MAHIDOL UNIVERSITY

INTERNATIONAL DEMONSTRATION SCHOOL

PROGRAM OF STUDIES

TABLE OF CONTENTS

How to Use the Program of Studies

This Program of Studies gives all the information needed to help students plan their three-year course of study at MUIDS as well as prepare for university entrance. While selecting their course of study, students should ask themselves the following questions:

- Am I choosing courses that are appropriate to both my abilities and my interests?
- Am I choosing courses that will qualify me for admission to the university of my choice?
- Am I meeting all MUIDS graduation requirements

THE UNIVERSITY EMBLEM

As the demonstration school of Mahidol University, the school uses the university emblem with the school's name: Mahidol University International Demonstration School underneath it.

Mahidol University emblem comprises of two circles: the inner blue circle and the outer white circle. The inner circle consists of the Royal Coat of Arms of Chakri Dynasty placed under the great crown of victory (Pra Maha Phichi Mongkut) intertwined by the Thai letter **"ม"**, the initial letter of H.R.H. Prince Mahidol's last name.

- The great crown of victory or Phra Maha Phichi Mongkut signifies the status of the King, one of the most important Royal Regalia of Thailand.
- The Royal Coat of Arms of Chakri Dynasty consist of the discus (Chakra) and the trident (Trisula) the celestial weapons of God Narayana , signifying the Chakri King is a personification of God Narayana.
- The official color of the school is "blue", denoting Royal bloodline.

The outer circle is white with the name of the university and the university motto written in Pali language: "Attanam upamakare", translated as the Golden rule in English: Do unto others as you would have others do unto you.

THE SCHOOL LOGO

The school uses MUIDS the abbreviation of Mahidol University International Demonstration School as its logo.

The letters **"MU"** stand for Mahidol University, suggesting that the school is an offspring of Mahidol University.

The letter **"I"** is visually presented as a young tree or a book with two birds soaring in the sky.

- The young tree is the symbol of youths or adolescents
- The book symbolizes academic excellence
- Two birds signify the academic success and global competence

The yellow star represents the dot on the letter "I" which signifies "Wisdom of the Land" (MU vision)

The letter **"D"** stands for Demonstration, suggesting the emphasis on educational research and professional development of teachers

The letter **"S"** stands for secondary school

The school colors are: navy blue, sky blue, and yellow.

EXPECTED SCHOOLWIDE LEARNER OUTCOMES

The Expected School-Wide Learner Outcomes, generated from the core values of Mahidol University and the 21st century global literacy skills, are taught at each grade level in ways that are developmentally appropriate.

STRATEGIC LEARNERS

- Set personal and academic goals
- Recognize own limits of knowledge and understanding and make plans to learn
- Employ time management skills
- Use available resource to learn
- Have a passion for learning , comfortable with ambiguity, and open to new experiences
- Reflect on own learning and profit from mistakes
- Accept challenges, and strive for excellence
- Apply the latest technology to learn, research, and work

INNOVATIVE THINKERS

- Demonstrate reflective thinking through synthesis and generation of ideas, explanations, and reasons
- Perform critical thinking through analysis, interpretation, and evaluation of information
- Articulate problems, formulate questions or hypothesis, organize inquiry process, and synthesize the outcomes
- Apply knowledge or generate, select, and apply problem-solving strategies appropriate to the context
- Create original works and build on the ideas of others
- Use technology to create a range of practical, artistic, and intellectual products of high quality

ARTICULATE COMMUNICATORS

- Listen actively for different purposes with analytical mind and understanding
- Speak and respond appropriately to the social and academic context
- Apply reading strategies to understand , appreciate, and evaluate what is read
- Read and evaluate a range of genre of writing for information, entertainment, and enrichment
- Appreciate artistic communications
- Apply writing process and write proficiently for different purposes and audiences
- Use technology to share and communicate with others

MORALLY INTELLIGENT PERSONS

- Display moral, ethical, and civil behavior
- Make decisions that are principled and ethical
- Promote justice and peace in the community
- Display a strong work ethics and charity for all
- Conduct themselves within a truthful moral code
- Seek to grow spiritually through prayerful life
- Utilize technology in an ethical way

ALTRUISTIC GLOBAL CITIZENS

- Practice and maintain a physically, emotionally, socially, and mentally healthy lifestyle
- Exhibit civic mindedness and responsibility
- Contribute time, energy, and talent to family and community
- Demonstrate cultural sensitivity and respect for differences
- Show responsibility for health, safety, security and environmental issues
- Actively work toward improving the lives of others in the school, the community, the nation, and the world
- Use technology for community services

LEADERS FOR THE FUTURE

- Respectful of themselves, of their peers, and their community
- Use effective leadership and group skills to work collaboratively with others to achieve group goals in diverse situations
- Collaborate to determine common objectives and processes for a group
- Use effective negotiation and conflict resolution strategies and accept group decisions
- Demonstrate practical and facilitative leadership
- Contribute purposefully, constructively and creatively to the group
- Evaluate own and others' contributions and provides constructive feedback
- Apply technology effectively to solve problems and complete tasks

GENERAL INFORMATION

The educational program of Mahidol University International Demonstration School is based on the system of education in Thailand and the United States. This *Program of Studies* is designed to give students and their parents information about the courses needed to complete the last three years of secondary level.

MUIDS System of Education

	Course of Study	Recognition
Secondary Level	**Senior High School** ○ Grade 12 ○ Grade 11 ○ Grade 10	**Senior High School Diploma**

Academic Expectations

MUIDS is committed to providing a challenging college preparatory program. The curriculum is structured in the manner which will enable students to apply to Thai programs as well as international programs in highly competitive universities. MUIDS students are expected to demonstrate willingness to strive for their personal best in all they do.

To be in good academic standing, no more than one F is allowed per semester. Students who fail to meet these expectations will be placed on the Academic Watch List, Academic Probation and/or referred to the Student Study Team.

Pass/Fail Courses

Classes graded Pass/Fail are not counted towards the grade point average (GPA) calculation:

- TOEFL,PSAT, SAT, Thai College Prep Clinics
- CAPSTONE PROJECT
- Services Learning/clubs/sport activities

Course Assignment

Students will be assigned to courses for the following school year in the second semester of the previous year. All students will receive their course schedules on the first day of each new semester.

Changing Courses

Students wishing to initiate a change of course or schedule must provide a written request. Students may change courses only with the permission of a parent, the teacher of the course, and the counselor. Students must complete the process by the seventh class meeting for classes that meet every day, by the fourth class meeting for classes that meet every other day, and by the second class meeting for classes that meet once a week. The Counseling Office will inform students of the dates that change requests will be considered.

Attendance and Punctuality

MUIDS offers a competitive program that is relevant and challenging. Students are expected to attend classes regularly as well as complete all course requirements in order to earn the required number of credits to graduate. Excessive absence affects student learning, may jeopardize credits, and hence, the ability to graduate.

Daily attendance is recorded in the student's homeroom. Students should be on time for homeroom and classes. Parents will be contacted in the event of persistent absence or lateness. A Parent Notification of Absence (PNA) Form is available in 2 languages: English and Thai for parents to notify the school before or after student absence.

Students are allowed 7 days' absence per semester for health and family or non-school related reasons. In addition, students may miss up to 4 additional days for school related absences (i.e. fieldtrips, ROTC, college interviews, international academic competition, sports events or external exams). These additional absences must be approved by submitting a written request from parents to the school office at least one week in advance. The school is prepared to hear appeals for exceptions to the above for extenuating circumstances.

Assessment at MUIDS

At MUIDS, assessment is an integral part of teaching and learning. It is an ongoing process of collecting evidence and making judgments as to how well students have achieved the intended learning outcomes as well as assist the teachers in evaluating the effectiveness of their teaching.

Assessments in an instructional unit include varieties of assessment techniques, providing a consistent basis for the establishment of an appropriate grade. To measure student progress and provide appropriate feedback to students on their performance, assessments should be fair and transparent, involving several types of assessment tasks, such as diagnostic, formative, summative, and authentic assessments.

Examination

Examinations for all academic courses are held at the end of each semester according to a special examination schedule. Students must be on time for the start of the examination. Those arriving 30 minutes late will not be allowed to take the examination. Examination marks count 40% of the semester grade for the course.

Students who fail to take an examination on the scheduled date will be allowed to take a make-up exam only on the following accounts:

- Sickness (hospital documents are required for medical excuse)
- On military training
- Officially representing MUIDS to attend a specific function

A request for make-up exam must be submitted together with relevant documents to the office prior to the examination.

Academic Honesty

MUIDS students must not cheat or plagiarize. Cheating is the act of misrepresenting one's knowledge. It includes, but is not limited to:

1. Using or attempting to use books, notes, study aids, calculators, computers, cell phones during the exams.
2. Copying or attempting to copy from another person's paper, report, lab work, or other work material.
3. Getting, in advance, information about quizzes, tests, or examinations.
4. Doing assignments or projects for another person.
5. Giving unauthorized aid to another person on quizzes, tests, or examination.
6. Using any portion of a paper or project to fulfill the requirements of more than one course, unless the student has received prior permission to do so.

Plagiarism is the act of stealing and passing off the ideas or words of another as one's own:

1. Using ideas or production of another person without crediting the source.

2. Committing literary theft.

Disciplinary for academic dishonesty will be handled by the Committee on Academic Dishonesty. The committee will determine the extent of academic dishonest and recommend appropriate academic punishment, including getting zero point for the assignment, an F for the exam, an F for the course.

College Entrance Requirements

At MUIDS, students are encouraged to discuss college planning early in high school to ensure meeting all the requirements of the universities and colleges they wish to apply. Many universities in Thailand offer both Thai and International Programs.

Thai Programs

The program is open to students of all nationalities. The language of instruction is Thai. There are two ways to apply for Public Universities' admission:

- Direct admission is managed by the university.
- Central admission is organized by the Ministry of Education.

Requirements for the central admission process are as follows:

- GPAX (6 semesters GPA)
- O-NET (8 Groups of Subjects; O-NET = Ordinary National Educational Test)
- GAT (GAT = General Aptitude Test)
- PAT (PAT = Professional and Academic Aptitude Test)

Students who are interested in applying for the universities' admission by central admission must enroll to take the O-NET, GAT, and PAT before submitting their application, and they must submit their scores by April or May, depending on the faculty to which they are applying. Students see their counselor for more information.

Students wishing to apply to Thai Programs must graduate and receive their High School Diploma by March 31. They must inform their counselor by April of their grade 11, in order to request Early Graduation and receive detailed instructions for the Thai university admission process.

International Programs

The program is open to students of all nationalities. The language of instruction is English. Generally, each university has its own requirements in accepting students, and there is no central admission.

Requirements for admission are as follows:

- Students must submit SAT scores and TOEFL or IELTS scores (unless the university offers its own standardized test, such as Chulalongkorn University and Thammasat University)
- SAT: 1100 (Critical Reading + Math) or 1650 (Critical Reading + Math+Writing)
- TOEFL: at least 79-80 (IBT) or
- IELTS: 6.0
- Cumulative GPA: most colleges do not specify a minimum GPA, and they will take such factors into consideration: supporting courses that must appear in the official transcript, standardized test results, interview, etc.
- Two teacher recommendations.

For more information, students can contact the Counseling Office.

GRADUATION REQUIREMENTS

To earn MUIDS high school diploma, students must complete 3 years of secondary school (Grade 10-12) and fulfill the following minimum requirements:

1. Total number of 81 MUIDS Credits with a 2.0 cumulative GPA

Core Subjects	Credits	Required Electives	Credits	Recommended Electives	Credits
English	15	Values/Buddhism & World Religion	4	Electives (varied depending on individuals' education plan)	9
Social Sciences	9	Technology	4	Advanced Courses/ Pathway to College	3
Science	9	P.E. & Health Education	4		
Math	9	Drama/Band/Drawing/Painting	4		
Thai Studies	9	Project-based Learning	2		

Total Number of Core Subject Credits = 51
Total Number of Other Subject Credits =30

2. TOEFL or other English Language Proficiency test Requirement (550 Institutional, 79 internet-based or 213 computer-based TOEFL score)
3. Student's Portfolio Assessment - a systematic collection of student products overtime that reflect a student's development and progress in the achievement of MU core values, the 21st century skills and ASEAN literacy
4. Community Services – activities which connect what students learn in school with the sense of caring and concern to serve one's community, country, and the world

TOEFL (Test of English as a Foreign Language) Requirement

Students are expected to earn a minimum score of 550 Institutional, 79 internet-based, or 213 computer-based TOEFL in order to graduate. Every March MUIDS provides the Institutional TOEFL for grade10 students, and also for upper grade students who still need the required score.

Thai Language Requirement

In accordance with the regulations of the Thai Ministry of Education, all Thai nationals attending international schools are required to take courses in Thai language and culture. Similarly, international students are required to take Thai Literacy and Thai culture courses.

Early Graduation

The MUIDS academic program is designed to be completed over a three-year period. However, there may be circumstances in which a student may graduate early (end of 1st semester or 3rd quarter of grade 12), such as acceptance into a university program that begins before the end of the senior year. Early graduation is a privilege, not a right; therefore it may be withdrawn if the student fails to maintain good

standing in academics and behavior. The student who meets the school's criteria will be issued a Graduation Certificate Letter and a transcript upon completion of the first semester or third quarter of the Grade 12 year. A diploma will be issued after the graduation ceremony in June. This is in accordance with the Thai Ministry of Education regulations.

Eligibility Criteria for Early Graduation

- Earn a minimum of 81 MUIDS credits
- Earn a minimum GPA of 3.5
- Earn a minimum TOEFL score of 550 (213 computer-based/79 internet-based)
- Acceptable behavior and attendance
- Acceptable grades in English classes
- Acceptance from a university
- Approval of the School Director

Time Line	Activity
Grade 10 (Second Semester)	Students sit for the institutional TOEFL exam.
Grade 11 (Second Semester)	Students sit for the TOEFL and PSAT exams
Grade 12 (First Semester)	Students sit for the SAT exams Students submit Early Graduation Application Form and supporting documentation to Counselor: • Official TOEFL and SAT score reports (for students applied for international programs) • Official letter of acceptance into a university (may be submitted later upon receipt) The form must be signed by the students and the parents.
	Counselor accepts the application pending receipt of letter of acceptance in December or January.
Grade 12 (Nov.-Mar.)	Students submit a letter of acceptance from a university to support the Early Graduation Application.
	The Counselor will review the application, academic performance, and the supporting documentation before final approval is given by the School Director.
	Early graduation, if granted, is for exit upon completion of the 1st semester or at the end of the 3rd quarter.

Credits

In addition to earning grades, high school students must also earn credit towards graduation. Credit is granted only for courses taken while a student is enrolled in a high school (grades 9-12) program. At MUIDS the schedule is on a five-day rotation with classes lasting 70 minutes. Credit is calculated on the following basis:

Duration	Class Meets	MUIDS Credit Earned
1 year	Every day	5
1 year	Three days a week	3
1 year	Two days a week	2
1 year	One day a week	1
2 years	One day a week	2
3 years	One day a week	3

CURRICULUM

Curriculum Design

MUIDS curriculum is a standard-based curriculum. Subject standards are adapted mainly from three sources:

- Content Standards for California Public Schools, adopted by the California State Board of Education December 1997
- Content Standards for Basic Education, adopted by the Department of Basic of Curriculum and Instruction 2008, Thai Ministry of Education
- Thai Language and Culture Content Standards for International Schools, adopted by the Office of Private Education Commission 2009

The table below shows the differences between instruction and assessment in traditional practice and instruction and assessment at MUIDS

Traditional Instruction and Assessment	MUIDS Instruction and Assessment
Knowledge is conceived as accumulation of facts	Knowledge is transformation of facts
Topics used as organizers of instructional units	Themes, issues, problems, inquiry or project approach used as organizers of instructional units
Content focused Know what	Process driven Know why and how to find out
Mistakes are to be avoided	Mistakes are to be learned from
Students are passive/receptive learners	Students are active, generative, and reflective learners
Learn from experts	Learn from various sources Learning is situated in the real world contexts
Students answer questions set by teachers	Students set questions and search for answers (inquiry learning)

Curriculum Structure

Grade 10

Core Subjects		Required Electives		Recommended Electives	
English 10	5	Computer Hardware & Networking	2	*Choose one (1)* □ Business Math □ Earth-Space Science □ Environmental Science □ Food Science □ Mandarin	3
Biology 10	1	Project Based Learning 10	1		
Chemistry 10	1	Health Education	1		
Physics 10	1	Physical Education	1		
Math 10	3	*Choose one (1)* □ Values □ Buddhism	2		
World History	3				
Choose one (1) □ Thai Language 10 (Thai) □ Thai Literacy 10 (non-Thai)	3				
Credits	17	*Credits*	7	*Credits*	3
27 Total Credits					

Grade 11

Core Subjects		Required Electives		Recommended Electives	
English 11	5	Introduction to Computer Programing	2	*Choose one (1)* □ Anatomy & Physiology □ Beginning Band □ Business Math □ Computer Programing □ Drama □ Earth-Space Science □ Environmental Science □ Food Science □ Mandarin □ Multi-Media	3
Biology 11	1				
Chemistry 11	1	Project Based Learning 11	1		
Physics 11	1				
Math 11	3	World Religion	2		
Asia Studies	3	Health Education	1		
Choose one (1) □ Thai Language 11 (Thai) □ Thai Literacy 11 (non-Thai)	3				
		Physical Education	2		
Credits	17	*Credits*	7	*Credits*	3
27 Total Credits					

Grade 12

Core Subjects		Required Electives		Recommended Electives	
English 12	5	*Choose one (1)* □ Beginning Band □ Concert Band □ Drama	2	*Choose two (2)* □ Advanced Earth-Space Science □ Advanced Biology □ Advanced Chemistry □ Advanced Math Calculus or Statistics □ Advanced Physics □ Anatomy & Physiology □ Computer Programing □ Mandarin □ Multimedia □ Pathway to College	6
Biology 12	1				
Chemistry 12	1				
Physics 12	1				
Math 12	3				
Psychology	3				
Choose one (1) □ Thai Language 12 (Thai) □ Thai Literacy 12 (non-Thai)	3	□ Drawing & Painting	2		
Credits	17	*Credits*	4	*Credits*	6
27 Total Credits					

Grand Total 81 Credits

Recommended Electives

Medicine & Allied Health	Pure & Applied Sciences	Liberal Arts & Social Sciences	Technology & Communication
Advanced Biology	Adv. Biology/ Adv. Chemistry/ Adv. Physics	Business Math/ Advanced Math	Introduction to Computer Programming Advanced Digital and Interactive Multimedia Multimedia Technology Trend
Anatomy & Physiology	Adv. Biology/ Adv. Chemistry/ Adv. Physics	Food Science/ Environment Science	Advanced Math
Advanced Math	Advanced Math	Mandarin	Mandarin
Path-way to College	Path-way to College	Path-way to College	Path-way to College

Credit is granted for courses in which the student has earned a grade of D (60%) or higher. A student who earns a grade of F (below 60%) will not earn credit for that course. Failure may jeopardize the student's ability to graduate. Excessive absences and tardiness will also affect the student's ability to graduate on schedule.

Transfer Credit

Students from other high schools may transfer up to 27 MUIDS credits per academic year for courses for which a grade of C, and above have been earned. One summer school' credits per year from other schools may also be transferred in. Transferred students who do not have enough course credits to graduate from MUIDS must take additional courses in order to fulfill the missing credit requirement. Summer school provides an opportunity to make up credits in some subjects.

Grade Level Placement or Promotion

Credits are also used to place students. Students who enter or who transfer from other high schools will be placed in the following grade levels according to the credits they have earned:

Entering Grade Level	Student must have earned from previous school
10	0 MUIDS credits
11	27 MUIDS credits minimum
12	54 MUIDS credits minimum

Students who enter MUIDS in the upper grades (grades 11 and 12) must be able to meet all graduation requirements by the time they graduate. Failing to do so may require an additional semester or year.

Repeating Courses

Students in grades 10 to 12 who fail a course must attend summer school or an after- school program to make up the credits.

Credit Awarded upon Early Withdrawal

Any student in grades 10 to 12 withdrawing from MUIDS before the end of a semester may request to receive credits if the following requirements are fulfilled:

- Credit is granted only for completed semesters
- A written request for early withdrawal is submitted to the School Director at least one month prior to withdrawal.
- Documentation from the parent justifying early withdrawal is submitted to the School Director.
- The student has not exceeded the absence limit for a semester course.
- The student has achieved passing grades of 60% (D) or higher

Standardized Testing

- Students are required to earn a minimum score of 550 on the TOEFL (213 computer-based/79 internet-based).

- **Recommended Testing Time Line**

Grade 10-12	**Semester 1**	o **MAP**
Grade 11	Semester 2	o PSAT
Grade 11	Semester 2	o TOEFL
Grade 12	Semester 1	o SAT I, SAT II

CO- AND EXTRA-CURRICULAR ACTIVITIES

In line with MUIDS objective of providing a holistic education, the school offers extensive student activities program. The student activities program is designed to

- Complement and enrich the academic program
- Provide venues for further development of the Schoolwide learner Outcomes
- Meet the needs and interests of students that are not provided by the curricular program

MUIDS student activities may be organized in forms of sports, clubs, community services, and projects, classified as:

1. Extra-curricular activities which are not directly linked to the academic subjects but are essential to the development of special talents, creative and technical skills, the development of services and social responsibility, and the development of leadership qualities. Examples of extra-curricular activities include but not limited to Student Council, Model United Nations, etc. Students are required to choose at least one of the extra-curricular activities per semester

2. Co-curricular activities which directly enrich and complement various content areas; namely: TOEFL clinic, PSAT Clinic, SAT Clinic, Thai College Prep Clinic.

3. Sport Programs offering diverse selection of sports to interest students and athletes. MUIDS athletes will participate in Thai school athletic tournaments as well as international school athletic tournaments within and outside the country.

The following is a list of Co- and Extra-Curricular Activities available for students. Descriptions of specific co-curricular activities can be found according to the page numbers below. Description of the extra-curricular activities can be found on page 66 of this handbook. While each extra-curricular activity has a particular focus, they must all have a community service component. In addition, all student activities must be sponsored by a teacher and approved by the administration

MASTER SCHEDULE
GRADES 10

(*TABLE INDICATES NUMBER OF BLOCKS IN A WEEK, **NOT** ORDER OF BLOCKS)*

BLOCKS	MON	TUES	WED	THURS	FRI
7:30 7:40	HOMEROOM	HOMEROOM	HOMEROOM	HOMEROOM	HOMEROOM
1 7:40 8:50	ENGLISH 10	ENGLISH 10	ENGLISH 10	ENGLISH 10	ENGLISH 10
2 8:50 10:00	BIOLOGY10	VALUES/ BUDDHISM	PHYSICS 10	VALUES/ BUDDHISM	CHEMISTRY 10
10:00 10:20	RECESS	RECESS	RECESS	RECESS	RECESS
3 10:20 11:30	MATH10	COMPUTER TECHNOLOGY 10	MATH10	COMPUTER TECHNOLOGY 10	MATH 10
4 11:30 12:40	ELECTIVE	THAI GEO. 10	THAI LANG/LIT	HEALTH EDUCATION	THAI HISTORY
12:40 1:20	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
5 1:20 2:30	WORLD HISTORY	ELECTIVE	WORLD HISTORY	ELECTIVE	WORLD HISTORY
6 2:30 3:40	STUDENT ACTIVITIES	PROJECT-BASED LEARNING	P.E.	TOEFL	TOEFL

Total 70-minute blocks in 5-day cycle (30 blocks)

MASTER SCHEDULE
GRADES 11

(*TABLE INDICATES NUMBER OF BLOCKS IN A WEEK, **NOT** ORDER OF BLOCKS)*

BLOCKS	MON	TUES	WED	THURS	FRI
7:30 7:40	HOMEROOM	HOMEROOM	HOMEROOM	HOMEROOM	HOMEROOM
1 7:40 8:50	ENGLISH 11	ENGLISH 11	ENGLISH 11	ENGLISH 11	ENGLISH 11
8:50 9:10	RECESS	RECESS	RECESS	RECESS	RECESS
2 9:10 10:20	BIOLOGY11	P.E.	PHYSICS 11	Health Education	CHEMISTRY11
3 10:20 11:30	MATH11	MULTIMEDIA ART AND TECHNOLOGY	MATH11	MULTIMEDIA ART AND TECHNOLOGY	MATH 11
11:30 12:10	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
4 12:10 1:20	ASIA STUDIES	THAI GEO. 11	ASIA STUDIES	WORLD RELIGION	ASIA STUDIES
5 1:20 2:30	THAI LANG/ LIT. 11	ELECTIVE	ELECTIVE	ELECTIVE	THAI HISTORY 11
6 2:30 3:40	STUDENT ACTIVITIES	PROJECT-BASED LEARNING	WORLD RELIGION	PSAT MATH/ THAI COLLEGE PREP	PSAT ENGLISH/ THAI COLLEGE PREP

Total 70-minute blocks in 5-day cycle (30 blocks)

MASTER SCHEDULE
GRADES 12

(*TABLE INDICATES NUMBER OF BLOCKS IN A WEEK, **NOT** ORDER OF BLOCKS)*

BLOCKS	MON	TUES	WED	THURS	FRI
7:30 7:40	HOMEROOM	HOMEROOM	HOMEROOM	HOMEROOM	HOMEROOM
1 7:40 8:50	ENGLISH 12	ENGLISH 12	ENGLISH 12	ENGLISH 12	ENGLISH 12
2 8:50 10:00	MATH12	DRAWING/ PAINTING	MATH12	DRAWING/ PAINTING	MATH 12
10:00 10:40	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
3 10:40 11:50	BIOLOGY 12	BAND/DRAMA	PHYSICS 12	BAND/DRAMA	CHEMISTRY 12
4 11:50 1:00	THAI LANG/ LIT. 12	SAT MATH/ THAI COLLEGE PREP	THAI GEO. 12	PSYCHOLOGY	THAI HISTORY 12
1:00 1:20	RECESS	RECESS	RECESS	RECESS	RECESS
5 1:20 2:30	PSYCHOLOGY	ELECTIVE	PSYCHOLOGY	ELECTIVE	ELECTIVE
6 2:30 3:40	PATHWAY/ ADVANCED COURSE	PATHWAY/ ADVANCED COURSE	PATHWAY/ ADVANCED COURSE	SAT ENGLISH/ THAI COLLEGE PREP	CAPSTONE PROJECT

Total 70-minute blocks in 5-day cycle (30 blocks)

COURSE DESCRIPTIONS

ENGLISH DEPARTMENT

The English courses are designed to encourage an interest in various forms of quality literature and writing. The aims of the English program are to

1. Enable students to communicate effectively through the development of well-organized thought processes and by improving their oral and written composition
2. Develop students' English competence to enable them to meet the MUIDS Content Standards of English and obtain the required TOEFL and SAT English scores

Standards and Benchmarks

1.0 **Reading: Word Analysis and Vocabulary Development**

Students apply their knowledge of word origins to determine the meaning of new words encountered in reading materials and use those words correctly.

a) Distinguish between the denotative and connotative meanings of words
b) Identify and use the literal and figurative meanings of words
c) Apply knowledge of affixes to draw inferences concerning the meaning of scientific, social science, and mathematical terminology
d) Discern the meaning of analogies; i.e. analyzing specific comparisons as well as relationships and inferences

2.0 Reading: Comprehension

Students read and understand grade-level-appropriate material. They analyze the organization and development of ideas.

a) Prepare a bibliography of reference materials for a report
b) Generate relevant questions about readings
c) Synthesize the content from several sources dealing with a single issue; paraphrase the ideas to demonstrate comprehension
d) Extend ideas presented in sources through analysis, evaluation, and elaboration
e) Evaluate the credibility of an author's argument, the comprehensiveness of evidence, and the way in which the author's intent affects the structure and tone of the text
f) Compare and contrast the presentation of similar themes or topics across reading selections to explain how the authors present the theme
g) Analyze interactions between main and subordinate characters in a literary text (e.g. internal and external conflicts, motivations, relationships, influences) and explain the way those interactions affect the plot
h) Determine characters' traits by what the characters say and how they behave
i) Explain the significance and appeal of various literary devices (e.g. irony, figurative language, imagery, allegory, and symbolism)

3.0 **Writing: Strategies**

Students develop their knowledge and skills through the stages of the writing process. They write coherent and focused essays that convey a well-defined perspective and tightly reasoned argument. The writing demonstrates students' awareness of the audience and purpose.

a) Establish a thesis statement that conveys a clear focus; organize the writing to fulfill the promise of the thesis statement
b) Use precise language, action verbs, sensory details and appropriate modifiers
c) Develop the main ideas and synthesize information from multiple sources to support the main ideas
d) Integrate quotations and citations into a written text
e) Use appropriate conventions for documentation in the text, notes, and bibliography
f) Design and publish documents by using publishing software and graphic programs
g) Revise writing to improve the logic and coherence of the essay, the precision of word choice, and the tone by taking into consideration the audience, purpose, and the formality of the context

4.0 **Writing: Genres and Their Characteristics**

Students write narrative, expository, persuasive, and descriptive essays to produce texts of at least 1,000 words each. Student writing demonstrates a command of standard English.

4.1 Write biographical or autobiographical narratives or short stories
a) Relate a sequence of events and communicate the significance of the events to the audience
b) Locate scenes and incidents in specific places
c) Describe with concrete sensory details the sights, sounds, and smells of a scene and the specific actions, movements, gestures, and feelings of the characters
d) Make effective use of descriptions of appearance, images, and sensory details

4.2 Write responses to literature
a) Demonstrate a grasp of the significant ideas of literary works
b) Support important ideas and viewpoints through accurate and detailed references to the text or to other works
c) Identify the impact of literary devices

4.3 Write expository compositions, including analytical essays and research reports
a) Provide evidence in support of a thesis and related claims, including information on all relevant perspectives
b) Convey information and ideas from primary and secondary sources accurately and coherently
c) Include visual aids by employing appropriate technology to organize and record information on charts, maps, and graphs

4.4 Write persuasive compositions
a) Structure ideas and arguments in a logical manner
b) Clarify and defend positions with precise and relevant evidence, including facts, expert opinions, and quotations
c) Address readers' concerns and expectations

4.5 Write job applications and resumes
a) Provide clear and purposeful information and address the intended audience appropriately
b) Use appropriate vocabulary and tone to highlight central ideas
c) Follow a conventional style with page format, font, and spacing that contribute to the document's readability and impact

4.6 Write reports
a) Report information and convey ideas logically and correctly
b) Offer detailed and accurate specifications

c) Include definition, and examples to aid comprehension
d) Anticipate reader's problems, and potential misunderstanding

5.0 Language Conventions

Students write and speak with a command of standard English conventions
5.1 Grammar and Mechanics of Writing
a) Identify and correctly use clauses (e.g., main and subordinate), phrases (e.g., gerund, infinitive, and participial), and mechanics of punctuation (e.g., semicolons, colons, ellipses, hyphens)
b) Understand sentence construction (e.g. parallel structure, subordination, proper placement of modifiers) and proper English usage (e.g., consistency of verb tenses)
c) Produce legible work that shows accurate English usage, correct spelling, punctuation, and capitalization
d) Use direct quotations, in-text citations, and paraphrasing with appropriate citations

6.0 **Listening and Speaking**
Students formulate opinions about oral communication. They deliver focused and coherent presentations of their own that convey clear and distinct perspectives and solid reasoning. They use gestures, tone, and vocabulary tailored to the audience and purpose.
a) Formulate judgments about the ideas under discussion and support those judgments with convincing evidence
b) Organize content and use organizational language (e.g., introduction, transitions, body, and conclusion)
c) Support arguments with literary quotations, anecdotes, statistics, and references
d) Use props, visual aids, graphs, and electronic media to improve presentations
e) Choose effective verbal and nonverbal techniques (e.g., voice, gestures, eye contact) for presentation

English 10

Full year - 70 minutes every day: 5 credits

Reading and Writing

In this introductory high school course, students will read selected articles from magazines, newspapers, and online websites. They will use context clues to distinguish between the denotative and connotative meaning of words and apply reading strategies to enhance comprehension. Students will learn to identify themes, analyze how ideas are developed, the organizational patterns, arguments, and positions.
Students will learn to write coherent and focused essays, progressing through the stages of the writing process. Their compositions should convey a well-defined perspective and reasoned argument, showing the writers' awareness of the audience and purpose. 6+1 traits of writing will be introduced as a common way to evaluate writing. The research focus for this year is on paraphrasing and summarizing.

Listening and Speaking

Students will listen to formulate opinions. They will deliver focused and coherent speech that conveys clear and distinct perspectives and solid logical argument. Students will use gestures, tone, and vocabulary tailored to the audience and purpose.

Grammar and Language Conventions

Students will learn sentence construction. They will differentiate between objects and complements. They will use various sentence patterns in their writing, e.g. simple, compound, and complex. They will learn subject-verb agreement, consistency of verb tenses, and proper placement of modifiers, phrases, and apposition. Students will apply their knowledge of grammar and language convention in their oral and written communication.

English 11

Full year - 70 minutes every day: 5 credits

Reading and Writing

In the 11th grade, students will read articles and short stories. They will apply their knowledge of word origins to determine the meaning of new words encountered in reading materials and use those words accurately. They will conduct in-depth analyses of recurrent themes. They will evaluate the credibility of the author's argument. In addition, students will study basic literary elements with a focus on imagery, point of view, and irony. They will begin to form the habit of independent reading and respond to texts using a variety of reading strategies aimed at improving comprehension.

In writing workshops, students will learn how to write research reports and biographies. They will report information, convey ideas logically and correctly, and make effective use of sensory descriptions to communicate significance of the events. Students will use the 6+1 Traits to write, revise and edit narrative essays.

Listening and Speaking

Students will listen to interpret and evaluate the various ways in which information and events are presented, and assess the effectiveness of the strategies used. They will acquire communication skills through participation in class and school events such as debate, speech campaign, and panel discussion.

Grammar and Language Convention

Students will learn sentence construction e.g. parallel structure and subordination. They will identify and correctly use noun clauses, adjective clauses, adverb clauses, conditional sentences, and subjunctive mood of language. Students will apply the knowledge of grammar and language convention in their oral and written communication.

English 12

Full year - 70 minutes every day: 5 credits

Reading and Writing

In their senior year, students will be engaged in the careful reading and critical analysis of novels, short stories, and essays. They will develop their reading strategies and acquire stronger comprehension skills. They will analyze characters' motives, internal and external conflicts, relationships and influences. Through class discussions and independent writing projects, students will analyze author's purpose, point of view, and mood. They will compare and contrast the presentation of a similar theme or topics across reading selections to explain how different authors present the theme.

Through a mini-lesson approach, students will continue to write for various purposes: college applications and resume, literary responses, reflective writings, expository and persuasive compositions. Students will gain independence as writers through the use of 6+1 traits rubrics for self- and peer-evaluation. Emphasis is placed on quality writing, fluency, and accuracy.

Listening and Speaking

Students will deliver oral reports and interpretations of literature. They will learn to recognize strategies used by the media to inform, persuade, and entertain. They will select appropriate media for their presentation, test the audience's response, and revise the presentation accordingly.

Grammar and Language Convention

Students will learn how to edit writing through detection and correction of poor grammar such as dangling participles and other structural weaknesses. They will learn how to use punctuation marks such as commas, semicolons, colons, dashes, and apostrophes, how to punctuate quotes, when to hyphenate, and how to write references in the APA style.

TOEFL, PSAT, SAT ENGLISH CLINICS

Three full year - 70 minutes 2 in 5 days: No credit

These clinics are designed to prepare students for the PSAT and SAT English and TOEFL tests. In these clinics, students will develop effective reading and writing habits. In addition, they will learn tips for taking English exams. They will practice listening, reading, and writing essays on set topics. Common mistakes will be discussed. New phrases, idioms, expressions and grammar rules will be explained in a meaningful context.

SOCIAL SCIENCE DEPARTMENT

The Social Science courses are designed to develop

- Chronological and spatial thinking
- An understanding of current world issues and relating them to their historical, geographical, political, economic, and cultural contexts
- A deeper understanding of oneself and others; how one feels, thinks, acts, and reacts to certain stimuli

Standards and Benchmarks

Social Sciences 10: World History

Students in Grade Ten will study major turning points that shaped the modern world, from the late eighteenth century through the present, including the cause and course of the two world wars. They will trace the historical roots of current world issues.

1.0 Understand and analyze causes and ideas that have shaped events in history

a) Explain how the ideology of the French Revolution and their enduring effects worldwide
b) Analyze the effects of the Industrial Revolution in England and France
c) Analyze patterns of global change in the era of New Imperialism in Southeast Asia, China, and India
d) Analyze the causes, course, and effects of World War I
e) Explain the rise of totalitarian governments (the Russian Revolution, Fascist, and Communist) after World War II
f) Analyze the causes, course, and consequences of World War II
g) Describe the internal developments in the Post World-War II world.

2.0 Use the historical method of inquiry to ask questions, evaluate primary and secondary sources, critically analyze and interpret data, and develop interpretations defended by evidence.

a) Evaluate a historical source for point of view and historical context
b) Gather and analyze historical information, including contradictory data, from a variety of primary and secondary sources, including sources located on the internet, to support or reject hypotheses
c) Construct and defend a written historical argument using relevant primary and secondary sources as evidence
d) Differentiate between facts and historical interpretations, recognizing that a historian's narrative reflects his or her judgment about the significance of particular facts

Social Sciences 11: Asia Studies: History, Culture, and Geography

Students in Grade Eleven will analyze instances of nation-building in the contemporary world in East and Southeast Asia.

1.0 Apply a spatial perspective to understand the interrelationships of people, places, and the environment

a) Describe the natural features, resources, population, and culture of East and Southeast Asia
b) Understand the impact of geography in the development of East and Southeast Asia
c) Gather data, make inferences, and draw conclusions from maps and other visual representations

2.0 Use the historical method of inquiry to ask questions, evaluate primary and secondary sources, critically analyze and interpret data, and develop interpretations defended by evidence

a) Investigate causes and effects of significant events in East and Southeast Asia history. Topics include, but not limited to, diffusion of religion, imperialism, and nationalism

b) Evaluate the influences of China and India over Southeast Asia countries from past to present; e.g. in the realms of politics, social hierarchy, religious beliefs, economics, etc.

3.0 Understand human interaction with the environment.

a) Analyze the challenges in the East and Southeast Asia countries, including their geopolitical, cultural, and economic significance and the international relationships in which they are involved

b) Explain how the uneven distribution of resources in the world has led to conflict, competition, and cooperation among nations, regions, and cultural groups

Social Sciences 12: Psychology

The Grade Twelve social science course focuses on human behavior - why an individual thinks, feels, and reacts to certain stimuli. Major emphases will be placed on research methods, stages in childhood and adolescence, how the brain works, states of consciousness, and psychological disorders.

1.0 Define Psychology as a scientific discipline

a) Plan and conduct basic methods of psychological research

2.0 Describe perspectives employed to understand human behavior and mental process

a) Illustrate the principles and techniques surrounding classical and operant conditioning.

b) Analyze the cognitive theorists' approach to the study of emotions.

c) Describe the various views of intelligence.

d) Explain the various theories pertaining to social and moral development

3.0 Identify the important role psychology plays in benefiting society and improving people's lives

a) Identify major contributors to the field of psychology

b) Describe and evaluate the major schools of personality theory

4.0 Explain the interaction of environmental and biological factors in development

a) Apply major theories and stages of development to students' own lives as well as those around them

5.0 Describe the issues of continuity and changes

a) Summarize the major causes, symptoms and treatment of various psychological disorders; e.g., anxiety, depression, somatoform, personality and mood disorders, and schizophrenia

Social Science 10: World History

Full year –70 minutes 3 in 5 days: 3 credits

This course focuses on the major historical developments from the 18th Century till present. Students will learn about:

- The Industrial Revolution and Progressive Movements
- Nationalism
- European Imperialism
- East and Southeast Asia –crisis and response during the colonial age
- World War I

- The Great Depression
- The Rise of Totalitarian Governments after World War I.
- Europe and Asia during and after World War II
- The Cold War
- The Search for Community, Stability, and Peace in an Interdependent World

Emphasis is placed on the government, economics, culture, and geography of each era, and how the major historical developments affect East and Southeast Asia countries. Students will learn to use historical method of inquiry, interpret, and evaluate primary and secondary sources of information. Instruction is highly interactive.

Social Science 11: Asia Studies

Full year –70 minutes 3 in 5 days: 3 credits

This course focuses on Asia Studies. Students learn about the developments of Asia in the 20th century and current issues of concern to the region. The focus is on the history, geography, and economics of China, Japan, India, and Southeast Asian countries.

Students apply historical thinking to understand significant events and their connections across time. They recognize different forms of government, and understand the interrelationships of people, places, and the environment.

They apply understanding of economic concepts to analyze economic activity and decision-making. By experiencing diverse learning activities, students demonstrate critical thinking skills using geographical, historical, and sociological content.

Social Science 12: Psychology

Full year –70 minutes 3 in 5 days: 3 credits

In their senior year, students will study Psychology, the social science that studies individual human behavior and development. The course focuses on the basics of the study of psychology: developmental psychology, psychological disorders, self-esteem and social relationships, conditioning and learning. Students will learn about important figures in the field and their contributions to the present understanding of motivation, self-concept, personality, and the biological basis for behavior.

The course provides students with many and varied opportunities to demonstrate new learning in different ways. The learning activities include observations, research and experiments. Students are expected to demonstrate critical thinking in research and classroom discussions.

MATHEMATICS DEPARTMENT

The mathematics program, presenting a balanced combination of important processes and proficiencies, aims to teach students how to

a) Make sense of problems and persevere in solving them.
b) Reason abstractly and quantitatively
c) Use appropriate tools strategically.
d) Attend to precision
e) Look for and make use of structure

1.0 Number and Operation

Students understand and use basic and advanced concepts of number and number systems.

- Extend the properties of exponents to rational exponents
- Use properties of rational and irrational numbers
- Reason quantitatively and use units to solve problems
- Perform arithmetic operations with complex numbers
- Represent complex numbers and their operations on the complex plane
- Use complex numbers in polynomial identities and equations
- Represent and model with vector quantities
- Perform operations on vectors
- Perform operations on matrices and use matrices in applications

2.0 Geometry and Spatial Sense

Students understand and apply geometric concepts and spatial relationships to represent and solve problems in mathematical and nonmathematical situations.

- Experiment with transformations in the plane
- Understand congruence in terms of rigid motions
- Prove geometric theorems
- Make geometric constructions
- Understand similarity in terms of similarity transformations
- Prove theorems involving similarity
- Define trigonometric ratios and solve problems involving right triangles
- Apply trigonometry to general triangles
- Understand and apply theorems about circles
- Find arc lengths and areas of sectors of circles
- Translate between the geometric description and the equation for a conic section
- Use coordinates to prove simple geometric theorems algebraically
- Explain volume formulas and use them to solve problems
- Visualize relationships between two-dimensional and three-dimensional objects
- Apply geometric concepts in real-life situations

3.0 Data Analysis, Statistics, and Probability

Students use data collection and analysis techniques, statistical methods, and probability to solve problems.

- Summarize, represent, and interpret data on a single count or measurement variable
- Summarize, represent, and interpret data on two categorical and quantitative variables
- Interpret linear models
- Understand and evaluate random processes underlying statistical experiments

- Make inferences and justify conclusions from sample surveys, experiments and observational studies
- Understand independence and conditional probability and use them to interpret data
- Use the rules of probability to compute probabilities of compound events in a uniform probability model
- Calculate expected values and use them to solve problems
- Use probability to evaluate outcomes of decisions

4.0 Algebra, Functions, and Patterns

Students use algebraic concepts, functions, patterns, and relationships to solve problems.

Algebra

- Interpret the structure of expressions
- Write expressions in equivalent forms to solve problems
- Perform arithmetic operations on polynomials
- Understand the relationship between zeros and factors of polynomials
- Use polynomial identities to solve problems
- Rewrite rational expressions
- Create equations that describe numbers or relationships
- Understand solving equations as a process of reasoning and explain the reasoning
- Solve equations and inequalities in one variable
- Solve systems of equations
- Represent and solve equations and inequalities graphically

Functions

- Understand the concept of a function and use function notation
- Interpret functions that arise in applications in terms of the context
- Analyze functions using different representations
- Build a function that models a relationship between two quantities
- Build new functions from existing functions
- Construct and compare linear, quadratic, and exponential models and solve problems
- Interpret expressions for functions in terms of the situation they model
- Extend the domain of trigonometric functions using the unit circle
- Model periodic phenomena with trigonometric functions
- Prove and apply trigonometric identities

5.0 Calculus

a) Students demonstrate knowledge of both the formal definition and the graphical interpretation of limit of values of functions. This includes one-sided limits, infinite limits, and limits at infinity.

b) Students know the definition of convergence and divergence of a function as the domain variable either approaches a number or infinity.

b) Students demonstrate knowledge of both the formal definition and graphical interpretation of continuity of a function.

c) Students demonstrate understanding and application of the Intermediate Value Theorem and the Extreme Value Theorem.

d) Students demonstrate understanding of the formal definition of the derivative of a function at a point, and the notion of differentiability.

e) Students know the Chain Rule and its proof and applications to the calculation of the derivative of a variety of composite functions.

f) Students find the derivatives of parametrically defined functions and use implicit differentiation in a wide variety of problems coming from physics, chemistry, economics, etc.

g) Students compute derivatives of higher orders.
h) Students know and can apply Rolle's theorem, the Mean Value Theorem, and L'Hopital's rule.
i) Students use differentiation to sketch, by hand, graphs of functions. They can identify maxima, minima, inflection points, and intervals where the function is increasing and decreasing.
j) Students know Newton's method for approximating the zeros of a function.
k) Students use differentiation to solve optimization (maximum - minimum problems) in a variety of pure and applied contexts, and to solve related rate problems in a variety of pure and applied contexts.
l) Students know the definition of the definite integral using Riemann sums. They use this definition to approximate integrals.
m) Students apply the definition of the integral to model problems in physics, economics, etc., obtaining results in terms of integrals.
n) Students demonstrate knowledge of and proof of the Fundamental Theorem of Calculus, and use it to interpret integrals as anti-derivatives.
o) Students use definite integrals in problems involving area, velocity, acceleration, volume of a solid, area of a surface of revolution, length of a curve, and work.
p) Students compute, by hand, the integrals of a wide variety of functions using techniques of integration.
q) Students know the definitions and properties of inverse trigonometric functions, and their appearance as indefinite integrals.

6.0 Business Math

a) Students use the appropriate problem-solving procedures.
b) Students add, subtract, multiply, divide, and round off whole numbers.
c) Students find averages.
d) Students check their calculations.
e) Students add, subtract, multiply, and divide fractions, decimals, and mixed numbers.
f) Students round off decimals.
g) Students change mixed numbers to improper fractions, and vice versa.
h) Students calculate the lowest common denominator of a group of unlike fractions.
i) Students use calculator to solve and check math problems.
j) Students change decimals and fractions to percentages, and vice versa.
k) Students define rate, percent, and percentage and use formulas to calculate their values.
l) Students calculate discounts, series discounts, cash discounts, and shipping charges, students calculate percentage of increase and decrease.
m) Students calculate gross pay, net pay, commissions, and overtime wages.
n) Students calculate simple interest and compound interest.
o) Students use a calculator to solve and check percentage, income, and interest problems.

Math 10

Full year - 70 minutes 3 in 5 days: 3 credits

This course enables students to broaden their understanding of relationships and extend their problem-solving and algebraic skills through investigation, the effective use of technology and abstract reasoning. Students will explore quadratic relations and their applications, solve and apply linear systems, verify properties of geometric figures using analytic geometry, measure three-dimensional figures, and investigate the trigonometry of right and acute triangles. They will solve and apply linear systems, using real-life examples, and explore and interpret graphs of quadratic relations. Students will consolidate their mathematical skills as they solve problems and communicate their thinking.

Math 11

Full year –70 minutes 3 in 5 days: 3 credits

This course introduces the mathematical concept of the function by extending students' experiences with linear and quadratic relations. Students will investigate properties of discrete and continuous functions, including trigonometric and exponential functions. They will learn to represent functions numerically, algebraically and graphically. They will solve problems involving applications of functions, investigate inverse functions, and develop facility in determining equivalent algebraic expressions.
Furthermore, students will collect, analyze, and evaluate data involving one variable, connect probability and statistics, and solve problems in geometry and trigonometry. Students will consolidate their mathematical skills as they solve multi-step problems and communicate their thinking.

Math 12

Full year –70 minutes 3 in 5 days: 3 credits

This course builds on students' previous experience with functions and their developing understanding of rates of change. Students will solve problems involving geometric and algebraic representations of lines and planes in three-dimensional space, broaden their understanding of rates of change to include the derivatives of polynomial, sinusoidal, exponential, rational, and radical functions, and apply these concepts and skills to the modeling of real-world relationships. Students will also refine their use of the mathematical processes necessary for success in senior mathematics.

Advanced Math: Calculus (Elective)

Full year –70 minutes 3 in 5 days: 3 credits

The first semester of this college level course will focus on the study of differential and integral calculus based on further development of properties and graphs of relations and functions. In the second semester, students will study the integration techniques, sequences and series, and vector calculus.

Advanced Math: Statistics (Elective)

Full year –70 minutes 3 in 5 days: 3 credits

This course broadens student's understanding of mathematics as it relates to managing data. Students will apply methods for organizing and analyzing large amounts of information, solve problems involving probability and statistics, and carry out a culminating investigation that integrates statistical concepts and skills. Students will also refine their use of the mathematical processes necessary for success in senior mathematics.

Business Math 10 (Elective)

Full year –70 minutes 3 in 5 days: 3 credits

This course is designed to help students put to practical use the math they have already learned, in order to accurately handle a variety of business and personal situations. Topics include, but is not limited to, figuring discounts, markups, markdown, wages, mileage, overtime, productivity, surface areas, shipping charges, commissions, interest, percent of increase or decrease, averages, gross income, net weight, book keeping and accounting concepts, budgeting own money and paying taxes.

PSAT, SAT Math Clinics

Two full years –70 minutes 1 in 5 days: NO credit

This course helps to prepare students for Math PSAT and SAT tests. The focus is on learning and practicing the techniques and strategies needed to do well on the Math portion of the PSAT and SAT tests. Various topics in algebra, geometry, and statistics will be reviewed in the course. In addition, students will learn effective test-taking strategies.

SCIENCE DEPARTMENT

The science program, built around laboratory-based activity, offers students the opportunity to explore about the world they live in, to develop scientific knowledge and skills in order to make personal decision, and to make progress and solve problems in their community, country, and the world. Performance assessment is used to measure the learners' outcomes

Standards and Benchmarks

Science as Inquiry

1. Students know how to formulate and evaluate research questions.
2. Students can design and conduct a research, actively gathering and analyzing data.
3. Students use technological tools and mathematics in their own scientific investigations.
4. Students know how to revise their scientific explanations and models, using logic and evidence.
5. Students can communicate and defend the design, results, and conclusion of their investigations.

Physics

1. Students define physics, science and technology, and their relationships.
2. Students understand the nature of measurement and its relevant uncertainty due to various factors.
3. Students understand Scalar quantity (mass, volume, density, etc.), Vector quantity (force, acceleration, etc.), and understand the difference between Scalar and Vector quantities.
4. Students know Newton's laws and can apply Newton's laws to predict the motion of most objects, to solve problems that involve the variables of time, position, and velocity.
5. Students understand fluid dynamics and know the difference between Ideal and Viscous fluids and equation of Continuity.
6. Students understand that the laws of conservation of energy and momentum provide a way to predict and describe the movement of objects.
7. Students know system and surrounding, and understand the first and the second law of Thermodynamics. They can demonstrate various processes in which energy is transferred to the environment as heat.
8. Students can identify characteristic properties of waves and know how to solve problems involving wave length, frequency, and wave speed.
9. Students know that electric and magnetic phenomena are related and have many practical applications.

Chemistry

1. Students know that periodic table displays the elements in increasing atomic number and shows how periodicity of the physical and chemical properties of the elements relates to atomic structure.
2. Students know and understand the concepts of Lewis Dot structures and Molecular Orbital Theory.
3. Students understand that biological, chemical, and physical properties of matter result from the ability of atoms to form bonds from electrostatic forces between electrons and protons and between atoms and molecules.

4. Students can explain how the conservation of atoms in chemical reactions leads to the principle of conservation of matter and demonstrate the ability to calculate the mass of products and reactants.
5. Students can apply the kinetic molecular theory to describe the motion of atoms and molecules and explain the properties of gases.
6. Students know that acids, bases, and salts are three classes of compounds that form ions in water solutions.
7. Students understand that solutions are homogeneous mixtures of two or more substances.
8. Students know Gibbs Free-Energy and can describe how energy is exchanged or transformed in chemical reactions and physical changes of matter.
9. Students know that chemical reaction rates depend on factors that influence the frequency of collision of reactant molecules.
10. Students understand that chemical equilibrium is a dynamic process at the molecular level.
11. Students know that the bonding characteristics of carbon allow the formation of many different organic molecules of varied sizes, shapes, and chemical properties and provide the biochemical basis of life.
12. Students know nuclear processes, including radioactive decay of naturally occurring and human-made isotopes, nuclear fission, and nuclear fusion.

Biology

1. Students demonstrate an understanding of the structure and function of the cell and know that the fundamental life processes of plants and animals depend on a variety of chemical reactions that occur in the organism's cells.
2. Students demonstrate an understanding of chromosomes, genes, and the molecular basis of heredity. They can explain how mutation and reproduction lead to genetic variation in population.
3. Students can describe biological evolution.
4. Students can explain the interdependence of organisms and their interaction with the physical environment. They know that stability in an ecosystem is a balance between competing effects.
5. Students understand that the structure and function of an organism serve to acquire, transform, transport, release, and eliminate the matter and energy used to sustain the organism.
6. Students understand the behavior of animals.
7. Students can describe the diversity of structure and function in organism.
8. Students know how the internal environment of the human body remains relatively stable despite changes in the outside environment.
9. Students know that organisms have a variety of mechanisms to combat disease.

Earth-Space Science

1. Students know the sources of energy that power the subsystems and cycles of the dynamic earth: the geosphere, hydrosphere, atmosphere, and biosphere.
2. Students understand the origin and development of the dynamic earth system. How plate tectonics operating over geologic time has changed the patterns of land, sea, and mountains on Earth's surface.
3. Students understand dynamics of our solar system.
4. Students analyze the factors used to explain the origin and evolution of the universe.
5. Students know how differential heating of Earth's surface and atmosphere produce winds and ocean currents.

6. Students understand biogeochemical cycles which exist in the solid earth, in oceans, in the atmosphere, and within and among organisms.
7. Students understand life has changed Earth's atmosphere, and changes in the atmosphere affect conditions for life.
8. Students know the natural resources as well as the principal natural hazards in different regions of Thailand.
9. Students know how to use the map's information to identify evidence of geologic events of the past and predict geologic changes in the future.

Food Science

1.Students have adequate exposure to experimental method and are familiar with basic research methodology skills:

- Understand the concept of setting a hypothesis
- Know how to design experimental methods
- Know how to interpret results obtained in order to evaluate the hypothesis

2.Students evaluate laboratory and food safety practice:

- Incorporate safe use of lab equipment
- Integrate safe lab techniques and procedures

3.Students analyze the physical properties of matter and chemical reactions:

- Identify the physical properties of matter.
- Explain how atoms, molecules, and compounds relate to food items
- Explain how phase changes are examples of reversible physical change
- Describe how chemical changes are illustrated by chemical equations

4.Students summarize the basic properties of foods:

- Understand the purposes and functions of nutrients in food
- Explain the metabolic pathways and their chemical reactions
- Analyze relationships between food intake and body weight
- Summarize the properties and uses of water
- Identify the properties of vitamins and minerals in food
- Summarize the purpose of acids and bases in food
- Justify the use of additives in foods
- Summarize enzyme reactions in the body and in food

5.Students understand the relationship between food production and processing:

- Characteristics of different types of microorganisms
- Factors needed for growth and survival of microorganisms
- Identify nonliving conditions that can affect microbial growth on foods
- Safety rules in microbiology lab

6.Students have good background in quantitative analysis and sufficient mathematical skills to understand and utilize the relationship between matter and energy.

Environmental Science

1.Students understand how key features of the earth influence climate, weather, and the water cycle.

- Explain the factors that influence weather and climate, including the transfer of heat energy, the action of gravitational forces, and the rotation of the Earth

- Describe how weather can be influenced by global climatic patterns, such as El Nino and La Nina
- Describe how human activity can influence the water cycle in turn affecting weather and climate

2.Students understand scientific theories of how the earth's surface is formed and how those theories developed.
- Describe how ideas on the origins and the age of the earth have developed
- Explain the phenomena that occur beneath the earth's surface

3.Students understand how society uses and conserves various sources of energy.
- Explain the law of conservation of matter and energy
- Understand the transformations of energy usually produce some energy in the form of heat
- Compare chemical and nuclear reactions in terms of process and energy production
- Understand and assess the uses of nuclear fission and fusion, including the implications for society
- Assess the advantages and disadvantages of using nuclear energy
- Assess the advantages and disadvantages of alternative energy supplies including renewables such as solar, wind, geothermal and tidal
- Evaluate the impact of industrial consumption of energy has on society and the environment

4.Students understand how and why organisms are dependent on one another and their environments.
- Define the impact of immigration, emigration, birth rate, and death rate on population size
- Identify the factors that control population fluctuations in a given ecosystem leading to dynamic equilibrium
- Explain how the carrying capacity of an ecosystem may change as availability of resources changes
- Describe stages of succession leading to a climax community
- Identify behavioral, morphological, and physical responses to changes in an organism's environment
- Give examples of natural and human-initiated environmental changes that may influence levels of harmful substances
- Understand how monitoring environmental factors assists scientists in determining the health of the environment
- Understand the Gaia hypothesis and climate modeling

5.Students understand the cycling of matter and the flow and transformation of energy through systems of living things.
- Discuss sources and sinks in matter and energy cycles.
- Diagram and explain tropic levels in an ecosystem.
- Describe the laws of thermodynamics and apply the principles to an ecosystem.

6.Students understand the arguments for natural selection as scientific explanation of biological evolution.
- Explain Darwin's theory of natural selection
- Describe patterns of evolution; i.e., divergent, convergent, and coevolution
- Know that disruption of genetic equilibrium may result in evolution
- Discuss genetic modification in the context of natural populations

Biology

Three full years –70 minutes 1 in 5 days: 3 credits

This course includes biological principles, vertebrate and invertebrate systems, microorganisms, genetics, plant and animal cell systems, and evolution. The investigative approach is emphasized; and laboratory techniques are used in this hands-on journey into living systems.

Students will investigate cells, the building blocks of all living things. They will review the functions of the various organelles of a prototypical plant and animal cell. An in-depth study of the mechanism of cellular division leads to the study of Genetics. In the Genetics Unit, they will learn the mechanism that allows genes to be passed from parents to offspring, and how the information for the specific traits carried by these genes is decoded and used to make proteins within the cell. They will also investigate cancer and various genetic diseases, and how current medical research is changing; how professional people view and deal with these issues. Students will end the year with a survey of the theory of Evolution. They will demonstrate how an organism's fitness is a function of its environment and how changes are made to a species over time as a result of changes in their environment.

Chemistry

Three full years –70 minutes 1 in 5 days: 3 credits

This course aims to develop a basic understanding of the fundamental laws and principles of chemistry. It is a laboratory science, with rigorous content and a great deal of mathematical problem solving. The study of chemistry will help students understand the composition and properties of substances and the changes they undergo. They will see how this behavior is applied in everyday life, leading to the development of familiarity with the role of chemistry in the industry and in the environment, and to the chemical pathways that occur in living organisms.

Some of the topics studied include atomic structure, periodicity of elements, chemical bonding, qualitative chemistry, thermodynamics, chemical kinetics and organic chemistry. Students will learn to write chemical formulas and use chemical equations to describe reactions.

The laboratory investigations include, but not limited to, acid-base titrations, oxidation-reduction reactions, precipitation reactions and the study of reaction rates.

Physics

Three full years –70 minutes 1 in 5 days: 3 credits

The course provides students with a modern view of the fundamental concepts of physics. The major topics include mechanics, energy, electricity and magnetism, waves and modern physics. Additional topics include motion in a plane, internal energy, geometrical optics, and nuclear physics.

The course is experimental in nature, with a great deal of time being spent in laboratory investigations. A strong mathematic background and high level of problem solving skills are required.

Advanced Physics

Full year-70 minutes 3 in 5 days: 3 credits

This college-level course provides a systematic approach to the main principles of physics. The emphasis is on the development of conceptual understanding and problem-solving ability using algebra, trigonometry, and some calculus. Students will study methods of mathematical analysis of laboratory data, kinematics, Newton's laws, momentum, work and energy, gravitation, thermodynamics, wave motion including light and sound, circuits, electromagnetism, atomic and nuclear physics.

Advanced Chemistry

Full year-70 minutes 3 in 5 days: 3 credits

This college-level course enables students

- To deepen their understanding of chemistry through the study of organic chemistry, the structure and properties of matter, energy changes and rates of reaction, equilibrium in chemical systems, and electro - chemistry.
- To develop an understanding of chemistry through the study of matter and qualitative analysis, organic chemistry, electrochemistry, chemical calculations, and chemistry as it relates to the quality of the environment.

Students will further develop their problem-solving and investigation skills. They will apply a variety of laboratory techniques, develop skills in data collection and scientific analysis, and communicate scientific information using appropriate terminology. Emphasis is placed on the role of chemistry in daily life and the effects of technological applications and processes on society and environment.

Advanced Biology

Full year-70 minutes 3 in 5 days: 3 credits

This college-level course provides students with the opportunity for in-depth study of the concepts and processes that occur in biological systems. Students will study theory and conduct investigations in the areas of biochemistry, cell biology, metabolic processes, molecular genetics, evolution and systematic, homeostasis, and population dynamics. Emphasis will be placed on the achievement of detailed knowledge and the application of experimental design, and refinement of scientific writing skills.

Anatomy and Physiology

Full year –70 minutes 3 in 5 days: 3 credits

This college-level course is open to students interested in medicine and healthcare profession. Aiming to develop an understanding of anatomical structures and physiological interactions of the body, the course provides an extensive and detailed study of the numerous organ systems of the human body.

Through investigative, hands-on experiences, students will gain an understanding of the interrelationships of the parts of the body and how they react to external stimuli. They will learn how to use medical equipment to record and analyze their own personal health and fitness using the proper laboratory techniques.

In addition, students will have an opportunity to work with animal and specific organ dissections. Assessment will frequently include practical exams, classroom discussion focused on bioethics and medical controversies that challenge higher level thinking skills.

Environmental Science (Elective)

Full year –70 minutes 3 in 5 days: 3 credits

This course provides students with the fundamental knowledge and skills relating to environmental science. Students will explore a range of topics including contemporary environmental challenges; the impact of human activities on the environment and the impact of the environment on human health, sustainable agriculture and forestry, resource science and management, energy conservation, and the reduction and management of waste.

Students will increase their scientific and environmental literacy and examine the interrelationships between science, the environment, and society in a variety of areas.

Food Science (Elective)

Full year –70 minutes 3 in 5 days : 3 credits

In this course, students will discover the science behind their favorite food. They will analyze the relationship between food science and dietetics. Students will summarize the basic properties of foods and explore the types of energy used in the food industry. They will analyze the physical properties of matter and chemical reaction and evaluate laboratory and food safety practices. Finally, they will correlate between food production, processing, packaging, and marketing in the food industry.

Earth-Space Science (Elective)

Full year –70 minutes 3 in 5 days: 3credits

Earth-Space Science is a laboratory course focusing on the study of space, geologic structures and forces, the waters on our planet, and the atmospheric forces that shape our world. Through experimentation and investigation, students explore the earth cycles including the geosphere, hydrosphere, crysosphere, atmosphere, and the carbon cycle.

Problem-solving is a key concept of this science course. Students will learn about scientific inquiry, geologic time, space exploration, the solar system, and the universe. During their investigation of the Earth, students will explore the mechanism for plate tectonics and the effects of that motion on the crust, geologic time scale, the use of scale in modeling, and they identify key features of the Earth's structure. Upon completion of the course, they will have a clear understanding of the dynamic forces at work in the world around them, becoming better caretakers of our planet, Earth.

Advanced Earth-Space Science

Full year-70 minutes 3 in 5 days: 3 credits

This college-level course develops students' deep understanding of the Earth and its place in the universe. The emphasis is on the investigation of the properties of the solar system and forces in the universe. Students will analyze techniques used by scientists to generate knowledge about specific topics. They will closely examine the materials of the Earth, its internal and superficial processes, and its geological history. They will investigate how the Earth's systems interact and how they have changed over time. Throughout the course, students will learn how the geological and astronomical forces, processes, and materials affect their daily lives. The course draws on biology, chemistry, physics, and mathematics in its consideration of geological and astronomical processes that can be observed directly or inferred from other evidence.

RELIGION AND VALUES DEPARTMENT

MUIDS students come from a variety of religious backgrounds while the majority of them are Buddhists. Therefore, the school will provide its students values education, the studies of Buddhism, and world religion. The religion and values courses place an emphasis on experiential learning, with the aim to:

- Develop students' moral intelligence and personal values system
- Teach students the respect for the uniqueness and diversity of the individuals
- Inculcate in students the desire to serve their own community and society at large

Standards and Benchmarks

Values

1. Students have a sense of self-worth and self-respect.
2. Students set personal goals and take pride in work.
3. Students practise moral responsibility and self-discipline.
4. Students develop good character, and ethical and moral behavior.
5. Students make good decisions when they meet challenges in daily living, and apply effective strategies to solve problems.

Services Learning and Community Services

1. Students generate ideas during the planning, implementation, and evaluation processes of their community service.
2. Students reflect and use a variety of verbal, written, artistic, and nonverbal activities to demonstrate understanding and changes in their knowledge, skills, and attitudes. Students' reflection occurs before, during, and after the service experience.
3. Students acquire leadership skills and decision-making process.
4. In their reflection, students examine their preconceptions and assumptions in order to explore and understand their roles and responsibilities as citizens.
5. Service-learning reflection encourages students to examine a variety of social and civic issues; they think deeply about complex community problems and alternative solutions.

Buddhism

1. Students develop an understanding of Lord Buddha as a human being who trained himself to gain enlightenment.
2. Students analyze the correspondence between Lord Buddha's teaching and Science.
3. Students practice Dhamma in their daily living.
4. Students can explain the importance of Sangha.
5. Students can explain the meaning of Buddhist prayers and ceremonies.
6. Students can analyze the local wisdom embedded in folklore.

World Religions

1. Students identify the origins of the four main religions: Christianity, Buddhism, Islam, and Hinduism.
2. Students analyze what social factors made the four main religions flourished in the historical context.
3. Students explain the major religious concepts and how they influence people's lives.

4. Students analyze the effects of religions on past and contemporary societies.
5. Students examine how various religious ideology deals with current social issues.

Values 10

Full Year- 70 minutes 2 in 5 days: 2 credits

This course is concerned with moral principles. Students learn how their own values can direct them to make good choices. They learn to take responsibility for their actions as well as learn to resolve conflicts within their peer groups. Students recognize how physical and emotional changes affect them and their relationships. They learn how to make decisions that build character and a positive self-image. They recognize the role of the family, peers, and community in shaping their values and their behavior. They learn how to avoid situations that are harmful. Students will be able to distinguish objective truth from subjective opinion and realize that their personality traits can be developed and made productive.

Buddhism 10

Full Year- 70 minutes 2 in 5 days: 2 credits

Students will learn the history of Lord Buddha and investigate his search for ultimate truth, his enlightenment, and the establishment of Buddhism. They will analyze the societies and the faiths in the pre-Buddha period. They will examine the correspondence between Buddha teaching and science.

The course emphasizes learning the principles of Buddhist Dhamma and practicing Dhamma in daily living. Students will be asked to explain the meaning of Buddhist prayers and ceremonies, and the importance of Sangha. They will investigate Buddhist Dhamma in Thai local wisdom and folklore, and Buddhist proverbs.

World Religion 11

Full Year- 70 minutes 2 in 5 days: 2 credits

In a complex global community, people of different religious backgrounds have to learn to live together. The course aims to help students develop a greater understanding of people of different faiths. They will learn about the teachings of a variety of religions, the influence of religions on contemporary society.

Furthermore, students will identify the main questions that they have about the world religions as they search for meaning in life. To this effect, students reflect on four aspects of the self in relation to the rest of society:

1. Knowing yourself
2. Knowing others
3. Creating a personal mission statement
4. Putting one's own mission into action through community service or leadership project.

Services learning

Full Year-70 minutes 1 in 5 days: No credits

This course is offered to students who neither need nor want to attend the PSAT/SAT or Thai College Prep Clinics. The aim of the course is to create awareness among student of their responsibility as leaders in the community to look after the needs of others. In this course, students discover that service learning means to share one's knowledge and expertise with the community. They learn that to be Altruistic Global Citizens, they must reflect, transform, and take action. In so doing, students gain greater insight into themselves, develop respect and responsibility, while seeing themselves as partners in progress with their communities and with humankind.

THAI STUDIES

Thai studies program is designed to meet the requirements of the Thai Ministry of Education.

Thai students are required to take the following courses

- Thai language/literature course
- Thai history course
- Thai geography course

Non-Thai students are required to take the following courses

- Thai literacy course I
- Thai literacy course II
- Thai culture course

Thai Language and Literature

1. Students use listening strategies to form ideas and judgments about oral communication.
2. Students use speaking strategies to deliver polished oral presentation that reflects clarity, force, and aesthetic effect.
3. Students use reading strategies to enhance their understanding of significant works of literature, and apply what they learn from their reading to solve personal and social problems.
4. Students evaluate literary and social values of significant works of literature.
5. Students read for various purposes and cultivate their love for reading.
6. Students use writing process and strategies to compose various types of writing, demonstrating the students' control of Thai language function and usage, and their awareness of the audience and purpose.

Thai Geography and Economics

1. Students analyze geographical changes in Thailand that affect types of landforms in each region.
2. Students analyze geographical phenomena in Thailand that can cause natural disaster.
3. Students identify protective measures of natural resources and environment, roles of conservation.
4. Students understand the relationship between physical environments and culture.
5. Students understand the concepts of Sufficiency Economy and its contribution to the economic and social development of Thailand.

Thailand-Past and Present

1. Students analyze major historical events and their contribution to the development of the nation.
2. Students analyze factors that contribute to the modernization of Thailand.
3. Students study how values of the past societies have influenced current trends and helped shape Thailand.
4. Students study the fundamental elements of Thai society, the characteristics of Thai people, their beliefs and values, and how globalization has impacted on the Thai way of life in this century.
5. Students analyze factors that cause changes in Thai governance, from absolute monarchy to democracy, and analyze the importance/ the need to preserve the monarchial democratic system.

Thai Literacy

1. Students speak Thai language clearly and confidently in both academic and social settings.
2. Students comprehend spoken instructions, common expressions, and can determine main idea, draw inferences, or make predictions.
3. Students read fluently with correct pronunciation and tone. They know the meaning of key vocabulary; they can identify main idea and support details, draw inferences, and conclusion.
4. Students write simple and compound sentences, and short paragraphs to convey ideas or stories.
5. Students know parts of speech and basic syntactical structures.

Thai Culture

1. Students analyze and compare Thai way of life in different historical eras.
2. Students analyze the works of Thais and Foreigners that contribute to the development of Thailand and its culture.
3. Students know the characteristics and values of Thai culture, and understand the importance of local wisdom.
4. Students analyze changes in Thai society; including social problems, causes, and solutions.
5. Students understand the importance of the Monarch Institution.

Thai Language and Literature (for Thai Students)

Three full years – 70 minutes 1 in 5 days: 3 credits

This course is a literature-based program, which provides students with the opportunity to study and analyze the language features and functions in a variety of literary genres. Students think, read, speak and write critically about literature. Through literary analysis, students learn how various authors present their perspectives on social issues. They learn to appreciate the literary value in short stories, poetry, novels, and non-fiction.

Students are introduced to the key elements of various types of essays; narrative, descriptive, expository, and persuasive. The course focuses on writing critiques, essays, research papers, and analysis, as well as oral activities such as presentations, discussions, and commentaries. Grammatical usage is studied within the context of literary analysis and written composition.

Thailand –Past to Present (for Thai Students)

Three full year – 70 minutes 1 in 5 days: 3 credits

This course is designed to develop Thai students' understanding of the historical events and heritage that contributed to the development of the nation. Students will examine major developments in Thai history, including people, events, ideas, and trends across significant time periods from Sukhothai to Ratanakosin. Special emphasis is given to an in-depth analysis of Thai ways of life and the environmental effects, and how values of the past societies, in particular the local wisdom, have influenced current trends and helped shape contemporary Thailand.

Students will study the fundamental elements of society; i.e., description, composition, social structure, social order, and important institutions. They also examine the impact and the threat of globalization on Thai values, beliefs, and attitudes in this century. In addition, they will explore the development of democracy, the roles of Thai kings, and key changes in political attitudes that have influenced Thailand in the 21st century, from the period of colonialism to the rise of nationalism, the first constitution that changed the absolute monarchy to constitutional monarchy, the ascendancy of the military dictators, and the development of democracy. Connections are made with contemporary issues in Thai society in order

to relate student learning to real-life situations and enhance integration of learning.

Thai Geography and Economics (for Thai Students)

Three full year – 70 minutes 1 in 5 days: 3 credits

This course focuses on the study of general physical environment of Thailand. Students will analyze geographical factors that affect different landforms in each region. They will investigate the implications of geographical phenomena in Thailand that lead to natural disasters in some areas. They will learn how to utilize local wisdom to live according to natural resources for sustainable development. Moreover, students will identify protective measures for natural resources and environment, leading to taking active roles in conservation of environment and natural resources.

In addition, students will study mechanism used to determine price in various economic systems. They will analyze the roles of government in price intervention and price control. Furthermore, they will study and develop an understanding of international trade and implications of international economic activities. Emphasis is placed on the examination of such important economic concepts; e.g., interdependence, competition, and conflict and integration. Students will analyze tax policy and government expenditure which have implications on public debt, economic development, and quality of life of the people.

Thai Literacy Course I (for Non-Thai)

Full year – 70 minutes 3 in 5 days: 3 creditS

This is a beginner course for non-Thai students. The course aims to develop the four language skills: listening, speaking, reading, and writing. Instruction focuses on pronunciation and the five tones in the Thai language. Students will develop the skills through interactive communication in every day situation. Thai culture is introduced to develop understanding and appreciation for different traditions and customs. Students will have opportunities to practice appropriate manners and etiquette in various contexts.

Thai Literacy Course II (for Non-Thai)

Full year – 70 minutes 3 in 5 days: 3 creditS

This course continues from Thai Literacy I. The instruction focuses on understanding and using the language through mastery of its features, functions, and structure. The course aims to develop language competency through spontaneous expression via extensive oral and written practice. Thai culture is an integral part of the instructional units.

Thai Culture (for Non-Thai Students)

Full year – 70 minutes every day: 2 credits

This course is designed to develop non-native students' understanding of the historical events and heritage that contributed to the development of the nation. Students examine major developments in Thai history, including people, events, ideas, and trends across significant time periods from Sukhothai to Ratanakosin. Special emphasis is given to an in-depth analysis of how values of the past societies have influenced current trends and helped shape contemporary Thailand. In addition, they will acknowledge the transfer and changes of Thai culture which can be seen from the works of important person, both Thais and foreigners.

Students will also examine the impact and the threat of globalization on Thai values, beliefs, and attitudes in this century. They will analyze how the country development and acceptance of other cultures cause social problems and identify solutions to those problems. Research skills, project-based learning, and critical thinking are among the competencies to be developed while learning this course.

Thai College Prep Clinic

Two full years –70 minutes 1 in 5 days: NO credit

This non-credited class is offered to help prepare students who are interested in continuing their education in Thai programs. In this clinic, students are prepared to take O-NET, GAT, PAT, and college entrance exams. Various topics in science, math, social sciences, and Thai languages are reviewed in this clinic. In addition, students learn effective test-taking strategies.

PHYSICAL EDUCATION DEPARTMENT

The program is designed to be activity-oriented, informative and enjoyable. Students will be exposed to many different challenges in a variety of physical activities. The ultimate goal is for students to use physical education to develop a healthy lifestyle physically, mentally, and socially.

Standards and Benchmarks

Physical Education

1. Students demonstrate the motor skills and movement patterns needed to perform a variety of physical activities.
2. Students demonstrate knowledge of movement concepts, principles, and strategies that apply the learning in the performance of physical activities.
3. Students assess and maintain a level of physical fitness.
4. Students demonstrate knowledge of physical fitness concepts, principles, and strategies to improve health and performance.
5. Students demonstrate and utilize knowledge of rules and regulations, develop strategies, teamwork, sportsmanship, and leadership needed to play sports.

Health Education

1. Students comprehend concepts related to health promotion and disease prevention to enhance health.
2. Students analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
3. Students use goal-setting skills and practice health-enhancing behaviors to reduce health risks.
4. Students understand the danger of alcohol, cigarette, and addictive drugs, and demonstrate the ability to use decision-making skills to reduce health risks.
5. Students advocate for personal, family, and community health

Physical Education

Two Full Years - 70 minutes 1 in 5 days: 2 credits This course offers a variety of physical activities to meet the needs and interests of the age group of both boys and girls. The emphasis is on regular participation. Students will learn movement skills and principles, ways to improve personal fitness and physical competence, and safety and injury prevention. These fundamental skills can be applied to individual and team sports. The course offers swimming, soccer, volleyball, basketball, table-tennis, and badminton.

The main goal of the course is for students to understand that physical activity, exercise and sport provide opportunities for recreation, enjoyment, challenge, character development, self-expression and social interaction. The focus of the course is the continued development of a healthy lifestyle through personal fitness activities and lifetime sports. Physical Fitness Test is given each semester.

Health Education

Two Full Years- 70 minutes 1 in 5 days: 2 credits

This course enables students to take care of their own health according to growth and development of their own and their family members. Students will learn concepts related to health promotion and disease prevention to enhance health. They will analyze influence of family, peers, culture, media and commercials on human health and hygiene. They will set goals and practice health-enhancing behaviors to reduce health risks.

ROTC Program

Three Full Year – half day a week: No credit

The program, endorsed by the Territorial Defense Department, develops leadership qualities, military, discipline, responsibility, and physical endurance and promotes patriotism. Students who successfully complete three years of ROTC will be waived from conscription when they reach the age of 21.

Requirements:	*Thai citizen, must be in at least 10th grade, no age limit*
Duration:	*Three years*
Prerequisite:	*Must pass a physical fitness test*
Cost:	*500 baht per year; students must purchase uniforms*

First Year:	Basic training, drilling, marksmanship, history of tactics and warfare
Second Year:	Advanced training, drilling, marksmanship, history of combat tactics and warfare, parachuting
Third Year:	Field training and exercises, completion of boot camp (5 days) held sometime in February. Students who successfully complete the third year of ROTC will be awarded the rank of Master Sergeant

Students may enter the First Year of the ROTC Program in 11th or 12th Grade and continue in their university years. For students continuing into the Fourth and Fifth year of ROTC training, successful completion of the requirements will result in the ranking of Acting Second Lieutenant.

MULTI-MEDIA TECHNOLOGY DEPARTMENT

The aim of the program is for students to use technology in real life in an ethical way:

- To learn, research, and work
- To solve problems and complete tasks with creative thinking
- To create a range of practical, artistic, and intellectual products of high quality
- To share ideas and communicate with others

Standards and Benchmarks

1. **Computer Technology**
    a) Students explain the structures of computing and information technology
    b) Students apply computing and information in performing their studies, and create multimedia content for their presentations
    c) Students demonstrate an awareness of ethical and social implications in using communication and social media technology

2. **Problem Solving and Critical Thinking**
    a) Students explain the concepts of computer algorithm, and logic in programming
    b) Students demonstrate an awareness of various problems related to the introduced concepts and are able to apply appropriate basic problem-solving skills (e.g. divide and conquer, reduction, and trial-and-error
    c) Students analyze problems related to the learning concepts, and suggest solutions for those problems
    d) Students implement program using basic computer programming of loops, conditional statements, and subroutines via virtual programming such as Kodu or ALICE, and/or traditional programming languages such as , or Java
    e) Students create animation and simple computer game via Scratch, Kodu or ALICE

3. **Multimedia Technology**
    a) Students create, retrieve, organize, manipulate, evaluate, and communicate information, using computing technology and electronic media
    b) Students develop an interactive media for multimedia purposes which includes:
    *operating a digital camera
    *using imaging software to improve photos and create special effects
    *using imaging software to create simple animations
    *using imaging software to manipulate video images
    *producing multimedia images
    c) Students apply legal and ethical standards in creating digital content such as digital images

Computer Technology in the Modern World 10

Full year–70 minutes 2 in 5 days: 2 credits

This course will expose students to interdisciplinary nature of computer science in the modern world. The course content includes an overview of current computer technology, its application in various disciplines for both professional and personal activities**.** Students will learn how to use computational thinking for problem solving, understand different levels of complexity in problem solving, and develop skills in selecting and using tools efficiently. Finally, they will acquire communication skills; e.g. how to communicate appropriately in their team and in their presentation. Students will develop an awareness of the ethical and social implications of their work.

Multimedia Art and Technology 11

Full year –70 minutes 2 in 5 days: 2 credits

This course is designed as a project oriented "hands on" introduction to the exciting world of multimedia technology. The course focuses on learning multimedia software programs that will enable students to produce computer-generated art, learn image manipulation, develop websites, and produce short videos using industry-standard multimedia production software. Students are expected to create individual work for their end-of- the year portfolio and work as part of a team on various assignments.

Introduction to Computer Programming (Elective)

Full year –70 minutes 3 in 5 days: 3 credits

This course introduces students to computer programming concepts and practices. Students will learn computer programming using traditional computer programming language such as Java, or C++. Students will acquire basic concepts of object-oriented programming. They will practice writing computer programming using loops, conditional statements, and subroutines. Students will learn about data structure, and algorithms.

Advanced Digital and Interactive Multimedia (Elective)

Full year –70 minutes 3 in 5 days: 3 credits

In this course, students will learn how to effectively use multimedia tools in communication. The course covers current digital and interactive multimedia technology systems. Students will deepen their understanding of multimedia through the use of an animation/interactive application, and other related software such as audio editing, video editing, etc. Furthermore, they can apply various technologies to solve problems in their work. Students will create multimedia projects that integrate graphic, audio, and interactive elements.

VISUAL AND PERFORMANCE ARTS DEPARTMENT

The aims of the department are to:

- Motivate and encourage each student to think and work in an individualistic, imaginative, and constructive manner
- Enhance students' understanding of the importance of arts and their application in number of careers; namely, advertising, designing, media consultant, and teaching.

Standards and Benchmarks

Visual Arts (Drawing and Painting)

1. Students analyze and describe how the composition of a work of art is affected by the use of a particular principle of design.
2. Students analyze the material used by a given artist and describe how its use influences the meaning of the work.
3. Students apply artistic processes and skills, using a variety of media to communicate meaning and intent in original works of art.
4. Students identify and describe trends in the visual arts and discuss how the issues of time, place, and cultural influences are reflected in selected works of art.

Performance Arts (Drama)

1. Students make acting choices, using script analysis, character research, reflection, and revision through the rehearsal process.
2. Students write dialogues and scenes, applying basic dramatic structure: exposition, complication, conflict, crises, climax, and resolution.
3. Students analyze how a specific actor used drama to convey meaning in his/her performance.
4. Students describe the ways in which drama reflects and influences their culture.
5. Performance skills include improvisation, role-play, voice training, and acting techniques.

Performance Arts (Band)

1. Students perform on instruments, alone and with others, a characteristic tone that blends with the ensemble.
2. Students demonstrate through performance basic elements of playing technique.
3. Students recognize, demonstrate, and describe basic musical terms and symbols.
4. Students recognize and perform basic rhythmic patterns.
5. Students demonstrate accurate performance on appropriately assigned part of an ensemble.
6. Students demonstrate proper instrument care and maintenance.

Beginning Band

Full year –70 minutes 2 in 5 days: 2 credits

This course is open to all students with little or no music background. Students may choose to learn Thai or Western Music. They will choose a musical instrument they want to learn and practice. They will learn assembly and care of their chosen instrument, proper playing posture, tone production and playing techniques for their instrument. For Western music classes, students will be exposed to rhythm,

harmony, and phrasing. For Thai music classes, they will also learn music vocabulary and how to sing Thai classical songs. In both Western and Thai music classes, students will develop musical sensitivity, music reading technique, individual musical and ensemble skills.

Concert Band 11

Full year–70 minutes 2 in 5 days: 2 credits

The Concert Band course is open to students with musical skills and ensemble skills. Whether students choose to learn about Thai or Western concert band, they are expected to perform concert. In this course, students will develop individual and group performance skills to the higher level required by Concert Band. Emphasis is placed on proper breathing, tone quality, intonation, articulation, development range and music reading skills. Furthermore, students will study band literature, technical studies and performances. To fulfill the requirements of this course, students are expected to complete group responsibility and dependability, dedication to the task, and a desire for excellence.

Drama

Full year –70 minutes 2 in 5 days: 2 credits

This course provides opportunities for students to explore dramatic forms, convention, and techniques, using material from a wide range of sources and cultures. Students will apply the elements of drama to examine situations and issues that are relevant to their lives.

Students will use their imagination to assume the roles of different characters from a wide variety of situations –rich and poor, powerful and weak, past, present, and future. They will create, perform, discuss, and analyze drama, then reflect on the experiences to develop an understanding of themselves, the art form, and the world around them. In addition, Students will assume responsibility for decisions made, in the creative and collaborative process.

Drawing and Painting

Full year–70 minutes 2 in 5 days: 2 credits

This course begins with a review of previous painting methods and exposes students to new painting mediums concentrating on composition and aesthetics. They will become familiar with the elements and principles of design. Students will work on the expressive qualities of various materials by using a range of media, processes, techniques, and styles. For painting lessons, they will work with pastels, watercolors, acrylics, and oil paints. Students will examine and critique examples from great masters of eastern and western cultures, and apply that learning to their personal art work.

To fulfill the requirements of this course, students are expected to complete all work assignments. They will use the critical analysis process to evaluate their own work and the work of others. From their personal portfolio, they select works for a student exhibition at the end of the semester.

CHINESE LANGUAGE DEPARTMENT

Why study Chinese language and culture. Currently Chinese is spoken by over 1 billion people around the world, about one fifth of the global population. Many Thai people have Chinese origin. The study of Chinese language and culture will help students bridging the cultural gap and give them an edge when competing for career positions.

Standards and Benchmarks

1.0 Listening

Student will be able to explain and interpret information, concepts, and ideas orally from culturally authentic sources on a variety of topics in Chinese.

1.1 Demonstrate understanding of basic words, phrase, and questions about self and personal experiences through gestures, drawings, pictures, and actions

1.2 Demonstrate understanding the everyday expressions dealing with simple and concrete daily activities

1.3 Demonstrate understanding of simple information supported by visuals through a variety of media

1.4 Follow short conversations

1.5 Follow short or simple direction

2.0 Reading

Students will be able to read and interpret information, concepts, and ideas in writing from culturally authentic sources on a variety of topics in Chinese

2.1 Read and interpret familiar words, phrases, and simple sentences supported by visuals

2.2 Read and interpret short, simple literary stories

2.3 Read and follow simple announcements with prompting and support

2.4 Recognize words and phrases when used in context on familiar topics

2.5 Determine main idea from simple texts that contain familiar vocabulary used in context

2.6 Use prior knowledge and context clues to aid understanding such as pictures, props, charts, and graphic organizers

2.7 Interpret written literary text in which the writer tells or asks about familiar topics

3.0 Speaking

Students will be able to engage in conversations and exchange information, concepts, and ideas orally and in writing with a variety of speakers or readers on a variety of topics

3.1 Greet and respond to greetings with cultural appropriateness

3.2 Participate in basic conversations using words, phrases, and memorized expressions

3.3 Ask simple questions and provide simple responses related to personal preferences

3.4 Exchange essential information about self, family, and familiar topics

3.5 Describe common concepts and aspects of daily life using complete sentences such as weather, seasons, food, clothing, etc.

3.6 Differentiate among oral statements, questions, and exclamations in order to determine meaning

3.7 Ask and answer a variety of questions about personal information

3.8 Role-play skits, songs, or poetry in Chinese

3.9 Express likes and dislikes

3.10 Narrate a sequence of event

4.0 Writing

Students will be able to present information, concepts, and ideas to an audience of readers on a variety of topics in Chinese.

4.1 Provide basic information in writing using familiar topics, previously learned expressions and phrases
4.2 Identify key detailed information needed to fill out forms
4.3 Write simple sentences about self and others
4.4 Write about previously acquired knowledge and experiences
4.5 Write personal notes using a variety of media
4.6 Draw pictures in sequence to demonstrate a story plot
4.7 Write simple statements to describe aspects of daily life
4.8 Develop a short argumentative oral presentation (using examples, cause and effect, etc.)
4.9 Compare and contrast information, concepts, and ideas

5.0 Cultural Competence

Students will be able to use Chinese to gain knowledge and interpret the relationship among practices, products and perspectives of cultures other than his/her own.

5.1 Identify some commonly held generalizations about China and Chinese culture
5.2 Use appropriate greetings, farewells and leave taking
5.3 Describe family culture in China
5.4 Recognize traditional Chinese art and tea ceremonies
5.5 Explain 3 main Chinese festival customs, including Moon Festival, Chinese New Year and Dragon Boat Festival
5.6 Identify how people in Thailand and China are all the same and different in topics such as family, career and wedding, etc.

Mandarin I

Full year – 70 minutes 3 in 5 days: 3 credits

This is a beginner course. The course aims to develop the four language skills: listening, speaking, reading, and writing. Instruction focuses on pronunciation in the Chinese language. Students will develop approximately 500-600 vocabulary and common expressions through interactive communication in every day situation. Chinese culture is introduced to develop understanding and appreciation for different traditions and customs. Students will have opportunities to practice appropriate manners and etiquette in various contexts.

Mandarin II

Full year – 70 minutes 3 in 5 days: 3 credits

This course continues from Mandarin I. The instruction focuses on increasing students' vocabulary to 1,000 -1,200 words, and using the language through mastery of its features, functions, and structure. The course aims to develop language competency through spontaneous expression via extensive oral and written practice. Chinese culture is an integral part of the instructional units.

Mandarin III

Full year – 70 minutes 3 in 5 days: 3 credits

This course continues from Mandarin II. At this level, students acquire approximately 1,300 -2,000 and use more complex form of the language. Students will continue to develop skills through the study of and use a range written and spoken material through a variety of texts, topics, and materials.

The course aims to continue developing language competency through spontaneous expression via extensive oral and written practice. Chinese culture is an integral part of the instructional units.

PROJECT BASED LEARNING

MUIDS makes use of in-depth and rigorous classroom projects to facilitate application of classroom learning to understand real world situations and assess student competence. The ultimate aim is to encourage students to connect academic knowledge and skills with the sense of caring and concern for their community, country, and the world.

Project-based Learning

Two full year – 70 minutes 1 in 5 days: 2 credits

Project-based learning emphasizes hands-on activities that are student-centered, interdisciplinary, and collaborative. Unlike traditional, teacher-led classroom activities, students organize their own work and manage their own time in a project-based class. In the first stage, students will establish a need to know, set a driving question, voice and choice in designing their project-based learning, and identify the MUIDS standards, the Expected Schoolwide Learner Outcomes, and the 21st century skills they will learn from doing their project. In the second stage, students will plan a research, research from various sources, evaluate and synthesize information, gather feedbacks and revise their work, and publicly present the project.

Capstone Project

Full year –70 minutes 1 in 5 days: No credit

Capstone project is a form of culminating assessment. It is a team-designed project, in combination with community services. The project enables students to further their knowledge and skills in one or more disciplines. The Capstone project will be presented to the public and a group of professional experts who will assess the outcome of learning by means of a rubric.

Appendix 1 – List of Extra-Curricular Activities

Department	Club
Chinese Language	Chinese Club This club is for students who are interested in Chinese history, culture, and language. Club activities may include practicing the language, discussing topics of China, and practicing Chinese calligraphy. Calligraphy Club The Calligraphy club is for students who are interested in the practice of writing ancient scripts. In this club students will learn about different calligraphy tools, writing techniques, and practice Western, Eastern Asian, South Asian, and Islamic calligraphy. Students who have an interest in languages, handwriting, and art are encouraged to join.
English	Literature Club This club is for students who are interested in English and Thai literature and enjoy discussing the writings of historical and contemporary authors. Students will read novels, short stories, poems, and plays of both languages, and discuss the content and literary themes with each other. Students who have an interest in English and Thai literature are encouraged to join. Journalism Club The Journalism Club is responsible for publishing the MUIDS school newspaper. Club members will learn about the fundamentals of the journalism process which includes planning, writing, and editing. Members will participate in the publishing process and create an original student publication.
Mathematics	Math Club The Math Club is for students who have a keen interest in mathematics. Members will discuss math problems and learn about interesting topics beyond what is taught in the classroom. The topics may include puzzles, proofs, and practical math applications.
Multi-Media & Career	Multimedia Technology Club This club is designed for students to learn about trends in computer, information, and multimedia technology. Students will choose current and emerging computer hardware and software for their self-study. They will analyze the pros-and-cons, and the scientific and social impacts of the top trendy applications. Then they will have group discussion to exchange their knowledge on their self-study topics.
Physical Education	Sports Program The sports program provides students with the opportunity to develop their athletic abilities and a positive attitude towards competition and sportsmanship. A strong emphasis is placed on the cultivation of important life skills, including cooperation, planning, perseverance and duration. Students will play many games during the course of a season, competing locally and overseas.
Science	Environment Club The Environment Club is for students who have a keen interest in environmental issues, sustainability, and raising eco awareness. This club may participate in cleanup trips, awareness campaigns, and taking action to protect, conserve, and

	improve the environment. Science Club The aim of the Science Club is to stimulate interest and curiosity in science. The club provides opportunities for students to exchange ideas, find answers to scientific questions, and clarify misconceptions. Students of the club will further explore their science projects through participation in mini hands-on activities, group discussion, and reflection. In addition, the club will invite experts and lecturers from various MU faculties to give seminars to MUIDS students.
Social Sciences	Model UN *The MUIDS Model United Nations (MUN) club engages in an authentic simulation of the United Nations system by learning about the UN system, the skills of debate, compromise, conflict resolution and negotiation. MUN team members have fun learning about the workings of world diplomacy through the lens of current events. Students who are interested in politics, government, and international affairs are encouraged to apply. Adapted from http://www.unausa.org.* Future Business Leaders (FBL) FBL is a club for students who are interested in business. The purpose of this club is to teach students the process of business, develop student's leadership skills, learn about money management, and encourage the development of individual projects to improve the community.
Student Activities & Community Service	Student Council The aim of this extra-curricular activity is to help students • Develop MU core values by involving in the affairs of school through a representative structure of a student council. • Learn democratic principles. • Acquire leadership and group skills. • Improve communication and problem solving skills. National Honor Society The National Honor Society (NHS) is for students who excel in scholarship, service, leadership, character, and citizenship. Students who have achieved a 3.6 cumulative GPA or above their 10th grade year will be invited to apply. Once invited, the students must demonstrate their service, leadership, character, and citizenship experience in their application. After a stringent evaluation process, those who are accepted into the society receive special recognition by the school, receive opportunities to apply for NHS scholarships, and NHS membership, which may help promote acceptance to American colleges. Key-Club International The Key Club provides students opportunities to serve others, build character, and develop leadership skills. Students who are interested in community service and developing their leadership skills are encouraged to join the Key Club.
Visual and Performance Arts	MUIDS Chorus This club gives an opportunity to students who desire experience in choral singing. Auditions will be held to select the members of this performing group. The ability to read music is required to join MUIDS chorus.

	<u>Young Artists' Club</u> This club provides an opportunity for interested students to cultivate, enrich their appreciation for arts, and participate more fully in practical application of arts to their daily life. In addition, the club will arrange a yearly art fair and invite professional artists to share their work with the school community. <u>Yearbook Club</u> The yearbook club provides students an opportunity to create and publish a chronology of the school year. Members of the yearbook club will be tasked with designing the yearbook layout, searching for school pictures, and working with faculty and students to plan the MUIDS Yearbook. Student who have a strong interest and skills in publishing, organizing pictures, and teamwork are encouraged to join. <u>Drama Club</u> The purpose of this club is to enable students to gain an appreciation for the art of drama and provide opportunities to perform in theatrical events. This club will help increase students' self-confidence, self-esteem and a sense of responsibility while enacting historical and contemporary works of art.

Mahidol University International Demonstration School (MUIDS)

General Educational Planning Worksheet

Name:_____ **Major:**_____

Appendix 2 – General Educational Planning Worksheet

Summary of Credits for Grade 10

Required Courses	17
Required Electives	7
Electives	3
Total Credits	27

Required Courses – 17 Credits

English 10	5
Biology 10	1
Chemistry 10	1
Physics 10	1
Math 10	3
World History	3
Choose one (1) □ Thai Language 10 (Thai) □ Thai Literacy 10 (non-Thai)	3

Required Electives - 7 Credits

Computer Hardware & Networking	2
Project Based Learning 10	1
Health Education	1
Physical Education	1
Choose one (1) □ Values □ Buddhism	2

Electives – 3 Credits

Choose one (1) elective course □ Business Math □ Earth-Space Science □ Environmental Science □ Food Science □ Mandarin	3

Summary of Credits for Grade 11

Required Courses	17
Required Electives	7
Electives	3
Total	27

Required Courses – 17 Credits

English 11	5
Biology 11	1
Chemistry 11	1
Physics 11	1
Math 11	3
Asia Studies	3
Choose one (1) □ Thai Language 11 (Thai) □ Thai Literacy 11 (non-Thai)	3

Required Electives - 7 Credits

Introduction to Computer Programing	2
Project Based Learning 11	1
World Religion	2
Health Education	1
Physical Education	1

Electives – 3 Credits

Choose one (1) elective course □ Anatomy & Physiology □ Beginning Band □ Business Math □ Computer Programing □ Drama □ Earth-Space Science □ Environmental Science □ Food Science □ Mandarin □ Multi-Media	3

Summary of Credits for Grade 12

Required Courses	17
Required Electives	4
Electives	6
Total	27

Required Courses – 17 Credits

English 12	5
Biology 12	1
Chemistry 12	1
Physics 12	1
Math 12	3
Psychology	3
Choose one (1) □ Thai Language 12 (Thai) □ Thai Literacy 12 (non-Thai)	3

Required Electives - 4 Credits

□ Drawing & Painting	2
Choose one (1) □ Beginning Band or Concert Band □ Drama	2

Electives – 6 Credits

Choose one (2) elective courses □ Advanced Earth-Space Science □ Advanced Biology □ Advanced Chemistry □ Advanced Math Calculus or Statistics □ Advanced Physics □ Anatomy & Physiology □ Computer Programing □ Mandarin □ Multimedia □ Path-way to college	6

Mahidol University International Demonstration School (MUIDS)
Recommended Electives Worksheet **Name:**_____ **Major:**_____

Major Area		10th Grade Electives	11th Grade Electives	12th Grade Electives
Medicine & Allied Health	**Recommended**	□ **Food Science**	□ **Anatomy & Physiology**	□ **Advanced Biology** □ **Advanced Chemistry** □ **Advanced Math Calculus or Statistics** □ **Path-way to college**
	Alternatives	□ Earth-Space Science □ Environmental Science	□ Earth-Space Science □ Environmental Science □ Food Science	
Pure & Applied Sciences	**Recommended**	□ **Earth-Space Science** □ **Environmental Science** □ **Food Science**	□ **Earth-Space Science** □ **Environmental Science** □ **Food Science**	□ **Advanced Biology** □ **Advanced Chemistry** □ **Advanced Earth-Space Science** □ **Advanced Math Calculus or Statistics** □ **Advanced Physics** □ **Path-way to college**
	Alternatives	□ Business Math		
Liberal Arts & Social Sciences	**Recommended**	□ **Mandarin** □ **Business Math**	□ **Mandarin** □ **Business Math**	□ **Advanced Math Statistics** □ **Mandarin** □ **Path-way to college**
	Alternatives	□ Earth-Space Science □ Environmental Science □ Food Science	□ Environmental Science □ Food Science	

Appendix 4 – Project Based Learning Form

Mahidol University International Demonstration School (MUIDS)

Project Based Learning Form

Date:		
Student Name:	Homeroom:	Grade:
Advisor Name:	Room:	
Project Based Learning Project Title:		
Project Based Learning Type: □ Internship □Externship □ Work-Based Learning □ Service Learning □ Community Service □ Other If other, please explain:		
Project Based Learning Proposal Description:		

Project Based Learning Team Members

Title	Name	Email	Signature
Chair			
Team Member 1			
Team Member 2			
Team Member 3			
Team Member 4			

Advisor Date

Registrar Date

Attach any other supporting documents to this form.

Tentative Project Based Learning Timeline

Dates	Task	Person In Charge

Appendix 5 – Capstone Project Form

Mahidol University International Demonstration School (MUIDS)

Capstone Project Form

Date:		
Student Name:	Homeroom:	Grade:
Advisor Name:	Room:	
Capstone Project Title:		
Capstone Project Type: □ nternship □ Externship □ Work-Based Learning □ Service Learning □ Community Service □ Other If other, please explain:		
Capstone Proposal Description:		

Capstone Team Members

Title	Name	Email	Signature
Chair			
Team Member 1			
Team Member 2			
Team Member 3			
Team Member 4			

Advisor Date Registrar Date

Attach any other supporting documents to this form.

Tentative Capstone Project Timeline

Dates	Task	Person In Charge

Appendix 6 – High School Change of Course Form

MAHIDOL UNIVERSITY
INTERNATIONAL DEMONSTRATION SCHOOL

High School Change of Course Form

A. Identification

Student Name:_____ Date:_____

Current Grade Level (check one)
□ Grade 10
□ Grade 11
□ Grade 12

I would like to change my course(s) from _____

to _____

B. Written Request

In order to change course(s), the student must submit at least a ½ page paper to the counselor explaining why he/she has decided to change course(s) and why it would be of benefit to change majors.

C. Student Signature

This is my course selection. I understand that this change may affect my education plan and that I cannot change course(s) again until the following academic year.

Student Signature:_____

D. Parent or Guardian Approval

I/We agree that this is my/our child's course selection. I/We understand that this change may affect my child's education plan and that he/she cannot change course(s) until the following academic year.

_____ Father/Guardian Signature

_____ Name in block letters

_____ Mother/Guardian Signature

_____Name in block letters

Appendix 7 – Application for Early Graduation Form

Mahidol International University
Demonstration School

Application for Early Graduation

Directions to Student: Complete this application in the first semester of Grade 12

A. Application and Documentation

Name: Date:

Homeroom Teacher:

TOEFL Score: SAT Score: Date of TOEFL: Date of SAT:

I am applying for early graduation because I have been accepted into a university. I understand that this application for early graduation depends on my academic and behavioral performance in school. I understand that permission for early graduation may be revoked if my grades and/or behavior slip unacceptably.

Student Signature:

In support of this application I have attached the required documentation:

- ❑ TOEFL score report
- ❑ Acceptance letter from a university (may be submitted later upon receipt)
- ❑ SAT score report

B. Parental Permission

I/We support my/our child's application for early graduation. I/we understand that this application for early graduation depends on his/her academic and behavioral performance in school. I /we understand that permission for early graduation may be revoked if his/her grades and/or behavior are unacceptable. I/We understand that the decision of the RIST administration is final.

_____ Father's signature

_____ Name in Block Letters

_____ Mother's signature

_____ Name in Block Letters

For Office Use Only:

- ❑ Student's GPA _____
- ❑ Documentation is complete
- ❑ December
- ❑ March

Missing: ❑ TOEFL Report ❑ University Acceptance Letter