservation, non-linear oscillation, multi-particle systems, linear momentum principles, angular momentum principle, and Hamilton's principles.

ME 102 Introduction to Mechanical Design (3 credits)
This course provides an introduction to mechanical design. Topics include plane mechanism, four-bar linkages, valve structure and principles.

ME 200 Strength of Materials (3 credits)
This course focuses Forces on structures, moments, and equilibrium. Free body and analysis, structural analysis. Stresses and deformation in axially-loaded members, torsion members and beams. Simple beam design.

ME 201 Applied Mechanics (3 credits)
This course focuses on the theory of applied mechanics. Topics includes Calculus of variations, Lagrangian mechanics, Hamiltonian mechanics, celestial mechanics, central force motion, multiparticle systems, non-inertial reference frames, rigid body motion, mechanical wave motion, and Fourier analysis.

ME 202 Thermodynamics (3 credits)
This course focuses on the theory of thermodynamics. Topics include collisional and transport properties of gases; conservation of energy; ideal gas energetic; enthalpy entropy, and free energy calculations; statistical mechanics; heat engines.

ME 203 Introduction to Fluid Mechanics (3 credits)
This course provides an introduction to fluid mechanics. Topics include vectors and tensors, vector field theory, continuum mechanics, hydrostatic equilibrium, flow of ideal fluids, stream function, viscous fluid, NS-equation, boundary-layer approximation, turbulence, electro hydrodynamics, surface tension.

ME 204 Introduction to Micromechanics (3 credits)
This course provides an introduction to the basic theories, analytical techniques, and mathematical foundations of micromechanics. Topics include mathematical theory of dislocation, and cohesive fracture models; fracture mechanics, and micro-crack/micro-cavity based damage theory; mesodamage theory, and the crystal plasticity.

ME 205 Introduction to Solid Mechanics (3 credits)
This course provides an introduction to solid mechanics. Topics include equilibrium for particles and rigid bodies; deformation, strain, and stress, equilibrium equations for a continuum; elements of the theory of linear elasticity; the states of plane stress and plane strain; beam bending, torsion of circular bars; Euler buckling in elastic beams.

ME 206 Material Characterization (3 credits)
This course provides an introduction to the fundamentals of material characterization. Topics include optical and X-ray spectroscopy, mass spectroscope, classical, electrochemical analysis, resonance methods, diffraction methods, electron optical methods, and chromatography.

ME 207 Introduction to Product Development (3 credits)
This course provides an introduction to design concepts of complex and realistic mechanical engineering systems. Topics include design or feasibility study, design optimization and social, economic, and political implications. An innovative design project is required including individual and group oral presentations.

ME 208 Fundamentals of Micro-Electro-Mechanical System Design (3 credits)
This course covers the fundamental of Micro-Electro-Mechanical System. Topics include fabrication process, MEMS technologies, scaling issues, design realization tools, electromechanics, modeling, MEMS sensors and actuators, packaging and reliability.

ME 209 Introduction to Nanomaterials (3 credits)
This course provides an introduction to material science at nanoscale. Topics cover the key material science issues in nanoscience and nanotechnology nanoscale processing, characterization, and computational approaches to understand nanomaterials

ME 210 Computational Fluid Dynamics (3 credits)
This course covers the principles and applications of computational fluid dynamics. Topics include governing equations and solution, structured/unstructured finite volume schemes, turbulence modeling, boundary conditions, acceleration techniques, and grid generation.

ME 211 Introduction to Thin Film (3 credits)
This course provides an introduction to thin film theory and science. Topics cover deposition, processing, and characterization of thin films and their technological applications; Physical and chemical vapor deposition methods; Thin-film nucleation and growth; Thermal and ion processing; Microstructural development in epitaxial, polycrystalline, and amorphous films; Thin-film characterization techniques and applications in information storage, integrated circuits, and optoelectronic devices.

ME 212 Properties of Electronic Materials (3 credits)
This course provides an introduction to the physical principle of semiconductors. Topics cover control of defects and impurities through physical purification, bulk and thin film crystal growth and doping processes, materials basis of electronic and optoelectronic

devices (diodes, transistors, semiconductor lasers) and optical fibers; properties of metal and oxide superconductors and their applications.

ME 213 Analytical Mechanics (3 credits)
This course provides an introduction to the analytical mechanics. Topics cover Lagrangian mechanics, variational calculus, linear oscillators, one-dimensional systems, Hamiltonian dynamics, rotating coordinate system, rigid body dynamics, and chaotic dynamics.

ME 214 Vibration Theory (3 credits)
This course provides an introduction to the theory of mechanical vibrations. Topics include harmonic motion, resonance, transient and random excitation, multidegree of freedom discrete systems, including principal mode, principal coordinates, and Rayleigh's principle.

ME 215 Robot Mechanism (3 credits)
This course covers fundamentals of robot mechanisms and mechanical devices. Topics include motor and motion control systems, indirect/direct power transfer devices, wheeled vehicle suspensions, steering history, walkers, pipe crawlers and environmental sensing mechanism.

ME 216 Introduction to Automatic Control (3 credits)
This course provides an introduction to the basic control theory and system. Topics include linear control systems analysis, design in transform domain and time domain, transfer functions and state equations, frequency response and Nyquist stability, loop shaping, State feedback controller and observer design and applications to mechanical and mechatronics systems.

ME 217 Microscale Heat Transfer (3 credits)
This course provides an introduction to microscale thermophysics and heat transfer. Topics include advanced statistical thermodynamics, nonequilibrium thermodynamics, and kinetic theory concepts used to analyze thermophysics of microscale systems; and applications in which microscale transport plays an important role.

ME 218 Continuum Mechanics (3 credits)
This course provides an introduction to continuum mechanics for engineers. Topics include continuum theory, essential mathematics, stress principles, kinematics of deformation and motion, fundamental laws and equations, linear elasticity, classical fluids, nonlinear elasticity.

ME 298 Senior Design Projects (3 credits)
Student proposes a design project approved by the project advisor. The student work through the project with the period of research, implementation, testing, report writing, and related procedures, and meet with the advisor regularly.

ME 299 Research Projects (3 credits)

Student proposes a research topic approved by the project advisor. The student work through the project with the period of research, implementation, testing, report writing, and related procedures, and meet with the advisor regularly.

ME 300 Dynamics (3 credits)

This course provides an introduction to the principle of dynamics. Topics cover Force and acceleration, work and energy, impulse and momentum, 3-D kinematics, gyroscopic motion, vibration, free vibration, spring-mass system, undamped forced motion, viscous damped free and forced vibrations, harmonic motion, resonance, transient and random excitation, multi-degree of freedom discrete systems, electrical circuit analogs.
Prerequisite: A course in college physics

ME 301 Advanced Dynamics (3 credits)

This course focuses on the advanced topics on dynamics. Topics include Hamilton's Principle, particle dynamics, kinematics and kinetics of particle, angular momentum, kinetic energy, application of Lagrange equations, 3-D rigid body dynamics, transformation, multi-body dynamics.
Prerequisite: ME300

ME 302 Engineering Mechanics (3 credits)

This course covers the fundamental concept and advanced principles of engineering mechanics. Topics include Central and Moment of Inertia, Dynamic, Linear Motion and Projectiles, Relative Velocity and D'Alembet's Principle, Work Energy Method & Impulse Momentum, Impact of Elastic Bodies, Rigid Bodies Motion: Circular Motion, Rotation and general plane motion and Solids and fluids as continuous media.
Prerequisite: instructor consent

ME 303 Mechanism Design (3 credits)

This course covers the fundamental and principle of various mechanism analysis and design. Topics include mechanism analysis and synthesis, kinematic diagram, mobility, degree-of-freedom, linkage, joints, four-bar linkage analysis, Spring, Flexure, Cam, Chain, coupling, clutching and braking, multiple-loop linkage and geared-linkages, pneumatic and hydraulic mechanism and synthesis of mechanism.
Prerequisite: instructor's consent.

ME 304 Mechanical Behavior of Material (3 credits)

This course focuses on the mechanical behavior of engineering materials. Mechanical property of engineering material, crystal structure, structure-property relationships, materials selection for design, phase change, dislocation theory, elastic deformation and multiaxial loading, plastic deformation and yield criteria, dislocation plasticity and strengthening mechanisms, creep, stress concentration effects, fracture, fatigue, and contract stresses.
Prerequisite: instructor's consent

ME 305 Heat Transfer (3 credits**)**

Steady 1-D, 2-D, 3-D heat conduction, unsteady state heat conduction, separation of variables in rectangular/cylindrical/spherical coordinate system, Duhamel's theorem,

Green's function, Finite-Difference Methods, integral-transform technique, heat transfer by radiation, fundamental of convection, free and forced convection. advanced statistical thermodynamics and kinetic theory concepts used to analyze thermophysics of microscale systems.
Prerequisite: instructor's consent

ME 306 Fracture Mechanics (3 credits**)**
Maximum shear-stress theory, distortion-energy theory, maximum normal-stress theory, comparison of yield and fracture criteria, failure surface for brittle materials, fracture mechanics deformation and fracture behavior of engineering materials for both monotonic and cyclic loading conditions and application in semiconductor system packaging.
Prerequisite: ME304

ME307 Solid Mechanics (3 credits)
Stress and strains, Hooke's law, torsion, beam statics, beam beading theory, beam deflection by direct integration, beam deflection by the moment-area methods, Euler buckling in elastic beams, elasticity, energy and virtual work methods, elastic analysis of system, plastic limit analysis.
Prerequisite: ME302 or ME300

ME308 Microscale Fluid Mechanics (3 credits)
This course focuses the fundamentals and techniques of fluid mechanics. Newtonian fluid mechanics, 1-D flows in confined geometries, Two- and 3-D flows are treated with Stokes' equations, Viscous flows, incompressible and compressible flow, and fluid mechanical at microscale, intermolecular forces in liquids, slip, diffusion and bubbles as active agents.
Prerequisite: ME 302

ME309 Spatial Mechanism (3 credits)
This course emphasizes three-dimension rigid body motion theory, coordinate transform, spatial joints, Revolute, Cylindrical, Prismatic, Helical joints, Spatial RCCC, links displacement, velocity and acceleration analysis, force and torque, 5-bar, 6-bar, 7-bar spatial mechanism analysis. Robot mechanisms, six-degree-freedom parallel manipulator.
Prerequisite: ME303

ME310 FEA with ANSYS (3 credits)
This course emphasizes Finite Element Analysis principle and application mainly with ANSYS simulation tool. Topics cover FEA theory, mesh types; domain discretization, polynomial interpolation, application of boundary conditions, assembly of global arrays, and solution of the resulting algebraic systems. FEA in structure mechanics, and in micro-electro-mechanical system; ANSYS simulation for dynamics, elasticity and plasticity, thermal and fluid system, and MEMS devices, with design simulation cases and examples.
Prerequisite: ME300

ME311AComputer-Aided-Design with AutoCAD I (3 credits)

The first class in the Computer-Aided Mechanical Design with AutoCAD covers fundamentals of mechanical design techniques and applications with AutoCAD. Topics include the basic set-ups, drawing with AutoCAD in two dimensions, working with blocks and external databases.
Prerequisite: Instructor's consent

ME311B Computer-Aided-Design with AutoCAD II (3 credits)

The second class in the Computer-Aided Mechanical Design with AutoCAD series covers the advanced techniques of mechanical design with AutoCAD. Topics include drawing in three dimensions, organizing and managing drawings, customizing AutoCAD and programming AutoCAD.
Prerequisite: ME311A

ME312 Computer-Aided-Design with Solid-Work (3 credits)

The CAD class covers variety of essential mechanical design techniques and applications with Solid-Work. Topics include basic sketching, basic part modeling, modeling a casting or forging, Part Symmetry, Design library, Patterning and revolved features.
Prerequisite: Instructor's consent

ME313 Computer-Aided-Design with Pro-E (3 credits)

The class in the Computer-Aided Mechanical Design series covers variety of mechanical design techniques and applications with Pro-E. Topics include user interface, sketching, extruding, modifying redefining features, creating a drawing, advanced drawing view, swept and blended features, advanced modeling techniques, assembly modeling and surface modeling.
Prerequisite: instructor's consent

ME314 Control Theory (3 credits)

This course includes the fundamental classic control theory and their application. Topics covers modeling in time and frequency domain, Laplace transform, transfer function, time response, zero and poles, block diagram, stability, root locus techniques, digital control system, z-transfer, transient and gain design in the z-plane. MATLAB is used for analysis.
Prerequisite: ME300

ME315 Advanced Control Theory (3 credits)

This course covers the advanced control engineering application in mechanical and electrical system. Topics covers system modeling, time and frequency domain analysis, closed-loop control system, classical design in s-plane and frequency domain, digital control system design, optimal and robust control system design, intelligent control system design.
Prerequisite: ME314

ME324 Introduction to MEMS (3 credits)

The course focuses on fundamentals of Micro-Electro-Mechanical System (MEMS)

design. Topics cover the background of MEMS, micromachining technology, MEMS special process and integrated process runs; assembly processes, MEMS components and devices design sensing and actuation principle (capacitive, resonant, piezoresistive, piezoelectric, thermal, magnetic) and microfluidics systems, principle of miniaturization. Also listed as EE324.
Prerequisite: EE303

ME325 Design of MEMS (3 credits)
This course focuses on structure, process design and testing of micromachined sensors and system. Topics include design and fabrication of mechanical transducers, thermal sensors and actuators, optical and microfluidic systems. Design includes structure design, analysis and simulation, physical layout and fabrication to testing as well as on-chip signal process circuit design and integration. Also listed as EE325.
Prerequisite: ME324

ME326 Resonant Sensor Design (3 credits)
Course focuses on resonant accelerometer and gyros design. Topic covers resonant sensor principle, beam theory, mechanical structure design and simulation with Ansys, mask layout with Ledit or Cadence, on chip process circuit design ,manufacture technology and process integration. Also listed as EE327.
Prerequisite: ME324

ME327 Acoustic Sensor Design (3 credits)
The course focuses on acoustic sensor design. Topics cover acoustic wave theory, Plane and spherical sound waves, piezoelectricity, TSM, and Surface Acoustic Wave, APM, FPM devices, acoustic wave based chemical and biological sensors. Also listed as EE328.
Prerequisite: ME324

ME328 Data Acquisition System Design (3 credits)
The course focuses on the design of a data acquisition system from hardware to software design. Topics covers computer architectures, hardware interface with A/D D/Aboard, digital I/O, data analysis, sampling technique, filtering, numerical integration and differentiation, data acquisition with Labview. Also listed as EE328.
Prerequisite: ME324

ME329 Microfluidic Devices (3 credits)
The course focuses on the design of microfluidic component and devices, emphasizing analytical applications of microfluidic technology. Topics cover micromachining methods, microfluidic operations, sample preparation and injection methods, detection technology, and various chemical and biological analyses, microvalve, microchannel, lab-on-chip from design, fabrication to application; electrokinetic separation techniques on chip, DNA analysis, cell analysis, microreactors and mass spectrometer interfacing. Also joint listed as EE329.
Prerequisite: ME324

ME330 MEMS-based PCR (3 credits)

The course focuses on the MEMS application in biological devices including a miniaturized PCR (Polymerase Chain Reaction) design. Topic covers miniaturization in biologic devices, DNA coping theory, PCR principle and procedure, miniaturization. Also joint listed as ME330.
Prerequisite: EE324

EE331 RF-MEMS (3 credits)
The course focuses on the MEMS-based RF component design and application. Topics cover MEMS-based capacitor, inductors, switches, resonator, antennas, MEMS-based phase shifter, filter, and oscillators. Application in wireless system. Also joint listed as ME331

ME332 Introduction to Bio-MEMS (3 credits)
The course gives an introduction to the design and application of MEMS technology in Biological and medical areas, providing engineers with an understanding of the biological challenges and the engineering challenges of this burgeoning technology. Topics cover non-silicon process, microfluidic components and sensing technologies for sample preparation, delivery, and analysis; various applications and systems at the leading edge of BioMEMS technology in a variety of areas such as genomics, drug delivery, and proteomics.
Prerequisite: ME324

ME 390 Special Topics in Mechanical Engineering (3 credits)
The course provides an opportunity for a faculty member or a visiting scholar to offer a relatively new subject that is not currently available in the catalog, but is of great relevance to mechanical engineering. It may consist of lectures, reading, homework, presentation and project determined by the instructor.
Prerequisite: As specified in class schedule

ME 399 Graduate Research (3 credits)
By arrangement with thesis advisor. Conduct independent research of an approved topic in mechanical engineering.
Prerequisite: Graduate standing

Tri-Valley University

School of Business

- **Bachelor of Science in Business Administration (BSBA)**
- **Master of Business Administration (MBA)**
  - MBA Emphasis Area A: Accounting
  - MBA Emphasis Area B: Finance
  - MBA Emphasis Area C: Marketing
  - MBA Emphasis Area D: Economics
  - MBA Emphasis Area E: Business Administration

- **Doctorate of Philosophy in Business Administration (Ph.D. in BA)**
  - DBA Major Field A: Business Administration
  - DBA Major Field B: Accounting and Finance
  - DBA Major Field C: Economy and Marketing

- **Business Administration Courses**

Tri-Valley University

School of Business

The primary objective of the School of Business at Tri-Valley University is to provide the fundamental and extensive knowledge, training to an intellectual on how to start a business, especially in high-tech, run the business, administrate and manage the business and further more to make the business a success. All of the courses and research work in the programs are designated to give students the principle understands of the subject, practical practice in the subject including computer software tool and information technology as well as in-depth research capability, capacity to lead in organizational situations, to apply knowledge in new and unfamiliar circumstances through a conceptual understanding of the specialization, capacity to adapt and innovate to solve problems, to cope with unforeseen events, and to manage in unpredictable environments.

The School of Business offers one undergraduate degree Bachelor of Science in Business Administration (BSBA) and two graduate degrees mainly emphases the Business Administration area, Master of Business Administration (MBA) and Doctor of Philosophy in Business Administration (Ph.D. in BA). For the MBA program, there are five concentration areas: A. Accounting, B. Finance, C. Marketing, D. Economy, E. Business Administration and Management with a total of 36 graduate course and/or research work. The Ph.D. program is mainly concentrated in three major emphasis areas: Major A Business Administration, Major B, Accounting and Finance, Major C Economics and Marketing with in-depth knowledge and research capability training as well broad knowledge from both the business and technology sides with a total of 60 trimester units graduate course and research work including an approved dissertation.

The non-degree program includes certificate programs in each of the concentration areas include: account, finance, marketing, economic and business administration and management. The graduate classes are a combination of classic asynchronous on-line class and the live synchronous virtual classroom.

Among the faculty team at the School of Business at TVU, couples of the faculty members have many years' academic teaching and administration experience; several of them are Vice President of other universities, Academic Deans of famous university's business school. Most of them also have many years of experience in starting companies, managing corporations, directing advanced product development, and consulting for major companies.

The graduate degree program (MBA and Ph.D. in BA) and non-degree program are built in compliance with both ACICS for private universities and AACSB-The Association to Advanced Collegiate School of Business (http://www.aacsb.edu/) who is authorized to accredit international MBA and Ph.D. degree program.

School of Business

Bachelor of Science in Business Administration (BSBA)

I. Program Description

The Bachelor of Science in Business Administration (BSBA) program in the School of Business at Tri-Valley University provides students knowledge and technical skills necessary to understand the modern business world. It prepares students to enter and sustain careers in the business world and to contribute positively in the larger society. Completion of the program will enable the graduate to efficiently and professionally deal within an increasing changing, and complex business environment. Students achieve knowledge and skills for successful performance in the complex environment. Some of the skills comprise effective management, leadership, effective decision-making, writing, and communication. Students also develop learning abilities suitable to continue higher-level intellectual development and prepare for subsequent graduate work.

This BSBA degree program requires a total of 120-trimester unit of study: 60 credits are allocated to the Business Management and Administration major (at least 30 units are from upper-level course, BA200, and above, the rest can be a combination of lower-level and upper-level courses). Forty-five (45 units) (15 courses) are in general education spreading in areas of humanities/fine arts, behavioral/social sciences, communications, and natural sciences. The Bachelor of Science in Business Administration (BSBA) degree normally can be earned over a period of 8 trimesters or in 4 years.

II. Admission Requirements

The applicant for Bachelor of Science in Business Administration (BSBA) degree program must be in possession of a high school diploma or its equivalent. Applicants whose native language is not English and who have not earned a degree from an appropriately accredited institution where English is the principal language of instruction must receive a minimum score of 500 on the paper-based Test of English as a Foreign Language (TOEFL).

III. Transfer Units

Students are allowed to transfer a maximum of 60 units from another recognized institution towards the B.S. degree program at TVU. The minimum required grade is B. Transfer credit must be from an appropriately accredited institution.

IV. Bachelor of Science in Business Administration Curriculum

The total units required for BSBA degree are 120 trimester units (40 courses) of courses and research work among which 60 (20 courses) units must be from Business Administration

and Management major area, at least 36 unit of general education, and the rest can be elective courses. Among the 60 (20 courses) unit of course in Business Major Field, at least 30 units (10 courses) must be upper-level courses (course number above BA200).

A. The minimum required 45 units (15 courses) in general education must include minimum 3 units from each of the following areas:

a. Sciences/Art (2 courses)

SCI 102	Introduction to Psychology
ART100	Western Art

b. Math & Physics (2 courses)

MATH 106	Probability and Statistics
MATH105	Modern Business Mathematics

c. Social Sciences (3 courses)

HIS100	History of the United States
CHR100	Old Testament Message
CHR101	New Testament Message

d. English (3 courses)

ENG100	Composition and Reading
ENG101	Composition and Research
ENG103	Public Speaking

e. Humanities & Communication (4 courses)

HUM100	Principle of Ethics
HUM106	Personal & Professional Etiquette
COM101	Intercultural Communication
COM100	Interpersonal Communication

B. Low-Level Required Courses (3 courses)

BA100	Introduction to Business
BA 101	Principles of Business Management
BA 102	Global Business Trends

C. Upper-Level Required Courses (10 courses)

BA 200	Intermediate Accounting
BA 201	Basic Business Communication
BA 202	Introduction to E-Business
BA 203	Business Ethics and Social Responsibility
BA 204	Dimensions of Marketing
BA 205	Strategies in Decision-Making
BA 206	Organizational Performance
BA 207	Management theory, practice, and function
BA 208	Fundamental of Human Resource Management
BA 209	Introduction to Employment Law

D. Elective Courses (12 courses), can be combined with business elective courses, general education courses, or courses from other departments, such as law, Computer Science departments.

BA 210	Total Quality Management and Productivity
BA 211	Basic Business Communication
BA 212	Information Technology
BA 213	Auditing
BA 214	Entrepreneurship
BA 215	Records & Database Management

BSBA Sample Curriculum

YEAR	TERM: TRIMESTER (Total 120 Units)			
	FALL	**SPRING**	**SUMMER**	**UNITS**
FRESHMAN	**HUM 100**Principle of Ethics **ENG100** Composition and Reading **SCI102** Introduction to Psychology **BA100**Introduction to Business	**ENG101**Composition and Research **MATH105** Modern Business Mathematics **CHR100** Old Testament Message	**ENG102** Advance Composition **BA 101** Principles of Business Management **CHR101**New Testament Message	**30**
SOPHOMORE	**ENG103** Public Speaking **COM100** Interpersonal Communication **BA102**Introduction to Accounting **HIS100** History of the United States	**BA103** Management Information Technology **COM101** Intercultural Communication **HIS101** History of California	**BA 104** Business Economics **MATH106** Probability and Statistics **HUM106** Personal & Professional Etiquette	**30**
JUNIOR	**BA 105** Global Business Trends **BA 106** Marketing **ART100** Western Art **BA 200** Intermediate Accounting	**BA 201** Basic Business Communication **BA 202** Introduction to E-Business **BA 203** Business Ethics and Social Responsibility	**BA204**Dimensions of Marketing **BA 205** Strategies in Decision-Making **BA206**Organizational Performance	**30**
SENIOR	**BA 207** Management theory, practice, and function **BA 208** Fundamental of Human Resource Management **BA 209** Introduction to Employment Law	**BA 210** Total Quality Management and Productivity **BA 211** Financial Analysis **BA212** Information Technology	**BA 213** Auditing **BA 214** Entrepreneurship **BA 215** Records & Database Management **BA 299** Research & Business Evaluation	**30**

V. Graduation Requirements

For BSBA degree, students need to maintain an overall grade point average (GPA) of 3.0.

Tri-Valley University
School of Business
Masters of Business Administration (MBA)

I. Objective of Program

The primary objectives of the master's degree program are: (1) to provide a knowledge base of interdisciplinary business theories and techniques to the students, particularly to the working adult population, and (2) to train and to develop students' practical management skills in a chosen concentrated area for career development, and (3) to develop the students' decision-making capability to face the challenge of the dynamic business world staged with diverse, multicultural, and global business settings.

More specifically, the MBA program develops the students' capacity to lead in organizational situations, to apply knowledge in new and unfamiliar circumstances through a conceptual understanding of the specialization, capacity to adapt and innovate to solve problems, to cope with unforeseen events, and to manage in unpredictable environments.

II. Emphasis Areas

The Master of Business Administration (MBA) program at Tri-Valley University mainly focuses on five concentration study areas:

MBA Emphasis Area A:	Accounting
MBA Emphasis Area B:	Finance
MBA Emphasis Area C:	Marketing
MBA Emphasis Area D:	Economics
MBA Emphasis Area E:	Business Administration

The MBA program requires a total of 36 trimester units of graduate course and research work within which a maximum of 6 units can be research credits. For MBA program, there are three MBA study plans: Plan I Thesis Plan, student need to take 30 Unit of graduate course work and a M.S. thesis with 6 unit of research; Plan II includes 33 units of graduate course work and a 3 unit M.S. project; Plan III are complete course work with a comprehensive examination;. Each plan study requirements are detailed in the MBA curriculum section. A full-time student is able to complete the program in one year taking 4 courses each trimester. A part-time student needs to complete the program requirement within a maximum of 5 years in order to be granted the degree.

III. Admission Requirements

For admission to the MBA program, the applicant must have a bachelor's degree in Business Administration, Art or Engineering fields with a minimum GPA of "3.0" or "B". Student who holds a B.S. degree in other fields other than Business Administration need to consult the graduate advisor on taking the pre-required courses. For admission to MBA program, the GMAT is preferred but not required.

Students are allowed to transfer a maximum of nine (9) graduate semester units from another recognized institution towards the MBA degree program at TVU. The minimum required grade is B-.

IV. MBA Curriculum

The total units required for MBA degree are 36 semester units of graduate courses and research work beyond the bachelor degree consisting of at least 30 units of course work and/or a maximum 6 units of research work. The 10 courses (30 trimester units) courses work are 5 (15 units) required courses as general requirement, 3 core courses (12 units) in the selected emphasis study area, 2 elective courses (6 units) from other area of emphasis (the elective course can from other engineering programs as well). For MBA program, there are three study Plans detailed as follows:

Plan I: MBA with Thesis

The Plan I with thesis is more focus on the research capability. Students are required to take a total of 30 trimester units of graduate course (10 courses) with a 6 unit of research work lead to a thesis approved by a faculty advisor. Among the 10 courses, 5 are the required course as listed following; at least 3 courses must be from the major field of emphasis area, and the rest 2 can be elective courses which can be from either within or outside the school of business, such as from Computer Science Department, or a specific product in MEMS area for an example. After student finished 10 courses work as specified or during the course work, they can start their at least two trimester research work under the supervision of a faculty advisor and lead to a thesis approved and signed by the advisor faculty member, the academic advisor and a co-advisor. The MBA thesis is required to have three faculty members' signatures: one is the chair advisor, one co-advisor and one academic advisor.

Plan II: MBA with Project

Students are required to take a total of 33 trimester units of graduate course (11 courses) with a 3 unit of research work lead to a project report approved by a faculty member. Among the 11 courses, 5 are the required course as listed following; at least 3 courses must be from the major field of emphasis area, and 3 can be elective courses which can be from either within or outside the school of business, such as from Computer Science Department, or a specific product in MEMS area for an example. After student finished 11 courses work as specified or during the course work, they can start their one trimester research work under the supervision of a faculty member and lead to a project report approved and signed by the advisor faculty member and the academic advisor.

Plan III: MBA with Complete Course Work Plan

Students are required to take a total of 36 trimester units of graduate course (12 courses) with a comprehensive exam. Among the 12 courses, 5 are the required course as listed following; at least 3 courses must be from the major field study of emphasis area, and rest 4 are elective course which can be either within or outside the school of business, such as from Computer Science Department, or a specific product in MEMS area for an example. After student finished 12 courses work as specified, they can apply for graduation and take the comprehensive exam. The comprehensive exam is a 3 hour exam holding on-line.

The 5 required courses (15 semester units) are:

BA300	Business Communication	3 units
BA 301	Business Law	3 units
BA 370	Business Administration and Management	3 units
BA 380	Business Administration CEO Seminar	3 units
CM361	Christian Faith	3 units

The 3 core courses are required from each emphasis study area (9 semester units):

MBA Emphasis Area A:	Accounting
MBA Emphasis Area B:	Finance
MBA Emphasis Area C:	Marketing
MBA Emphasis Area D:	Economics
MBA Emphasis Area E:	Business Administration

<table>
<tr><th colspan="5">MBA Program Curriculum: Total 36 Trimester Units</th></tr>
<tr><td rowspan="4">Plan I
MBA
Thesis
Plan</td><td colspan="3">Total 30Units Course Work (10Courses)</td><td>6 Units Research and thesis</td></tr>
<tr><td>Required Course</td><td>Core Course</td><td>Elective Course</td><td rowspan="3">BA399 2 trimester research work with a Thesis.</td></tr>
<tr><td>5 courses</td><td>3 Courses</td><td>2 Courses</td></tr>
<tr><td>15 Units</td><td>9 Units</td><td>6 Units</td></tr>
<tr><td colspan="3">30 Units Course Work (10 Courses)</td><td>6 units Research work</td></tr>
<tr><td colspan="5">Total of 36 Unit course and research work</td></tr>
<tr><td rowspan="4">Plan II
MBA
With
Project</td><td>Required Course</td><td>Core Course</td><td>Elective Course</td><td rowspan="3">M.S. Project
BA399 (3units)
One trimester research work</td></tr>
<tr><td>5 courses</td><td>3 Courses</td><td>3 Courses</td></tr>
<tr><td>15 Units</td><td>9 Units</td><td>6 Units</td></tr>
<tr><td colspan="3">Total 33 Units Course Work (11 Courses)</td><td>3 Units Research Work</td></tr>
<tr><td colspan="5"></td></tr>
<tr><td rowspan="4">Plan III
MBA
Course
only</td><td>Required Course</td><td>Core Course</td><td>Elective Course</td><td>Complete Course</td></tr>
<tr><td>5 courses</td><td>3 Courses</td><td>4 Courses</td><td rowspan="3">Complete course work with a Comprehensive Exam</td></tr>
<tr><td>15 Units</td><td>9 Units</td><td>12 Units</td></tr>
<tr><td colspan="3">Total 36 Units Course Work (12 Courses)</td></tr>
</table>

Graduate courses in the five emphasis area are listed as follows:

MBA Emphasis Area A: Accounting

Course #	Course Name	Core Course	Units
BA 310	**Fundamental of Accounting**	X	3
BA311	**Accounting & Bookkeeping**	X	3
BA 312	**Cost Accounting**	X	3
BA312B	**Managerial Accounting**	X	3
BA313	**Principles of Accounting**	X	3
BA314	**Advanced Accounting**	X	3
BA315	**Financial Accounting**	X	3

MBA Emphasis Area B: Finance

Course #	Course Name	Core Course	Units
BA 320	**Fundamental of Finance**	X	3
BA 321	**Principle of Finance**	X	3
BA 322	**Corporate Finance**	X	3
BA 323	**Advanced Corporate Finance**	X	3
BA 324	**Quantitative Finance**	X	3
BA 325	**Financial Analysis**	X	3
BA 326	**International Finance**	X	3
BA 327	**Financial Management**	X	3
BA 328A	**Investment Strategy**	X	3
BA 328B	**Investment Analysis**	X	3
BA370	**Business Administration and Management**	X	3
BA 380	**Seminar in Business Administration**	X	3

MBA Emphasis Area C: Marketing

Course #	Course Name	Core Course	Units
BA 330	**Marketing Management**	X	3
BA 331	**International Marketing**	X	3
BA 332	**International Trade**	X	3
BA 333	**Global E-Commerce**	X	3
BA334	**E-Marketing**	X	3
BA370	**Business Administration and Management**	X	3

MBA Emphasis Area D: Economy

Course #	Course Name	Core Course	Units
BA 340	**Principle of Macroeconomics**	X	3
BA 341	**Modern Macroeconomics**	X	3
BA 342	**International Macroeconomics and Finance**	X	3
BA 343	**Principle of Microeconomics**	X	3
BA344	**Managerial Economics**	X	3
BA370	**Business Administration and Management**	X	3
BA 380	**Seminar in Business Administration**	X	3

MBA Emphasis Area E: Business Administration

Course #	Course Name	Core Course	Units
BA 350	**Principles of Management**	X	3
BA351	**Operational Management**	X	3
BA352	**Project Management**	X	3

BA353	**Human Resource Management**	X	3
BA354	**Innovation Management**	X	3
BA355/ CS309	**Database Management System**	X	3
BA356	**International Business Management**	X	3
BA357	**Supply Chain Management**	X	3
BA358	**Strategic Management**	X	3
BA359	**High-Tech Entrepreneurship**	X	3
BA360	**Quality Management**	X	3
BA361	**Risk Management**	X	3
BA362	**Managerial Leadership**	X	3
BA363	**Organizational Behavior and Management**	X	3
BA 370	**Business Administration and Management**	X	3
BA 380	**Seminar in Business Administration**	X	3
BA 301	**Business Law**	X	3
BA 302	**Patent Law**	X	3

V. MBA Graduation Requirements

For MBA degree, students need to complete total of 36 trimester units of graduate course and/or research work including the Business Administration seminar and maintain an overall grade point average (GPA) of 3.0.

Tri-Valley University
School of Business
Doctor of Philosophy in Business Administration (Ph.D.)

❖ Objective

The Doctor of Philosophy Degree in Business Administration (Ph.D. in BA) at Tri-Valley University is a practice-oriented research-emphasized degree program designed to provide students mastery of a very specific subject, theory, and methodology in Business Administration emphasis area. The program is designed to enforce student research capability and gain in-depth knowledge in Business Administration concentration area at the same time gaining breadth knowledge in the general field of finance, marketing and economy etc. The Ph.D. in Business Administration programs also aim to develop the student's ability to integrate and apply original and practical research into the real world business entrepreneur and management, ability to create knowledge through original research in their areas of specialization.

There are three major areas: Area A: Business Administration and Management; Area B: Accounting and Finance; Area C: Economy and Marketing. The awarding of the Ph.D. in BA signifies that the student has completed the advanced academic requirements in Business Administration subject area, accomplish specified goals and objectives and contribute to competence in the subject area or profession at an advanced level. To have a Doctorate Degree in the above specified area, students are attained specialized and practical competence which qualifies the recipient for opportunities and additional responsibilities beyond the MBA degree level and are prepared highly specialized careers in academe or practice. More specifically, the objectives of Ph.D. in BA programs at TVU include:

- The acquisition of advanced knowledge in areas of specialization.
- The development of advanced theoretical or practical research skills for the areas of specialization.
- Explicit attention to the role of the specialization areas in managerial an organizational contexts.
- Preparation for teaching responsibilities in higher education
- Dissertation and demonstrating personal integration of, and original Intellectual contribution to a field of knowledge.

❖ Length of Study

The doctorate degree normally is earned over three to five years or the equivalent. However the Ph.D. must be completed in no fewer than two years from the date of initial enrollment and no more than ten years from the date of initial enrollment.

❖ Admissions

- **Admission Requirement**

  A Baccalaureate or Master's degree in the Business administration or a related field, such as accounting, finance, economy or marketing; earned at an appropriately accredited institution with a minimum GPA of "3.0" or "B" is required for admission to the Ph.D. program besides the admission requirement in the general admission requirement for doctorate program. For students admitted with a B.S. degree, they are required to take a total of 90 units of graduate course and research work. For students with a MBA degree admitted to the DBA program, they only need to take a total of 60 units of graduate course and research work. For admission o Ph.D. program, GMAT score is preferred, but not required.

- **Transfer of Credit.**

  A maximum of 12 units of credit for appropriate master's or doctorate-level course work from another accredited institution can be transferred towards the Ph.D. program at TVU. The minimum GPA requirement for transferred credit is B.

- **Tuition and fee**

  Tuition and fee as well as refund policy for course work and research work for Ph.D. at TVU are the same as the tuition fee per units specified in the university general tuition and fee list. The graduation fee is $100.00 for Ph.D. program when student complete the course and research work and file for graduation.

❖ Degree Requirement

The Doctor Degree in Business Administration (Ph.D. in BA) program gives students the in-depth knowledge and trains student the research capability in one concentration area Business Administration. The Ph.D. in BA program at TVU requires both graduate course and research work of a total of 60 units beyond MBA degree or a total of 90 trimester units after the baccalaureate degree. Among the 60 units, a maximum of 15 units can be graduate research work and at least 45 units are graduate course work. Student admitted into the DBA program with a bachelor degree need to complete a total of 90 units of course and research work among which a maximum of 15 units can be graduate research. The Ph.D. in BA program also required a dissertation with significant research contributions approved and signed by the dissertation committee. In general for graduate research, the Ph.D. study requires a Qualify exam and an approved dissertation.

➢ Course Work

The Ph.D. in Business Administration program requires at least 45 units (15 courses) of course work beyond M.S. degree in the major filed of Business Administration and other minor fields. Among the 45 trimester units (15 courses) graduate course work, at least 7 courses must be on the concentration area of Business Administration and Management. 4 courses need to be from a minor area within the school of business including account and finance, economy and marketing with 2 courses from each of the at least 2 emphasis areas (see the concentration areas course list in the MBA program) with a total of 4 courses in the Minor I area inside the school of business. 4 courses of Minor II must be from areas outsides school of business: two courses must be form Computer Science Department or Information Technology, and the other two must be from engineering field with an overview of the product development and technology. Students admitted into Ph.D. in BA program with a baccalaureate degree need to complete a total of 25 courses (75 units) distributed in the specified major/minor field. Total 45 units course work beyond MBA (Total 75 units after B.S.)

- Major Courses in Business Administration: 7 Courses 21 units
- Minor I within School of Business 4 Courses (two in each area) 12units
- Minor II from School of Engineering 4 Courses (two from CS) 12 units

➢ Research Work

In order to award the Ph. D. in BA degree, student needs to conduct quality research work in the area of Business Administration and Management toward an approved dissertation. A total of 15 units research work under the guidance of a chair faculty member in the major filed of Business administration are required.

- Qualify Exam: The dissertation should be based on original, or applied research. The topic of the dissertation shall be approved by the chair dissertation advisor. Prior to enter into doctorate research work, student needs to take a Qualify exam. There is no time requirement for a student admitted in Ph.D. program with a M.S. degree to take Qualify exam to start the research work. However, for student admitted into Ph.D. program with a baccalaureate degree need to complete minimum of 30 units graduate-level course work before taking the exam and starting the research. The Qualify Exam normally covers 3 areas of fundamental knowledge and in close book format for 6 hours, with 2 hours in each area. Student with a Master degree normally take the exam at the second tri-meter of enrollment. Student with a Bachelor degree normally can take the Preliminary exam within the first year. If a student fails the first time, he/she can try another time. If he/she fails the second time, it will disqualify him/her to pursue the Ph.D. study.

- Dissertation Committee: For the Ph.D. in BA degree, a supervisory dissertation committee of at least three faculty members must be formed for each student. At least one committee member must be from the major field of Business Administration serving as the chair dissertation advisor, and at least one committee member must be

outside the School of business. All committee members must have demonstrated appropriate scholarship, experience, or practice in the subject area. Students have the option of nominating their dissertation members or major professors for university final approval.

- An oral defense of the doctoral candidate's final project or dissertation with the dissertation committee is required. This may be conducted in person or at a distance. TVU will not award the Ph. D. in BA degree unless a majority of the dissertation committee approves the student's dissertation.

❖ Ph.D. in BA Degree Program Curriculum

The Ph.D. in Business Administration degree program requires a total of 60 units of graduate course and research work beyond M.S. degree and a total of 90 units of graduate study after bachelor degree. The Ph.D. in BA program at Tri-valley University mainly focuses on one major field of study: Major A, Business Administration and Management, Major B Accounting and Finance and Major C Economy and Marketing. Course work in other emphasis areas in the School of Business including accounting and finance, economy and marketing are required as the minor field of study. Ph.D. degree program also requires student to take classes outside of School of Business, in the engineering field as one minor. For the outside minor course work, at least two of them must be from computer science and information technology.

Major Field A: Business Administration
Major Field B: Accounting and Finance
Major Field C: Economy and Marketing

<table>
<tr><th colspan="5">Ph.D. in Business Administration Degree Program Curriculum</th></tr>
<tr><td colspan="4">45 Units Graduate Course Work (15 Courses)</td><td>15 Units Research Work</td></tr>
<tr><td>Major Field</td><td colspan="2">Minor I
(Inside school of Business)</td><td>Minor II
(Outside of Business)</td><td rowspan="4">An approved Dissertation</td></tr>
<tr><td>Business Adminis.</td><td>2 courses from Minor IA</td><td>2 courses Minor IB</td><td>2 course from CS or IT
2 courses from engr.</td></tr>
<tr><td>7 courses</td><td colspan="2">4 Courses</td><td>4 Courses</td></tr>
<tr><td>21 Units</td><td colspan="2">12 Units</td><td>12 Units</td></tr>
<tr><td colspan="5">Total 60 Semester Units</td></tr>
</table>

Courses in each of the major field are listed as follows:

Major Area A: Business Administration and Management

Course #	Course Name	Core Course	Units
BA 350	**Principles of Management**	X	3

BA351	**Operational Management**	X	3
BA352	**Project Management**	X	3
BA353	**Human Resource Management I**	X	3
BA354	**Innovation Management**	X	3
BA355/ CS309	**Database Management System**	X	3
BA356	**International Business Management**	X	3
BA357	**Supply Chain Management**	X	3
BA358	**Strategic Management**	X	3
BA359	**High-Tech Entrepreneurship**	X	3
BA360	**Quality Management**	X	3
BA361	**Risk Management**	X	3
BA362	**Managerial Leadership**	X	3
BA363	**Organizational Behavior and Management**	X	3
BA370	**Business Administration and Management**	X	3
BA 380	**Seminar in Business Administration**	X	3
BA 301	**Business Law**	X	3
BA 302	**Patent Law**	X	3

Major Area B: Accounting and Finance

Course #	Course Name	Core Course	Units
BA 310	**Fundamental of Accounting**	X	3
BA311	**Accounting & Bookkeeping**	X	3
BA 312	**Cost Accounting**	X	3
BA312B	**Managerial Accounting**	X	3
BA313	**Principles of Accounting**	X	3
BA314	**Advanced Accounting**	X	3
BA315	**Financial Accounting**	X	3

BA 320	**Fundamental of Finance**	X	3
BA 321	**Principle of Finance**	X	3
BA 322	**Corporate Finance**	X	3
BA 323	**Advanced Corporate Finance**	X	3
BA 324	**Quantitative Finance**	X	3
BA 325	**Financial Analysis**	X	3
BA 326	**International Finance**	X	3
BA 327	**Financial Management**	X	3
BA328A	**Investment Strategy**	X	3
BA328B	**Investment Analysis**	X	3
BA 380	**Seminar in Business Administration**	X	3

Major Area C: Economy and Marketing

Course #	Course Name	Core Course	Units
BA 330	**Marketing Management**	X	3
BA 331	**International Marketing**	X	3
BA 332	**International Trade**	X	3
BA 333	**Global E-Commerce**	X	3
BA334	**E-Marketing**	X	3
BA 340	**Principle of Macroeconomics**	X	3
BA 341	**Modern Macroeconomics**	X	3
BA344	**Managerial Economics**	X	3
BA 342	**International Macroeconomics and Finance**	X	3
BA 343	**Principle of Microeconomics**	X	3
BA 380	**Seminar in Business Administration**	X	3

❖ Graduation Requirements

To be awarded the Ph.D. degree, students need to complete 60 trimester unit of course and research work with an approved and singed dissertation and maintain an overall grade point average (GPA) of 3.0 in course work. For research work, the dissertation needs to be approved and signed by the dissertation committee members. To reflect the quality of the research, student is encouraged to have at least one publication at the peer reviewed conference or journal.

Business Administration Courses

Business Administration Course Number Convention:

BA100-199 Lower-level Undergraduate Courses
BA200-299 Upper-level Undergraduate Courses
BA300-309 Fundamental BA Courses
BA 310-319 Accounting
BA320- 329 Finance
BA 330-339 Marketing
BA 340-349 Economics
BA 350- above Business Administration

BA 100 Introduction to Business (3 credits)
The course provides an introduction to the overarching goals of the business enterprise and the various functions within it, including economics, finance, accounting, marketing, operations, human resources, business law, ethics, and management. Particular emphasis is given to the application of biblical principles to business, and its common practices and terminology.

BA 101 Principles of Business Management (3 credits)
This course covers the theory and application of management concepts and organizational and financial structures in business enterprises. Topics include case analysis and problem-solving techniques examining the planning and organization of workflow, delegation, leadership styles, decision-making, stress, time management, and employee relations.
Prerequisite: Instructor's Consent

BA 102 Global Business Trends (3 credits)
This course introduces students to global business trends and the pros and cons of globalization from an economic perspective. Topics cover factors leading to integration of national economies into the global economy, the globalization controversy, and effects of multinational enterprises.

BA 103 Introduction to Accounting (3 credits)
This course introduces students to terms, concepts, and applications of double-entry accounting for a proprietary service business. Topics covered include plant assets, liabilities, cash transactions, preparation of general journal entries, payroll accounting concepts, and posting, and the completion of the accounting cycle, including end-of-period adjustments, preparation of financial statements, and closing entries.
Prerequisite: Instructor's Consent

BA 104 Management Information Technology (3 credits)
This course covers the history of the telecommunications field. Topics include emerging technologies, telecommunication concepts, terminology, communications systems, database management, networking, and the internet.
Prerequisite: Instructor's Consent

BA 105 Business Economics (3 credits)
This course introduces the fundamentals of business economics. Topics include principles of macroeconomics, competing theories of national income, fiscal policy, and international trade, the principles of microeconomics of resource allocation, supply and demand, consumer behavior, costs of production, the competitive model, oligopoly, and factor markets.
Prerequisite: Instructor's Consent

BA 106 Marketing (3 credits)
This course entails an integrated analysis of the role of marketing within the organization. Topics cover functions of marketing, development of a marketing strategy, market segmentation, and marketing mix, buying behavior, and assess a company's marketing plans and propose a solution for resolving its problem.

BA 200 Intermediate Accounting (3 credits)
This course covers the fundamentals of accounting for corporations. Topics include bookkeeping, the uses of accounting information, accounting equation, subsidiary ledgers, inventory methods, deferrals, and accrual, internal control, and accounting for the acquisition, depreciation, and disposal of fixed assets.
Prerequisite: BA101

BA 201 Basic Business Communication (3 credits)
This course covers the basic business communication skills that are essential for daily business and professional activities. Topics include professional memo writing, e-mail format and filing, business letters and correspondence, and business reports. Attention will also be devoted to improving students' active listening, speaking and nonverbal communication skills.
Prerequisite: Instructor's Consent

BA 202 Introduction to E-Business (3 credits)
This course introduces students to the phenomenal growth of the Internet and the World Wide Web. Topics include the application of and nature of e-business, e-business models, business-to-business, business-to-consumer, consumer-to-consumer, and customer relationship management.
Prerequisite: Instructor's Consent

BA 203 Business Ethics and Social Responsibility (3 credits)
The course presents a basic overview of the ethical questions that confront a business when it faced with social, political, and legal issues. Topics include ethics in regards to the law, business, Title VII of the Civil Rights Act of 1964, and society.
Prerequisite: Instructor's Consent

BA 204 Dimensions of Marketing (3 credits)
This course introduces the concept of marketing and the various activities important in developing a marketing strategy. Topics include the four dimensions of the marketing mix—product, price, distribution, and promotion, the pros and cons of globalization from an economic perspective.

Prerequisite: Instructor's Consent

BA 205 Strategies in Decision-Making (3 credits)
This course engages the student in critical thinking and decision-making strategies. Topics cover synthesis, and prescription of the role of critical thinking, and decision-making within the corporate realm, team dynamics and management philosophy.
Prerequisite: Instructor's Consent

BA 206 Organizational Performance (3 credits)
This course encompasses the study of individual and group performance in organizational settings. Topics include traditional and emerging notions of organizational performance, optimizing the contributions of both its internal functions and its organizational relationships.
Prerequisite: Instructor's Consent

BA 207 Management theory, practice, and function (3 credits)
This course addresses the importance of management in theory and in practice, and as both a science and an art. Topics cover management philosophies, the nature and work of management, and managers, applications of concepts to current work place issues.
Prerequisite: Instructor's Consent

BA 208 Fundamental of Human Resource Management (3 credits)
This course focuses on processes central to human resource management (HRM) Topics cover staffing, employee training and development, appraisal and reward, and career planning, recruiting, developing the workforce, compensating the workforce, managing unionized employees, and the importance of workforce diversity.
Prerequisite: Instructor's Consent

BA 209 Introduction to Employment Law (3 credits)
This course provides students an overview of federal statutes and state regulated areas that impact the personnel functions. Topics cover legal issues in recruiting, selecting, affirmative action, OSHA, EEO, FMLA, ERISA, ADA, employee privacy issues, drug testing, and wrongful termination.
Prerequisite: Instructor's Consent

BA 210 Total Quality Management and Productivity (3 credits)
This course introduces the general basic elements of Total Quality Management and productivity. Topics cover the Quality ISO 9000, Balance Score Card, and Quality Management Systems implementation tips and traps.
Prerequisite: Instructor's Consent

BA 211 Financial Analysis (3 credits)
This course is designed to frame financial concepts for non-financial managers. Topics include examining the various components of an income statement, analyze financial statements, using ratio analysis, to evaluate a company's performance, and assess a

company's financial position using its accounting statements and ratio analysis.
Prerequisite: Instructor's Consent

BA 212 Information Technology (3 credits)
This course provides student the fundamentals concepts and basic principles of management information systems. Topics include current IT system, multimedia presentation, and fundamentals of programming, shared and distributed data, business information systems and IT in industry.

BA 213 Auditing (3 credits)
This course gives an overview of the accounting profession and a study of existing auditing standards promulgated by the American Institute of Certified Public Accountants. Topics include analysis of general business ethics and ethics related specifically to the auditing profession; Forensic accounting and auditing for fraud.

BA 214 Entrepreneurship (3 credits)
The course focuses on how to take an idea for a small business and develop a business plan. Topics include the role of small business in the economy; industry, target market, and competitive analysis; application of funds; and development of supporting data.

BA 215 Records & Database Management (3 credits)
The course focuses on concepts and methods of creating, organizing, accessing, maintaining, and managing organizational records and databases. Topics include development of knowledge and skill in designing, using, and managing databases for business applications through the use of database management software.

BA 299 Research and Business Evaluation (3 credits)
The purpose of this course is to expand students' understanding about research by examining and applying principles of research design, methods, and strategies to critical thought. The student will be able to identify a problem, research, evaluate, and recommend alternatives to improve a situation, solve a problem, or change a process in a business environment.
Prerequisite: Instructor's Consent

BA300 Business Communication (3 credits)
The course covers the important communication skills essential for success business management. Topic includes public speaking skills, effective communications, basic requirement for written communication, listening skills for positive communication, effective presentation of information in technical report and technical writing.
Prerequisite: Graduate Standing

BA301 Business Law (3 credits)
The course covers the basic of business law to legal requirement and issues associated with forming, managing and operating a high tech business in the global economic environment. Topics include contract law, tort, employment law, corporate law, partnerships, sole proprietorships, securities law and Intellectual Property law.

Prerequisite: Graduate standing

BA302 Patent Law (3 credits)

The course teach how to apply and file a technology patent. Topics include provision patent, patent search, writing and application procedure in the US and worldwide.
Prerequisite: Graduate standing

BA310 Fundamental of Accounting (3 credits)

The first class of counting covers the practice issues in accounting and finance and understanding accounting basics. Topics include the financial statement, accounting system, accounting process, asset, cash, inventory, prepaid expenses, fixed assets, statement of cash flow. QuickBooks is taught in this class.
Prerequisite: Graduate standing

BA311 Accounting & Bookkeeping (3 credits)

The first class covers the theory and fundamental of accounting and bookkeeping with QuickBooks. Topics include asset, liabilities, debits and credits, journalizing and posting transactions, adjusting and closing procedures, repetitive transaction and cash journal, costing merchandise inventory, negotiable instrument, controlling cash, payroll, property, plant and equipment.
Prerequisite: BA310

BA312 Cost Accounting (3 credits)

This course covers Cost Analysis and Control, procedures of cost accounting and control for manufacturing firms. Topics include cost-volume-profit relationships; standard costs and variance analysis; direct costing; activity-based costing, relevant costing, budgeting, inventory control, capital asset selection, responsibility accounting, performance measurement, and Management Accounting.
Prerequisite: BA 310

BA312B Managerial Accounting (3 credits)

The class emphases the use of accounting data within an organization by its managers. Topics include the accounting system, concepts and principles, financial statement and ratios, management account, using accounting information for marketing, operation, human resource, accounting and strategic investment decision making and control, and research in management accounting.
Prerequisite: BA310

BA313 Principles of Accounting (3 credits)

The class covers the basic accounting principles. Topics include measuring revenues and expenses, report earning and financial position, computerized accounting systems, analysis of financial activities, investing activities and analysis of investing activities, Analysis Operation Activities.
Prerequisite: BA310

BA314 Advanced Accounting (3 credits)

This class covers the advanced accounting topics. Topics include business combination, consolidated statements, intercompany transactions: merchandise, plant Assets, notes, bonds and leases, Cash Flow, EPS, Taxation, and Unconsolidated Investments, Accounting for an Investment in a Subsidiary, Governmental Accounting, Private Not-for-Profit Organizations, Debt Restructuring, Corporate Reorganizations, and Liquidations.
Prerequisite: BA310

BA315 Financial Accounting (3 credits)

The class covers the key concepts in financial accounting. Topics include analysis business earning, forecast and budget, taxes and business decision, global finance, making key strategic decisions—going public, profitable growth by acquisition, business valuation etc.
Prerequisite: BA310

BA320 Fundamental of Finance (3 credits)

This course covers the basic concepts and applications of modern financial theories emphasizing on the finance function and its relationship to other decision-making areas of a business. Topics include financial statement analysis, the time value of money; the valuation of financial securities and debt; Capital Budgeting; and determining the true Cost of Capital.
Prerequisite: Instructor's Consent

BA321Principle of Finance (3 credits)

This course covers the operational principle of financial markets and mathematical financial models. Topics include option theory, numerical method, further option theory, interest rate derivative product.
Prerequisite: Instructor's Consent

BA322 Corporate Finance (3 credits)

This class provides an introductory to corporate finance with the fundamental principle. Topics cover value and capital budgeting, return and risk, capital structure and dividend policy, dividend and repurchase, multinational financial management and working capital management.
Prerequisite: Instructor's Consent

BA323 Advanced Corporate Finance (3 credits)

This first one is an advanced course in corporate finance. Topics cover value bonds, net present value and other investment criteria, common stock/preferred stock, venture capital, Mergers, Acquisitions, and Corporate; International Financial Management
Prerequisite: BA 321

BA324 Quantitative Finance (3 credits)

This course covers the security analysis for investment and corporate finance. It is an advanced course in financial engineering with modern quantitative applications in finance. Topics cover value at risk, credit risk, implied volatility and recently developed

econometrics methods.
Prerequisite: BA 321

BA325 Financial Analysis (3 credits)

This course covers valuation and the security analysis for investment and corporate finance. Topics include introduction top valuation, estimating discount rate,, cash flows, growth and terminal value, equity and firm DCF models, relative valuation, value cash and cross holdings, the value of intangibles, control, liquidity, synergy and transparency.
Prerequisite: Instructor's Consent

BA326 International Finance (3 credits)

This course covers global financial environment, corporate foreign-exchange risk management, global financing strategy and global invest strategy. Topics include motives for World Trade and Foreign Investment, the international money system, the foreign-exchange market and parity, currency futures and options, exchange rate forecasting, manage transaction and economic exposure, global financing strategy.
Prerequisite: Instructor's Consent

BA327 Financial Management (3 credits)

The course covers the fundamentals concepts, tool and application of financial management. Topics include objective of financial management, valuation principles, and the relation between risk and return. Financial decision-making, the management of long-term investment and sources of funds, and working capital management, international financial management, financial planning and strategy.
Prerequisite: Instructor's Consent

BA328A Investment Strategy (3 credits)

This course covers investment philosophy and strategies. Topics include buying and selling approaches, top down investing, main investing styles, popular approaches, mechanical strategies, market cap investing and financial ratios.
Prerequisite: Instructor's Consent

BA328B Investment Analysis (3 credits)

This course covers investment analysis and management. Topics include Selecting investment in a global market, Organization and function of securities markets, Portfolio management, analysis of stock market, industry, technical and bond.
Prerequisite: Instructor's Consent

BA330 Marketing Management (3 credits)

This course covers the substantive and procedural aspects of marketing management, Topics include, basic tasks of marketing and the major concept and tools of marketing, manage and plan marketing process, customer analysis, competitor and company analysis, product strategy and pricing, advertising and promotion, market implementation and evaluation.
Prerequisite: Instructor's Consent

BA331 International Marketing (3 credits)

This course covers the challenge and special requirement of managing the global marketing. Topics include analysis of global market environments, research and marketing strategies for globalization, targeting, and entry strategies for global markets, sourcing and global production strategy, global pricing strategies, global advertising, and management of global distribution channels.

Prerequisite: Instructor's Consent

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BA332 International Trade (3 credits)

This course covers the international trade and business, law, policy and ethics. Topics include the united national convention on contract for the goods, the unidroit principles of international commercial contract, carriage good by sea, land and air, finance exports, trading blocs and international commercial arbitration.

Prerequisite: Instructor's Consent

BA333 Global E-Commerce (3 credits)

This course introduces the global electronic commerce theory with case study. Topics include E-commerce infrastructure, supply chain management and information alliances, telecommunications technology, electronic auctions and intermediaries, electronic financial markets, logistics and service opportunities and Issues.

Prerequisite: Instructor's Consent

BA334 E-Marketing (3 credits)

This course provides an introduction to the E-marketing. Topics cover what it takes to market and promote a successful E-Business solution, how E-Business fits into the marketing mix, how to analyze market trends and case studies, and discuss strategies for acquiring and retaining target customers online. Topics also cover what it takes to maintain a successful E-Business program and how to measure results vs. marketing objectives.

Prerequisite: Instructor's Consent

BA340 Principle of Macroeconomics (3 credits)

This course introduces the principles of Macroeconomics- the study of the economy as a whole—including growth in incomes, changes in prices, and the rate of unemployment. Topics cover Classic macroeconomic model, Growth Theory, Business Cycle Theory and Macroeconomic Policy Debates.

Prerequisite: Instructor's Consent

BA341 Modern Macroeconomics (3 credits)

This course covers the modern macroeconomics its origins, development and current state. Topics include orthodox Keynesian school, orthodox monetarist school, the new classical school, the real business cycle school, new Keynesian school, the Post Keynesian school and the Austrian school and new political macroeconomic.

Prerequisite: Instructor's Consent

BA342 International Macroeconomics (3 credits)

This course is an advanced class in international macroeconomics and finance with integration of both theoretical and empirical issues. Specific topics include the monetary

model, the lucas model, international real business cycles, foreign exchange market efficiency, the real exchange rate, the mundell-fleming model, the new international macroeconomics, target-zone models and balance of payments crises.
Prerequisite: BA340

BA343 Principle of Microeconomics (3 credits)
This course introduces the principle of microeconomic; Topics include the firm and consumer, market, general equilibrium, uncertainty and risk, welfare, strategic behavior, government and the individual.
Prerequisite: Instructor's Consent

BA344 Managerial Economics (3 credits)
This course covers Application of economic analysis for decision making in business. Topics include relationship between the firm, consumers and the marketplace; market structures, pricing policies, production possibilities and planning.
Prerequisite: Instructor's Consent

BA350 Principles of Management (3 credits)
This course introduces principles of management with emphasis on the practical application of management theory and concepts. Topics covers specific management functions such as planning, organizing, motivating, controlling, and decision-making communication and negotiation with practical application on how to develop entrepreneurs. Specific topics include management role, function, level and skill, behavioral theory of management, globalization and strategic leadership models.
. Prerequisite: Instructor's Consent

BA351 Operational Management (3 credits)
This course covers basic theories about production and operations management including basic management processes, resource conversions, and behavioral applications within production/operations. Emphases will be on planning, organizing, controlling, and balancing quantitative aspects and behavioral applications in production/operations management; operations strategy will be the guide for topical integration. Topics include operations management, operations strategies for competitive advantage, forecasting in operations, facility and layout planning, product and process design choices, scheduling, inventory control and quality control.
Prerequisite: Instructor's Consent

BA352 Project Management (3 credits)
This course covers the framework, standard of project management. Topics include project integration management, project scope, time, cost, quality, human resource, and communication, risk and procurement management.
Prerequisite: Instructor's Consent

BA353 Human Resource Management (3 credits)
This course gives a comprehensive overview on the essential company human resource management concepts and techniques as well as advanced company human resource

management strategies and challenges. Topics covers strategic human resource planning, effective HR management, global human resource management, diversity and equal employment opportunity, training human resources, performance management and appraisal, compensation strategies and practices, managing employee benefits, employee rights and discipline, and globalization of HR management
Prerequisite: Instructor's Consent

BA354 Innovation Management (3 credits)
The course covers the innovation management, strategies, concepts and tools for growth and profit. Topics include strategies and concept for innovation, innovation imperative, portfolio, voices and mind, tool for profit and benefits, market, demand and custom intimacy and calculation risk.
Prerequisite: Instructor's Consent.

BA355/CS309 Database Management System (3 credits)
This course provides an in-depth introduction to database management system including design, tuning and implementation of relational database applications, as well as in-depth coverage of the state of the art in currently available commercial systems. Topic includes basic of database system, relational models, relational queries, SQL queries and programming, data storage and index, database design and transaction management.
Prerequisite: Instructor's Consent

BA356 International Business Management (3 credits)
This course gives a comprehensive overview on managerial behavior within a cross-cultural environment, analyzing problems confronting managers in international operations. Topics include theory and international business, government and trade, economic integration and cooperation, foreign direct investment, process of country evaluation and selection, establishing and conducting international transactions.
Prerequisite: Instructor's Consent

BA357 Supply Chain Management (3 credits)
This course covers the current state of supply chain management theory and practice. Topics include criteria of good supply chain, supply chain architecture, collaboration spectrum, using metrics to drive business success.
Prerequisite: Instructor's Consent

BA358 Strategic Management (3 credits)
This course covers both theoretical and practical aspects of strategic thinking and management including the process of strategic implementation. Topics include strategic planning, internal analysis, business-level strategy, Hi-Tech strategies, global strategy, corporation strategy, performance and ethics.
Prerequisite: Instructor's Consent

BA359 High-Tech Entrepreneurship (3 credits)
This course covers all aspects of building an international start-up company in high technology area. Topics include feasibility study for a startup, financial and legal issues of

a Hi Tech startup prepare for venture capital funding, business plan for a start-up venture.
Prerequisite: Instructor's Consent

BA360 Quality Management (3 credits)

This course emphasizes the strategic importance of effective quality management and provides a basis for systems approach to teamwork. Topics cover management tools to measure and improve a system or process in an organization, the responsibility of the leaders in various levels in organization including managers, supervisors and team leaders.
Prerequisite: Instructor's Consent

BA361 Risk Management (3 credits)

This course covers the fundamentals of risk management. Topics include identify and analysis project risk, risk reduction plan, control of risk-related factor, manage project under risk condition and method for ongoing risk assessment and project performance evolution.
Prerequisite: Instructor's Consent

BA362 Managerial Leadership

This course emphasizes the leadership side of managerial leadership and the leadership issues. Topics cover leading and managing change as a manager, developing your associate and yourself, coaching, teaching and mentoring, managerial leadership in action, giving and receiving feedback,
Prerequisite: Instructor's Consent

BA363 Organizational Behavior and Management

This course explores the complex dimensions of organizational behavior. Topics cover experiential and conceptual approaches to communication, self-awareness, perception, motivation, problem solving, and culture. Students apply intrapersonal and interpersonal exploration to management of change, leadership theories and organizational issues.
Prerequisite: Instructor's Consent

BA370 Business Administration and Management (3 credits)

This course is a summary and overview of the business administration and management. Topics cover business management, project management, multicultural, management, pressure management, marketing management, supply chain management and innovation management.
Prerequisite: Instructor's Consent

BA380 Seminar in Business Administration (3 credits)

The Seminar in Business Administration invites the world famous and successful CEOs of major giant companies to share their experience of entrepreneur, talking about their success secret, management techniques, as well as the mistakes and places need to avoid for failure in their point of view. Can be taken repeatedly.
Prerequisite: Graduate Standing

BA390 Special Topics in Business Administration (3 credits)

The course provides an opportunity for a faculty member or a visiting scholar to offer a relatively new subject that is not currently available in the catalog, but is of great relevance to business administration. It may consist of lectures, reading, homework, presentation and project determined by the instructor. Can be taken repeatedly.
Prerequisite: Graduate Standing

BA399 Graduate Research in Business Administration (3 credits)
By arrangement with a research advisor. Conduct independent research of an approved topic in business administration. Can be taken repeatedly.
Prerequisite: Graduate standing

Tri-Valley University
School of Art

The School of Art at Tri-Valley University has degree programs and non-degree programs, primarily in Christian Ministry, with programs designed to prepare man and woman for biblically rich and culturally sensitive Christian Ministry at the modern world. The master level degree programs are Master of Art in Biblical Studies, Church History, Systematic Theology, Christian Counseling and Ministry. Doctor of Philosophy Degree is mainly focus on Doctor of Philosophy (Ph.D.) in Biblical Studies, Christina Counseling and Ministry. The Master of Art program requires a total of 36 graduate course and research work, and Doctor of Ministry requires a total of 60 course and research work. The graduate degree programs in Ministry are committed both to academic excellence and practical relevance, both to personal piety and social responsibility, such that the knowledge leaned, the spiritual nourishment developed and ministry skills strengthened through the programs are for the serve and glory of God.

- **Master of Art**
  - **Biblical Studies**
  - **Systematic Theology**
  - **Church History**
  - **Christian Counseling**
  - **Ministry**
- **Doctorate Degree (Ph.D.)**
  - **Biblical Studies**
  - **Christian Counseling**
  - **Ministry**

- **School of Art Courses**

Tri-Valley University
School of Art

Masters of Art in Christianity Program

I. Objective of Program

The primary objectives of the Master's Art program in Christianity are: (1) to teach God's Word and encourage students to become knowledgeable both in God's inerrant Word and competent in its interpretation, proclamation and application in the contemporary world. (2) to develop the skill of ministry---to develop in students a vision for God's redemptive work throughout the world and to formulate strategies that will lead to effective missions, evangelism, discipleship and expression of love for one another through ministries of compassion and social justice. (3) to cultivate the spiritual maturity in students for a personal intimate love relationship with God and further more evidenced by Christ-like character, value, outlook, conduct, compassion, faith, model and leadership in Church and society.

.

II. Emphasis Areas

The Master of Art in Christianity Degree program at Tri-Valley University mainly focuses on five concentration study areas:

MA Emphasis Area A:	Biblical Studies
MA Emphasis Area B:	Systematic Theology
MA Emphasis Area C:	Church History
MA Emphasis Area D:	Christian Counseling
MA Emphasis Area E:	Ministry

III. Admission Requirements

For admission to the Master of Art program, the applicant must have a bachelor's degree in Art, Business Administration, or Engineering fields with a minimum GPA of "3.0" or "B". Student who holds a B.S. degree in other fields other than Art need to consult the graduate advisor on taking the pre-required courses. The Master of Art in Christianity also requires student's spiritual commitment to Christ, emotionally suitable for Christian service and intellectually capable of rigorous academic discipline.

Students are allowed to transfer a maximum of nine (9) graduate semester units from another recognized institution towards the Master of Art degree program at TVU. The minimum required grade is B.

IV. Master of Art Curriculum

The total units required for Master of Art degree are 36 semester units of graduate courses and research work beyond the bachelor degree consisting of at least 30 units of course work and/or a maximum 6 units of research work. The 10 courses (30 trimester units) courses work are 5 (15 units) required courses as general requirement, 3 core courses (12 units) in the selected emphasis study area, 2 elective courses (6 units) from other area of emphasis (the elective course can from other engineering programs as well).

The 6 units of graduate research include two semester 3-unit graduate research work, with the guidance of a faculty member, leading to an approved M.S. thesis. Students can also choose to complete a M.S. project (3 units) combining with one more elective course. Therefore, there are two study plans for the Master of Art program, Plan I Thesis Plan requires 30 Unit of graduate course work and a M.S. thesis with 6 units research. Plan II Master Project includes 33 units of graduate course work and a 3 unit M.S. project.

A full-time student is able to complete the program in one year taking 4 courses each trimester. A part-time student needs to complete the program requirement within a maximum of 5 years in order to be granted the degree.

The 5 required courses (15 semester units) are:

CM312	Old Testament Study I	3 units
CM313	Old Testament Study II	3 units
CM314	Old Testament Study III	3 units
CM320	New Testament Study I	3 units
CM321	New Testament Study II	3 units

The 3 core courses are required from each emphasis study area (9 semester units):

MA Emphasis Area A:	Biblical Studies
MA Emphasis Area B:	Systematic Theology
MA Emphasis Area C:	Church History
MA Emphasis Area D:	Christian Counseling
MA Emphasis Area E:	Ministry

The 2 elective courses (6 units) can be from the same emphasis area or other emphasis areas in the different school program, such as Human Resource Management from School of Business. Master of Art Thesis Option requires 6 units of graduate research leading to an approved Master Thesis by a faculty member. Master Project Option requires 3 units of Master Project plus one more elective graduate course in art. Total requirement: 36 semester units (minimum 30 units of graduate course work).

Master of Art Program Curriculum: Total 36 Semester Units				
30 Units Course Work (10 Courses)			6 Units Research Work	
Required Course	Core Course	Elective Course	Master Thesis	Master Project
5 courses	3 Courses	2 Courses	CM399 (6 units)	CM 398 (3units)
15 Units	9 Units	6 Units		One elective course

Graduate courses in the five emphasis area are listed as follows:

Master of Art Emphasis Area A: Biblical Studies

Course #	Course Name	Core Course	Units
CM300	**Bible Reading and Study**	X	3
CM310	**Introduction to Old Testament**	X	3
CM311	**History of the Old Testament**	X	3
CM312	**Old Testament Study I**	X	3
CM313	**Old Testament Study II**	X	3
CM314	**Old Testament Study III**	X	3
CM320	**New Testament Study I**	X	3
CM321	**New Testament Study II**	X	3
CM322	**Message and Life of Jesus;**	X	3
CM373	**Science and Christianity;**	X	3

MA Emphasis Area B: Systematic Theology

Course #	Course Name	Core Course	Units
CM331	**Introduction to Systematic Theology I**	X	3
CM332	**Introduction to Systematic Theology II**	X	3
CM333	**Systematic Theology I**	X	3
CM334	**Systematic Theology II**	X	3
CM335	**Systematic Theology III**	X	3

MA Emphasis Area C: Church History

Course #	Course Name	Core Course	Units
CM340	**Church History IA**	X	3
CM341	**Church History IB**	X	3
CM342	**Church History IC**	X	3
CM343	**Church History IIA**	X	3
CM344	**Church History IIB**	X	3
CM345	**Church History IIC**	X	3
CM346	**Church History IIIA**	X	3
CM347	**Church History IIIB**	X	3
CM348	**Women in Church History and Missionary**	X	3

MA Emphasis Area D: Christian Counseling

Course #	Course Name	Core Course	Units
CM350	**Biblical Counseling Foundation**	X	3
CM351	**Cognitive Psychology**	X	3
CM352	**Cross-cultural Counseling**	X	3
CM353	**Christian Marriage and Family Life;**	X	3
CM354	**Pastoral Counseling**	X	3
CM355	**Family Counseling**	X	3
CM356	**Career Development and Lifestyle**	X	3
CM357	**Principle of Psychology**	X	3
CM358	**Social Psychology**	X	3
CM359	**Emotional Intelligence Management**	X	3

MA Emphasis Area E: Ministry

Course #	Course Name	Core Course	Units
CM360	**Theology of Mission**	X	3
CM361	**Christianity Faith**	X	3
CM362	**Ministry and Missionary Life**	X	3
CM363	**Preaching: Principles and Practices**	X	3
CM364	**Sermon Preparation**	X	3
CM365	**Oversea Missions**	X	3
CM366	**Church Growth**	X	3
CM367	**Ministry Team Building**	X	3
CM371	**Images of God in Fantasy Literature;**	X	3
CM372	**Dramatic Preaching;**	X	3
CM345	**Women in Church History and Missionary**	X	3
CM380	**Seminar in Christian Ministry**	X	3

V. Master of Art Graduation Requirements

For Master of Art degree, students need to complete a total of 36 trimester units of graduate course and/or research work and maintain an overall grade point average (GPA) of 3.0.

Master of Art in Library Science

I. Objective of Program

The Master of Art in Library Science program provides professional skills and knowledge of library science with emphasis on academic library in a Christian learning environment. It prepares information professionals for successful careers as knowledge management specialists and librarian, especially Internet content librarians or digital librarians in a higher education institution. The one concentration area is Academic Library.

II. Admission Requirements

For admission to the Master of Art in Library Science (MSLS) program, the applicant must have a bachelor's degree with a minimum GPA of "3.0" or "B". Students are allowed to transfer a maximum of nine (9) graduate semester units from another recognized institution towards the Master of Art in Library Science degree program at TVU. The minimum required grade is B.

III. Master of Science in Nurse (MSNS) Curriculum

The total units required Master of Science in Nurse (MSNS) program is 36 semester units of graduate courses and research work beyond the bachelor degree. The 36 semester units include a total of 12 courses. Among the 12 courses, 5 courses are the required courses, 3 courses are from the concentration area: Academic Library, and 3 courses are elective course, one course must be independent study.

Master of Science in Nurse (MSNS) Curriculum: Total 36 Semester Units			
33 Units Course Work (11 Courses)			3 Units Research Work
Required Course	Major Course	Elective Course	Independent study or Graduate research
5 courses	3 Courses	3 Courses	
15 Units	9 Units	9 Units	

The five required course (15 semester units) for Master of Nurse program are as follows:

Course #	Course Name	Required Course	Units
LS 300	**Library Science**	X	3
LS 301	**Catalog and Classification**	X	3
LS 302	**Public Library Services**	X	3
LS 303	**Database Management**	X	3
LS 304	**Technical Process in Libraries**	X	3

Three (3) core courses are required from the chosen emphasis area of study (9 semester units): Academic Library

Emphasis Area Academic Library Courses

Course #	Course Name	Core Course	Units
LS 310	**Digital Library**	X	3
LS 311	**Academic Library Services**	X	3
LS 312	**Collection Development**	X	3
LS 313	**Content Representation**	X	3

IV. Master of Art in Library Science (MALS) Graduation Requirements

For MALS degree, students need to complete total of 36 trimester units of graduate course and/or research work and maintain an overall grade point average (GPA) of 3.0.

Tri-Valley University

School of Art
Doctor of Philosophy (Ph.D.) in Ministry

❖ Objective

The Doctorate Degree in Ministry (Ph.D.) at Tri-Valley University is a practice-oriented research-emphasized degree program developed to strengthen Christian leaders with theological, professional and personal integrity, and with sensitivities and capacities to cross barriers of race, class, culture and gender in Christina Ministry. The program is designed to equip student to meet intellectual challenge of Christina Ministry and to make practical applications on Ministry. The awarding of the Doctor Degree in Ministry signifies that the individual has completed the advanced academic requirements in Christina Ministry, attained specialized and practical competence which qualifies the recipient for opportunities and additional responsibilities beyond the Master degree level. The program prepares the scholar as a pastor, or leader and founder in Church and Christian Ministry worldwide.

There are three Major Fields of study for the Ph.D. in Ministry:
Major Area A Biblical Studies
Major Area B Christian Counseling
Major Area C Ministry

❖ Length of Study

The doctorate degree normally is earned over three to five years or the equivalent. However the Ph.D. must be completed in no fewer than two years from the date of initial enrollment and no more than ten years from the date of initial enrollment.

❖ Admissions

- **Admission Requirement**

  A Baccalaureate or Master's degree in the Biblical Study field, or a related field such as Art, Business administration, or Engineering earned at an appropriately accredited institution with a minimum GPA of "3.0" or "B" is required for admission to the Ph.D. program besides the admission requirement in the general admission requirement for doctorate program. For students admitted with a B.S. degree, they are required to take a total of 90 units of graduate course and research work. For students with a Master of Art degree admitted to the Ph.D. program, they only need to take a total of 60 units of graduate course and research work.

- **Transfer of Credit.**

  A maximum of 12 units of credit for appropriate master's or doctorate-level course work from another accredited institution can be transferred towards the Ph.D. program at TVU. The minimum GPA requirement for transferred credit is B.

- **Tuition and fee**

  Tuition and fee as well as refund policy for course work and research work for Ph.D. at TVU are the same as the tuition fee per units specified in the university general tuition and fee list. The graduation fee is $100.00 for Ph.D. program when student complete the course and research work and file for graduation.

❖ Degree Requirement

The Ph.D. in Christina Ministry program gives students the in-depth principle Biblical knowledge and practical training in Christina Ministry area. The Ph.D. program at TVU requires both graduate course work and research work at a total of 60 units beyond Master of Art degree or 90 total graduate semester units after the baccalaureate degree. Among the 60 units, 15 units need to be graduate research work and 45 units of course work. The research work mainly involves practical ministry work, like clinical counseling, practicum ministry. Among the 45 graduate course work, at least 7 graduate courses need to from the Major Fields of study; 4 courses can be from another Minor field in the Christian Ministry area at the School of Art, and another 4 course need to be from Business Administration field in the School of Business as another Minor field. Most of the time, Church is first started as a non-profit organization. To prepare the scholar with the practical knowledge and technique of Church growth, and ministry team building, the graduate is required to take course in Business Administration area, such as Human Resource Management, Principle of Management, as the required minor. Student admitted into the Ph.D. program with a bachelor degree need to complete a total of 90 units of course and research work among which maximum 15 units can be graduate research. In general for graduate research, the Ph.D. study requires a Qualify exam and an approved dissertation.

- **Course Work**

The Doctor Degree in Christina Ministry program requires at least 45 units (15 courses) of course work beyond Master of Art degree in one major and two minor fields. One of the two minors must be from Business Administration area. Among the 15 required courses, 7 Courses (21 Units) need to be from the major program of study (one from the three areas in Christian Ministry), 4 course (12 units) from one minor field in Christian Ministry and one minor in Business Administration. Students admitted into DDM program with a baccalaureate degree need to complete a total of 25 courses (75 units) distributed in the specified major/minor field.

- Major Filed : 7 Courses 21 units
- Minor I: in Christian Ministry 4 Courses 12units
- Minor II: Business Administration 4 Courses 12 units

Total 45 units course work beyond Master of Art (Total 75 units after Bachelor Degree)

➢ Research Work

To be awarded the Ph.D., student is required to conduct practical research work in the field toward an approved dissertation. A total of 15 units research work under the guidance of a chair faculty member in the major filed are required.

- Qualify Exam: The dissertation should be based on original, or applied research. The topic of the dissertation shall be approved by the chair dissertation advisor. Prior to enter into doctorate research work, student needs to take a Qualify exam. There is no time requirement for a student admitted in Ph.D. program with a M.S. degree to take Qualify exam to start the research work. However, for student admitted into Ph.D. program with a baccalaureate degree need to complete minimum of 30 units graduate-level course work before taking the exam and starting the research. The Qualify Exam normally covers 3 areas of fundamental knowledge and in close book format for 6 hours, with 2 hours in each area. Student with a Master degree normally take the exam at the second tri-meter of enrollment. Student with a Bachelor degree normally can take the Qualify exam within the first year. If a student fails the first time, he/she can try another time. If he/she fails the second time, it will disqualify him/her to pursue the Ph.D. study.

- Dissertation Committee: For the doctoral degree, a supervisory dissertation committee of at least three faculty members must be formed for each student. At least one committee member must be from the major field serving as the chair dissertation advisor, and at least one committee member must be outside the major field. All committee members must have demonstrated appropriate scholarship, experience, or practice in the subject area. Students have the option of nominating their dissertation members or major professors for university final approve.

- An oral defense of the doctoral candidate's final project or dissertation with the dissertation committee is required. This may be conducted in person or at a distance. TVU will not award the Doctor Degree unless a majority of the dissertation committee approves the student's dissertation.

❖ Curriculum

The Doctor Degree in Christian Ministry program requires a total of 60 units of graduate study beyond Master of Art degree and a total of 90 units of graduate study after bachelor degree. The three major field of study in Christian Ministry and the major field course are listed as follows.

Major Area A **Biblical Studies**
Major Area B **Christian Counseling**
Major Area C **Ministry**

<table>
<tr><th colspan="4">Ph.D. in Christianity (D.D.C.) Curriculum</th></tr>
<tr><td colspan="3">45 Units Graduate Course Work (15 Courses)</td><td>15 Units Research Work</td></tr>
<tr><td>Major Field</td><td>Minor I</td><td>Minor II</td><td rowspan="3">An approved Dissertation & at least one publication (Conference or Journal paper)</td></tr>
<tr><td>7 courses</td><td>4 Courses</td><td>4 Courses</td></tr>
<tr><td>21 Units</td><td>12 Units</td><td>12 Units</td></tr>
<tr><td colspan="4">Total 60 Semester Units</td></tr>
</table>

Graduate courses in the three major areas are listed as follows:

Major Area A: Biblical Studies

Course #	Course Name	Core Course	Units
CM300	**Bible Reading and Study**	X	3
CM310	**Introduction to Old Testament**	X	3
CM311	**History of the Old Testament**	X	3
CM312	**Old Testament Study I**	X	3
CM313	**Old Testament Study II**	X	3
CM314	**Old Testament Study III**	X	3
CM320	**New Testament Study I**	X	3

CM321	**New Testament Study II**	X	3
CM322	**Message and Life of Jesus;**	X	3
CM331	**Introduction to Systematic Theology I**	X	3
CM332	**Introduction to Systematic Theology II**	X	3
CM333	**Systematic Theology I**	X	3
CM334	**Systematic Theology II**	X	3
CM335	**Systematic Theology III**	X	3
CM373	**Science and Christianity**	X	3

Major Area B: Christian Counseling

Course #	Course Name	Core Course	Units
CM350	**Biblical Counseling Foundation**	X	3
CM351	**Cognitive Psychology**	X	3
CM352	**Cross-cultural Counseling**	X	3
CM353	**Christian Marriage and Family Life;**	X	3
CM354	**Pastoral Counseling**	X	3
CM355	**Family Counseling**	X	3
CM356	**Career Development and Lifestyle**	X	3
CM357	**Principle of Psychology**	X	3
CM358	**Social Psychology**	X	3
CM359	**Emotional Intelligence Management**	X	3

Major Area C: Ministry

Course #	Course Name	Core Course	Units
CM360	**Theology of Mission**	X	3

CM361	**Christianity Faith**	X	3
CM362	**Ministry and Missionary Life**	X	3
CM363	**Preaching: Principles and Practices**	X	3
CM364	**Sermon Preparation**	X	3
CM365	**Oversea Missions**	X	3
CM366	**Church Growth**	X	3
CM367	**Ministry Team Building**	X	3
CM371	**Images of God in Fantasy Literature;**	X	3
CM372	**Dramatic Preaching;**	X	3
CM380	**Seminar in Christian Ministry**	X	3
CM340	**Church History IA**	X	3
CM341	**Church History IB**	X	3
CM342	**Church History IC**	X	3
CM343	**Church History IIA**	X	3
CM344	**Church History IIB**	X	3
CM345	**Church History IIC**	X	3
CM346	**Church History IIIA**	X	3
CM347	**Church History IIIB**	X	3
CM348	**Women in Church History and Missionary**	X	3

❖ Graduation Requirements

To be awarded the Ph.D. Degree in Ministry, students need to maintain an overall grade point average (GPA) of 3.0 in course work. For research, student needs to write a dissertation approved and signed by the dissertation committee members. To reflect the quality of the research, student is encouraged to have at least one publication at the conference or journal.

Art in Christian Ministry Courses

CM300 -310	**Fundamental classes**
CM310-320	**Old Testament**
CM 320-330	**New Testament**
CM330-339	**Systematic Theology**
CM340-349	**Church History**
CM350-359	**Christian Counseling**
CM360-369	**Ministry**
CM370-370	**Christian Course**
CM380-	**Research**

CM300 Bible Reading and Study (3 credits)

The first course talks about how to read the Bible its historical, cultural, and literary context. Topics cover historiography in the Bible, Biblical prophecy, wisdom literature in the Bible, apocalyptic literature in the Bible, the letters of the New Testament, the essentials of a Christian life.
Prerequisite: Instructor's Consent

CM310 Introduction to Old Testament (3 credits)

The General introduction to issues in Old Testament study. Topics includes overview of Old Testament, inspiration and canonicity, interpretation (including classical and modern critical approaches), history, myth and poetry, prophets and prophecies, famous man and woman in OT, the significance of Old Testament.
Prerequisite: Instructor's Consent

CM311 History of the Old Testament (3 credits)

The course covers the Bible History of the Old Testament. Topics cover the world before the Flood, the exodus and the wanderings in the wilderness, Israel in Cannan under Joshua and the Judges, history of Israel under Samuel, Saul, and Davis and the Birth of Solomon, to the reign of Ahab, the two Kingdom to the Assyrian. Prerequisite: Instructor's Consent

CM312 Old Testament Study I (3 credits)

The first course in the Old Testament Study series covers Old Testament reading and study from Genesis to 2 Kings. Topics briefly cover archaeology, history, cultural contexts, chronology, geography and interpretation.
Prerequisite: Instructor's Consent

CM313 Old Testament Study II (3 credits)

The second course in the Old Testament Study series covers Old Testament reading and study from 1 Chronicles to Lamentations (Lam). Topics briefly cover archaeology, history, cultural contexts, chronology, geography and interpretation.
Prerequisite: CM312

CM314 Old Testament Study III (3 credits)
The third course in the Old Testament Study series covers Old Testament reading and study from Ezekiel to Malachi. Topics briefly cover archaeology, history, cultural contexts, chronology, geography and interpretation.
Prerequisite: CM313

CM320 New Testament Study I (3 credits)
The first course in the New Testament Study series covers New Testament reading and study from Matthew to 2 Thessalonians. Topics briefly cover archaeology, history, cultural contexts, chronology, geography and interpretation.
Prerequisite: Instructor's Consent

CM321 New Testament Study II (3 credits)
The second course in the New Testament Study series covers New Testament reading and study from 1 Timothy to Revelation. Topics briefly cover archaeology, history, cultural contexts, chronology, geography and interpretation.
Prerequisite: CM320

CM322 Message and Life of Jesus; (3 credits)
A study of the complementary portraits of Jesus in the four gospels to determine the events of his life, the content of his message, and his understanding of his own person and mission.
Prerequisite: Instructor's Consent

CM331 Introduction to Systematic Theology I; (3 credits)
This is an introductory course to systematic theology. Topics cover the Theology: the study of God; Bibliopoly: The Study of the Bible; Anthropology: The Study Of Man; Soteriology.
Prerequisite: Instructor's Consent

CM332 Introduction to Systematic Theology II; (3 credits)
This is the second course of the introduction to systematic theology series. Topics cover The Study of Salvation; Pneumatology: The Study the Holy Spirit; Eschatology: The Study of the Future;
Prerequisite: CM331

CM333 Systematic Theology I; (3 credits)
The first course of the systematic theology series focuses on the Doctrine of God. Topics cover God's existence, the scripture, a revelation from God; the nature, decrees and word of God.
Prerequisite: Instructor's Consent

CM334 Systematic Theology II; (3 credits)
The second course of the systematic theology series focuses on the Doctrine of Man and the Doctrine of Salvation through the work of Christ and Holy Spirit.
Prerequisite: CM333

CM335 Systematic Theology III; (3 credits)
The third course of the systematic theology series focuses on the Doctrine of Church and the Doctrine of Final things.
Prerequisite: CM335

CM340 Church History IA; (3 credits)
The first Church History series focuses on History of Ancient Christianity including the first period the Church under the apostles; the Middle age, the ante-Nicene Christianity and the third period. The IA focus on the first period (A.D. 1-100). Topics cover Jesus Christ, St. Peter and conversion of the Jews, St. Paul and the conversion of the Gentiles, the great tribulation, St. John and the last stadium, Christian life and worship in the Apostolic age, organization and theology of the Apostolic Church.
Prerequisite: Instructor's Consent

CM341 Church History IB; (3 credits)
The first Church History series focuses on History of Ancient Christianity including the first period the Church under the apostles; the Middle age, the ante-Nicene Christianity and the third period. The IB focuses on the Middle age- the ante-Nicene Christianity (A.D. 100-311).Topics cover persecution of the Christianity, organization and discipline of Church, Christian worship, Christina art, church in the catacombs, Ascetic tendencies, montanism, development of the catholic theology; and eventful period of Christian emperors.
Prerequisite: CM340

CM342 Church History IC; (3 credits)
The firs Church History series focuses on History of Ancient Christianity including the first period the Church under the apostles; the Middle age, the ante-Nicene Christianity and the third period A.D. 311-590, with IC focusing on the third period. Topics cover downfall of heathenism and victory of Christianity in the roman empire, the rise and progress of monasticism, church discipline and schisms, the hierarchy and polity of the church, from Constantine the Great to Gregory the Great.
Prerequisite: CM341

CM343 Church History II A; (3 credits)
The second Church History series covers the mediaeval Christianity, from Gregory I to Gregory VII, the middle age, from Gregory VII to Boniface VIII, from Boniface VIII to the Protestant reformation. II A focuses on the Mediaeval Christianity from Gregory I to Gregory VII, A.D. 590-1073. Topics cover Conversion of the Northern and Western Barbarians, the Papal Hierarchy and the Holy Roman Empire, the Conflict of the eastern and Western Churches and Their Separation, Morals and Religion, Church Discipline, Church and State, Worship and Ceremonies, Heretical Sects etc.
Prerequisite: CM342

CM344 Church History II B; (3 credits)
The second Church History series covers the mediaeval Christianity, from Gregory I to Gregory VII, the middle age, from Gregory VII to Boniface VIII, from Boniface VIII to

the Protestant reformation, with IIB focusing on the middle age, from Gregory VII, 1049, to Boniface VIII, 1294. Topics cover Gregory VII, The Papacy from the concordat of worms to innocent III, A.D. 1122-1198, Innocent III and his age, A.D. 1198-1216, The Crusades, The Monastic Orders, Missions, Heresy and its Suppression, Universities and Cathedrals, Scholastic and Mystic Theology, Scholasticism at its height, the Sacramental System.
Prerequisite: CM343

CM345 Church History II C; (3 credits)
The second Church History series covers the mediaeval Christianity, from Gregory I to Gregory VII, the middle age, from Gregory VII to Boniface VIII, from Boniface VIII to the Protestant reformation, with IIC focusing on the middle age, from Boniface VIII to the Protestant reformation, 1294-1517. Topics cover the Decline of the Papacy and the Avignon Exile, A.D. 1294-1377, the Papacy Schism and the Reformatory Councils, 1378-1449, Leaders of Catholic Thought, The German Mystics, The Last Popes of the Middle Ages 1447-1521, The Renaissance, The Pulpit and Popular Piety and the close of the Middle Ages.
Prerequisite: CM344

CM346 Church History III A; (3 credits)
The third Church History series covers the modern Christianity, from German reformation to the Swiss Reformation, with III A focusing on the German reformation (1517-1648). Topics include Luther's Training for the Reformation, A.D. 1483-1517, The German Reformation from the Publication of Luther's theses to the Diet of Worms, The Propagation and Persecution of Protestantism in Germany, The Political Situation between 1526-1529.
Prerequisite: CM345

CM347 Church History III B; (3 credits)
The third course in Church History series covers the modern Christianity, from German reformation to the Swiss Reformation, with III B focusing on the Swiss Reformation. Topics include Reformation in Zurich 1519-1526, The Civil War Between the Roman Catholic and Reformed Cantons The Period of Consolidation; The Preparatory Work, 1526-1536, John Calvin and his Work, Constitution and Discipline of the Church of Geneva, The Calvin's Theology, Servetus: His Life, Opinions Trial and Execution.
Prerequisite: CM346

CM348 Women in Church History and Missionary; (3 credits)
The contributions, roles, struggles, writings, and spirituality of women from Pentecost to the present. Students explore a variety of biblical and historical patterns for women in religious leadership, and work with questions touching women's ordination in the light of various contemporary denominational practices.
Prerequisite: Instructor's Consent

CM350 Biblical Counseling Foundation
A foundational course that introduces basic concepts of counseling and emphasizes the

use of scripture in such areas as purpose and goals, roles and relationships, personal and interpersonal issues, family and identity. Topics include Biblical Psychology, Biblical Discipleship etc.
Prerequisite: Instructor's Consent

CM351Cognitive Psychology; (3 credits)
Cognitive Psychology is the scientific study of the human mind and how it processes information; the mental processes underlying our ability to perceive the world, understand and remember our experiences, communicate with others, alter our feelings and control our behavior. The course deals with theoretical assumptions and practical aspects. Research and clinical practice are drawn and integrated into the concrete applications of cognitive psychology.
Prerequisite: Instructor's Consent

CM352 Cross-Cultural Counseling;
This course gives an overview of considerations in conducting therapy with those of different cultural backgrounds and psychological foundation of culture. Emphasis is given to family roles, structures and functions, and to the context in which individuals develop and relate.
Prerequisite: Instructor's Consent

CM353 Christian Marriage and Family Life;
A Christian view of marriage and family is developed by applying biblical principles. Participants explore family life cycle theory, Christian perspectives on preparation for, and enrichment of, marriage and the management of common family crises.
Prerequisite: Instructor's Consent

CM354 Pastoral Counseling and Pastoring; (3 credits)
This course provides sage advice on and covers the wide array of tasks a pastor must perform and provide the basic preparation for the complex task of pastoral care and counseling. Topics include Pastoral care and counseling, pastor's pulpit ministry, problem-solving preaching, pastoral leadership, conflict management, ministerial ethics, pastor as a teacher, an evangelist, and the pastor's personal life.
Prerequisite: Instructor's Consent

CM355 Family Counseling; (3 credits)
A review of the major theories of family systems development with emphasis on a critical analysis of these theories from Christian perspective. An examination of the social, cultural, religious, educational, economic and family lifestyle patterns as a preparation for effective counseling in varied settings. Basic theories of marital therapy with particular attention to biblical and theological issues.
Prerequisite: Instructor's Consent

CM356 Career Development and Lifestyle; (3 credits)
An overview of the process of evaluation and counseling persons in choosing a career path. A variety of evaluation instruments will be studied and utilized as the application

component of this course.
Prerequisite: Instructor's Consent

CM357 Principle of Psychology; (3 credits)
This course covers the principles of psychology. Topics include principle of psychology, function of brain, habit, mind, imagination, sensation, reasoning, instinct, emotion etc.
Prerequisite: Instructor's Consent

CM358 Social Psychology; (3 credits)
This course provides an introduction to social psychology. Topics cover the Mental Characters of Man of Primary Importance for His Life in Society and the Operation of the Primary Tendencies of the Human Mind in the Life of Societies.
Prerequisite: Instructor's Consent

CM359 Emotional Intelligence Management; (3 credits)
This course focuses on emotional intelligence management and how to develop the key emotional skill for leadership. Topics cover understanding, develop and apply the emotional skills with details of a four-part hierarchy of emotional skills: identifying emotions, using them to facilitate thinking, and understanding and managing emotions.
Prerequisite: Instructor's Consent

CM360 Theology of Mission; (3 credits)
This course give a biblical theological introduction to mission. Topics include: the biblical basis for missions, the relationship of social action to evangelism, mission and development, and the relation of Christianity to other religions.
Prerequisite: Instructor's Consent

CM361 Christian Faith; (3 credits)
This course will examine the essential of Christianity faith. Topics includes revelation, the nature, attributes, work and decrees of God, Jesus Christ, The Holy Spirit, Trinity, Human being and the fall, salvation, the church and sacraments, spirituality and living in this age.
Prerequisite: Instructor's Consent

CM362 Ministry and Missionary Life; (3 credits)
Through reading missionary biographies, class discussions, lectures, interviews with experienced missionaries and projects, students consider the spiritual, financial, physical, emotional and interpersonal issues involved in living and ministering in an intercultural setting. Married students encouraged to take the course with spouse.
Prerequisite: Instructor's Consent

CM363 Preaching: Principles and Practices; (3 credits)
An introduction to the principles of preparing relevant biblical sermons. Lectures and exercises cover a stage-by-stage explanation of how preachers think as they prepare to preach. Recitation sessions provide opportunity for students to preach with critique by the professor.

Prerequisite: Instructor's Consent

CM364 Sermon Preparation; (3 credits)

This course focus on the integration of exegesis and sermon preparation from Biblical text to sermon manuscript, with attention to outlining the sermon, use of illustrations, and criteria for legitimate application of the text in the modern world.

Prerequisite: Instructor's Consent

CM365 Oversea Missions; (3 credits)

Orientation for students planning to minister inter-culturally with the Overseas Missions Practicum. Topics include: Biblical theological basics; language study; cultural anthropology; and the history, culture, etc. of the country/group among whom the student plans to minister with a focus on the particular theological, cultural and linguistic challenge posed by Ministry in China.

Prerequisite: Instructor's Consent

CM366 Church Growth; (3 credits)

This course gives a practical and biblical-theological perspective on planting; development and administrating of churches Students develop competencies in leading and administering programs, especially in the local church. Students explore such issues as: training others for leadership; organizing, supervising and evaluating programs; basic financial management. A practical and biblical-theological perspective on planting and development of churches. Research projects concentrate on sharpening skills in planning, establishing and nurturing churches which will equip members for ministry to their communities, and for continued planting of new churches.

Prerequisite: Instructor's Consent

CM367 Bible Leadership;

This course focus on the Bible leadership examples and wisdom therefore provides a biblical foundation concerning effective leadership as well as cover the critical keys necessary for a leader to be effective both personally and organizationally. Topics include honesty and integrity, purpose, kindness and compassion, humility, communication, performance management, team development, courage, justice and fairness and leadership development.

Prerequisite: Instructor's Consent

CM368 Ministry Team Building;

The purpose of this course is to help students, as potential team members and leaders, to appreciate the theological and managerial rationale for the use of teams in ministry. In addition, they will acquire and develop the philosophy and skills needed to sustain an effective ministry team. Key principles, strategies and interaction will facilitate the learning process. Students will also be exposed to the functions of teamwork, recruitment, team formation, barriers to team building, and key principles of conflict management.

Prerequisite: Instructor's Consent

CM371 Images of God in Fantasy Literature; (3 credits)

Focuses upon understanding the nature of God through the reading of the Bible and of fantasy literature by such authors as George MacDonald and C.S. Lewis. The student will be introduced to the nature of fiction and images.
Prerequisite: Instructor's Consent

CM372 Dramatic Preaching; (3 credits)
An Students will learn how to preach dramatic expository sermons and learn how to unleash the power of the stories of Scripture. The focus will be on both the "why" and "how" of dramatic preaching. Students will preach in class.
Prerequisite: Instructor's Consent

CM373 Science and Christianity; (3 credits)
This course shows how science and Christianity can integrate together in harmony. Topics cover the historic alliance between sciences and Christianity, evolution, modern science and creation. A scientist's view of the relationship between theology and science will be studied, including particular philosophical prejudices many scientists have when considering the Bible.
Prerequisite: Instructor's Consent

CM 380 Seminar in Christian Ministry (3 credits)
The Seminar in Christina ministry invites the world famous evangelist to share their vision and word of God.
Prerequisite: As specified in class schedule

CM 390 Special Topics in Christian Ministry (3 credits)
The course provides an opportunity for a faculty member or a visiting scholar to offer a relatively new subject that is not currently available in the catalog, but is of great relevance to Christian ministry. It may consist of lectures, reading, homework, presentation and project determined by the instructor.
Prerequisite: As specified in class schedule

CM 399 Graduate Research in Christian Ministry (3 credits)
By arrangement with a research advisor. Conduct independent research of an approved topic in business administration. Can be taken repeatedly.

Courses in Library Science

LS 300 Library Science (3 credits)

This is an introductory course in library science. Topics cover history of libraries, reference services, cataloging and classification, public library information and service, bibliographic organization, information resources in medical, business, science and technology.

LS 301 Catalog and Classification

This course introduces and provides intensive practice in the fundamentals of library cataloging and classification. Topics cover instruction on critical reading, interpretation, and use of current professional standards and documentation for the creation of MARC records, encompasses discussion of relevant historical and theoretical issues in the construction of contemporary bibliographic databases.

LS 302 Public Library Services

This course surveys information services provided through public libraries. Topics cover governmental and funding issues, determinants of use, extending services to non-users, and cooperation among libraries.

LS 303/CS309 Database Management

This course provides an in-depth introduction to database management system including design, tuning and implementation of relational database applications, as well as in-depth coverage of the state of the art in currently available commercial systems. Topic includes basic of database system, relational models, relational queries, SQL queries and programming, data storage and index.

LS 304 Technical Process in Libraries

This course cover management, policy, and organizational issues related to the administration of technical services in libraries. Topics include acquisitions, copy cataloging, original cataloging, serials control, circulation, preservation and management in an automated environment where traditional methods are being supplanted by new technologies and related organizational changes.

LS 310 Digital Library

This course introduces research and development in the world of digital libraries as well as intellectual access to digital information resources. Topics cover foundations and architectures of digital libraries, searching and resource organizing, knowledge representations and discovery, metadata and standards, interfaces and information visualization, intellectual property rights and electronic publishing.

LS 311 Academic Library Services

This course examines the role of library service in higher education. Topics cover organization, administration, services, and the relationship of the library to the overall educational program

LS 312 Collection Development

This course introduces the basic steps of collection development. Topics include community analysis, preparation of policy, criteria for selection of materials, acquisition, weeding, and evaluation, impact of electronic access on collection development.

LS 313 Content Representation

This course focuses on fundamental decisions in designing subject access systems and alternative approaches to indexing and explores current issues in content representation. Topics include principles of subject analysis; natural language vs. vocabulary control; manual, computer-assisted, and automatic indexing; faceted indexing and classification systems; image indexing and retrieval; indexing and the World Wide Web, evaluation of indexer consistency and indexing system performance

LS 398 Special topics in Library Science (3 credits)

The course provides an opportunity for a faculty member or a visiting scholar to offer a relatively new subject in library science that is not currently available in the catalog. It may consist of lectures, seminars, reading, homework, presentation and project determined by the instructor. Can be taken repeatedly.
Prerequisite: Graduate Standing

LS 399 Graduate Research (3 credits)

By arrangement with a research advisor. Conduct independent research of an approved topic in nurse. Can be taken repeatedly.
Prerequisite: Graduate standing

Tri-Valley University
School of Law

- **Master of Law (LL.M.)**
- **Juris Doctor (J.D.)**
- **Ph.D. in Law**
- **Professional Certificate Program**
- **School of Law Courses**

School of Law at Tri-Valley University has three Major field Areas:

- **Business Law**
- **Family Law**
- **Intellectual Property Law**

Tri-Valley University
School of Law

The School of Law at Tri-Valley University aims to offer quality legal education and layering skill programs in the context of Christian world view. School of Law at Tri-Valley University is committed to academic and professional excellence, encourages the desire for justice, equips individual with the skills need to practice law and to use the law as a fulcrum for good.

School of Law at Tri-Valley University offers three graduate degree programs: Master of Laws (LL.M.), Juris Doctor (J.D.) and Ph.D. in Law. TVU School of Law program emphasizes three major field areas: Business Law, Family Law and Intellectual Property Law. For non-degree program, School of Law at Tri-Valley University also offers Professional Certificate program in those three emphasis areas. The Master of Laws (LL.M.) degree program at Tri-Valley University is mainly designated for international students who earned their first degree (LL.B.) in law from a non-U.S. law school and seek an intensive training in legal regulation of U.S. and global business activity, but it is open to US lawyer also. The Juris Doctor (J.D.) program at Tri-Valley University mainly prepares individual to become a layer and practice law in California and the US. After completed the J.D. program study and awarded the J.D degree, one becomes eligible to take the Bar Examination if he/she decides to pursue licensing as an attorney. The Doctorate of Philosophy (PhD) degree in law program at TVU School of Law provides intense training in academic research and prepares individual for a career in academia.

The Master of Law (LL.M.) program requires 36 units of graduate course work after a first degree in law (LL.B.). Juris Doctor (J.D.) program requires 90 trimester units of graduate course work and independent study beyond B.S. study. The Ph.D. in law program requires a total of 60 trimester unit of course and research work after master degree and an approved dissertation. The Professional Certificate program requires 4 courses in the subject area. Requirements and curriculums for each program are detailed in the following sections.

Tri-Valley University Law School and the Dean is fully informed as to the Standards and Rules of Procedure for the Approval of Law Schools by the American Bar Association. The Administration and the Dean are determined to devote all necessary resources and in other respects to take all necessary steps to present a program of legal education that will qualify for approval by the American Bar Association. Tri-Valley University Law School makes no representation to any applicant that it will be approved by the American Bar Association prior to the graduation of any matriculating student.

While the entire institution has submitted accreditation application to TRACS. The law school is built with consultant from ABA and is seeking a provisional accreditation with ABA. According to ABA Standards for Approval of Law Schools *Interpretation 102-9* "A law school seeking provisional approval shall not delay conferring a J.D. degree upon a student in anticipation of obtaining American Bar Association approval."

Tri-Valley University
School of Law
Masters of Law (LL.M) Program

I. Objective of Program

The primary objective of the Masters of Law (LL.M) program at Tri-Valley University is to provide intensive lawyership training to international students who earned their first degree (LL.B.) in law from a non-U.S. law school. The program is open to US lawyer also. The LL.M. program offers an intensive training in legal regulation of U.S. and global business activity, with main emphasis in business law, family law and intellectual property law.

II. Admission Requirements

For admission to the Master of Law (LL.M.) program, the applicant must have a bachelor's degree in Art, Business Administration, or Engineering fields with a minimum GPA of "3.0" or "B". Student who holds a B.S. degree in other fields other than Art need to consult the graduate advisor on taking the pre-required courses.

Students are allowed to transfer a maximum of nine (9) graduate semester units from another recognized institution towards the Master of Art degree program at TVU. The minimum required grade is B.

III. Master of Law (LL.M.) Curriculum

The total units required Master of Law (LL.M.) program are 36 semester units of graduate courses and research work beyond the bachelor degree. The 36 semester units include total of 12 courses. Among the 12 courses, 5 courses must be from the required courses (LA300-320, also completely listed in Table Required Course in J.D. program section.), 3 courses are from the selected major field, and 3 courses can be selected from other major or in general elective course, one course must be independent study or course number above LA395(can be either graduate research or independent study).

Master of Law (LL.M.) Curriculum: Total 36 Semester Units			
33 Units Course Work (11 Courses)			3 Units Research Work
Required Course	Major Course	Elective Course	Any course above LA 395; Independent study or Graduate research
5 courses	3 Courses	3 Courses	
15 Units	9 Units	9 Units	

IV. Master of Law (LL.M.) Graduation Requirements

For L.L.M degree, students need to complete total of 36 trimester units of graduate course and/or research work and maintain an overall grade point average (GPA) of 3.0.

Tri-Valley University
School of Law
Juris Doctor (J.D.) Program

❖ Objective

The Juris Doctor (J.D.) program at Tri-Valley University prepares students with the skills and insight necessary for a successful legal practice. Students will attain the knowledge and skills that will enable them to discern and recognize existing legal rights and issues for their own benefit and/or the benefit of others as a legal practitioner. After completed the J.D. program study and awarded the J.D degree, one becomes eligible to take the Bar Examination if they decide to pursue licensing as an attorney. There are three Major Fields of study for the J.D.: Major Area A Family Law; Major Area B Business Law; Major Area C IP Law

❖ Length of Study

The doctorate degree normally is earned over three to five years or the equivalent. However the J.D. must be completed in no fewer than two years from the date of initial enrollment and no more than seven years from the date of initial enrollment.

❖ Admissions

➢ Admission Requirement

Tri-Valley University School of Law requires for admission to its J.D. program a bachelor's degree from an accredited institution with a minimum GPA of "3.0" or "B". The law school does not require a particular major or undergraduate field of study; however, it advises prospective students to enroll in courses that develop and refine skills in the areas of writing, critical reading, and logical reasoning. Law School Admission Test (LSAT) is preferred, but not required. The application package normally includes the Graduate Application Form, Resume, two letters of recommendation and application fee.

The law school may admit an applicant who does not meet this educational requirement if the applicant's experience, ability, and other characteristics clearly show an aptitude for the study of law.

Admission decisions are made by a faculty Admissions Committee. Members of the Committee may conduct personal or phone interviews with applicants. The committee will carefully considers the available information, such as LSAT score, grade point average, life experience, personal profile statement, and letters of recommendation. Admission is based on the Committee's estimate of the applicant's potential for academic and professional success.

➢ Transfer of Credit.

A maximum of 12 units of credit for appropriate graduate course work in law from another accredited institution can be transferred towards the J.D.program at TVU. The minimum GPA requirement for transferred credit is B.

- **Tuition and fee**

Tuition and fee as well as refund policy for course work and research work for J. D. at TVU are the same as the tuition fee per units specified in the university general tuition and fee list. The graduation fee is $150.00 for J.D. program when student complete the course and research work and file for graduation

❖ J.D. Degree Requirement

To graduate with a Juris Doctor Degree, student must successfully complete 90 units of graduate course and /or research work. The 90 units can be total of 30 courses. For J.D. Degree program, there is no mandatory requirement for research work. However, student will have the option to choose independent study or graduate research unit for the elective course requirement.

❖ J.D. Curriculum

The J.D. degree program requires a total of 90 trimester units, consisting of 30 courses. Among the 30 courses, 18 courses are the fundamental required courses listed as the Required Course, starting LA300 to LA 320. The 18 required courses normally can be completed in the first two years. Besides the required course, the rest 12 courses include 6 courses in the selected major field, 3 in a minor field, and 3 elective courses. The 3 elective courses can be independent study, graduate research, and general elective course in law, or outside Law School class, (such as accounting courses from School of Business or Web programming from Computer Science).

Students who wish to eventually practice law must register with the Committee of Bar Examiners within 90 days of enrollment in law school to become bar candidates. Students who do not wish to practice law may choose to become a non-bar candidate and will remain eligible to graduate with a Juris Doctorate Degree. Students who elect to be a nonbar candidate will not be subject to the Bar Examiners' licensing requirements. Upon completion of their first year of study, bar candidates must take and pass the First Year Law Students' Examination (Baby Bar). Credit will be received from the Bar Examiners for any law study only after he or she passes the examination. Required course, Graduate courses in the three major areas, and electives courses are listed the following tables.

Juris Doctor Degree (J.D.) Curriculum			
Required Courses	Major Field	Minor Field	Electives
18 Courses	6 courses	3 Courses	3 Courses
54 Units	18 Units	9 Units	9 Units
90 Units Graduate Course Work (30 Courses)			

Required Courses

Year	Trimester	Course #	Course Name	Core Course	Units
1st	**1st Term**	**LA300**	**Foundations of Law I**	X	3
		LA302	**Tort**	X	3
		LA303	**Contract Law**	X	3
	2nd Term	**LA301**	**Foundations of Law II**	X	3
		LA304A	**Criminal Law**	X	3
		LA306	**Civil Procedure**	X	3
	3rd Term	**LA304B**	**International Criminal Law**	X	3
		LA307	**Constitutional Law**	X	3
		LA308	**Property**	X	3
2nd Year	**1st Term**	**LA305**	**Criminal Procedures**	X	3
		LA309	**Evidence**	X	3
		LA310 or LA 318	**Legal History Jurisprudence**	X	3
	2nd Term	**LA311**	**Professional Responsibility**	X	3
		LA312	**Wills, Trusts and Estate**	X	3
		LA313 or LA314	**Tax Law Federal Income Tax**	X	3
	3rd Term	**LA315**	**Lawyering Skills**	X	3
		LA316	**Federal Court and Federal System**	X	3
		LA319	**Remedies**	X	3

Major Area A: Family Law

Course #	Course Name	Core Course	Units
LA320	**Family Law**	X	3
LA321	**Children Law**	X	3
LA322	**Children's Rights in International Law**	X	3

LA323	**Juvenile Justice**	X	3
LA324	**Community Property Law**	X	3
LA325	**Real Estate Law**	X	3
LA326	**Taxation of Estates and Gifts**	X	3
LA327	**Estate Planning**	X	3
LA328	**Education Law**	X	3
LA329	**Sexuality and Law**	X	3
LA330	**Insurance Law**	X	3
LA331	**Health Care Law**	X	3
LA332	**Animal Law**	X	3
LA349	**Internet Law**	X	3
LA351	**Sex Discrimination Law**	X	3

Major Area B: Business Law

Course #	Course Name	Core Course	Units
LA317	**Business Law**	X	3
LA340	**Corporation Law**	X	3
LA341	**Corporation Tax**	X	3
LA342	**International Tax**	X	3
LA343	**Merger and Acquisition**	X	3
LA344	**Unincorporated Business**	X	3
LA345	**Business Crime**	X	3
LA346	**Labor Law**	X	3
LA347	**Employment Law**	X	3
LA348	**Employee Benefits Law**	X	3
LA349	**Internet Law**	X	3
LA350	**Security Law**	X	3
LA351	**Sex Discrimination Law**	X	3

LA352	**International Economic Law**	X	3
LA353	**Administrative Law**	X	3
LA329	**Sexuality and Law**	X	3
LA330	**Insurance Law**	X	3
LA331	**Health Care Law**	X	3

Major Area C: Intellectual Property Law

Course #	Course Name	Core Course	Units
LA360	**Intellectual Property Law**	X	3
LA361	**International Intellectual Property Law**	X	3
LA362	**Patent Law**	X	3
LA363	**Trademark Law**	X	3
LA364	**Copyright Law**	X	3
LA365	**International Copyright Law**	X	3
LA366	**Innovation Policy**	X	3

Elective Courses

Course #	Course Name	Core Course	Units
LA380	**Sports Law**	X	3
LA381	**Environmental Law**	X	3
LA382	**Immigration Law**	X	3
LA383	**Art Law**	X	3
LA384	**Protection of Personality**	X	3

❖ Graduation Requirements

To be awarded the Juris Doctor Degree (J.D.), students need to The successful completion of 90 semester hours of course work, maintain an overall grade point average (GPA) of 3.0 in course work.

Tri-Valley University

School of Law
Ph.D. in Law Program

❖ Objective

The Ph.D. in Law program at Tri-Valley University is a practice-oriented research-emphasized degree program, providing intense training in academic research and prepares individual for a career in academia. The PhD in Law program provides recipients in-depth knowledge of the theories and research in one chosen subfield of law Three Major Fields of study for the PhD in law program are: Major Area A Family Law; Major Area B Business Law; Major Area C IP Law.

❖ Length of Study

The doctorate degree normally is earned over three to five years or the equivalent. However the Ph.D. must be completed in no fewer than two years from the date of initial enrollment and no more than seven years from the date of initial enrollment.

❖ Admissions

➢ Admission Requirement

A Master's degree in Law (LL.M) degree with a minimum GPA of "3.0" or "B" is required for admission to the Ph.D. in Law program besides the admission requirement in the general admission requirement for doctorate program.

➢ Transfer of Credit.

A maximum of 12 units of credit for appropriate master's or doctorate-level course work from another accredited institution can be transferred towards the Ph.D. program at TVU. The minimum GPA requirement for transferred credit is B.

➢ Tuition and fee

Tuition and fee as well as refund policy for course work and research work for Ph.D. at TVU are the same as the tuition fee per units specified in the university general tuition and fee list. The graduation fee is $100.00 for Ph.D. program when student complete the course and research work and file for graduation.

❖ Degree Requirement

The Ph.D. in law program at TVU requires both graduate course work and research work at a total of 60 units beyond Master of Law degree. Among the 60 units, 15 units need to be graduate research work and 45 units of course work. Among the 45 graduate course work, at least 7 graduate courses need to from the Major Fields of study; 4 courses can be from another

Minor field in the School of Law (Minor I), and another 4 course for Minor II which need to be from outside of School of law, such as School of business or School of Engineering. Research is the main emphasis for the Ph.D. in law program. In general it requires a Qualify exam, an oral presentation and an approved dissertation.

➢ Course Work

The Ph.D. in Law Degree program requires at least 45 units (15 courses) of course work beyond Master of Law degree in one major and two minor fields. One of the two minors must be from outside School of Law. Among the 15 required courses, 7 Courses (21 Units) need to be from the major program of study of law, 4 course (12 units) from one minor field and one minor from outside law school.

- Major Filed : 7 Courses 21 units
- Minor I 4 Courses 12units
- Minor II: outside law school 4 Courses 12 units

➢ Research Work

To be awarded the Ph.D. in law degree, student is required to conduct practical research work in the field toward an approved dissertation. A total of 15 units research work under the guidance of a chair faculty member in the major filed are required.

- Qualify Exam: Prior to enter into doctorate research work, Students are required to take a Qualify exam and demonstrate in-depth knowledge in each of the subfields of law. The Qualify Exam normally covers 3 areas of fundamental knowledge and in close book format for 6 hours, with 2 hours in each area. Student normally takes the exam at the second tri-meter of enrollment, but there is no limit on the time when a student takes the qualify exam. If a student fails the first time, he/she can try another time. If he/she fails the second time, it will disqualify him/her to pursue the Ph.D. study.

- Dissertation and Dissertation Committee: The dissertation should be based on original, or applied research. The topic of the dissertation shall be approved by the chair dissertation advisor. After the dissertation chair approves a dissertation proposal and students submit a dissertation proposal acceptance form signed by the chair, the two dissertation committee members and the advisor of graduate studies, the dissertation may be undertaken. A supervisory dissertation committee of at least three faculty members must be formed for each student. At least one committee member must be from the major field serving as the chair dissertation advisor, and at least one committee member must be outside the major field. All committee members must have PhD and demonstrated appropriate scholarship, experience, or practice in the subject area.

- An oral defense of the doctoral candidate's final project or dissertation with the dissertation committee is required. This may be conducted in person or at a distance. Once the completed dissertation is approved by the dissertation chair, an oral defense form is filed, and the oral dissertation defense is scheduled. The completed dissertation

is defended in a two-hour oral defense before a three-member committee consisting of the dissertation chair, two dissertation committee members. A successful defense requires that two of the three members of the dissertation committee vote to approve the dissertation.

❖ Curriculum

The Ph.D. in law program requires a total of 60 units of graduate study beyond Master of Law degree. The three major field of study in Law are:

Major Area A Family Law
Major Area B Business Law
Major Area C Intellectual Property Law
The courses for each major field are listed in the previous section for J.D. program.

<table>
<tr><th colspan="4">Ph.D. in Law Curriculum</th></tr>
<tr><td colspan="3">45 Units Graduate Course Work (15 Courses)</td><td>15 Units Research Work</td></tr>
<tr><td>Major Field</td><td>Minor I</td><td>Minor II</td><td rowspan="3">An approved Dissertation & at least one publication (Conference or Journal paper)</td></tr>
<tr><td>7 courses</td><td>4 Courses</td><td>4 Courses</td></tr>
<tr><td>21 Units</td><td>12 Units</td><td>12 Units</td></tr>
<tr><td colspan="4">Total 60 Semester Units</td></tr>
</table>

❖ Graduation Requirements

To be awarded the Ph.D. in law Degree, a student need to satisfactorily complete graduate studies totaling at least 60 graduate credits, maintain an overall grade point average (GPA) of 3.0 in course work, pass comprehensive qualifying examinations, and defend an acceptable dissertation approved and signed by the dissertation committee members. To reflect the quality of the research, student is encouraged to have at least one publication at the conference or journal.

Professional Certificate Program:

The Professional certificate program are designed to meet the special post graduate educational needs of attorney who want to take the L.L.M courses in a specific subject, but do not want to, or are not able to, complete the 36-unit L.L.M program requirements. The Professional Certificate Program consists of a combination of total 12 units (4 courses) with at least 2 courses in the subject area. Professional Certificate Program has three areas of concentration: Family Law, Business Law and IP law.

School of Law Courses

Course Number Convention:

LA300-319 Fundamental (Required) Law Classes
LA330-339 Family Law
LA340-359 Business Law
LA360-379 Intellectual Law
LA380-395 Elective Courses
LA396- 399 Independent Study and Research

LA300 Foundations of Law I (3 credits)
The first course provides an introduction to the historical and political background of the U.S. legal tradition, the impact of canon law and higher law influences of the common law. Topics cover the development of respective jurisdictional bases of family, church, and state; the influence of Christian and secular worldviews on the application of American law.

LA301 Foundations of Law II (3 credits)
This course gives an overview of American law and its legal system. Topics cover introduction to constitution law, civil procedures, property, contract laws, and tort and criminal laws.

LA302 Tort (3 credits)
This course focuses on the principle of tort law. Topics cover vicarious liability, negligence, role of Judge and Jury, statutes, proof, medical malpractice, duty, defenses, and intentional harms, business torts, malicious prosecution, abuse of process etc.

LA303 Contract Law (3 credits)
This course covers the essential of US law (both Common law and Uniform Commercial Code) and theory of contract. Topics will include enforceability, formation, interpretation, excuses, and remedies, unconscionability and public policy, performance and breach.

LA304A Criminal Law (3 credits)
This course covers the general principle, sources and purpose of criminal law. Topics include fundamentals of just punishment, homicide, failure of proof defenses, justification defenses, excuse defenses, attempt and accomplice liability.

LA304B International Criminal Law (3 credits)
The course focuses on the international criminal courts and justice. Topics include theory of international criminal law, transnational offences, international criminal law of the sea, and defense in international criminal law, mutual legal assistance, international police-operation, and international criminal court.

LA305 Criminal Procedures (3 credits)
This course covers the investigative and adjudicatory stages of the criminal process, through trial and judicial decisions governing the various procedural steps in the administration of criminal

justice in federal and state courts. Specific topics include arrest, preliminary examination, bail, grand jury, indictment and information, trial, motions after verdict and sentence and judgment.

LA306 Civil Procedure (3 credits)
The course focuses on the civil procedure which provides a comprehensive account of the important rules, practice directions and protocols that make up the Civil Procedure Rules (CPR). Topics include sources of civil procedure, Funding Litigation, pre-action protocols, judicial case management, parties and title of proceedings, issuing and response to a claim, service of documents, statement, interim remedies and summary judgment.

LA307 Constitutional Law (3 credits)
This course locates the Constitution in the life of the United States by exploring constitutional doctrine, theory, and history. Topics include the theory of the Constitution; justifications for and implications of judicial review; the nature of the federal system; and the separation of powers within the U.S. government and individual rights.

LA308 Property (3 credits)
This course covers the principle of property law. Topics include relation among neighbors, common ownership, leaseholds, real estate transactions, land use regulation, and takings, tribal property, slavery, body parts, frozen embryos.

LA309 Evidence (3 credits)
This course provides an introduction to the law of evidence and the rules, language, history, policies, and application of the federal rules of evidence. Topics include principles governing its admission within the context of the adversary trial system, time permitting, relevance, hearsay, opinion evidence, burdens, presumptions, impeachment, the Confrontation Clause.

LA310 Legal History (3 credits)
This course offers an introduction to the history of the English common law (c. 1200-1700), its institutions, and doctrinal framework. Topics history of the courts, the forms of action, pleading and procedure, the legal profession and its literature and a general survey of land law, contract, and torts.

LA311 Professional Responsibility (3 credits)
This course provides a study of the authority and duties of lawyers in the practice of their profession as advocates, mediators, and counselors, and of their responsibility to the court, the bar, and to their client. Topics include the sources of rules regulating lawyers; confidentiality and privilege; conflicts of interest; the lawyer's responsibilities in civil and criminal trials; special problems of lawyers for entities, including governments and corporations; negotiation ethics; bar admission and discipline; and multijurisdictional practice

LA312 Wills, Trusts and Estate (3 credits)
This course gives a study of the basic devices in gratuitous transfer including will and trust. Topics cover intestate succession; execution, revocation, contests, and interpretation of wills;

will substitutes, nonprobate transfers, and planning for incapacity; and creation, modification, termination, spendthrift of trust; and other asset protection trusts, charitable trusts, portfolio management, and fiduciary administration.

LA313 Tax Law (3 credits)
This course gives a general introduction to the fundamental federal tax law and procedure. Topics cover goal of taxation, tax base, income tax vs consumption, tax expenditures, and business taxation.

LA314 Federal Income Tax (3 credits)
This course examines the fundamental federal income tax system and the concept of income tax of individual. Topics cover inclusion/exclusion and deduction from gross income, capital gain and losses, the tax treatment of various types of property dispositions, and issues concerning taxation of the family.

LA315 Lawyering Skills (3 credits)
This course covers all levels of skills of a lawyer. Topics range from basic legal research, interviewing client, fundamental of legal writing case analysis, draft an objective memorandum of law, to practice the pretrial litigation process, examine witness, negotiating settlement and pretrial agreement, to trial advocacy, precision in analysis, thought, expression and communication.

LA316 Federal Court and Federal System (3 credits)
The course examines the power and role of the federal courts as defined by the United States Constitution, statutes and judicial decisions. Topics include the judicial function and the role of courts, supreme court, jurisdiction of the lower federal courts, state and federal court, federal question, diversity and civil rights jurisdiction, habeas corpus, immunities of state and local governments from suit, and abstention.

LA317/BA301 Business Law (3 credits)
This course covers the basic of business law to legal requirement and issues associated with forming, managing and operating a high tech business in the global economic environment. Topics include contract law, tort, employment law, corporate law, partnerships, sole proprietorships, securities law and intellectual property law.

LA318 Jurisprudence (3 credits)
Jurisprudence is the study of legal philosophy. This course covers different schools of jurisprudence, with particular emphasis on principles of a distinctively Christian jurisprudence. Student may take this course or Legal History.

LA319 Remedies (3 credits)
This course focuses on the principles and application of common law and statutory judicial remedies, both equitable and legal. Topics cover the nature and scope of the proper relief and comparing the remedial goals of restitution, rescission, damages, injunctions, specific

performance and declaratory relief, additional relief in the forms of attorney fees, costs, civil penalties and sanctions.

LA320 Family Law (3 credits)

This course focuses on the marital and quasi-marital relationships, parent and child, providing an introduction the nature and regulation of family associations. Topics cover moral, legal, and biblical issues relating to marriage, divorce, and custody, spousal and parental rights and liabilities, separation and dissolution, spousal and child support, child custody, adoption, and other related issues affecting the family unit.

LA321 Children Law (3 credits)

This course focuses on the legal rights, responsibilities, and disabilities of parents and children in the American legal system. Topics cover the historical and philosophical background and development of juvenile court, delinquency, deprivation, status offenses, and dependency in Juvenile Court, abuse and neglect laws, foster care, and students, and issues related to adolescents including sex-related medical treatment and informed consent to medical care.

LA322 Children's Rights in International Law (3 credits)

This course focuses both the theory and practice of children's rights with particular reference to the UN Convention on the Rights of the Child. Topics cover evolution of children's human rights within the context of international law and the extent to which they have influenced the content and institutional arrangements for the promotion of human rights, specific topics include abortion; juvenile justice; corporal punishment; child soldiers; intercountry adoption; refugee children; and child sexual exploitation.

LA323 Juvenile Justice (3 credits)

This course covers the full range of criminal procedures applicable to juveniles. Topics include searches and seizures, pre-trial interrogation, confidentiality, diversion, pre-trial detention, transfer to adult court, right to counsel, sentencing, and conditions of confinement, juvenile crime, juvenile criminal records, and the handling of juvenile offenders in other countries.

LA324 Community Property Law (3 credits)

This course focuses *on* the rights and interests in assets as it relates to marriage and after separation, dissolution will be studied. It will include property classification and transmutation, methods of holding title, presumptions, and debt liabilities.

LA325 Real Estate Law (3 credits)

This course covers fundamental issues in real estate transactions, including financing, contracting, and conveyance. Topics include the structure of mortgage markets and the regulation of loan transactions; the law governing mortgages and related financing structures, foreclosure and borrower protections; construction finance; suretyship; recording and lien priorities; contracts for the purchase and sale of real estate; conveyancing issues; and title insurance.

LA326 Taxation of Estates and Gifts (3 credits)

This course examines federal taxation of wealth transmission on estate and gift taxes, estate-tax and gift-tax systems and how these two systems interact. Topics cover the inclusions in the gross estate; the

deductions permitted in arriving at the taxable estate; the determination and timing of taxable gifts; and the exclusions and deductions permitting in arriving at taxable gift.
Prerequisite: LA 314

LA327 Estate Planning (3 credits)
This course covers both fundamental estate planning concepts and current cutting-edge techniques, with an emphasis on practical considerations, such as various tax problems encountered in the planning and administration of an individual's estate. Specific topics include effective use of the marital deduction and the unified credit, lifetime gifts, testamentary trusts, valuation issues, apportioning the tax burden, the charitable deduction, deferred compensation plans, and life insurance.
Prerequisite: LA 312

LA328 Education Law (3 credits)
This course focuses on the principal legal and policy debates affecting K -12 public educations. Topics cover educational equity, equality of opportunity, and the dilemma of difference, the constitutional dimensions of school finance, school choice and market initiatives for the provision of school services, and the structures and processes for educational governance.
Prerequisite: Instructor's Consent

LA329 Sexuality and Law (3 credits)
This course covers the theoretical and doctrinal work on the legal construction and regulation of human sexuality, focusing mainly on law's response to the diversity of sexual orientation. Specific topics include nature and importance of human sexuality, law's influence on sexual identities, liberty in sexual activity and association, and the demands of legal equality in selected areas such as employment and marriage.
Prerequisite: Instructor's Consent

LA330 Insurance Law (3 credits)
This course provides an introduction to general principle of insurance law. Topics cover the economic theory of insurance and risk-bearing such as policyholder protection, insurable interest, issues of insurance coverage and interpretation, making or breaking the insurance contract, warranties and condition, insurance intermediaries, and the duties and responsibilities of insurers, policyholders and defense lawyers, claims and subrogate and contribution; different types of insurance policies, including health and property insurance, and insurance policies covering legal liability.
Prerequisite: Instructor's Consent

LA331 Health Care Law (3 credits)
This course focus on health care law related to health care professionals, patients, family members, the courts and society (political interests, social movements, legislative bodies, health funding sources). Topics cover the doctor-patient relationship, decisions for children and incompetent persons, physician and state regulation, hospital; health insurance, managed care, government health benefits, Physician liability for negligent care, alternative dispute resolution and health care.
Prerequisite: Instructor's Consent

LA332 Animal Law (3 credits)
This course examines nature legal, social, or biological of non-human animals and the laws that govern their treatment. Topics include: the historical and philosophical treatment of animals; current animal protection laws; recent political campaigns to reform animal protection laws; "standing" and the problems of litigating on behalf of animals; and commercial use of animals.

Prerequisite: Instructor's Consent

LA340 Corporation Law (3 credits)
This course examines the central issues of organizing the business enterprise and the legal consequences. Specific topics to be addressed include agency law and agency principle in contract and tort, partnership law, the nature and scope of fiduciary duties; the shareholders derivative remedy, duty of care and loyalty; insider trading and securities fraud; and changes of control, merge and takeover.
Prerequisite: Instructor's Consent

LA341 Corporation Tax (3 credits)
This course examines the federal income tax treatment of corporations and their shareholders. Topics cover corporate taxation at various transactions including transfers to controlled corporations, distributions, redemptions, liquidations, acquisitive reorganizations and divisive reorganizations/spin-offs.
Prerequisite: Instructor's Consent

LA342 International Tax (3 credits)
This course covers the "anti-deferral" provisions of the international tax system applicable to U.S. persons with overseas investments or operations. Topics include foreign currency; procedure,eligibiltiy, limitations, policy and planning of foreign tax credit; deferral, subpart F income, inbound/outbound reorganization.
Prerequisite: Instructor's Consent

LA343 Merger and Acquisition (3 credits)
This course covers the corporation law to the fundamental and some advanced topics in the law of mergers and acquisitions. Topics include the seller and buyer's perspective of merge, due diligence, financing the acquisition, valuation, and tax issues.
Prerequisite: Instructor's Consent

LA344 Unincorporated Business (3 credits)
This course provides in-depth coverage of partnerships, LLCs and other unincorporated business associations. Topics include planning transactions to avoid partnership and agency liability; fiduciary duties and fiduciary duty contracts in various entities; contracting for buyout and dissolution; asset protection issues; the special problems of law partnerships; and publicly held unincorporated firms.
Prerequisite: Instructor's Consent

LA345 Business Crime (3 credits)
This course focuses on business crime and its control. Topics include individual/entity liability, fraud, sanctions, and prosecutorial tools: grand jury, search warrants, and compelled production of document: attorney-client privilege.
Prerequisite: Instructor's Consent

LA346 Labor Law (3 credits)
This course examines the law governing collective labor relations in the private sector with primary focus on the National Labor Relations Act. Topics include historical and comparative perspectives on labor law, as well as emerging forms of worker organization, union strategies,

organizing and elections, the duty to bargain, economic weapons available to workers, and enforcement of labor contracts.
Prerequisite: Instructor's Consent

LA347 Employment Law (3 credits)
This course focuses on the law governing the employment relationship and employment discrimination. Topics include the employment contract, the evolution of the common law doctrine of employment at will, wages and hours regulation, employee privacy, post-termination restraints, employment discrimination, race/color, national origin and citizenship, religion, sex, and gender and age discriminations.
Prerequisite: Instructor's Consent

LA348 Employee Benefits Law (3 credits)
This course focuses on the tax, labor, and other regulatory and policy aspects of employee benefit plans. Topics include the principal tax and labor statutes governing eligibility, vesting, benefit accruals, nondiscrimination, deductions, funding, plan distributions, reporting and disclosure, fiduciary responsibility, prohibited transaction, and plan termination. Remedies and preemption under ERISA are also examined in detail.
Prerequisite: Instructor's Consent

LA349 Internet Law (3 credits)
This course examines fundamental legal issues raised by the advent of the Internet as an international communications mechanism, Topics include contracting in electronic environment, defamation, factual misstatements, obscenity and indecency, privacy and related issues, copyright, trademark an unfair competition, patents, regulatory and procedural issues, security law and internet.
Prerequisite: Instructor's Consent

LA350 Security Law (3 credits)
This course focuses on Federal law and the rules of the Securities and Exchange Commission concerning the issuance and trading of securities; securities law liabilities; legal and regulatory aspects of the securities industry generally; and emerging internet issues and the capital markets.
Prerequisite: Instructor's Consent

LA351 Sex Discrimination Law (3 credits)
This course covers the development of constitutional protection for gender discrimination and a wide range of contemporary sex discrimination issues. Topics include reproductive rights, educational equity, violence against women, employment discrimination with attention to how women's rights concerns intersect with issues of race, class, and sexual orientation.
Prerequisite: Instructor's Consent

LA352 International Economic Law (3 credits)
This course focuses on the public international law of international trade embodied in U.S. legislation, the General Agreement on Tariffs and Trade (GATT), the World Trade Organization (WTO) and International Monetary System. Topics include fair and unfair trade, and definitions and remedies concerning dumping, subsidies, safeguards, voluntary restraint agreements and the response of international regulators to the global crisis of credit.

Prerequisite: Instructor's Consent

LA353 Administrative Law (3 credits)
This course examines legal doctrines that govern federal agencies, the processes by which legislative and administrative policy is translated into law and applied by the responsible administrative agencies. Topics include analysis of informal and formal procedures, separation of powers, delegation, statutory construction, rule making and adjudication.
Prerequisite: Instructor's Consent

LA360 Intellectual Property Law (3 credits)
This course gives an overview of the U.S. legal systems that protect creations of the mind: inventions, trade secrets, artistic creations, computer software, brand names, and image/persona, with primary focus on patent, copyright, trademark, and trade secret law. It serves as a basic building block for more advanced intellectual property courses.
Prerequisite: Instructor's Consent

LA361 International Intellectual Property Law (3 credits)
This course covers the public international intellectual property law and the acquisition and enforcement of intellectual property rights internationally by private rights holders. Specific topics include treatment of international and regional industrial property registration agreements, wisdom of harmonization, issues related to parallel importation, and access to essential medicines and Litigation issues, such as question of applicable law, conflict of laws, and consolidated litigation.
Prerequisite: Instructor's Consent

LA362/BA302 Patent Law (3 credits)
This course focuses primarily on substantive patent law and various aspects of the patent system, including the law governing patentability and the law concerned with enforcing patent rights. Topics include patent claim interpretation, equivalence, prior art, issues of patent validity, infringement, the application process, and litigation the rights, obligations, and limits of all parties.
Prerequisite: Instructor's Consent

LA363 Trademark Law (3 credits)
This course provides an introduction to the principles, doctrines, and policies of U.S. trademark law and related areas of unfair competition. Topics include subject matter of trademark protection, concurrent use, registration, infringement, reverse confusion and lawful unauthorized use.
Prerequisite: Instructor's Consent

LA364 Copyright Law (3 credits)
This course provides an introduction to the principles, doctrines, and policies of U.S. copyright law, the principal legal regime governing rights in original works of authorship. Topics include the requirements for protection, the rights afforded by copyright, the acts that constitute infringement of those rights, and the remedies available for such infringement.
Prerequisite: Instructor's Consent

LA365 International Copyright Law (3 credits)
This course examines the principal legal doctrines affecting copyright practice around the world, in both transactional and litigation settings. Specific topics to be addressed include copyright and neighboring right treaties, trade arrangements, territoriality principle, protectibility of US works in other countries and Protectibility of foreign works in the US, and protection under copyright and neighboring rights.
Prerequisite: Instructor's Consent

LA366 Innovation Policy (3 credits)
This course covers the theoretical background of innovation policies and interaction between public policy and innovation. Topics include innovation system and competitive process, technology policy in knowledge-based economy and asynchronic technologies, military innovation diffusion, university-industry relationship and regional innovation systems, and research and development tax incentives.
Prerequisite: Instructor's Consent

LA380 Sports Law (3 credits)
This course focuses on the regulation of the professional sports labor market and legal issues surrounding and governing sports. Topics cover regulation of agents, sports franchises and sports leagues, sports torts, sports crimes, disability and sports, drop and sports, international sports issues, antitrust and labor in sports, intellectual property in sports, alternative dispute resolution in sports, religion and sports.
Prerequisite: Instructor's Consent

LA381 Environmental Law (3 credits)
This course focuses on laws regulating the use and preservation of natural resources and protection of the environment. Topics include Environment society, concept, definition and history, pollution control, endangered species, freshwater resources & biological diversity, and hazardous substances and activities.
Prerequisite: Instructor's Consent

LA382 Immigration Law (3 credits)
This course surveys U.S. immigration and citizenship law. Topics include citizenship; naturalization; Congress' plenary immigration power; immigration federalism; and the rights of noncitizens under equal protection and due process, eligibility and procedures to immigrate, work visas, political asylum, deportation and limits on constitutional rights.
Prerequisite: Instructor's Consent

LA383 Art Law (3 credits)
This course surveys U.S. immigration and citizenship law. Topics include citizenship; naturalization; Congress' plenary immigration power; immigration federalism; and the rights of noncitizens under equal protection and due process, eligibility and procedures to immigrate, work visas, political asylum, deportation and limits on constitutional rights.
Prerequisite: Instructor's Consent

LA384 Protection of Personality (3 credits)
This course examines the theoretical foundations and common law development of the range of tort remedies designed to afford protection to the interests in personality. Topics include defamation, the right of privacy, and torts involving emotional distress and harassment.

Prerequisite: Instructor's Consent

LA385 Law in the Bible (3 credits)
This course examines the law in the Bible. Topics include law as the divine commands, the divine ordering of the creation, God's historical plan, wise maxims for successful living, the superseding of law by grace and divine freedom.
Prerequisite: Instructor's Consent

LA395 Legal Writing and Research (3 credits)
A supervised research and writing course that covers subject matter comparable to that in other academic activities with minimum faculty guidance.
Prerequisites: Second year standing; approval of a professor-advisor

LA396 Advanced Bar Studies (3 credits)
This course is provides students with an intensive substantive review of selected legal material routinely tested on the bar examination. The course uses problems and exercises in a bar examination format to familiarize students with techniques for answering bar examination multiple-choice questions
Prerequisites: Second year standing; approval of a professor-advisor

LA397 Independent Study (3 credits)
This course is provides students with different areas of practical litigation and court experience, participate in the practical application of legal principles, practice in preparing briefs, and making an oral argument etc.
Prerequisites: Second year standing; approval of a professor-advisor

LA398 Special topics in Law (3 credits)
The course provides an opportunity for a faculty member or a visiting scholar to offer a relatively new subject in law that is not currently available in the catalog. It may consist of lectures, seminars, reading, homework, presentation and project determined by the instructor. Can be taken repeatedly.
Prerequisite: Graduate Standing

LA399 Graduate Legal Research (3 credits)
By arrangement with a research advisor. Conduct independent research of an approved topic in business administration. Can be taken repeatedly.
Prerequisite: Graduate standing

Tri-Valley University

School of Medicine

School of Medicine at Tri-Valley University has Department of Health Care and Nurse and Department of Pharmacy. The Department of Health Care and Nurse program at Tri-Valley University offers Bachelor of Science Degree in Nurse and Health Care (BSNS), Master of Science Degree in Nurse (MSNS), and Health Care (MSHC); Ph.D. in Healt Care and Nurse. The Department of Pharmacy offer Doctor of Pharmacy (Pharm. D.) Degree.

School of Medicine

Department of Health Care and Nurse

The Department of Health Care and Nurse program at Tri-Valley University is a Christ-centered, excellence-driven and future-directed program fostering personal and professional excellence in caring for individual, family, and community health needs. Department of Health Care and Nurse at Tri-Valley University offers degree programs: B.S. in Nurse (BSNS), Master of Science in Nurse (MSNS), Master of Science in Health Care (MSHC); and Ph.D. in Heath Care and Nurse. Practice Nurse Certificate program is also offered as the non-degree program. The Department of Health Care and Nurse program has three major emphasis areas: Nurse Practitioner (NP), Health Care Administrator and Nurse Educator. Nurse Practitioner (NP) major emphasizes health promotion, health maintenance and care of families and individuals. Health Care Administrator and Nurse Educator majors mainly prepare students to assume leadership, teaching and educating roles in advanced practitioner positions. The B.S in nurse program requires a total of 120 trimester units of study. Master of Science in Nurse and Health Care Program requires 36 units of courses and/or research work. Ph.D. in Health Care and Nurse Program requires a total of 60 units of graduate course and research work beyond master degree. Nurse Certification program requires 4 courses with minimum two courses from the major field.

- **Bachelor of Science in Nurse (BSNS)**
- **Master of Science in Nurse (MSNS)**
- **Master of Science in Health Care (MSHC)**
- **Ph.D. in Health Care and Nurse (Ph.D. in HN)**
- **Nurse Certificate**
- **Health Care and Nurse Courses**

School of Medicine

Department of Health Care and Nurse

Bachelor of Science in Nurse (BSNS)

I. Program Description

The Bachelor of Science in Nurse (BSNS) program at Tri-Valley University is to equip student with multifaceted and extensive knowledge in the areas of liberal education, professional values, core competencies and knowledge in health care at a Christian learning environment. The program prepares the baccalaureate graduate to function as a provider of care to individuals, families, groups, communities as well as a member of the profession and a manager and/or coordinator of care. Additionally, the baccalaureate program prepared nurse background in research and management skills which lays the foundation for leadership positions and graduate education.

The total unit requirement for the B.S. degree is 120 trimester units among which 60 units (20 courses) are core courses from nurse concentration area. A minimum of 45 units (15 courses) are from general education including humanities/fine arts, behavioral/social sciences, communications and natural sciences. The rest are elective courses. The Bachelor of Science degree normally can be earned over a period of nine trimesters or in 4 years.

II. Admission Requirements

The applicant for Bachelor of Science in Nurse (BSNS) degree program must be in possession of a high school diploma or its equivalent with a minimum of "B" or 3.0 GPA. Applicants whose native language is not English and who have not earned a degree from an appropriately accredited institution where English is the principal language of instruction must receive a minimum score of 500 on the paper-based Test of English as a Foreign Language (TOEFL).

III. Transfer Units

Students are allowed to transfer a maximum of 60 units from another recognized institution towards the B.S. degree program at TVU. The minimum required grade is B. Transfer credit must be from an appropriately accredited institution.

IV. Bachelor of Science in Nurse Curriculum

The total units required for BSNS degree are 120 trimester units (40 courses) of courses and research work among which 60 units (20 courses) are core courses in nurse area. At least 45 units (15 courses) are general education, and the rest can be elective courses. Among the 60 unit (20 courses) of course in nurse major area, at least 30 units (10 courses) must be upper-level courses (course number above NS200), 3 low-level courses.

E. The minimum required 45 units (15 courses) in general education must include the following minimum requirement from each of the listed areas:

a. Biophysical Sciences (3 courses)

SCI 100	Fundamentals of Physiology
SCI 102	Introduction to Psychology
SCI 103	Introduction to Biology

b. Math & Physics (3 courses)

MATH 101	Elementary Algebra
MATH 106	Probability and Statistics

c. Social Sciences (3 courses)

HIS100	History of the United States
CHR100	Old Testament Message
CHR101	New Testament Message

d. English (3 courses)

ENG100	Composition and Reading
ENG101	Composition and Research
ENG103	Public Speaking

e. Humanities & Communication (4 courses)

HUM100	Principle of Ethics
HUM106	Personal & Professional Etiquette
COM101	Intercultural Communication
COM100	Interpersonal Communication

F. Low-Level Required Courses (3 courses)

HN 100	Public Health
HN 101	Nurse in Christian Service
HN 102	Fundamentals of Nurse Process

G. Upper-Level Required Courses (10 courses)

HN 200	Professionalism of Nursing Practice
HN 201	Health Assessment
HN 202	Primary Health Care Nursing
HN 203	Family Nursing
HN 204	Introduction to Research
HN 205	Nurse Leadership and Management
HN 206	Nurse-Client Relationships
HN 207	Pharmacology
HN 208	Legal Aspects of Health Care Provision in California
HN 209	Nursing Care of Adults Theory and Practicum

H. Elective Courses (12 courses), can be combined with nurse elective courses, general courses, or courses from other departments, such as Business, Law departments.

HN 210	Woman's Health Across the Lifespan
HN 211	Nursing Care of Children
HN 212	Nursing Care of Childbearing Family
HN 213	Mental Health Nursing Theory and Practicum
HN 214	Nursing Care of Older Adults Theory and Practicum
HN 215	Pediatric Nursing
HN 216	Preventing Family Violence and Abuse

BSNS Sample Curriculum

YEAR	TRIMESTER TERM (Total 120 Units)			
	FALL	**SPRING**	**SUMMER**	UNITS
FRESHMAN	**HN 100 Public Health** **ENG100** Composition and Reading **SCI102** Introduction to Psychology	**HN 101 Nurse in Christian Service** **SCI 103** Introduction to Biology **CHR100** Old Testament Message **COM100** Interpersonal Communication	**HN 102 Fundamentals of Nurse Process** **SCI 100** Fundamentals of Physiology **CHR101**New Testament Message	**30**
SOPHOMOE	**ENG103** Public Speaking **COM101** Intercultural Communication **HN 200 Professionalism of Nursing Practice** **HIS100** History of the United States	**MATH101**Elementary Algebra **HN 201** Health Assessment **ENG101**Composition and Research	**HN 202 Primary Health Care Nurse** **MATH106**Probability and Statistics **HUM100** Principle of Ethics	**30**
JUNIOR	**HUM106** Personal & Professional Etiquette **HN 203** Family Nursing **HN 204** Introduction to Research **HN 205** Nurse Leadership and Management	**HN 206** Nurse-Client Relationships **NS207 Pharmacology** **HN 208** Legal Aspects of Health Care Provision in California	**HN 209** Nursing Care of Adults Theory and Practicum **HN 210** Woman's Health Across the Lifespan **HN 211** Nursing Care of Children	**30**
SENIOR	**HN 212 Nursing Care of Childbearing Family** **BA 208** Fundamental of Human Resource Management **HN 213** Mental Health Nursing Theory and Practicum **BA 209** Introduction to Employment Law	**HN 214** Nursing Care of Older Adults Theory and Practicum **HN 215** Pediatric Nursing **BA212** Information Technology	**HN 216** Preventing Family Violence and Abuse **HN 298** Nurse Internship **BA201**Basic Business Communication	**30**

V. Graduation Requirements

For BSNS degree, students need to maintain an overall grade point average (GPA) of 3.0.

Tri-Valley University

School of Medicine

Masters of Science in Nurse Program

I. Objective of Program

The Masters of Science in Nurse (MSNS) program at Tri-Valley University mainly prepares nurses with the complex practice skills and theoretical knowledge necessary for advanced nursing practice in the contemporary health care system. The three concentration areas of study are: Nurse Practitioner (NP), Nurse Administrator, and Nurse Educators. Nurse Practitioner practice is based on an epidemiological approach to health problems, an understanding of family and community systems, the management of resources and economics, and the use of appropriate technology. Nurse Administrator and Nurse Educator prepare the Nurse Administrator, Manager, and/or Executive, as well as role of teaching for diverse practice settings in the healthcare system. The program prepares nurses for leadership roles in advanced family nurse practitioner positions, or managers of patient care services within a variety of institutions or health care agencies. Graduates from the program will be qualified to find employment in nursing education and leadership in a variety of hospital, community-based, and health care settings.

II. Admission Requirements

For admission to the Master of Science in Nurse (MSNS) program, the applicant must have a bachelor's degree with a minimum GPA of "3.0" or "B".

Students are allowed to transfer a maximum of nine (9) graduate semester units from another recognized institution towards the Master of Nurse degree program at TVU. The minimum required grade is B.

III. Master of Science in Nurse (MSNS) Curriculum

The total units required Master of Science in Nurse (MSNS) program is 36 semester units of graduate courses and research work beyond the bachelor degree. The 36 semester units include a total of 12 courses. Among the 12 courses, 5 courses are the required courses, 3 courses are from the selected major field, and 3 courses are elective course, one course must be independent study.

Master of Science in Nurse (MSNS) Curriculum: Total 36 Semester Units			
33 Units Course Work (11 Courses)			3 Units Research Work
Required Course	Major Course	Elective Course	Independent study or Graduate research
5 courses	3 Courses	3 Courses	
15 Units	9 Units	9 Units	

The five required course (15 semester units) for Master of Nurse program are as follows:

Course #	Course Name	Required Course	Units
HN 300	**Nursing Theory**	X	3
HN 301	**Ethical Dimensions of Nursing**	X	3
HN 302	**Interpersonal and Counseling Skills**	X	3
HN 303	**Theory of Health Care**	X	3
HN 304	**Nurse Science**	X	3
	5 (15 semester units) Required Courses		

Three (3) core courses are required from the chosen emphasis area of study (9 semester units). The three emphasis areas of study are as follow.

- Area A: Nurse Practitioner (NP)
- Area B: Nurse Administrator
- Area C: Nurse Educator

Emphasis Area A Nurse Practitioner (NP) Courses

Course #	Course Name	Core Course	Units
HN 320	**Management of Family Health**	X	3
HN 310	**Pathophysiology**	X	3
HN 311	**Pharmacotherapeutics**	X	3
HN 312	**Family Nurse Theory**	X	3
HN 313	**Family Nurse Practicum**	X	3
HN 314	**Medical Surgery Nursing**	X	3

Emphasis Area B Nurse Administrator

Course #	Course Name	Core Course	Units
HN 320	**Management of Family Health**	X	3
HN 321	**Health Care Management**	X	3
HN 322	**Management of Health Care Resources**	X	3
HN 323	**Leadership and Management Skills**	X	3
HN 324	**Nursing Administration Practicum**	X	3

Emphasis Area C Nurse Educator

Course #	Course Name	Core Course	Units
HN305/ LA331	**Health Care Law**	X	3
HN330/ ED330	**Educational Methodology**	X	3
HN331/ ED331	**Theories in Teaching and Learning**	X	3
HN332/ ED332	**Technology in Adult Education**	X	3
HN 333	**Nursing Education Practicum**	X	3

IV. Master of Science in Nurse (MSNS) Graduation Requirements

For MSNS degree, students need to complete total of 36 trimester units of graduate course and/or research work and maintain an overall grade point average (GPA) of 3.0.

Department of Health Care and Nurse

Master of Science in Health Care Program

I. Objective of Program

The Master of Science in Health Care (MSHC) program at Tri-Valley University mainly prepares students with the complex practice skills and theoretical knowledge necessary for practice in the contemporary health care system involving not only physicians and nurses, but also physician assistants, nurse practitioners, physical therapists, occupational therapists, pharmacists, and social workers. The two concentration areas of study are: Health Care Management and Medical Assistant, and Physical Therapy. While the health care management emphasizes the management and leadership skills in the healthcare industry, the medical assistant concentration area provides the training and knowledge required to work in a medical office.

II. Admission Requirements

For admission to the Master of Science in Health Care (MSHC) program, the applicant must have a bachelor's degree with a minimum GPA of "3.0" or "B".

Students are allowed to transfer a maximum of nine (9) graduate semester units from another recognized institution towards the Master of Science degree program at TVU. The minimum required grade is B.

III. Master of Science in Health Care (MSHC) Curriculum

The total units required Master of Science in Health Care (MSHC) program is 36 semester units of graduate courses and research work beyond the bachelor degree. The 36 semester units include a total of 12 courses. Among the 12 courses, 5 courses are the required courses, 3 courses are from the selected major field, and 3 courses are elective course, one course must be independent study.

<table>
<tr><th colspan="4">Master of Science in Health Care (MSHC) Curriculum</th></tr>
<tr><td colspan="3">33 Units Course Work (11 Courses)</td><td>3 Units Research Work</td></tr>
<tr><td>Required Course</td><td>Major Course</td><td>Elective Course</td><td rowspan="3">Independent study or Graduate research</td></tr>
<tr><td>5 courses</td><td>3 Courses</td><td>3 Courses</td></tr>
<tr><td>15 Units</td><td>9 Units</td><td>9 Units</td></tr>
<tr><td colspan="4">Total 36 Trimester Units</td></tr>
</table>

The five required courses (15 semester units) for M.S. in Health Care program are:

Course #	Course Name	Required Course	Units
HN 310	**Pathophysiology**	X	3

HN 351	**Medical Law and Ethics**	X	3
HN 302	**Interpersonal and Counseling Skills**	X	3
HN 303	**Theory of Health Care**	X	3
HN 323	**Leadership and Management Skills**	X	3

Three (3) core courses are required from each chosen emphasis area of study (9 semester units). The two emphasis areas of study are: Area A: Health Care Management; Area B: Medical Assistant; Area C Physical Therapy.

Emphasis Area A Health Care Management Courses

Course #	Course Name	Core Course	Units
HN 320	**Management of Family Health**	X	3
HN 321	**Health Care Management**	X	3
HN 322	**Management of Health Care Resources**	X	3
HN 323	**Leadership and Management Skills**	X	3

Emphasis Area B Medical Assistant

Course #	Course Name	Core Course	Units
HN 351	**Medical Coding**	X	3
HN 352	**Medical Office Procedures**	X	3
HN 353	**Medical Insurance**	X	3
HN 354	**Medical Assisting I**	X	3
HN 355	**Medical Assisting II**	X	3

Emphasis Area C Physical Therapy

Course #	Course Name	Core Course	Units
HN 360	**Physical Rehabilitation**	X	3
HN 361	**Pharmacology in Rehabilitation**	X	3
HN 361	**Therapeutic Exercise**	X	3

IV. Master of Science in Health Care (MSHC) Graduation Requirements

For MSHC degree, students need to complete total of 36 trimester units of graduate course and/or research work and maintain an overall grade point average (GPA) of 3.0.

Tri-Valley University

School of Medicine

Ph.D. in Health Care and Nurse Program

❖ Objective of Program

The Ph.D. in Health Care and Nurse Program at Department of Health Care and Nurse at Tri-Valley University primarily provides leadership skills in health care and develops administrative skill in the management of health care resources. The main major field concentrates on healthcare administrator and educator.

The primary objectives of the Ph.D. program in administrator and educator are:

(1) Engage in scholarship that will add new knowledge, research, critical thinking and best practices in nursing;

(2) Influence professional values and practice, health care policy, engage in the process of ethical behavior and decision making;

(3) Connect theories from nursing, education, leadership and related fields to the care of clients, instruction of students, and the practice of leadership, teach and mentor other nurses and nurse scholars;

(4) Analyze differences in cultural norms and health care practices when providing education and health care for groups of varied racial, ethnic, and socioeconomic backgrounds, communicate at a local, state, regional, national and global level of professionals while working in collaborative and interdisciplinary relationships;

(5) Critique comprehensive, holistic plans of care that address the health education, health promotion and disease prevention needs of client populations considering community and global perspectives, demonstrate service learning with Christian values in the role of educator and leader.

❖ Length of Study

The doctorate degree normally is earned over three to five years or the equivalent. However the Ph.D. in Health Care and Nurse Degree must be completed in no fewer than two years from the date of initial enrollment and no more than ten years from the date of initial enrollment.

❖ Admissions

➢ Admission Requirement

A Master's degree in the same or related field earned at an appropriately accredited institution with a minimum GPA of "3.0" or "B" is required for admission to a doctoral

degree program besides the admission requirement in the general admission requirement for doctorate program.

- **Transfer of Credit.**

  A maximum of 12 units of credit for appropriate master's or doctorate-level course work from another accredited institution can be transferred towards the doctorate degree program at TVU. The minimum GPA requirement for transferred credit is B.

- **Tuition and fee**

  Tuition and fee as well as refund policy for course and research work for Ph.D. of Health Care and Nurse at TVU are the same as the tuition fee per units specified in the university general tuition and fee list. There is a graduation fee of $150 when the student completes the course and research work and file for graduation.

❖ Degree Requirement

The Ph.D. in Health Care and Nurse Program requires both graduate course work and research work at a total of 60 units beyond M.S. degree. Among the 60 units, 15 units need to be graduate research work and 45 units of course work. In general for graduate research, the Ph.D. study requires a Qualify exam and an approved dissertation.

➢ Course Work

The Ph.D. in Health Care and Nurse Program requires at least 45 units (15 courses) of course work beyond M.S. degree in one major and two minor fields. The major field is health care administrator and educator and minor field is Family Nurse Practitioner (FNP). The other minor can be from the other department or disciplinary of study, such as Business or Computer Science. Among the 15 required courses, 7 Courses (21 Units) need to be from the major field of study, 4 course (12 units) from each minor field.

- Major: 7 Courses 21 units
- Minor I 4 Courses 12units
- Minor II 4 Courses 12 units

➢ Research Work

For Ph.D. requirement, students need to conduct quality research work in the field toward an approved dissertation. A total of 15 units research work under the guidance of a chair faculty member in the major field are required.

- Qualify Exam: Prior to entering into doctorate research work, student needs to take a Qualify exam. There is no time requirement for a student admitted in Ph.D. program with a M.S. degree to take Qualify exam to start the research work. Student with a

Master degree normally take the exam at the second tri-meter of enrollment. The Qualify Exam normally is in close book format. If a student fails the first time, he/she can try another time. If he/she fails the second time, it will disqualify him/her to pursue the Ph.D. study.

- Dissertation and Dissertation Committee: The dissertation should be based on original, or applied research. The topic of the dissertation shall be approved by the chair dissertation advisor. For the doctoral degree, a supervisory dissertation committee of at least three faculty members must be formed for each student. At least one committee member must be from the major field serving as the chair dissertation advisor, and at least one committee member must be outside the department. All committee members must have demonstrated appropriate scholarship, experience, or practice in the subject area.

- An oral defense of the doctoral candidate's final project or dissertation with the dissertation committee is required. This may be conducted in person or at distance. No Ph.D. will be awarded by TVU unless a majority of the dissertation committee members approves the dissertation.

❖ Curriculum

The Ph.D. in Health Care and Nurse Program requires a total of 60 units of graduate study beyond M.S. degree. The major field of study in Nurse is: Nurse Administrator and Educator; and minor field is Family Nurse Practitioner.

<table>
<tr><th colspan="4">Ph.D. in Health Care and Nurse Curriculum</th></tr>
<tr><td colspan="3">45 Units Graduate Course Work (15 Courses)</td><td>15 Units Research Work</td></tr>
<tr><td>Major Field</td><td>Minor I</td><td>Minor II</td><td rowspan="3">An approved Dissertation & at least one publication (Conference or Journal paper)</td></tr>
<tr><td>7 courses</td><td>4 Courses</td><td>4 Courses</td></tr>
<tr><td>21 Units</td><td>12 Units</td><td>12 Units</td></tr>
<tr><td colspan="4">Total 60 Semester Units</td></tr>
</table>

Major Area: Health Care Administrator and Educator

Course #	Course Name	Core Course	Units
HN 320	**Management of Family Health**	X	3
HN 321	**Health Care Management**	X	3
HN 322	**Management of Health Care Resources**	X	3
HN 323	**Leadership and Management Skills**	X	3
HN 324	**Nursing Administration Practicum**	X	3

HN305/ LA331	**Health Care Law**	X	3
HN330/ ED330	**Educational Methodology**	X	3
HN331/ ED331	**Theories in Teaching and Learning**	X	3
HN332/ ED332	**Technology in Adult Education**	X	3
HN 333	**Nursing Education Practicum**	X	3
HN351	**Medical Law and Ethics**	X	3
HN352	**Medical Office Procedures**	X	3
HN 353	**Medical Insurance**	X	3

Minor I: Family Nurse Practitioner (FNP) Courses

Course #	Course Name	Core Course	Units
HN 320	**Management of Family Health**	X	3
HN 310	**Pathophysiology**	X	3
HN 311	**Pharmacotherapeutics**	X	3
HN 312	**Family Nurse Theory**	X	3
HN 313	**Family Nurse Practicum**	X	3

❖ Graduation Requirements

In order to be awarded the Ph.D. degree, students need to maintain an overall grade point average (GPA) of 3.0 in course work. For research, student needs to write a dissertation approved and signed by the dissertation committee members. To reflect the quality of the research, student is encouraged to have at least one publication at the conference or per reviewed journal.

Department of Health Care and Nurse Courses

Course Number Convention:

HN100-199	Lower-level Undergraduate Courses
HN200-299	Upper-Level Undergraduate Courses
HN300-309	Required Courses for Master of Nurse
HN310-319	Family Nurse Practitioner Courses
HN320-329	Nurse Administrator Course
HN330-339	Nurse Educator Course
HN350-370	Health Care Courses
HN380-399	Clinical Practice and Research

HN 100 Public Health (3 credits)
The course focuses on important public health issues facing today's communities. Topics cover epidemiology, community organization, program planning, health care, mental health, environmental health, drugs, safety and occupational health.

HN 101 Nurse in Christian Service (3 credits)
This course provides a study of the history of nursing and philosophy as well as an examination of avenues of service as a Christian nurse, with a focus on nursing on the mission field.

HN 102 Fundamentals of Nurse Process (3 credits)
This course focuses on developing basic nursing skills as well as applying beginning physical assessment skills and therapeutic communication techniques. Topics cover utilization of the nursing process in giving care to adult and geriatric patients.

HN 200 Professionalism of Nursing Practice (3 credits)
This course focuses on concepts essential for professional role development and processes that enhance nursing practice. Topics cover community-based nursing, care of the family, preoperative nursing, teaching/learning principles, socioeconomic, political, and legal aspects of nursing, advocacy, ethics and current issues.

HN 201 Health Assessment (3 credits)
This course covers the assessment of health status with emphasis on normal findings, cultural, ethnic, and age variations of clients. Students will develop skills of history taking, inspection, palpation, percussion, and auscultation.

HN 202 Primary Health Care Nursing (3 credits)
This course covers the theory in primary health care settings. Topics include implementation of expanded role of professional nurse in primary care, major primary care health problems, health monitoring, continuity of care, epidemiological concepts, risk appraisal, health teaching, counseling, motivation.

HN 203 Family Nursing (3 credits)
This course covers the theoretical foundations of family nursing and its application to the nursing process with families.

HN 204 Introduction to Research (3 credits)
This course provides an introduction to research methodology in nurse. Topics cover critique of research literature, application of findings to nursing practice, and identification of clinical problems for study.

HN 205 Nurse Leadership and Management (3 credits)
This course provides an introduction to the organizational theory and socio-economic political trends in nursing leadership and management. Topics cover skills and competencies for the frontline nurse manager with-in and beyond the wall of the acute care setting, application of organizational theory in health care settings.

HN 206 Nurse-Client Relationships (3 credits)
This course focuses on the nurse-client communication and application to clinical nursing practice. Topics include origins of a variety of communication styles, cultural and mental health concepts related to communication.

HN 207 Pharmacology (3 credits)
This course focuses on drug prototypes from major drug categories. Topics include the major drug classifications, mechanism of drug action, pharmacodynamics calculations, nursing assessments, and interventions of drugs commonly prescribed.

HN 208 Legal Aspects of Health Care Provision in California (3 credits)
This course explores the legal aspects of health care provision in California. Topics cover intentional torts, negligence and malpractice, practice acts, ethical-legal conflicts, and litigation procedure.

HN 209 Nursing Care of Adults Theory and Practicum (3 credits)
This course covers the theoretical, scientific and professional basis of nursing care of adults and their families with alterations in health patterns and development. The practicum provides students with opportunities to utilize the nursing process and practice the roles of providing and coordinating care in an acute care setting.

HN 210 Woman's Health Across the Lifespan (3 credits)
This course covers the health issues women face across their lives. Topics focus on developing knowledgeable users of research on causes of and risk factors for health problems.

HN 211 Nursing Care of Children (3 credits)
This course covers the theoretical basis for professional nursing practice with children and their families. Topics include health-related needs, development, and responses to alterations in health. The clinical component provides opportunities to utilize the nursing process while providing individualized care congruent with age, stage of growth and

development, and health status.

HN 212 Nursing Care of Childbearing Family (3 credits)
This course covers the theoretical basis for professional nursing practice with childbearing families. Topics address and apply the nursing process to the development and responses to alterations in health with emphasis on childbearing as a family experience.

HN 213 Mental Health Nursing Theory and Practicum (3 credits)
This course covers the conceptual basis for professional nursing with clients in the mental health field. Topics include psychiatric nursing services to individuals, within the context of their families, with an emphasis on communication, health issues, development, critical thinking, ethics, and role development.

HN 214 Nursing Care of Older Adults Theory and Practicum (3 credits)
This course covers the theoretical and clinical basis for professional nursing care of older adults and their families. Topics address health related fields, developmental tasks, responses to health, acute and chronic illness concepts, and use of the nursing process in diverse health care settings.

HN 215 Pediatric Nursing (3 credits)
This course focus on the child in the family and the necessary intervention to promote adaptation of the child to attain, maintain or regain an optimum level of health. Topics cover stressors affecting the child on health-illness continuum, nursing theory on application of nursing process in providing preventive, supportive and restorative therapeutic modalities in a variety of settings.

HN 216 Preventing Family Violence and Abuse (3 credits)
This course explores major theories used to explain family violence. Topics cover preventing abuse and intervening with victims across the age span; social, policy, and legal issues associated with family violence.

HN 298 Nurse Internship (3 credits)
The student work through the project with the period of research, implementation, testing, report writing, and related procedures, and meet with the advisor regularly.

HN 299 Research Projects (3 credits)
Student proposes a research topic approved by the project advisor. The student work through the project with the period of research, implementation, testing, report writing, and related procedures, and meet with the advisor regularly.

HN 300 Nursing Theory (3 credits)

This course examines historical and contemporary theoretical bases for advanced nursing practice. Topics include analysis of selected models and theories from nursing and other disciplines, the concepts of person, health, environment, spirituality, and nursing are explored.

HN 301 Ethical Dimensions of Nursing (3 credits)

This course examines the ethical issues in contemporary nursing practice from the perspective of nursing and genetics as a moral enterprise. Topics cover nurses making informed and responsible choices that shape the future of society as well as the nursing profession, traditional and contemporary ethical positions.

HN 302 Interpersonal and Counseling Skills (3 credits)

This course provides an introduction to understanding and developing effective interpersonal communication skills and relationships in the role of educator and leader/administrator. Topics cover the processes, principles, and techniques associated with counseling individual and groups, negotiating, grievance, stress management, and group dynamics, conflict and conflict resolution, interviewing, listening, and group leadership skills.

HN 303 Theory of Health Care (3 credits)

This course focuses on models and theories in nursing and health care. Topics include foundation of US health care delivery, health care providers and professionals, financing and reimbursement methods, outpatient services and primary care, hospitals, managed care and health network, long-term care services and health policy.

HN 304 Nurse Science (3 credits)

This course focuses on the science of nurse and health care. Topics cover application and synthesis of knowledge, theory, and research to provide quality health care, initiate change, and improve nursing practice.

HN 305/LA331Health Care Law (3 credits)

This course focuses on health care law related to health care professionals, patients, family members, the courts and society. Topics cover the doctor-patient relationship, decisions for children and incompetent persons, physician and state regulation, hospital; health insurance, managed care, government health benefits, Physician liability for negligent care, alternative dispute resolution and health care.

HN 310 Pathophysiology (3 credits)

This course provides an overview of advanced concepts related to normal body functioning. Topics cover physiologic phenomena related to human responses to health and illness and the ability to use this knowledge to recognize the changes in normal function that are symptomatic of illness.

HN 311 Pharmacotherapeutics (3 credits)

This course focuses on the clinical application of pharmacology needed in the provision

of advanced practice nursing. Topics cover drugs commonly used in the family practice, the application of the principles of pharmacodynamics and pharmacokinetics to clinical use of drug, therapeutic dosage patterns, side effects, drug interactions, contraindications, and the use of drugs in special populations such as children, the elderly, and the pregnant patient.

HN 312 Family Nurse Theory (3 credits)
The course focuses on the conceptual and theoretical foundation for advanced nursing assessment, diagnosis, and management of selected health care concerns. Topics cover primary health care of adults and their families, important public health issues facing today's communities, epidemiology, community organization, program planning, minority health, health care, mental health, environmental health, drugs, safety, and occupational health.

HN 313 Family Nurse Practicum (3 credits)
The course focuses on the application of expanded knowledge and clinical skills in the advanced nursing management of selected health care problems of adults.

HN 314 Medical Surgery Nursing (3 credits)
The course covers provide today's nursing students with an understanding of the nurse's role in health and illness within evolving practice environments and across the spectrum of health and illness. Topics include metabolic end endocrine functions, urinary tract function, reproductive function, immunologic function, integumentary function, sensorineural function, neurologic function, musculoskeletal function and other acute problems.

HN 320 Management of Family Health (3 credits)
This course focuses on theoretical foundations and strategies to manage family health. Topics cover family theories, analyzes how families function and communicate, and shows how nurses can teach, counsel, and intervene directly with families that have a wide variety of health needs or problems.

HN 321 Health Care Management (3 credits)
This course focuses on significant issues in health care management. Topics cover hospitals, ambulatory care, medical education, personnel, financing, managed care, long-term care, mental health services, research and the role of government

HN 322 Management of Health Care Resources (3 credits)
This course examines the issues related to health care resources. Topics include reimbursement systems in health care, cost containment; spreadsheets and human resource management for the nurse in an advanced role of educator or leader/administrator across health care settings comprise the focus of this course.

HN 323 Leadership and Management Skills (3 credits)
The course focuses on the analysis, application, and integration of 21st century leadership and management skills into the behavior of the nurse in the role of educator

and leader. Topics include practical organizational and problem-solving skills, resource management and development, collaboration, team building, and communication effectiveness.

HN 324 Nursing Administration Practicum (3 credits)
The course offers guided experiences in the practice of nursing administration at lower, middle and higher levels in complex health care facilities. Settings selected based on individual student needs and course expectations.

HN 330/ED330 Educational Methodology (3 credits)
The course focuses on educational philosophy; methodology, current educational and sociological issues. Topics cover teacher preparation competence, and obligation; and practical application of philosophical and ideational concepts and imperatives.

HN 331/ED331Theories in Teaching and Learning (3 credits)
The course focuses on teaching and learning principles and theories of adult learning and educational processes. Topics cover multiple dimensions of the role of professional educator and leader, the management of educational activities, staff development, curriculum planning, design, and evaluation, and the facilitation of learning in a variety of settings.

HN 332/ED332 Technology in Adult Education (3 credits)
The course focuses on the theoretical foundations of technology-based education as applied to the adult learner. Topics cover principles of self-directed learning, course design to enhance self-direction, and faculty role, various media for efficient delivery of educational resources important to the adult learner.

HN 333 Nursing Education Practicum (3 credits)
The course offers the faculty guided experiences in nursing education to meet individual student needs. Students may select clinical experiences in client-teaching, staff education or formal nursing programs.

HN 350 Medical Law and Ethics (3 credits)
This course emphasizes health care practitioners' understanding of medical law and ethics. Topics cover form the basics: civil and criminal law, lawsuits and malpractice, negligence to advanced topics including patient confidentiality, employer/employee issues, structure of medical practices, bioethical issues, and the impact of the Health Insurance Portability and Accountability Act (HIPAA) on medical practices..

HN 351 Medical Coding (3 credits)
This course provides an introduction to medical billing and coding. Course covers the process of medical billing and coding and also includes a tutorial in the most often used medical billing and coding software—Medisoft. You will examine the ethical and legal aspects of medical billing and coding, basic medical office procedures, as well as explore the ICD-9-CM and how it is used.

HN 352 Medical Office Procedures (3 credits)

This course provides students with a comprehensive overview of the administrative tasks regularly carried out in a medical office. Topics cover the effective handling and accessing of medical records, HIPAA Privacy and Security Rules, and how the HIPAA Transaction and Code Sets Standards affect insurance claims. A wide range of health plans are identified, and the function of information technology and the use of computer programs in medical offices are discussed. Other topics include purchasing and inventory, medical laws, medical ethics, medical coding, and billing patients and insurers.

HN 353 Medical Insurance (3 credits)

This course provides a working knowledge of Medical Insurance and its applications. Emphasis is on understanding insurance essentials, including the role of the medical insurance billing specialist and the laws and ethical guidelines of the field. Medical documents, coding diagnoses, and procedures are discussed. Other topics include private payers, Blue Cross and Blue Shield, Medicaid and Medicare, TRICARE and CHAMPVA, worker's compensation and disability insurance, and hospital insurance, long-term care, and dental insurance. Finally, patient billing software is introduced and explored.

HN 354 Medical Assisting I (3 credits)

This course focuses on health care law related to health care professionals, patients, family members, the courts and society. Topics cover the doctor-patient relationship, decisions for children and incompetent persons, physician and state regulation, hospital; health insurance, managed care, government health benefits, Physician liability for negligent care, alternative dispute resolution and health care.

HN 355 Medical Assisting II (3 credits)

This course focuses on health care law related to health care professionals, patients, family members, the courts and society. Topics cover the doctor-patient relationship, decisions for children and incompetent persons, physician and state regulation, hospital; health insurance, managed care, government health benefits, Physician liability for negligent care, alternative dispute resolution and health care.

HN 360 Physical Rehabilitation (3 credits)

This course focuses on the rehabilitation management of adult patients, integrating basic surgical, medical, and therapeutic concepts to explain how to select appropriate examination procedures and to develop treatment goals and plans. Topics cover patient care, intervention strategies for rehabilitation, Orthotics, Prosthetics, and the Prescriptive Wheelchair.

HN/PH 361 Pharmacology in Rehabilitation (3 credits)

This course emphasizes how medications affect patients undergoing physical rehabilitation and focuses on how clinicians can take advantage of beneficial drug effects that complement rehabilitation, while working around side effects that can have adverse effects on patient interventions. Topics cover pharmacology of the central nervous system, skeletal muscle, drugs used to treat pain and inflammation, Autonomic and Cardiovascular

Pharmacology, Respiratory and Gastrointestinal Pharmacology, Endocrine Pharmacology, and Chemotherapy of Infectious and Neoplastic Diseases.

HN 362 Therapeutic Exercise (3 credits)

This course provides exercise guidelines for individualizing interventions for individuals with movement disorders. Now, with even more illustrations, it encompasses all of the principles of therapeutic exercise and manual therapy. Topics cover Principles of Intervention, Exercise Interventions by Body Region, Special Areas of Therapeutic Exercise including Women's Health.

HN 380 Research Methodology (3 credits)

The course covers the basic research methodology in health care. Topics include overview of the importance of data collection, research methods, application of scientific thought to research findings, and the advantages and disadvantages of quantitative and qualitative research methods. Designed to enable participants to develop skill in reading and critically evaluating medical literature and research.

HN 381 Statistics Method and Reserch (3 credits)

The course covers the basic probability and statistical concepts to inferential statistics. Students are expected to understand, evaluate, and generate clinical, biomedical, and health care services research. Course prepares student for conducting quantitative research in health care and enable students to gather data and apply experimental-design models toward improving the efficiency of pharmaceutical and health care services.

HN 398 Special topics in Nurse (3 credits)

The course provides an opportunity for a faculty member or a visiting scholar to offer a relatively new subject in nurse that is not currently available in the catalog. It may consist of lectures, seminars, reading, homework, presentation and project determined by the instructor. Can be taken repeatedly.
Prerequisite: Graduate Standing

HN 399 Graduate Research (3 credits)

By arrangement with a research advisor. Conduct independent research of an approved topic in nurse. Can be taken repeatedly.
Prerequisite: Graduate standing

Tri-Valley University
School of Medicine
Department of Pharmacy

The mission the Department of Pharmacy of School of Medicine at Tri-Valley University is to prepare students for the general practice of pharmacy with provision of the professional competencies necessary to the delivery of pharmaceutical care, as well as managing medication use systems and conduct pharmaceutical research. The Department advocates diversity and recognize the worth of all individuals.

The Department of Pharmacy offers the Doctor of Pharmacy (Pharm. D.) Degree program. The Pharm. D program is a four-year post-baccalaureate program designed to prepare students a profession career in patient-centered pharmaceutical care with professional competence. The Pharm. D program requires a total of 90 credit hours of study including 72 units of fundamental and concentrated course work in pharmacy and minimum 18 units of pharmacy practical experience.

The Department of Pharmacy is seeking "Candidate" status with Accreditation Council for Pharmacy Education (ACPE). Accreditation Council for Pharmacy Education (ACPE) is the national agency recognized by U.S. Department of Education and the Council for Higher Education Accreditation for the accreditation of professional degree programs in pharmacy and providers of continuing pharmacy education. According to American Association of Colleges of Pharmacy provision: "graduates of a class designated as having candidate status have the same rights and privileges as graduates of an accredited program".

Tri-Valley University

School of Medicine
Department of Pharmacy

Doctor of Pharmacy (Pharm. D.) Degree Program

❖ Objective of Program

The Doctor of Pharmacy (Pharm. D.) Degree Program at the Department of Pharmacy in the School of Medicine in Tri-Valley University is a post-baccalaureate program designed to provide students with the knowledge and skills necessary to manage drug therapy for patients with acute and chronic diseases, and provide medication consultation to families and caregivers, as well as to conduct pharmaceutical research within academia, industry, or governmental agencies. The Pharm. D. program at Tri-Valley University is designed to meet the needs of working pharmacists, as well as graduates of pharmacy degree programs outside of the United States jurisdiction, allowing them to build upon their pharmacy education and prepare them for clinical pharmacy practice. The Pharm. D. program mainly emphases three major areas of study: Pharmaceutical Care; Pharmaceutical Management and Pharmaceutical Sciences. The specific objectives of the Doctor of Pharmacy (Pharm. D.) Degree Program are:

(6) Prepare students a profession career in patient-centered pharmaceutical care by applying fundamental scientific and mathematical principles as well as quality improvement principles to pharmacy practice, training students to practice in an ethical and professional manner and maintain professional competence.

(7) Cultivate students' capability of managing medication use systems by working collaboratively on inter-professional teams and communicating effectively with patients, to become effective decision makers on health policies and processes for drug use in the private and public sectors and provide leadership in community, professional, and political arenas.

(8) Preparing students to conduct pharmaceutical research while preparing students for required national exams for the pharmacist licensure to become a professional pharmacist.

❖ Length of Study

Doctor of Pharmacy (Pharm. D.) Degree Program requires a total of 90 trimester credits of study, normally can be completed in 4-year or the equivalent. However the degree must be completed in no more than ten years from the date of initial enrollment.

❖ Admissions

- **Admission Requirement**

  A bachelor's degree in pharmacy from a school or college of pharmacy or related field with a minimum GPA of "3.0" or "B" is required for admission to the Pharm. D. program. Prior to matriculation, international applicants must complete and receive a Bachelor of Science degree in pharmacy from a program accredited by the country of residence. Pharmacy College Admissions Test (PCAT) score is preferred but not required. The Test of English as a Foreign Language (TOEFL) is required of all applicants whose native language is not English. Preference will be given to students with scores of at least 213 on the computer-based exam or 79–80 on the Internet-based exam. TOEFL scores must be no more than two years old at the time of application. The application package normally contains Graduate Application Form, diplomas and transcripts, resume, two recommendation letters and application fee. The Admission Committee selects students based on previous academic performance, TOEFL scores (if applicable), written applications, and letters of recommendation.

- **Transfer of Credit.**

  A maximum of 12 units of credit for appropriate master's or doctorate-level course work from an accredited institution can be transferred towards the doctorate degree program at TVU. The minimum GPA requirement for transferred credit is B.

- **Tuition and fee**

  Tuition and fee as well as refund policy for course and research work for Pharm. D. at TVU are the same as the tuition fee per units specified in the university general tuition and fee list. There is a graduation fee of $150 when the student completes the course and practical research work and file for graduation.

❖ Doctor of Pharmacy (Pharm. D.) Degree Program Curriculum

The Pharm. D. curriculum at TVU integrates courses on both principles of drug therapy in pharmaceutics, pharmacokinetics, nonprescription therapies, and the business, human relation, communication, marketing, legal aspects of pharmacy. Practical experiences in community, hospital, and other traditional pharmacy settings are required to facilitate real life application of the material. The total units required for Pharmacy (Pharm. D.) Degree Program is 90 units of course work and practical training credits among which minimum 18 units must be pharmacy practical training and research credit. The course work requirement of the Pharm. D. program curriculum is to complete 24 courses (8 courses each year) including fundamental and advanced pharmaceutical courses. The first and second year studies are mainly on the

fundamental courses preparing students basic knowledge and understanding of the areas of professional emphasis in pharmacy. The third year's course work concentrates on the application of material learned during the first two years. Therapeutics is integrated with pathophysiology to address the use of drugs in the disease process and physical assessment provides the students with hands-on opportunities to develop skills essential to monitoring drug therapy. Students hone their analytical skills with courses in research design and statistics, pharmacoepidemiology, pharmacoeconomics, and drug literature evaluation. The fourth year study mainly focuses on the pharmacy practical training and research. Introduction to pharmacy practice program is integrated in the first and second year in the curriculum.

Student can take the North American Pharmacist Licensure Examination (NAPLEX) and the Multistate Pharmacy Jurisprudence Exam (MPJE) during the 2nd or 3rd year of study, but still need to complete the advanced practice program in the curriculum requirement to graduation for licensure qualification.

Required Courses

Year	Course #	Course Name	Core Course	Units
1st Year	**PM300**	**Medical Terminology**	X	3
	PM301	**Biochemistry for Pharmaceutical Sciences**	X	3
	PM302	**Microbiology**	X	3
	PM388	**Introduction to Pharmacy Practice**	X	3
	PM304	**Pharmacy Law**	X	3
	PM305	**Communication Skills**	X	3
	PM306	**Pharmacy and the Health Care System**	X	3
	PM307	**Drug Information Resources**	X	3
	PM312	**Pharmacology I**	X	3
2nd Year	**PM310**	**Pharmaceutics**	X	3
	PM311	**Pharmacy Calculations**	X	3
	PM304	**Pharmacy Law**	X	3
	PM313	**Pharmacology II**	X	3
	PM314	**Pharmacokinetics**	X	3
	PM315	**Prescription Practice**	X	3
	PM316	**Pharmacodynamics**	X	3

	PM317	**Drug Literature Evaluation**	X	3
	PM389	**Advanced Pharmacy Practice Experience**	X	3

Third Year Courses

Course #	Course Name	Core Course	Units
PM320	**Therapeutics and Pathophysiology**	X	3
PM321	**Statistical Methods in Pharmacy**	X	3
PM322	**Health Care Entrepreneurship**	X	3
PM323	**Clinical Pharmacology**	X	3
PM324	**Clinical Pharmacokinetics**	X	3
PM325	**Pharmacoethics**	X	3
PM326	**Pharmacoeconomics**	X	3
PM389	**Advanced Pharmacy Practice Experience**	X	3

Fourth Year Courses

Course #	Course Name	Core Course	Units
PM318	**Pharmacy Management**	X	3
PM327	**Health Education Promotion**	X	3
PM319	**Patient Care Management**	X	3
PM389	**Advanced Pharmacy Practice Experience**	X	3
PM399	**Graduate Research**	X	3

❖ Graduation Requirements

In order to be awarded the Pharm. D. degree, students need to maintain an overall grade point average (GPA) of 3.0 in course work and complete 18 units of research work and/or practical training.

Department of Pharmacy Courses

Course Number Convention:

PM300-309 Fundamental Courses
PM310-319 Required Courses
PM320-above Concentrated Advanced Courses

PM 300 Medical Terminology (3 credits)

This course introduces elements of medical terminology and the entomology of words used to describe the human body. This course identifies and explains the terms used for the integumentary, respiratory, nervous, reproductive, endocrine, urinary, digestive, lymphatic, hematic, immune, and musculoskeletal systems. It compares and contrasts the different body systems. Students learn to apply proper terminology and spelling for major pathological conditions, define and describe the function of each system of the body.

PM 301 Biochemistry for Pharmaceutical Sciences (3 credits)

This course covers the fundamental elements of biochemistry and its pharmaceutical application. Topics cover structures, functions, and metabolism of lipids, proteins, carbohydrates, nucleic acids, and body systems, as well as transcription and translation of the genetic information and the control of these processes, digestion, absorption and nutrition, and advanced control topics.

PM 302 Microbiology (3 credits)

This course covers the fundamental elements of microbiology and the underlying nature of infectious microorganisms. Topics include cause, prevention, and control of infectious diseases; immunology; mycology; parasitology; bacteriology and virology.

PM 303 Pharmacy Anatomy and Physiology (3 credits)

This course covers the fundamental physiological principles. Topics include the structure and function of cells, tissues, organ systems, and the organism, as well as biological processes and their integration and control.

PM 304 Pharmacy Law (3 credits)

This course covers the federal and state statues, rules, and regulations that affect pharmacy practice and selected aspects of general law and ethics. Emphasizes Ethical situations and the interpretation of those laws affecting the practice of community and institutional pharmacy.

PM 305 Communication Skills (3 credits)

This course focuses on the tools necessary to conduct effective and efficient patient interactions. Topics cover systematic interviewing, patient assessment, and education techniques, as well as specific communication tools to help foster caring therapeutic relationships.

PM 306 Pharmacy and the Health Care System (3 credits)

This course focuses on the major concepts related to the structure and functioning of the U.S. health care system. Topics include analyzing issues associated with health care, personnel, and the way that health care is organized, financed, and regulated, as well as examining the provision of drugs and pharmacy services in the context of the health care enterprise

PM 307 Drug Information Resources (3 credits)

This course provides a review of the various drug information resources available. Topics cover the strengths and weaknesses of the various references and how to apply their use in practice. An experiential portion will provide practice in locating drug information and preparing written and verbal responses.

PM 310 Pharmaceutics (3 credits)

This course focuses on theory of physicochemical principles and their application to pharmaceutical systems. Topics cover traditional pharmaceutical dosage forms with emphasis on solid and semisolid systems; the novel drug delivery systems; preparation and dispensing of pharmaceutical solution, emulsion, suspension, semisolid, and solid dosage forms.

PM 311 Pharmacy Calculations (3 credits)

This course introduces different methods used by the pharmacist in the process of solving the mathematical problems typically found in the practice of the profession of pharmacy. Topics include metric and common systems conversions, fundamentals of measurements, percentages, dose calculation, specific gravity, dilution, concentration, and dosage adjustment..

PM 312 Pharmacology I (3 credits)

This course introduces pharmacology as the study of drugs. The course begins with an explanation of therapeutic and adverse effects, in addition to the basic operation of the nervous system. Then, several body systems and the conditions that affect them are reviewed, with particular reference to the use of drugs to treat these conditions. Topics cover muscle relaxants, anesthetics, pain medication, and nervous system and psychological disorders.

PM 313 Pharmacology II (3 credits)

This course continues the study of pharmacology. Several major body systems are covered, including the cardiovascular, urinary, respiratory, gastrointestinal, and reproductive systems, with particular emphasis on the endocrine and immune systems. The components and functions of each of these systems are reviewed, along with diseases and conditions that affect them. The drugs that are used to treat such conditions are studied with respect to their mechanisms of action, therapeutic effects, and adverse effects.

PM 314 Pharmacokinetics (3 credits)

This course focuses on mechanisms and rates of absorption and disposition of drugs.

Topics cover the principles involved in drug absorption, distribution, metabolism, and elimination and the influences of physiologic and biochemical processes on the drug in the body.

PM 315 Prescription Practice (3 credits)
This course covers the analysis, interpretation, and evaluation of prescription products in various forms. Topics include application of scientific, legal, and ethical principles to the compounding and dispensing of medicinal agents in modern medical practice.

PM 316 Pharmacodynamics (3 credits)
This course is to apply principles of organic chemistry, biochemistry, physiology, and pathophysiology to understand drug action at the molecular, receptor, cellular, and system levels under normal physiological and pathological conditions. Topics cover determinants of drug absorption and distribution, physiological receptors and drug receptor interactions, and drug metabolism and elimination.

PM 317 Drug Literature Evaluation (3 credits)
This course provides a framework to guide the student through the thought processes necessary to evaluate different types of medical information. The student is able to apply learned techniques in information retrieval, evaluation, and communication by conducting actual literature evaluations on relevant therapeutic topics.

PM 318 Pharmacy Management (3 credits)
This course provides an overview of management, theory, human resources, and financial management applied to pharmacy operations.

PM 319 Patient Care Management (3 credits)
This course uses a case study method to present patients with conditions that reflect real-life situations. The course is divided by disease states and problems may range from therapeutic to social behavioral issues. Emphasizes decision-making processes and integrating knowledge and skills from all.

PM 320 Therapeutics and Pathophysiology (3 credits)
This course is to apply principles of organic chemistry, biochemistry, physiology, and pathophysiology to understand drug action at the molecular, receptor, cellular, and system levels under normal physiological and pathological conditions. Topics cover determinants of drug absorption and distribution, physiological receptors and drug receptor interactions, and drug metabolism and elimination.

PM 321 Statistical Methods in Pharmacy (3 credits)
This course focuses on the research methodology and statistics, as well as inferential statistics for students interested in conducting quantitative research in pharmacy. Students are expected to understand, evaluate, and generate clinical, biomedical, and health care services research. It is also design to enable students to gather data and apply experimental-design models toward improving the efficiency of pharmaceutical and health care services

PM 322 Health Care Entrepreneurship (3 credits)

This course will prepare students to compete as entrepreneurs in the health care sector. The goal of the course is to equip students with the background needed to evaluate business opportunities, form management teams, raise capital, compete in markets, and manage a new venture.

PM 323 Clinical Pharmacology (3 credits)

This course provides the student with the background for the clinical sciences and to help students acquire knowledge about the drugs that will provide the foundation by which pharmacists will practice pharmaceutical care. Topics cover major classes of cardiovascular drugs and those of the central nervous system, the rationale for their use as therapeutic agents; their effects on cells, tissues, organ systems, patients; the mechanisms underlying these effects; the therapeutic value of specific drug effects; and the adverse effects of drugs.

PM 324 Clinical Pharmacokinetics (3 credits)

This course is to apply the concepts and techniques of biopharmaceutics and pharmacokinetics to the rational design of the individualized drug dosage regimens, taking into consideration factors such as hepatic and renal impairment, effects of other diseases, and drug.

PM 325 Pharmacoethics (3 credits)

This course provides an introduction to bioethical issues encountered in health care with emphasis on ethical problems of particular importance to the practice of pharmacy. Students will explore issues that have arisen from advances in biotechnology, resource allocation, research using human subjects, informed consent, the function of ethics committees, and the right to privacy as they impact on the legal rights and responsibilities of patients, health providers, and government policy makers.

PM 326 Pharmacoeconomics (3 credits)

This course covers the basic concepts and definitions involved in the fields of pharmacoepidemiology and pharmacoeconomics. Topics cover the principles and methodologies of pharmacoepidemiology/pharmacoeconomic analysis and the strengths and weaknesses of specific methods, as well as practical examples for successful implementation of these concepts and methods for accessing data.

PM 327 Health Education Promotion (3 credits)

This course provides an introduction to the field of health education promotion. It will guide participants through multiple steps in the development of health education promotion that can be implemented in their worksites or communities.

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PM 388 Introduction to Pharmacy Practice (3 credits)

The Introduction to Pharmacy Practice is designed to provide introduction to the application of skills, concepts, and knowledge acquired in the didactic component of the

curriculum in institutional pharmacy settings. Emphases are Pharmacy Services; Health System; and Community. Can be taken repeatedly.
Prerequisite: Graduate Standing

PM 389 Advanced Pharmacy Practice Experience (3 credits)
The Advanced Pharmacy Practice Experiences is designed to provide students active participation and in-depth experiences in application of clinical principles to develop student the level of confidence and responsibility needed for independent and collaborative practice. Student will acquire practice skills and judgment at clinical practice to enhance communication and collaborative skills with patients and other professionals. A spectrum of practice experiences is covered including General Clinical; Hospital; Acute Care Medicine; Ambulatory Medicine; and Select Community; Can be taken repeatedly.
Prerequisite: Graduate standing

PM 398 Special topics in Pharmacy (3 credits)
The course provides an opportunity for a faculty member or a visiting scholar to offer a relatively new subject in pharmacy and pharmaceutical sciences that is not currently available in the catalog. It may consist of lectures, seminars, reading, homework, presentation and project determined by the instructor. Can be taken repeatedly.

Prerequisite: Graduate Standing

PM 399 Graduate Research (3 credits)
By arrangement with a research advisor. Conduct independent research of an approved topic in Pharmacy or pharmaceutical sciences. Can be taken repeatedly.
Prerequisite: Graduate standing

General Education Courses

ART	Art
CHR	Christian
COM	Communication
ENG	English
HIS	History
HUM	Humanities
MATH	Mathematics
MUS	Music
PHY	Physics
SCI	Science
ESL	English as Second Language

SCI 100 Fundamentals of Physiology (3 credits)

This course introduces students to the structure and function of the human organ systems with little or no prior biology knowledge to anatomy and physiology. Student will gain basic understanding of the human body and associated terminology. Student will also learn medical terminology, related to anatomy, and physiology, identify the four types of tissue and their functions, and identify common diseases of various body systems.
Prerequisite: Instructor's Consent

SCI 101 Environmental Science (3 credits)

In this course, students will explore contemporary environmental issues within a global context, and cover broad aspects of environmental science and environmental studies. Topics covered include energy, ecosystems resource management, and population impact. Emphasis is placed on a holistic approach to environmental science using laboratory exercises, environmental surveys, and class discussions to reinforce scientific principles.
Prerequisite: Instructor's Consent

SCI 102 Introduction to Psychology (3 credits)

Psychology is the science that studies the mental, emotional, and behavior characteristics of humans. This course will introduce the biological foundations of behavior, sensing, perceiving, learning, and thinking. Topics also cover state of consciousness, learning, emotional intelligence, cognitive processes, social behavior, applied psychology, motivation, and behavior.
Prerequisite: Instructor's Consent

SCI 103 Introduction to Biology (3 credits)

This course introduces the fundamentals of biology. Topics include cells, tissues and organs, movement of substances, enzymes, heart and circulation, blood and immunity, homeostasis's, photosynthesis, transport in plant, diet and nutrition, mammalian teeth, digestion, respiration and breathing, nerve system etc.

SCI 104 History & Philosophy of Science (3 credits)

This course introduces the history and philosophy of science with an emphasis on

Christian world view, the limitations of science, the impact of evolutionary theory, and the rise of the modern creationist movement.

SCI 105 Science: Impact on Society (3 credits)
This course focuses the impact of science and technology on our world, with special emphasis on environmental and public policy issues.

ART100 Western Art (3 credits)
This course introduces students to the evolution of the visual arts from prehistoric times to the modern era, and attention is given to the Western art from pre-history to the Gothic era, focusing particularly on the social, political, and religious contexts. Through an examination of major monuments, artists and movements, students will gain a greater understanding of the general development of art in the Western world, as well as a familiarity with the basic vocabulary and methods of art analysis.

ART101 Introduction to Interior Design (3 credits)
This course introduces students the professional and personal qualifications of the interior designer. Topics include communication methods used to produce presentation boards for clients, with emphasis on space planning, elements and principles of art, and lighting, development of furniture styles from antiquity to the present.

ENG100 Composition and Reading (3 credits)
This course is designed for students to enhance writing skills through the process of prewriting, organizing, drafting, revising, and editing of expository and argumentative essays. The course includes a review and further development of sentence writing, syntax, verb-tense agreement, and editing skills for the development of a college writing style. Various texts, and or reading articles are analyzed to develop critical-thinking skills, and integrate new vocabulary in writing.
Prerequisite: Instructor's Consent

ENG101 Composition and Research (3 credits)
This course is designed for students to acquire college level writing skills: research and editing techniques, persuasive writing, audience analysis, and language sensitivity. The course develops students' fundamental skills in written communication, oral presentation, library research, that will equip them for successful intelligence. Students will write a minimum of 5,000 words in a number of essays, and final research project.
Prerequisite: ENG100

ENG102 Advance Composition (3 credits)
In this course, students study the principles of argument as they apply to written, visual, and apply them with increasing sophistication to their own research-based persuasive writing. This advanced composition course is designed to improve composition skills through writing essays that persuade and present an argument. The course also includes writing essays that analyze argumentative and persuasive essays. A research paper is required.
Prerequisite: ENG101

ENG103 Public Speaking (3 credits)

In this course, students study the principles of argument as they apply to written, visual, and apply them with increasing sophistication to their own research-based persuasive writing. This advanced composition course is designed to improve composition skills through writing essays that persuade and present an argument. The course also includes writing essays that analyze argumentative and persuasive essays. A research paper is required.

Prerequisite: ENG101

MUS100 History of Music (3 credits)

The music course is survey the evolution of western music from the middle ages to the present by identifying and analyzing musical compositions. Students also examine the role of music throughout history and in different cultures, they develop respect for diversity. By the end of this course students will have to identify masterpieces of classical music repertoire, distinguish the important compositional characteristics, define the elements that make up the classical performance tradition, and much more.

Prerequisite: Instructor's Consent

MUS101 Introduction to Music Composition (3 credits)

The music course introduces the foundational elements of composition. Exploration of various facets of creativity and craft in the context of idiomatic writing for piano and voice in basic forms; compositional application of digital sound analysis and synthesis, compositional algorithms, interactive control, and audio production techniques.

MUS102 The Christian Musician (3 credits)

The music course is an introduction to the development of a distinctly Christian philosophy of music based on and in agreement with Scripture. Readings in and examination of modern trends, styles, and movements in secular and church music in the light of Scripture.

MUS103 Ministry of Music (3 credits)

The course introduces the fundamentals of ministry of music. Topics include the place and importance of music in Christian worship; the role of the pastor, the song leader, the choir director, and/or the minister of music in the music program; congregational singing, special music, the choir, problems in the development of a quality music program. Emphasis is placed on building a church music program on scriptural principles

HIS100 History of the United States (3 credits)

This course will cover the development of the United States after the civil war to the present and provide an introduction to major themes of American history through the Civil War. Topics include the Columbian Exchange and colonization, American Revolution, paradox of freedom and slavery, emergence of a market economy, secession, reconstruction, development of the west, industrialization, Progressivism, empire building, World War I and II, the Depression, the Cold War, and modern political events.

HIS101 History of California (3 credits)

This course covers California history and its evolution. Topics include "gold state" social, economic and political development spanning from Native American, Spanish, Mexican and American periods.

HUM100 Principle of Ethics (3 credits)

This course covers ethical principles and problems applicable to their lives. Topics include application of ethical principles, background and philosophical principles of ethics, ethical practices, and practical ethical problems and solutions.

HUM101 Contemporary Literature (3 credits)

This course aims to instill in students a passion for reading, writing, and critical, but open-minded view of the diverse world. Students will examine selected readings of non-fiction, essays, by important contemporary philosophical writers with an emphasis on social and cultural issues. The course takes a humanities approach in the exploration of culture and its origins, values, and changing status. The study of literature allows students to analyze story elements, identify themes in literature, and to enrich their vocabularies. Students' critical reading skills develop as they work to summarize, quote, and paraphrase succinctly.

HUM102 Introduction to Modern Film (3 credits)

This course introduction the modern American film themes, techniques, major directors, and Hollywood studio and star system. Topics include historical epic, film noir, westerns, science fiction, and animations.

HUM103 Digital Photography (3 credits)

This course introduction the modern American film themes, techniques, major directors, and Hollywood studio and star system. Topics include historical epic, film noir, westerns, science fiction and animations.

HUM104 Screenwriting (3 credits)

This course gives an introduction to effective corporate, documentary, and dramatic screenwriting with an emphasis on preparing the student to write the script for his senior film project.

HUM105 Acting (3 credits)

This course covers Internal and external techniques of acting as well as theory and practice in the art of creating a character for the stage with attention paid to period plays and verse drama.

HUM106 Personal & Professional Etiquette (3 credits)

This course is a survey of etiquette and manners from business, social, and personal perspectives.

HUM107 Home Entertaining (3 credits)

This course covers the art of home entertaining and gracious hospitality. Topics include

meal management, table service, etiquette, floral design basics, and meal and party planning, including easy meal and dessert food preparation.

HUM107 Introduction to Theater (3 credits)

This course compares and contrasts theater to other performing arts and discusses cross-disciplinary influences on theater. Topics cover climactic and episodic structures, importance of conviction, virtuosity, and presence in acting, aspects of traditional and modern tragedies, and the contributions of ancient Roman drama to theater. Other topics include William Shakespeare's plays as an expression of the spirit of the Renaissance, the social and literary background of seventeenth century France, the distinctive qualities of theater during the Restoration period, and elements of realism within the plays of Arthur Miller and Tennessee Williams.The symbolist and expressionist movements and contemporary musicals in the United States and Europe are also analyzed.

COM100 Interpersonal Communication

This course examines the process, theory and philosophy of personal communication. Topics include application of communication principles, theories, and research to an examination of the process of interpersonal communication and the improvement of communication skills relevant to interpersonal settings.

COM101 Intercultural Communication

This course focuses on the theory and practical applications of communicating between cultures. Special emphasis is given to Biblical principles of communication and to the organizational and business applications of intercultural communication.

COM102 Conflict Management.

This course focuses on integration of theory on conflict management with practical approaches to conflict training. An emphasis on a biblical perspective of conflict.

CHR100 Old Testament Message

This class is a study of the unfolding theme of the Bible as it is revealed through the messages of the Pentateuch and the history, poetry, and prophecy books of the Old Testament. Emphases include creationism and the biblical proofs of Divine creation, the relationship of the legal material to Christians, and the practical application of the messages of these 39 books to the Christian life.

CHR101 New Testament Message

This class is a study of the unfolding theme of the Bible as it is revealed through the messages of the New Testament books, with continued emphasis on the practical application of the central themes of the inspired writers to the Christian life.

CHR102 Old Testament Foundation

This course provides an overview of the Old Testament including a review of the sections, books, and history of Israel. Attention will be given to the key historical events, Jewish religious practices, and Messianic prophecies during this period of history.

CHR103 New Testament Foundation

This course is an overview of the New Testament including a review of the sections of the New Testament, the history of the Gospels and Early Church, and the authors and Themes of the individual books as they fit into the development of the church.

MATH 100 Calculus

This course covers the fundamentals of Calculus. Topics include functions, limits, derivations and applications, finite integrals, logarithmic and exponential functions and their derivatives, sequence, series, partial derivatives and basic differential equations.

MATH 101 Elementary Algebra (3 credits)

This course covers essential topics of Algebra and is designed for students who need to gain skills from the first year of Algebra. Topics include: exponents, word problem, and order of operation, graphing, linear systems, scientific notations, and more. Students will learn to apply mathematics concepts to real-world contexts.

MATH 102 Intermediate Algebra (3 credits)

This course is design for students to conceptualize, analyze, and identify relationships among functions. Students will learn algebraic simplification of polynomial, rational, exponential, and radical expressions. Students will develop proficiency in analyzing and solving quadratic functions using complex numbers. Students will investigate and make conjectures about absolute value, radical, exponential, logarithmic, sine and cosine functions algebraically, numerically, and graphically, with and without technology. Students will work with and build an understanding of complex numbers.
Prerequisite: MATH 100

MATH 103 Differential Equations (3 credits)

This course covers the concept and theory of Ordinary Differential Equations. Topics include first and second order differential equations, second and higher orders; applications of ordinary differential equations in electrical circuits and motions, partial differential equations and boundary problems, eigenvalues, and eigenfunctions, Green's function, and applications of partial differential equations in electromagnetic waves and scalar and vector potential problems.

MATH 104 Linear Algebra (3 credits)

This course covers the fundamental and applications of linear algebra. Topics include systems of linear equations, matrices, vector spaces and vector analysis, eigenvalue, eigenvectors and examples of engineering applications.

MATH 105 Modern Business Mathematics (3 credits)

This course is designed for students to explore applications of mathematics in economics and business contexts. The basic tools of quantitative analysis, data presentation, measures of central tendency, measures of variations, and skewness, are also covered. By the end of this course the student will proficiently calculate present value (PV) and future value, find the cost for the purchase of investments, compute the proceeds from the sales

of investments, and identify the components of a central tendency, (mean, median, & mode) used in statistics.
Prerequisite: MATH 100

MATH 106 Probability and Statistics (3 credits)
This course covers the fundamental concepts, theory and applications of probability and statistics. Topics include permutation, combination, random variables, distribution, means and variance, normal distribution, random sampling, estimation, confidence interval, hypothesis testing, linear correlation and regression, probability, statistical inference, analysis of variance (ANOVA), normal, and chi-square distribution, and hypothesis distribution.
Prerequisite: MATH 100

MATH 107 Fourier Transfer and Transformation Theory (3 credits)
This course covers the theory of Fourier Transfer, Laplace and Z transformation and their application. Topics include Fourier series, Fourier integral, Laplace equation, transformation and representation theories of Laplace transform, Fourier transform, Z-transform etc. and their applications in circuit analysis and signal analysis.

PHYS 100 Physics I (3 credits)
This course covers the fundamental of physics for engineering students. Topics include vectors, motion, and Newton's laws, gravitation, work and energy, momentum, mechanics of rigid bodies, kinetics theory of gases and thermodynamics.

PHYS 101 Physics II (3 credits)
This second course in physics covers Coulomb's law and electric fields, magnet fields, waves and sounds, optics, interference and diffraction.

PHYS 102 Quantum Mechanics (3 credits)
This course covers the fundamental concept and ideas of quantum mechanics. Topics include origins of quantum theory, wave and particles, Schrödinger equation, wave function, uncertainty principle, barriers and tunneling, atoms, solids, band theory, electrical conductivity.

PHYS 103 Solid-State Physics (3 credits)
This course provides an introduction to solid state physics. Topics cover crystal structures, phonons, energy band, optical processes and excisions, ferromagnetism, magnet resonance, point defect and dislocation.

ESL 200 English Grammar (3 credits)
This course focuses on the basic and advanced of English grammar. Topics include word classes, structures of phrases, parts of a sentence, sentences with clauses, applications such as usage problems, punctuation, and style.

ESL 201 Conversation and Listening (3 credits)
This course focuses on enhancing student English listening and conversation ability.

Topics cover practicing English conversation management, American conversational styles, and pronunciation. Students learn commonly used American idioms and slang in a communicative way. Students use various activities to practice these new idioms including listening tasks, role plays, and discussion. .

ESL 202 English Writing (3 credits)

This course focuses on sharpening student's English written skills with practical application. Topic covers English writing style from the sentence to paragraph, writing of business letters, cover letters and many writing for work.

ESL 203 Reading & Vocabulary (3 credits)

This course focuses on enhancing students' reading ability and increasing their vocabulary, as well as familiarizing them with American language and culture. Topics cover various areas of contemporary American culture.

ESL 204 TOEFL Exam Preparation (3 credits)

This course is designed to help students to take the iBT TOEFL exam. It is designed to prepare students for all sections (speaking, listening, reading, and writing) of the iBT TOEFL test by developing special skills and strategies that lead to more efficient test taking.

VI. Non-Degree Programs

Tri-Valley University's non-degree programs are Certificate Program and Open Enrolment Program.

Certificate Program

(I). Program Description

The certificate program is one of the non-degree programs that Tri-Valley University offers. For each department, there is a Certificate Program in the emphasis area of study which requires less course and research load. The Certificate Program aims to provide the practice and professional training in the specific area. The Certificate Program only requires 4 courses, equivalent to 12 semester units. Among the 4 courses, two need to be from the required course, the other two from the core course listing. The required course and core course lists are referred to the M.S. curriculum listing in each department's emphasis area.

(II). Program Requirements

1. Prerequisites

A degree in engineering or equivalent knowledge acquired through training and experience in the specific engineering area is required.

2. Certificate Requirements

To obtain the certificate in engineering, a total of 4 courses are required. Among the 4 courses, 2 courses need to be chosen from requirement courses while the other two need to be from the core course list. The required course and core course lists are referred to the M.S. curriculum listing in each department's emphasis area.

Complete a total of 4 graduate courses in Business Administration including 2 courses in the emphasis area and 3 elective courses will receive a certificate in the specific five concentrated areas:

3. Certificate Program Areas

There are total of nine areas of Certificate Programs in Engineering

- Area 1 Analog IC Design
- Area 2 Digital IC Design
- Area 3 Nanotechnology
- Area 4 Software Programming
- Area 5 VLSI System
- Area 6 Data Mining
- Area 7 Mechanical Design

- Area 8 Engineering Mechanics
- Area 9 Micro-Electro-Mechanical System (MEMS)

The specific five concentrated areas of Certificate in Business:

- Area A: Accounting
- Area B: Finance
- Area C: Marketing
- Area D: Economics
- Area E: Business Administration

The specific six concentrated areas of Certificate in Art:

Area A	Old Testament
Area B	New Testament
Area C	Systematic Theology
Area D	Church History
Area E	Christian Counseling
Area F	Ministry

The three concentrated areas of Certificate in Law: Professional Certificate Program: The Professional certificate program are designed to meet the special post graduate educational needs of attorney who want to take the L.L.M courses in a specific subject, but do not want to, or are not able to, complete the 36-unit L.L.M program requirements. The Professional Certificate Program consists of a combination of total 12 units (4 courses) with at least 2 courses in the subject area. Professional Certificate Program has three areas of concentration: Family Law, Business Law and IP law.

Area A	Family Law
Area B	Business Law
Area C	IP Law

Three areas for Practice Nurse Certificate in Department of Health Care and Nurse are:

- Area A: Family Nurse Practitioner (FNP)
- Area B: Nurse Administrator
- Area C: Nurse Educator

ESL: English as Second Language

Open Enrolment Program

Tri-Valley University distance learning facility makes its graduate course work available to the global audience though Tri-Valley University's live virtual classroom instruction. Instructions on how to access the virtual classroom are provided in the Student Handbook.

People from different countries around the world can register the courses in a specific area field and attend the live virtual classroom to hear what the expert people in the subject have to say. The Open Enrollment is for this purpose, and the registration is processed through the Tri-Valley University's Website (http://trivalleyuniversity.org/moodle/).

The registration fee for each class is $20.00 and is non-refundable. After successful registration of the class and payment of the registration fee and tuition for the classes, an E-mail will be sent to you specified E-mail address on how to download the required software and how to access the virtual classroom. Audience may be from worldwide, and attend the live classroom for lecture, and questions, discussions. Classroom attendance is mandatory.

VII. Facilities

Library Resources

TVU has always sought to increase the vast reference support and library resources made available to students, particularly our Doctors Degree students who need the most up-to-date research data, most commonly found in expensive subscription-based computer databases. Currently TVU have on-site library with more than 10000 volume of collections including books, magazines, and e-books to support the academic program. Library hours and policies are published in the website (http://trivalleyuniversity.org/Library.htm) and Student Handbook.

Computer Labs

Computer facilities include 13 laptops. Computer facilities include Synopsys, IC Design Lab and Xilinx Lab, Networking and Software Testing Lab with full wireless Internet connections. The labs are open from 1:00 PM to 10:00 PM Monday through Friday, and limited hours on Saturday and Sunday. Please check with the Registrar for current access hours during each particular term. The use of computers at TVU is an integral element of all programs. All students are highly encouraged to purchase and bring in their own laptop computers with software necessary as determined by instructors.

Research Labs

Tri-Valley University has three research directions and labs: VLSI Lab, MEMS Lab and Data Mining, FPGA labs. For the research projects in each lab, please refer the website of each research lab for more information.

VIII. Student Activities and Services

Placement Assistance

TVU provides a variety of services to assist students in clarifying, planning, and achieving their career goals. Workshops will be held regularly on career planning, including self-assessment, resume writing, interviewing skills, and job search strategies. Programs will be developed that bring professionals from various fields to present information concerning career opportunities weekly in the Joint Seminar class required of all students. Students are encouraged to take advantage of this exposure to industry leaders and continually collect networking contact information from the Joint Seminar class. A special program of informational interviewing will link students with alumni in a variety of fields.

Student Health, Safety, and Housing

All full-time students are required to have their own medical insurance coverage. TVU will assist them in contacting appropriate insurance companies. The University does not provide on-campus housing for students. However, students should not have difficulty in finding accommodations near campus. Average monthly rent of a single room ranges from $400-$550.

Student Governance

The TVU Student Association offers students the opportunity to participate in the governing of the institution. Elected officers interact regularly with assigned faculty advisors to coordinate student functions, organize extra-curricular activities, and offer student input concerning university policy. The main functions of TVU Student Association are: 1) to promote cooperation with the faculty and administration in the organization and regulation of student matters and activities; 2) to provide opportunity for the practice of democratic procedures in everyday life in conjunction with the development of leadership qualities of individual students; 3) to encourage and assist all students in the challenges of university life.

Student Organizations and Alumni Association

Students at TVU are free to organize and to join associations whose stated purpose is consistent with the University's mission. All student organizations seeking TVU support must be registered. The TVU Alumni Association is operated under the Chancellor's Office of the University, keeping a current list of all alumni, and conducting alumni activities on a regular basis such as class reunions and career counseling.

Academic Achievement Recognition

Faculty and student awards are given annually during commencement ceremonies to recognize the outstanding achievements of faculty, staff, and students.

Student Orientation

To enable the smooth transaction and adoption into the life and opportunities of TVU, every term in the beginning, there is a student orientation program to get student to be familiar with faculty, campus, resources, as well as TVU's virtual classroom, providing the opportunity for students to become acquainted with the personnel and policies of the university. The orientation is recorded and can be reviewed at any time. In addition to the orientation program, TVU also developed the complete training program for student to access TVU's virtual Classroom. Enrollment key is given at registration.

Tutorial Programs

A tutorial program will provide international students with assistance in English studies in addition to TVU's regular tutorial classes for academic courses conducted by our teaching faculty and teaching assistants.

Nonimmigrant Alien Student Services

Nonimmigrant alien students requesting supporting documents must submit a financial statement showing adequate funds for tuition fees and living expenses for the entire degree program (no less than USD $15,000).

An acceptance letter together with the supporting documents will be issued to an admitted nonimmigrant alien student, who must submit these and the necessary financial affidavits to a U.S. Consular Officer to whom he/she applies for a student visa.

The Bureau of Citizenship and Immigration Services dictate that a nonimmigrant alien student must enroll as a full-time student at the university issuing the supporting document. In order to ensure that this policy is observed, a prospective student is required to make a deposit of USD $300. This deposit will be deducted from the student's tuition fees upon registration.

All enrolled nonimmigrant alien students cannot miss more than 15 percent of their classes without endangering their visa status. Students are allowed only 3 unexcused absences. If a student misses two consecutive classes, the student will receive a warning. If the situation persists, the director of the program will contact the student. If it continues, it will be referred to the President's Office. If the problem remains, TVU is required to report this to the Bureau of Citizenship and Immigration Services.

TVU On-Line Book Store

TVU's on-line Book Store provides student with the currently textbooks, accessories and many supplies. It is easy to browser and process. Credit card and/or PayPal payment are processed through Shopping Cart service. The item will be delivered to the shipping address upon order.

TVU E-mail System

TVU's E-mail system is available to students, faculty, staff, administrators, and approved others, by authorization of the school or other entity with which they are primarily associated. E-mail is provided to facilitate the communication while performing the mission of the University. Email should be professional and directed to specific individuals. The sending of mass e-mail is limited to selected view individuals. After you are accepted and enrolled as a TVU student, normally you are created a TVU account with a combination of you first name initial and you last name as the ID. The initial passwd is your first name plus 123. For example, your name John Smith, then your TVU account will be created as: jsmith@trivalleyuniversity.org, and initial passwd: john123. To login your account, go to page: http://mail.trivalleyuniversity.org which will bring you into the C-Panel login page.

Student Mail

Only graduate stundent has a mail box in the lobby. Stundents are advised to only have academic related letters and mails to be delived to the university address. If an undergraduate student has academic related mails need to deliver with the university address, he/she can do so. The mail will be available in the front desk in-coming mail area to pick up.

Student Counseling

Tri-Valley Unviersity provides student Counseling services include personal, spiritual, career and academic counseling. Counseling services are available through the Director of Student Affairs and the administtraiton office. The student may receive assistance from his faculty advisor, the Academic Dean, and or the administration office on various issure and matters on student life at TVU.

Career Service

TVU Career Services website maintains an employment posting service that provides members of the community companies the opportunity to list jobs opening (http://trivalleyuniversity.org/career.html). TVU's career placement center help student with career planning, job searching, networking, resume preparation, interview skill training and providing job information.

Ability-to-Benefit Criteria and Services:

TVU recognizes that there are prospective students who do not meet the established admissions criteria, but who should be given an opportunity for a university education, such as has extensive industry experiences. Consequently, policies and procedures have been established by the faculty whereby consideration will be given to accepting a limited number of applicants who demonstrate potential success of study at TVU provided adequate support is provided. The University administration officer will monitor students admitted under ability-to-benefit guidelines. Services are provided to ensure that ability-to-benefit students have their needs meet. Appropriate records are maintained for the ability-to-benefit students. Provision is made for appropriate follow-up for students admitted under the ability-to-benefit guidelines.

VIIII. Faculty

Information for faculty

Tri-Valley University's faculty members are from both academic and industrial background including both academically qualified and professionally qualified faculty members. Many faculty members are renowned experts and professionals in the field and have many years of industrious experience on the subject.

Due to the nature of Doctorate Degree Program at Tri-Valley University, most of the courses are taken by the doctorate candidates, therefore the minimum threshold for an instructor or faculty member at Tri-Valley University is to hold a doctorate or Ph.D. degree in the subject field. However, faculty members with a M. S. degree but with many years of industry experience and true experts on the subject, can offer a class on the subject at Tri-Valley University and can serve as the research advisor for undergraduate and Master Student. Tri-Valley University strongly encourages and recommends our faculty member with M.S. degree to earn a Doctorate Degree here at TVU while teaching. Even though teaching experience is not a requirement for the degree in the Doctorate Degree curriculum, the Teaching Associate experience can be counted toward the research credit for the doctorate degree requirement.

Instructors at Tri-Valley University are normally paid $50-$120/hour for on-site class depending on the qualification. For on-line enrollments and classes, instructors are paid 25% of the tuition.

Besides the faculty member who directly involved with classroom instruction, TUV also have participating faculty members who actively engage in the activities of the school in matters beyond direct teaching responsibilities, such as policy decisions, educational directions, advising, research, and service commitments. The faculty members participate in the governance of the school, and serve as a member on graduate thesis and dissertation committees, and participate in a variety of non-class activities such as directing extracurricular activity, providing academic and career advising, and representing the school on institutional committees. Tri-Valley University considers the faculty member to be a long-term member of the faculty regardless of whether or not the appointment is of a full-time or part-time nature, regardless of whether or not the position with the school is considered the faculty member's principal employment. As a matter of fact, majority of TVU faculty member are primarily employed by major industry companies.

To become an instructor at Tri-Valley University, the first step to apply is to fill and mail us (E-mail: tvu_faculty@trivalleyuniversity.org) the instructor's bio form. We will then schedule a phone and on-site interview. The on-site interview includes giving a presentation---either research-orientated or to choose a subject topic to teach. The accepted candidate will finally be given a Tri-Valley University course site instructor's ID and password to develop his/her course for enrollment. All faculty members are also required to list three research specialization areas, from which student can choose as major research advisor or dissertation committee.

Tri-Valley University's courses website can be found at web address: (http://trivalleyuniversity.org/moodle/). Faculty member at Tri-Valley University is encouraged to develop his/her website besides including pictures and short-bios the class website. All information for faculty can be found at website: http://trivalleyuniversity.org/faculty_infor.htm.

Faculty members are the most important resource for the quality of the teaching program of the university, therefore are personally responsible for bringing current and relevant intellectual resources into the teaching program. Each faculty member, thus, is obligated to continuously update, expand his/her personal knowledge and skills.

Faculty members are encouraged to be involved in continuous development throughout their careers to stay current, such as engaging in constant learning activity to maintain currency with their fields' developing research and theory, participating in conferences, Journal paper reviewers. Regardless of their specialty, work experience, or graduate preparation, faculty members need to maintain their competence through efforts to learn about their specialty and how it is applied in practice. To keep currency and relevance, TVU has developed several faculty members training class in the Moodle platform. These include the complete training sections all the Moodle features for new faculty members. There are many activities that faculty members may undertake to maintain their disciplinary currency and relevance, such as participating in conference, publish academic papers, consulting, faculty internships with other institutions, other professional experiences, and/or professional development activities.

Faculty Members

School of Engineering

Susan Su Ph.D.
Ph.D., University of California, Berkeley, 2001
M.S., University of California, Davis, 1997
B.S., Tsinghua University, China, 1991
Specialization: *Design, VLSI, Analog*

Sean Su Ph.D.
Ph.D., University of California, Davis, 2001
M.S., University of California, Davis, 1997
B.S., Beijing Normal University, China, 1995
Specialization: *Data Mining, Bio-Statistics, Software Programming*

Ke Han Ph.D.
Ph.D., University of California, Davis, 1996
M.S., Chinese Academy of Sciences, 1990
B.S., China Institution of Science and Technology 1987
Specialization: DSP, *Control, Ministry*
Senior Engineer at Marvell

Jun Ming Ph.D.
Ph.D., University of California, Davis, 1999
M.S., Huazhong University of Science and Technology, 1992
B.S., Huazhong University of Science and Technology, China, 1989
Specialization: *Analog (ADC-DAC), VLSI, Optics,*
Senior Design Engineer at Marvell

Ningning Zhou Ph.D.
Ph.D., University of California, Berkeley, 2002
M.S., Xian Transportation University, China, 1993
B.S., Xian Transportation University, China, 1990
Specialization: *MEMS, Design, Programming*
Senior Design Engineer at Systron Doner

DanPing Peng Ph.D.
Ph.D., University of California, Las Angles, 1999
M.S., Beijing University, China, 1991
B.S., Beijing University, China, 1988
Specialization: *Software Programming*, *Design, Mathematics*
Senior Program Engineer

Gary Fan Ph.D.
Ph.D., Arizona State University 1987
B.S., Wuhan University, China, 1982
Specialization: *IC Process, Semiconductor Device, Physics*
Senior Process Engineer, KLA Tencor
Faculty Member at U.C.San Diego

Minmin Qin Ph.D.
Post-Doc, University of California, Berkeley, 1992-1997
Ph.D., University of Wisconsin –Madison 1991
B.S., Northwest University of Agriculture, China, 1981
Specialization: *Bio-MEMS, PCR, Microfluidics*
Director, BioSystem, Richmond

Hao Luo Ph.D.
Ph. D. Carnegie-Mellon University, 2003
M. S. Carnegie-Mellon University, 2001
B.S. Tsinghua University, 1994
Specialization: MEMS, PCB, Hardware
Hardware Engineer, Hewlett-Packard Lab

Chi Jing Ph.D.
Ph.D. Carnegie-Mellon University, 2003
M.S. Tsinghua University, 1997
B.S. Tsinghua University, 1994
Specialization: MEMS, Simulation, FPGA
Application Engineer, Mentor Graphics

Linming Jin Ph.D.
Ph.D. Santa Clare University, 1991
M.S. The City University, London, U.K. 1986
B.S. Tianjing University, 1978
Specialization: ASIC, Simulation, Verification
Director, ASIC PD, Brocade Communication Systems

Karl F. Scheibner Ph.D.
Ph.D. University of Colorado, Boulder, 1983
B.S. Graceland University, 1976
Specialization: Mathematics, Computer Science, Bio-MEMS
Project Manager, Senior Scientist**, Lockheed Martin**

A. Miller Allen Ph.D.
Ph.D. University of California, Berkeley, 2002
M. S. University of California, Berkeley, 1995

B.S. University of California, Berkeley, 1993
Specialization: MEMS, Solid Mechanics, Dynamics
Process Engineer, Applied Materials

Mengqi Ye Ph.D.
Ph.D. University of California, Berkeley, 2000
M. S. University of California, Berkeley, 1998
B.S. China Institution of Science and Technology 1994
Specialization: Laser, PVD, Thin film
Member of Technical Staff, Applied Materials

Xianmin Tong Ph.D.
Ph.D. College of William and Mary, 2000
M.S. College of William and Mary, 1997
B.S. Huazhong University of Science and Technology, China, 1989
Specialization: PVD, Physics, Material
Member of Technical Staff, Applied Materials

Simon Luo Ph.D
Ph.D. University of Georgia, 2006
M.S. Insitute of Automation, Chinese Academy of Sciences, 2000
B.S. Electrical Engineering, Huazhong University of Science and Technology, 1997
Specialization: Operating systems, Network, Programming language
Lecture in Computer Science

Bhaskar L. Mantha Ph.D.
Ph.D. EE University of Cincinnati, Ohio, 1979
M.S. EE University of Cincinnati, Ohio , 1976
B.S. Osmania University, Hyderabd, India, 1972
Specialization: Device, Semiconductor Process, Memory
Director of Technology, Swift Memory Technology (2006-pres),
Alliance Semiconductor (2004-2006),
Manager/Senior Staff Engineer (1995-2004), **Silicon Storage Technology**

Amy T. Guo Ph.D.
Ph.D., Materials Science University of Wisconsin-Madison, 1989
M.S., Materials Science University of Wisconsin-Madison, 1985
B.S., Physics Fudan University, Shanghai, China, 1982
Specialization: Material, Semiconductor Process, Thin-Film
Member of Technical Staff (1994-1999), AMD
Lecturer**,** University of Texas at Austin (1998), SJSU

Jing Li Ph.D.
Ph.D., Materials Science University of Utah, 1996
M.S., Materials Science University of Utah, 1993
B.S., Chemistry Fudan University, Shanghai, China, 1982

Specialization: Nanotechnology, Semiconductor Process, Chemical Sensor
Principle Investigator, NASA, Moffett Field, CA

Mark S. Hooper Ph.D.

Ph.D., E.C.E Georgia Institute of Technology, Atlanta, GA 2005
M.S.E.E. San Jose State University, 1994
B.S.E.E. University of California, Davis, 1989
Specialization: RF IC, Analog IC, Power Electronics
Chair: IEEE Santa Clara Valley Circuits and Systems Society
Senior Analog IC Design Engineer, MobilitySemi Inc., Santa Clara, CA

Majid Shushtarian

M.S, Electrical Engineering San Francisco State University, 1989
M.B.A. San Jose State University, 1994
BS, Electrical Engineering San Francisco State University 1989
Specialization: Digital IC Design with Verilog
Senior Member of Technical Staff at Maxim Integrated Products

Xiuya Li

M.S, Electrical Engineering University of Wisconsin at Milwaukee, USA 2003
Master of Engineering Tsinghua University, Beijing, China 1997
B.S. Electrical Engineering Tsinghua University, Beijing, China 1992
Specialization: Cadence-EDA
Senior Application Engineer at Cadence Design Systems

Jina Lin

M.S, Computer Science University of Notre Dame, Notre Dame, Indiana 1996
B.S., Solid Mechanics Tsinghua University, Beijing, China 1991
Specialization: PERL Programming
Senior Program Engineer at Cisco

Vince Liotta

M.S, Mathematics Cal State University at East Bay, Hayward, California
B.S., Mathematics Cal State University at East Bay, Hayward, California
Online Teaching and Learning Credential, Cal State University at East Bay, 2000
Specialization: Mathematics, ESL
Retail Training Analyst, Chevron

School of Business Faculty Members:

Mae Jean Go Ph. D.

Ph.D. & M.A. Speech Communication, University of Illinois, 1982
M.S., Management of Technology, Golden Gate University, 2002

B.S., Speech Communication, University of Tennessee at Knoxville, 1975
Specialization: *Technology Management, IT Management, Speech Communication*
Senior Manager AT &T
Faculty Member at University of Illinois, San Francisco State University.

Fred Dalili Ed.D.
Ed.D. in Higher Educational Administration, University of Akron, OH, 1985
M.A. in Higher Educational Administration, University of Akron, OH, 1981
B.A. in Public Relations and Advertising, College of Communication, 1972
Specialization: Business Administration, Project Management, Multicultural Management
President of Red Flag**,** Instructor of University of Phoenix, University of San Francisco

Nik Tehrani, Ph.D.
Ph.D. in Business Administration, Northcentral University, Prescott, AZ, 2008
M.B.A. in Executive Management, Pepperdine University Malibu, CA, 1999
B.A. in Electrical Engineering, Cogswell Polytechnic College, Sunnyvale, CA, 1996
Specialization: E-Commerce, Marketing Management, Economic
Global Director of Program Management, Sanmina-SCI Corporation;
Lecturer, U.C.Berkeley Extension, California State University-East Bay, Hayward

Dr. Danilo Gonzalez

Doctorate of Management in Organizational Leadership,	University of Phoenix	2008
M.A., Organizational Management	University of Phoenix	2000
B.S., Business Management	University of Phoenix	1998

Specialization: Finance and Accounting, Business Management, Organizational Leadership
Heald College Instructor (Evening) Business Management. Founded Alliance Capital Recovery, Inc.

Kuang Chen MBA
MBA Emphasis, Information technology**,** University of Illinois, 1980
Specialization: *Information Technology*
Manager, Well Fargo Bank

Wendy Wei CPA
Master of Science in Business Administration, Emphasis: Accounting,
San Francisco State University, 1999
Master of Art, Beijing Foreign Studies University, 1995
Bachelor of Art, Beijing Foreign Studies University, 1992
Specialization: *Accounting*
Accountant at Aetna

Mark Angel MBA
MBA Pepperdine, 1992
BS, Busines Administration, Humbodt State University, 1974
PMI, Project Management, PMP, 2007
Specialization: *Project Management*
Senior Program Manager, AT &T; Instructor U.C.Berkeley Extension

Can Gencer MBA
MBA California State University, East Bay, Hayward, CA, USA (Expected 2010)
MS, Computer Science, California State University, Chico, CA, USA
Specialization: *Database Management*
Project Manager, AT &T

School of Art Faculty Members:

Honorable Faculty Member:

Ronald E. Cottle Ed. D, Ph.D.
Ed. D. Higher Education, University of Southern California, 1974
Ph.D. Religion, University of Southern California, 1967
M. Div. New Testament, Lutheran Theological Southern Seminary, 1962
M.S.Ed. Higher Education, University of Southern California, 1971
B.A. Religion/English, Florida Southern College, 1955
Specialization: Philosophy; Bible, Biblical Studies
Founder-Chancellor , Beacon University;

Ke Han Ph.D.
Ph.D., University of California, Davis, 1996
M.S., Chinese Academy of Sciences, 1990
B.S., China Institution of Science and Technology 1987
Specialization: DSP, *Control, Ministry*
Senior Engineer at Marvell

Xiaoli Li Ph.D.
Ph.D., Biostatics University of Minnesota, Minneapolis 1995
M.S., Beijing University 1988
B.S., Beijing University 1981
Specialization: Public Health, *Biostatics, Ministry*
Chief Analysis Engineer at Visa (95-2005)

School of Law Faculty Members:

Dr. Ambrose C. Wong
Juris Doctor, School of Law, University of California, Berkeley, 1974
B.S., History, University of Arizona, 1969
Specialization: *Business Law, Family Law, General Law*

Dr. Yunching Yeh

Science Juridical Doctor, School of Law, Golden Gate University, San Francisco, CA 2009
Master of Laws (LL.M), school of Law, University of Washington, 2006
Specialization: Intellectual Property, Environmental Law, Health Care Law

School of Medicine Faculty Members:

Eric Cheng Ph.D. Visiting Professor

Ph.D., Michigan State University, 1999
Postdoctoral Research, University of California - Davis, 1999-2001;
University of Wisconsin - Madison, 2001-2003
Specialization: Pharmacy Science, *Mirco-biology, Biochemistry,*
Assit. Prof. Dept. of Biological Sciences, Dept of Chemistry and Biochemistry;
University of Wisconsin-Milwaukee

Minmin Qin Ph.D.

Post-Doc, University of California, Berkeley, 1992-1997
Ph.D., University of Wisconsin –Madison 1991
B.S., Northwest University of Agriculture, China, 1981
Specialization: *Bio-MEMS, PCR, Microfluidics*
Director, BioSystem, Richmond

Xiaoli Li Ph.D.

Ph.D., Biostatistics University of Minnesota, Minneapolis 1995
M.S., Beijing University 1988
B.S., Beijing University 1981
Specialization: Health Care, Biostatistics, Ministry
Director of Risk Analytics at VISA USA (96-2006)

Xibin Liang Ph.D.

Postdoctoral, Dept. of Neurology, School of Medicine, John Hopkins University, 2001-2005
Ph.D. Shanghai University of Chinese Medicine and Pharmacology, 1998
M.S. Shandong University of Chinese Medicine and Pharmacology, 1992
B.S. Shandong University of Chinese Medicine and Pharmacology, 1987
Specialization: Pharmacology, Anatomy, Neuroscience
Research Associate, Department of Neurology and Neurological Sciences,
School of Medicine Stanford University,
Founder, XL Acupuncture Clinic, Menlo Park, CA

Naibo Yang Ph.D.

Ph.D. Neurobiology, Thomas Jefferson University, 1998
M.S. Biomedical Engineering & Instrument, Tianjin University, China, 1992
B.S. Biomedical Engineering & Instrument, Tianjin University, China, 1987
Specialization: Pharmacology, Health Care, Neuroscience

Vice President, BioChain Institute Inc., Hayward, CA; Program Leader at Affymax Inc
President of Chinese-American BioPharmaceutical Society

University Administration

Dr. Susan Xiao-Ping Su
President & CEO
Responsibility: Advised by the Advisory Board, the President is responsible for the affairs of the University as its statutory executive officer, oversees the development, the implementation of the policies, student and faculty affair and daily administration of the institution, and leads the university to move forward.
Qualifications: Dr. Susan Su earned her Ph.D. from UCBerkely in MEMS Design, M.S. from U.C.Davis in CAD Design, and B.S. in Fluid Mechanics from TsingHua University in Beijing. Prior to founding TVU, she is the president of Semiconductor System Integration Company for 7 years, a consultant company contracting many successful consulting projects with the government and industry. Dr. Su taught extensive classes in Electrical Engineering circuit design at UCSC-Extension, SFSU, SJSU and other private universities following working for a start-up low-power memory design company after Ph.D. graduation. Dr. Su is a recipient of many awards including American Association University Women (AAUW) Selected Professional Fellowship, National Science Foundation (NSF) graduate Fellowship. Her biography is included in the ABI 2000 Outstanding American Woman, IBC World Leader in Science, Cambridge Who's Who Among Executive and Professional Women.

Dr. Sean Xiao-Gang Su
Vice-President of Development & CFO
Responsibility: Vice-President of Development is responsible for research development, public relationship, advertisement, alumni, fund-raising activities of the institution, financial affairs, maintaining custody of the university's funds; preparing the annual budget; managing the budget.
Qualifications: Dr. Sean Su holds M.S. and PhD from UCDavis, and B.S from Beijing Normal University. He has extensive recognized academic teaching experiences, student advising and research work in data mining. Dr. Sean Su is the younger brother of Dr. Susan Su.

Ms. Sophie Xiao-Hong Su
Record Officer
Responsibility: The Admission and Record officer is responsible for processing all student application, maintaining student files, updating them regularly; and generate and disburse grades, probation warnings, certificates, diplomas and transcripts for students, tracing payment.
Qualifications: Ms. Sophie Su holds a M.S. in Computer Science from Cal State University at East Bay, and has been working in industry as a software programmer and designer for almost 10 years. Ms. Sophie Su is the younger sister of Dr.Susan Su.

Mr. Vince Wang
Registrar Officer
Responsibility: The Registar Officer is responsible to initiate and complete all class registration; maintain TVU on-line virtual classroom, collection data from the virtual classroom, maintain student and faculty virtual classroom activities.
Qualifications: Mr. Wang holds a M.S. in Computer Science from Northwestern Polytechnic University, and has been working as a manager of Web programming at U.C.Berkeley for many

years.

Ms. Nancy Zhang
Chief Librarian
Responsibility: The Chief Librarian is responsible for the Library development, including selecting book for purchase annually, index and category the collections, and oversee Library operation and policies.
Qualifications: Ms Zhang holds a MBA from HuBei University and currently pursues a M.A. in Library Science at Tri-Valley University.

Ms. Yan Luo
Accountant
Responsibility: The Accounting is responsible for financial affair, process purchase, accounting bookkeeping, tax of the university.
Qualifications: Ms Luo is a certified and licensed CPA.

Ms. Zoe Sun
Student Assistant
Responsibility: Student Assistant is responsible in picking up the phone, student affair in general, these including but not limit to student health insurance, student housing, assistance student is a daily basis on the various issues related to academic study and life at TVU. Ms Sun also serves as the Secretary and assistance to the President.
Qualifications: Ms Sun is currently working on a B.S. degree in Business Administration.

Mr. Krishna Potluri
Lab Assistant
Responsibility: Lab assistance is responsible to maintain university's research labs, install, and maintain software and hardware.
Qualifications: Mr. Chaitanya is working on his M.S. in Electrical Engineering. He is a former student of Dr.Susan Su.

Mr. Robert Dong
Director of International Affairs
Responsibility: Director of International Affairs is responsible for university international development and recruiting.
Qualifications: Mr. Dong is the President of North America American International Chamber of Commerce and brings many years of experiences in business and administration to TVU.

Dr. Bhaskar L. Mantha
Director of Graduate Students Affairs
Responsibility: Director of graduate Students Affairs is responsible for student affairs of all graduate students including student recruitment, student advising, student counseling services include personal, spiritual, career and academic counseling, stundent management and

development, various student academic and socil affairs.

Qualifications: Dr. Mantha holds a Ph.D. and M.S. in Electrical Engineeirng from University of Cincinnati, Ohio, in 1976 and1979, respectively. Dr. Mantha has been the director of technology of Swift Memory Technology at Pleasanton from 2006, and director of technology of Alliance Semiconductor at Santa Clara. He was a Manager at Silicon Storage Technolgoy from 1995 to 2004. He also had worked for Zilog Inc. Intel as a senior engineer. Dr. Mantha has published many papers and patents. He has a pasion for in-depth research in semiconductor technology and device.

Dr. Danilo Gonzalez
Director of Undergraduate Students Affairs

Responsibility: Director of Undergraduate Students Affairs is responsible for student affairs of all undergraduate students including student recuitment, student advising, student counseling services include personal, spiritual, career and academic counseling, stundent management and development, various student academic and socil affairs.

Qualifications: Dr. Gonzalez earns the Doctorate of Management in Organizational Leadership and M.A., Organizational Management both from University of Phoenix in 2008 and 2000 respectively. He has over 15 years of extensive experience in leadership, business development, accounting, credit and collections. Dr. Gonzalez also taught at Heald College and has been actively serving as the youth pastor role in the local church.

Ms. Karen Wang
Health Insurance Services

Responsibility: Ms Wang is responsible to help students to purchase heath insurance.

Qualifications: Karen is a aMarketing Director of World Financial Insurance Agency, Inc.

Mr. Mahesh Bajoria
Attorney

Responsibility: Mr **Bajoria** is responsible to help students in legal issues regarding status change, immigration etc.

Qualifications: Mr. Bajoria hold a L.L.M form both India and US.

Ms. Renu G. Philip
Assitant to President, Academic Affairs

E-mail: renu@trivalleyuniversity.org Tel: 925 353 3798

Mr. Srinivasa Rao Kaveti
Attorney New York
E-mail: srikaveti@hotmail.com
Tel: 917 324 7803 917 324 7803

Mr. James Wachira
TVU Africa Student Admisison Advisor
E-mail: jamomathenge@gmail.com
Tel: 408-893-2144 408-893-2144

Mr. Mohammad Mehdi
TVU Pakistan Student Admission Advisor
E-mail: mohmmad@trivalleyuniversity.org mmehdi0219@yahoo.com
Tel: 925 980 8055 925 980 8055

TVU New York
303 FIfth Avenue, Suite 1301, NY, NY-10016 Tel: (212) 576-1003/(212) 532-1102 Fax: 1-212 532 1105

E-amil: tvu-ny@trivalleyuniversity.org

Student Advisor: **Mr. Samuel Steven K.**

E-mail: ssk@trivalleyuniversity.org Tel: 256 714 0252 256 714 0252, 209-233-8575

TVU International:

South Asia Region Representative:

ABS Consultancy

Headquarter: 5-5-184/21/2, Indira Nagar, Phase-II, Vansthalipuram, Hyderabad, Andhra Pradesh, India 500070

IAEC CONSULTANTS PVT LTD

Headquarter: #402,4th Floor ,Guru Partha Estates; Opp:IOC Petrol Pump,Beside YMCA; Naryanguda, Hyderabad-29; A.P, India

China Representatives:

Liaoning Province:

Liaoning Huanxing Economic & Trade Educational Development Co., Ltd

11F Guangming Building, 200 Zhonghua Road, Heping District, Shenyang 110001, Liaoning Province, China

Beijing:

Beijing Wanji Education Consulting Co., Ltd.
Room 306, Xinzhong Building, No.2,Xinzhong Xi Street, Dongcheng District, Beijing 100027 China. Tel: 001 86 10-65522010 65522075 Fax:001 86 10-65522011

Africa Region Representative:
JRC Student Recruitment Center
Headquarter: MIRIKA FAITH PLAZA.1ST FLOOR,SUITE 2A ACCRA ROAD(NEXT TO ACCRA HOTEL).NAIROBI KENYA. Telephone: +254710762461 +254710762461

Advisory Board
Chief Academic Advisors

Prof. Bahram Ravani
Chair of Department of Electrical and Computer Engineering
University of California, Davis
2064 Kemper Hall/1013 Academic Surge
Phone: 530 752 2455 Fax: 530 752 8428
E-Mail: bravani@ucdavis.edu
Curriculum Vitae
Home Page

Prof. Ravani currently serves as the Chair of Department of Electrical & Computer Engineering (ECE) at U.C. Davis since 2005. As a Professor in mechanical engineering for more than 20 years, Prof. Ravani also served as the Chair of Department of Mechanical and Aeronautical Engineering from 1996 to 2001; Vice Chair of Department of Mechanical & Aeronautical Engineering, U. C. Davis from 1991 to 1993. Prof. Ravani's research areas are mainly on Computer-Aided Design and Computation, Mechatronics and Intelligent System, Kinematics and Dynamics and he is PI for many research projects. Prof. Ravani received the Machine Design Award from ASME for Research Contributions in Kinematics and Computer-Aided Design in 2005; Dedicated Service Award from ASME in 2004; Gustus Larson Memorial Award for Outstanding Achievements in Mechanical Engineering; Design Automation Award for sustained and meritorious contributions to design automation from ASME in 1997; and more can be found from his detailed Curriculum Vitae. Prof. Ravani holds a Ph.D. degree from Mechanical Engineering Department Design Division at Stanford University in 1982, a M.S. degree with distinction from Mechanical Engineering Department from Columbia University in 1978, and a B.S. degree from Mechanical Engineering from Louisiana State University in 1976.

Prof. Sung Hu

Associate Dean, College of Science and Engineering
Professor of Electrical Engineering, School of Engineering
San Francisco State University
1600 Holloway Avenue
San Francisco, CA 94132
Office: TH 323 Phone: (415) 338-1571

Fax: (415) 338-0525 Email: shu@sfsu.edu

Prof. Hu currently is the Associate Dean of College of Science and Engineering since 2001. Prior to that, Prof. Hu had been the Associate Dean of the School of Engineering. As a Professor in Electrical Engineering, Prof. Hu's research interests are in the area of Digital System Design, Microprocessor Applications, Computer Architecture, Fuzzy Logic and Programmable Logic Devices. Prof. Hu has published many technical papers and patents in the area of digital design, microprocessor applications and programmable logic controller. Prof.Hu holds a Ph.D. degree and a M.S. degree in Electrical Engineering from Oregon State University, and a B.S. degree in Electrical Engineering from Cal Poly San Luis Obispo.

Prof. Shy Sheng Liou

Director of School of Engineering,
Professor of Electrical Engineering, School of Engineering
San Francisco State University
1600 Holloway Avenue
San Francisco, CA 94132
Office: SCI 163 Phone: (415) 338-1228 Fax: (415) 338-0525 Email: ssl@sfsu.edu

Prof. Liou has been the Director of School of Engineering at San Francisco State University since 2001, overseeing the Electrical Engineering, Computer Engineering, Mechanical Engineering and Civil Engineering programs. Prior to that, Prof. Liou was the Program Head of the Electrical Engineering Program at School of Engineering from 1997 to 2001. As a Professor in Electrical Engineering since 1991, Prof. Liou's has led many funded research projects in rotating machines and power electronics, especially their applications in motion control area and published many papers. Prof. Liou also serves as a consult for many industry companies in power system. Prof. Liou holds a Ph.D. degree and a M.S. degree in Electrical Engineering from University of Texas at Austin in 1985 and 1989 respectively, and a B.S. degree in Electrical Engineering from National Taiwan University in 1981.

Ted Guo, Ph.D

Chief Technology Officer

ENN Science and Technology North America Inc.

Dr. Ted Guo is co-founder and Senior Vice President of ENN Solar Energy Co., Ltd., and Vice President and CTO of ENN Science and Technology North America Inc. Dr. Guo was the director of technology and new product development at Applied Materials, Inc. and had been with Applied Material for 13 year prior to founding ENN. Dr. Guo has broad experience and knowledge in semiconductor thin film technologies including CVD and PVD metallization for ULSI interconnection with various materials. He has led teams to develop and release products that have been used widely in the major chip manufacturers worldwide. Dr. Guo also has extensive research experience in compound semiconductors including III-V and II-VI groups. He received his Ph.D. in solid state physics from the Polytechnic University of New York. Dr. Guo holds 19 US patents and 4 US patents pending. He is author of over 25 technical papers.

Advisory Board Chair

Dr. Ronald E. Cottle Ph.D. Ed.D
Founder-Chancellor
Beacon University
6003 Veterans Parkway
Columbus, Georgia 31909

Dr. Cottle has been the Founder, President and Chancellor of Beacon University. Dr. Cottle holds Ph.D. in Religion and M.S.Ed., ED.D in Higher Education all from University of Southern California in year 1967, 1971 and 1974 respectively. He also holds a M.Div. in New Testament from Lutheran Theological Southern Seminary in 1962 and a B.A. in Religion from Florida Southern College in 1955. Dr Cottle is the founder of Christian Life Educators Network (CLEN), a successful international organization networking 187 Christian universities and colleges in US outreaching 23 countries. Dr. Cottle is a world famous educator, teacher and evangelist. Through Dr. Cottle, Tri-Valley University is blessed to access CLEN's enriching Christian Education resources including famous instructors, videos, DVDs and many more. Tri-Valley University is honored not only to have Dr. Cottle as our Advisory Board Chair, but also as an honorable faculty member directly supervising TVU's Ph.D. students in Theology and to hear his messages and teaching--- His noble and yet humble services to the Lord lightens us all.

Tri-Valley University

4455 Stoneridge Drive, Pleasanton CA 94588 USA
http://www.trivalleyuniversity.org
E-mail: tvu@trivalleyuniversity.org

Undergraduate Application FORM

Domestic ☐ or **International** ☐ **Country of Citizenship** _____ **Date** _____
Apply for B.S. Program Department _____ **Apply for Year** _____ **Trimester** _____

Personal Information

Full Name: Last Name: _____
First Name (Middle Name): _____
Home/Current Address: _____
City/St/Zip: _____
Country: _____
Phone: (_____) _____ - _____ Cell:(_____) _____ - _____
Fax: (_____) _____ - _____

Sex ☐F ☐M
Date of Birth: (mm/dd/yy): _____
Place of Birth: _____
Email: _____
Are you transferring to TVU from another institution?
☐N ☐Y If yes, list the name of institution attended:
_____ Year/Term _____

Proposed Program of Study: _____

B.S. Degree Program			
Proposed Department of Study	**Dept. of Electrical Engineering**	**BSEE**	☐
	Dept. of Computer Science & Engineering	**BSCS**	☐
	Dept. of Mechanical Engineering	**BSME**	☐
	School of Business	**BSBA**	☐
	Department of Nurse	**BSNS**	☐
Proposed time to start	**Year** _____ **Spring** ☐	**Summer** ☐	**Fall** ☐

EDUCATION (List high school, colleges and universities previously attended and attach the official transcript from each institution.)

Institution	**Dates** *(mm/yy – mm/yy)*	**GPA**	**Degree / Complete Date**

EMPLOYMENT HISTORY (List profession experience, laboratory work, or occupations you have other than that of student.)

Employer / organization	**Dates** *(mm/yy – mm/yy)*	**Position**	**Paid / Voluntary**

TVU OFFICE USE ONLY

Action:

Date:

APPLICANT's ELECTRONIC SIGNATURE

☐ I have read and understand Tri-Valley University's mission, purpose and objectives (spiritual and educational), philosophy, and standards of conduct and will adhere respectfully to their contents.

☐ I understand the California Educational Code ss67142 prohibits transmission of information about me to others without my consent. I hereby agree that TVU may submit any information relevant to my application and enrollment to the agencies of its choice for verification.

☐ I declare that above information is true to the best of my knowledge. I understand that my admission is contingent on the receipt of official transcripts and the payment of the fee.

Signature _____ **Date** _____
Enter full name: _____ Enter e-mail address: _____

Undergraduate Application Check List:

Domestic/International Applicants for B.S. Program:

(1) Submit the Complete and Signed Undergraduate Application Form
(2) A non-refundable $50 Application fee, make check payable to Tri-Valley University
(3) Official Transcripts for all attended institutions, high school colleges or universities
(4) Copy of High school diploma

Additional Check List for International Applicants:

(1) Financial support documents (either your bank letter or an affidavit of Support Form I-134 from your financial sponsor) indicating a minimum amount of $25,000 (for degree program applicants).
(2) TOEFL score taken within the last two years if have not taken any English spoken courses or other document verifying your English proficiency (e.g. course work from another institution at U.S.)
(3) Photocopies of your passport, visa, and I-94 if applicable.

If you transfer from another institution, submit a photocopy of your last I-20 form and to complete our "International F-1 Student Transfer Request Form" and conduct proper "transfer out" process requested by your previous institution and to complete you record transfer by Immigration Service's online SEVIS system.

Tri-Valley University

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Application for Graduate Admission FORM

Domestic ☐ or **International** ☐ **Country of Citizenship** _____ **Date** _____
Apply for M.S. Program ☐ or **Ph.D. Program** ☐ **Apply for Year** _____ **Trimester** _____

Personal Information

Full Name: Last Name: _____
First Name (Middle Name): _____
Home/Current Address: _____
City/St/Zip: _____
Country: _____
Date of Birth: (mm/dd/yy): _____
Place of Birth: _____
Phone: (_____) _____ - _____
Mobil: (_____) _____ - _____
Email: _____

Sex ☐F ☐M
Current Employer: _____
Occupation: _____
Work Address: _____
City/St/Zip: _____
Fax: (_____) _____ - _____

Are you transferring to TVU from another institution?
☐N ☐Y If yes, list the name of institution attended:
_____ Year/Term _____

Proposed Program of Study

Degree Program	**Master Degree Program** ☐	**Doctor Degree Program** ☐
Proposed Department of Study and Emphasis / Major Field	**MSEE** ☐ **Emphasis** _____	**Ph.D. EE** ☐ **Major** _____
	MSCS ☐ **Emphasis** _____	**Ph.D. CS** ☐ **Major** _____
	MSME ☐ **Emphasis** _____	**Ph.D. ME** ☐ **Major** _____
	MBA ☐ **Emphasis** _____	**Ph.D. BA** ☐ **Major** _____
	MA ☐ **Emphasis** _____	**Ph.D. Ministry** ☐ **Major** _____
	L.L.M. ☐ **Emphasis** _____	**J.D.** ☐ **Major** _____
	MSNS ☐ **Emphasis** _____	**Ph.D. Law** ☐ **Major** _____
	MSHC ☐ **Emphasis** _____	**Ph.D. HN** ☐ **Major** _____
		Pharm. D. ☐ **Major** _____
Proposed time to start	**Year** _____ **Spring** ☐	**Summer** ☐ **Fall** ☐

EDUCATION (List universities, colleges, previously attended and attach the official transcript from each institution.)

Institution	**Dates** *(mm/yy – mm/yy)*	**Department**	**Degree / Complete Date**
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

EMPLOYMENT HISTORY (List profession experience, laboratory work, or occupations you have other than that of student. If you work fulltime in industry, it is preferred that you submit a current cv/resume.)

Employer / organization	Dates *(mm/yy – mm/yy)*	Position	Paid / Voluntary
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Test Score & GPA (GRE or GMAT is not mandatory but is preferred for all graduate degree program. TOEFLE is required for non-English spoken students. See admission requirements in catalog for detail requirements).

	Date *(mm/yy)*	Registration No.	Total Score			
GRE	_____	_____	_____	**Verbal:** _____ (_____%)	**Quantitative:** _____ (_____%)	**Writing:** _____ (_____%)
TOEFLE	_____	_____	_____	**Sec 1**: _____ (_____%)	**Sec.2:** _____ (_____%)	**Sec. 3:** _____ (_____%) / **Sec. 4:** _____ (_____%)
GPA	**Undergraduate GPA** _____			**Graduate GPA** _____		

Recommendation Letters (Recommendation Letter is preferable for M.S. applicant. For Doctor Degree applicant at least two original recommendation letters are mandatory.)

Institution	Dates *(mm/yy – mm/yy)*	Department	Degree / Complete Date
_____	_____	_____	_____
_____	_____	_____	_____

Statement of Study: (A short paragraph of statement of study is preferred for M.S. degree applicant and is mandatory for Doctor Degree Applicant. Describe your motivation for graduate study in the specialization area.)

International students admitted to TVU must complete at least one full semester of study at TVU before withdrawal or transferring to another institution. No refunds will be given during the first semester of the student's enrollment at TVU.

REFERRAL INFORMATION

I was referred to Tri-Valley University by:

Name: _____ **E-mail:** _____ **Address:** _____

Or Others : **Internet** ☐ **Poster** ☐ **Advertisement** ☐ **Others** ☐

Application fee of $50.00 must accompany this application. The application fee is not refundable.

TVU OFFICE USE ONLY **Action:** **Date:**	**APPLICANT's ELECTRONIC SIGNATURE** ☐ I have read and understand Tri-Valley University's mission, purpose and objectives (spiritual and educational), philosophy, and standards of conduct and will adhere respectfully to their contents. ☐ I further understand the California Educational Code ss67142 prohibits transmission of information about me to others without my consent. I hereby agree that TVU may submit any information relevant to my application and enrollment to the agencies of its choice for verification. ☐ I declare that the above information is true to the best of my knowledge. I understand that my sdmission is contigent on the receipt of oficial transcripts and the payment of the fee. **Signature** _____ **Date** _____ Enter full name: _____ Enter e-mail address: _____

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E-mail: tvu@trivalleyuniversity.org

Application for Graduate Admission FORM

Application Check List:

Domestic/International Applicants:

M.S. Program:

(1) Signed Graduate Application Form
(2) $50 application fee, make check payable to Tri-Valley University
(3) Official transcripts from all attended institutions

Ph. D. Program:

(1) Signed Graduate Application Form with Statement of Study.
(2) $50 application fee, make check payable to Tri-Valley University
(3) Official transcripts of all attended institutions
(4) At least two original recommendation letters.

Additional Check List for International Applicants:

(1) Financial support documents (either your bank letter or an affidavit of Support Form I-134 from your financial sponsor) indicating a minimum amount of $25,000 (for degree program applicants).
(2) TOEFL score taken within the last two years if have not taken any English spoken courses or other document verifying your English proficiency (e.g. course work from another institution at U.S.)
(3) Photocopies of your passport, visa, and I-94 if applicable.
If you transfer from another institution, submit a photocopy of your last I-20 form and to complete our "International F-1 Student Transfer Request Form" and conduct proper "transfer out" process requested by your previous institution and to complete you record transfer by Immigration Service's online SEVIS system.

Current Graduate Degree Program and Emphasis Areas:

MSEE: A: Analog IC Degn.; B: VLSI and Digital IC; C: Green Energy Technology D. MEMS/NEMS; E. Nanotechnology
Ph.D. EE (Electrical Engineering): A: Analog IC Design; B: VLSI and Digital IC; C: Nanotechnology
MSCS & Ph.D. CS (Computer Science and Engineering):
CS Area A: Software Programming; CS Area B: VLSI System; CS Area C: Data Mining
MSME & Ph.D. in ME (Mechanical Engineering):
ME Area A:Mechanical Design; ME Area B: Engr. Mechanics; ME Area C: MEMS
MBA: Area A: Accounting; Area B:Finance**;** Area C: Marketing; Area D: Economics**;** Area E: Business Administration
Ph.D. in BA: A: Business Administration; B: Accounting & Finance; C: Economy and Marketing
Master of Art: A: Biblical Studies; B. Systematic Theology; C. Church History; D. Christian Counseling; E. Ministry; F. Library Science
Ph.D. in Ministry: A. Biblical Studies; B. Christian Counseling; C. Ministry
L.L.M.: Major A Family Law; Major B Business Law; Major C Intellectual Property Law.
J.D.: Major A Family Law; Major B Business Law; Major C Intellectual Property Law.
Ph.D. in Law: Major A Family Law; Major B Business Law; Major C Intellectual Property Law.
MSNS(Nurse): Area A: Family Nurse Practitioner (FNP); Area B: Nurse Administrator; Area C: Nurse Educator.
MSHC (Health Care): Area A: Health Care management; Area B: Medical Assistant.
Ph.D. in Nurse: Major: Nurse Administrator and Nurse Educator; Minor: Family Nurse Practitioner (FNP).
Doctor Degree in Pharmacy (Pharm .D.)