



MA30103 Foundation Mathematics 3

Teacher Mr. Keerthi Prabhakar
Contact EP Teacher Room, 2nd Floor Colombet Bldg.
 epacandrew@hotmail.com

Class Time EP-M5/1: Weds, period 1; Fri, period 4
 EP-M5/2: Mon, period 5 ; Tues, period 1

Credits 1.0

Course Description

Study foundation mathematics on the following topics. Sequence and series: finding the terms of finite sequence, arithmetic sequence and geometric sequence, arithmetic series and geometric series. Probability: basic principles of counting, and probability of events. Use mathematical skills and process which are problem-solving, reasoning, communications, mathematical implication and presentation, mathematical connections, and creative thinking along with possessing the desired characteristics including 1) Love for their country, their King, and faith in their religion, 2) Be honest and upright 3) Possess discipline 4) Eager to learn 5) Be self-sufficient 6) Dedicated to work 7) Proud to be Thai 8) Have a sense of public consciousness.

Textbook / Worksheets

Mathematics for the international Student: Mathematics SL, 3rd Edition
 Teacher will also provide hand outs

Course Outline & Objectives

Unit	Topic
1	Sequences and Series 1. Sequences 2. Arithmetic sequences* 3. Geometric sequences* 4. Series 5. Arithmetic series 6. Geometric series
2	Probability 1. Basic counting principle* 2. Permutation 3. Combination 4. Probability of events

Resources

- Required
- At least 3 notebooks (2 white, 1 pink)
 - Scientific calculator (not a phone-based application)
 - Ruler
 - Glue stick, stapler, or tape



- Suggested
- Many different colored pens/markers/highlighters
 - Electronic Thai-English translator (not a phone-based application)

Academic Integrity Policy

Students are expected to adhere to the Assumption College student handbook. There is to be no plagiarism, no copying, and no cheating of any kind. These and any other acts of academic dishonesty lower the quality of the education and will not be tolerated. Students involved in any form of academic dishonesty, including any student supplying or allowing the copying to take place, will receive a zero.

Plagiarism is the act of taking someone else's work or ideas and passing them off as one's own work or ideas. Examples of plagiarism include the failure to give appropriate acknowledgement when repeating another's idea, phrase, sentence or paragraph, or failure to give appropriate acknowledgement when paraphrasing any of those.

Behavioral Expectations

For the sake of all the members of the class, students are expected to respect themselves, their classmates, the teacher, and the facilities. Students must accept responsibility for themselves and their actions. Students are expected to be ready at the start of every class (Notebooks, textbook, scientific calculator, writing utensils, etc.) and to actively participate throughout the lesson until class is dismissed.

Behavior is monitored every day as per the class rules that are set out at the beginning of the academic year (see the front of your note books). At the end of the semester the average is taken and used for the student's behavior score (10%). Students *earn* the scores they receive.

Additionally, all Thai students are expected to embrace the following *desired characteristics*:

- Love for the country and the King, faith in religion
- Possess discipline
- Be self-sufficient
- Proud to be Thai
- Be an AC gentleman
- Eager to learn
- Dedicated to work
- Have a sense of public consciousness
- Be honest and upright

Attendance & Tardiness

Attendance will be taken at the start of every class. Students are expected to be in class on-time, every time. Unexcused absences or tardiness will not be tolerated. In the case of planned absences, please notify the teacher in as far in advance as possible. Students are expected to catch up on all missed work outside of class time.

Homework & Classwork

Homework and classwork will be assigned often and must be submitted on or before the due date. If the work is not done for the start of class, a maximum score of 15 will be possible.



All late or missed assignments that are not turned in *before* the last week of the term will receive a zero.

Grading

This course follows to the Assumption College grading scale:

$Final\ Score \geq 80\%$	4.0
$75\% \leq Final\ Score < 80\%$	3.5
$70\% \leq Final\ Score < 75\%$	3.0
$65\% \leq Final\ Score < 70\%$	2.5
$60\% \leq Final\ Score < 65\%$	2.0
$55\% \leq Final\ Score < 60\%$	1.5
$50\% \leq Final\ Score < 55\%$	1.0
$Final\ Score < 50\%$	0.0

Evaluation and Assessment

The final semester grade for this course out of 100% is broken down as follows:

Quiz & Projects	20%
Home/class work	20%
Affective Domains (Behavior)	10% (program mandated)
STEM	10% (program mandated)
Midterm (Summative) Exam	20% (program mandated)
Final Exam	20% (program mandated)

Recommendations for Success

Mathematics can be a difficult course for many students. All students are encouraged to try the following:

1. Read, read, read the course textbook. Often, reading the text once is not enough even for native English speakers. You may need to read the material multiple times to understand. By reading along at home with the lessons taught at school (typically only a few pages per night), students will be able to responsibly manage the material and gain the most from the course.
2. Search online, in either Thai or English, if you don't understand a topic discussed in class or simply to get a better understanding of the topic.
3. Get a Thai language introductory mathematics book.
4. Get a math and/or physics tutor. The tutor should be helping you learn, not doing the work for you!
5. Do **not** copy your classmates work; struggle through and do the work on your own! This is how you learn!
6. Come see the teacher outside of class time for assistance.



THE **ENGLISH PROGRAM** AT ASSUMPTION COLLEGE
Course Syllabus – Semester 1/2020

7. Do more than just the bare minimum; there are plenty of problems in the textbook. We only have time for so many of them. Do the review questions at the end of the chapter and see the teacher for the answers.
8. Study the notes and vocabulary at least a few minutes every day, such as in homeroom or during any free time you might have in other classes.



MA30103 **Foundation Mathematics 3**

Teacher Mr. John Justin Doyle
Contact EP Teacher Room, 2nd Floor Colombet Bldg.
Class Time EP-M5/3: Wed, period; Thurs, period ; Fri, period

Credits 1.5

Course Description

This foundation mathematics course focuses on the following topics. **Sequence and series:** sequence and finding the terms of finite sequence, arithmetic sequence and geometric sequence, arithmetic series and geometric series. **Probability:** basic principles of counting, probability of events. Use mathematical skills and process which are problem-solving, reasoning, communications, mathematical implication and presentation, mathematical connections, and creative thinking. **Statistics:** the science concerned with developing and studying methods for collecting, analyzing, interpreting and presenting empirical data. Two fundamental ideas in the field of statistics are uncertainty and variation. Probability is a mathematical language used to discuss uncertain events and probability plays a key role in statistics. **Data Analysis:** a process of inspecting, cleansing, transforming, and modeling data with the goal of discovering useful information, informing conclusions, and supporting decision-making. This will include studying measures of central tendency, distributions and data inference.

Textbook

My World of Math- Secondary 5(St Gabriel's Foundation)

Course Outline & Objectives

Learning Units	Chapters from Math textbook
1. Sequences and Series a. Arithmetic Sequences b. Geometric Sequences c. Arithmetic Series d. Geometric Series e. Members of finite sets and solutions	Chapter 1: Sequences and Series (pg. 1-42) <i>Khan Academy Algebra 2</i>
2. Probabilities a. Events b. Types of Events c. Algebra of an Event d. Probability of an Event e. Theorem of Probability	Chapter 2: Probability (pg. 43-77) <i>Khan Academy: Probability and Statistics</i>
3. Statistics and Data a. Definition of Statistics b. Statistics: Decision making and Planning c. Data and Collecting Data d. Relationship between sides and angles	Chapter 3: Statistics and Data (pg. 78-84) <i>Khan Academy: Probability and Statistics</i>



e. Solve problems about distance and height finding	
4.Data Analysis a. Data collection b. Basic data analysis c. Finding central tendency by using arithmetic mean, median, mode*, harmonic mean, geometric mean, and mid-range d. Finding relative standing by using quartile, deciles, and percentile e. Measures of dispersion by using standard deviation f. Measures of dispersion by using box-and-whisker plots	<i>Chapter 4: Data Analysis</i> <i>Barron’s A.P. Statistics</i> <i>Khan Academy: Probability and Statistics</i>

Resources

- Schoology Account
- Khan Academy Account
- Graphing Calculator
- A4 lined paper or notebook
- Writing supplies

Academic Integrity Policy

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Plagiarism is the act of taking someone else's work or ideas and passing them off as one's own work or ideas. Examples of plagiarism include the failure to give appropriate acknowledgement when repeating another’s idea, phrase, sentence or paragraph, or failure to give appropriate acknowledgement when paraphrasing any of those.

Behavioral Expectations

Students are expected to respect themselves, their classmates, the teacher, and the facilities. Students must accept responsibility for themselves and their actions. Students must speak English in class. Students are expected to be ready at the start of every class (notebooks, textbook, scientific calculator, writing utensils, etc.) and to actively participate throughout the lesson until class is dismissed.

Behaviour is monitored every class. At the end of the semester the points are accumulated and used for the student’s behaviour score (10%).

Furthermore, all Thai students are expected to embrace the following *desired characteristics*:



- Love for the country and the King, faith in religion
- Possess discipline
- Be self-sufficient
- Be honest and upright
- Proud to be Thai
- Have a sense of public consciousness
- Eager to learn
- Dedicated to work
- Be an AC gentleman

Attendance & Tardiness

Attendance will be taken at the start of every class. Students are expected to be in class on-time, every time. Unexcused absences or tardiness will not be tolerated. In the case of planned absences, please notify the teacher as far in advance as possible. Students are expected to catch up on all missed work outside of class time.

Homework & Classwork

An assessment item must be submitted on or before the due date. **An assessment item submitted later than the due date, without an extension from the teacher, will not be graded and will result in an automatic score of zero.** Late homework, however, may be completed and submitted to qualify towards eligibility for exams. At the end of the semester, if the students have not completed a sufficient number of homework assignments to pass this aspect of the course, additional work will be set for them.

Grading

This course adheres to the Assumption College grading scale:

$Final\ Score \geq 80\%$	4.0
$75\% \leq Final\ Score < 80\%$	3.5
$70\% \leq Final\ Score < 75\%$	3.0
$65\% \leq Final\ Score < 70\%$	2.5
$60\% \leq Final\ Score < 65\%$	2.0
$55\% \leq Final\ Score < 60\%$	1.5
$50\% \leq Final\ Score < 55\%$	1.0
$Final\ Score < 50\%$	0.0

Evaluation and Assessment

The final semester grade for this course out of 100% is broken down as follows:

Assignments/Projects	20%
Tests	20%
STEM	10%
Behaviour	10% (program mandated)
Midterm Exam	20% (program mandated)
Final Exam	20% (program mandated)



Recommendations for Success

Mathematics can be difficult for many students. All students are encouraged to do the following:

1. Read the course textbook. You may need to read the material multiple times to understand. By reading along at home with the lessons taught at school (typically only a few pages per night), students will be able to responsibly manage the material and gain the most from the course.
2. Complete all forms of assessment and submit all homework and assignments.
3. Search online, in either Thai or English, if you don't understand a topic discussed in class or simply to get a better understanding of the topic.
4. Do not copy the work of your classmates' work; try to struggle through on your own. This will help you learn.
5. Come see the teacher outside of class time for assistance.
6. Do more than just the bare minimum; do the additional problems in the textbook and the review questions at the end of the chapter and check your answers.
7. Study the notes and vocabulary at least a few minutes every day



MA30215 Universal Mathematics 3

Teacher	Mr. Shiv Kumar
Contact	Science lab, 2 nd Floor Colombet Bldg. Skkumarshiv100@gmail.com
Class Time	EP-M5/1: Monday Period 1, Tuesday Period 4, Wednesday Period 1 EP-M5/2: Monday Period 4, Thursday Period 3, Friday Period 4 EP-M5/3: Monday Period 6, Wednesday Period 4, Thursday Period 5
Credits	1.5

Course Description

This course builds on previous knowledge and lays the foundation for the students' further study in mathematics. We will cover many essential topics that will be necessary when the students study Calculus and higher level mathematics. Included in this course are exponential and logarithmic functions, trigonometric functions, identities and proofs, and three dimensional vectors. We will begin with exponential functions and their applications and then use these to define the logarithmic functions. Next, we will study basic trigonometry with a focus on understanding the meaning of the basic functions and their applications. We will then cover three dimensional vectors and basic vector operations. We will use vectors to model various three dimensional situations.

Textbook

Mathematics for the International Student SL (Haese Mathematics)
ISBN-978-1-921972-08-9

Course Outline & Objectives

Unit 1. Exponential Function and Logarithmic Function

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|---|-----------------------------|
| 1. Exponents, Rational exponents and law of exponents | Pg 82-87 |
| 2. Algebraic expansion and factorization of exponents | pg 90-91 |
| 3. Interest and Money | (Class worksheet and Notes) |
| 4. Exponential function and graphing | pg 94-101 |
| 5. Logarithmic function and graphing | pg 110-126 |

Unit 2. Trigonometric Functions and applications

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|---|-----------------------------|
| | Pg 231-274 |
| 1. Sine and cosine functions | pg 236-243 |
| 2. Values of sine and cosine functions | (Class worksheet and Notes) |
| 3. Trigonometric functions in various dimensions | (Class worksheet and Notes) |
| 4. Read the value of trigonometric functions from table | (Class worksheet and Notes) |
| 5. Graphs of trigonometric functions | (Class worksheet and Notes) |
| 6. Trigonometric functions of sums and differences | pg 256-263 |
| 7. Inverse trigonometric functions | (Class worksheet and Notes) |
| 8. Sine and cosine rules | (Class worksheet and Notes) |



Unit 3. Three Dimensional Vectors

Pg 275-342

- | | |
|-------------------------------------|-----------------------------|
| 1. Vectors | pg 276-279 |
| 2. Vector addition | pg 279-281 |
| 3. Vector subtraction | pg 281-283 |
| 4. Scalar multiplication of vectors | pg 284-286 |
| 5. Cross multiplication | (Class worksheet and Notes) |

Resources

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|-----------|---|
| Required | <input type="checkbox"/> A plastic folder for worksheets. |
| | <input type="checkbox"/> White School Notebook |
| | <input type="checkbox"/> Red and blue pen. |
| Suggested | <input type="checkbox"/> Many different colored pens/markers/highlighters |
| | <input type="checkbox"/> Ruler |

Academic Integrity Policy

Students are expected to adhere to the Assumption College student handbook. There is to be no plagiarism, no copying, and no cheating of any kind. These and any other acts of academic dishonesty lower the quality of the education and will not be tolerated. Students involved in any form of academic dishonesty, including any student supplying or allowing the copying to take place, will receive a zero. Students should be expected to earn their scores. Scores of pass should not be given unless the student has attained sufficient knowledge to earn a passing grade.

Plagiarism is the act of taking someone else's work or ideas and passing them off as one's own work or ideas. Examples of plagiarism include the failure to give appropriate acknowledgement when repeating another's idea, phrase, sentence or paragraph, or failure to give appropriate acknowledgement when paraphrasing any of those.

Behavioral Expectations

For the sake of all the members of the class, students are expected to respect themselves, their classmates, the teacher, and the facilities. Students must accept responsibility for themselves and their actions. Students are expected to be ready at the start of every class (Notebooks, textbook, scientific calculator, writing utensils, etc.) and to actively participate throughout the lesson until class is dismissed.

Behavior is monitored every day as per the class rules that are set out at the beginning of the academic year (see the front of your note books). At the end of the semester the average is taken and used for the student's behavior score (10%). Students *earn* the scores they receive.

Additionally, all Thai students are expected to embrace the following *desired characteristics*:

- Love for the country and the King, faith in religion
- Possess discipline
- Be self-sufficient
- Eager to learn
- Dedicated to work



- Proud to be Thai
- Be an AC gentleman
- Have a sense of public consciousness
- Be honest and upright

Attendance & Tardiness

Attendance will be taken at the start of every class. Students are expected to be in class on-time, every time. Unexcused absences or tardiness will not be tolerated. In the case of planned absences, please notify the teacher in as far in advance as possible. Students are expected to catch up on all missed work outside of class time.

Homework & Class work

Homework and class work will be assigned often and must be submitted on or before the due date for a full score of 10 points. Late work without excuse will be deducted at the rate of 20% per day until the maximum possible score is zero. All work must be turned in before the last week of each term. Late work is discouraged.

Grading

This course follows to the Assumption College grading scale:

<i>Final Score</i> ≥ 80%	4.0
$75\% \leq \textit{Final Score} < 80\%$	3.5
$70\% \leq \textit{Final Score} < 75\%$	3.0
$65\% \leq \textit{Final Score} < 70\%$	2.5
$60\% \leq \textit{Final Score} < 65\%$	2.0
$55\% \leq \textit{Final Score} < 60\%$	1.5
$50\% \leq \textit{Final Score} < 55\%$	1.0
<i>Final Score</i> < 50%	0.0

Evaluation and Assessment

The final semester grade for this course out of 100% is broken down as follows:

Class work	20%
Class Participation	10%
Note book	10%
Behavior	10%
Quizzes	10%
Midterm (Summative) Exam	20% (program mandated)
Final Exam	20% (program mandated)



SC30212 Universal Physics 2

Teacher	Ms. Siri Sawangjai
Contact	EP Teacher Room, 2 nd Floor Colombet Bldg. sirisawangjai@gmail.com
Credits	2.0

A. Course Description

This course focuses on revision of classical mechanics to broaden their knowledge of physics concepts and applications for university preparation. The course offers both a conceptual foundation and an algebra-based presentation of Physics. Critical thinking skills in solving problems will be emphasized with a sound basic understanding of conventional Mathematics. The course will closely follow the order and content of the SAT Physics test prep book by Barron's.

Students are strongly encouraged to read and practice widely from different valuable resources, which include the Internet; various (both British and American) Physics books published for improving examination skills as well as from Thai Physics books. Students shall seek teacher for references and guideline as needed. Additionally, practical lab works and experiments regarding topics are strongly recommended to do when approved.

B. Textbook (a references)

Barron's SAT Physics 2nd Edition, 2016
ISSN: 2155-6040; ISBN: 978-1-4380-0789-2
Pearson Physics, James S. Walker, 2014, ISBN-13:9780-13-137115-6

C. Course Outline & Objectives

Background: Introduction to Physics (Person)

- i. SI Units and Dimensions
- ii. Basic Math for Physics

(Keywords: likelihood, probability, accuracy, precision)

Unit 1: Revision of basic mechanics in preparation for further learning in Physics, especially in elasticity, circular motion, simple harmonic motion in preparation for the students to learn Wave Mechanics. *(Indicators: 1-4, 18-22) [Refer to Teacher Notes]*

- i. Frequency and period of oscillation; spring and pendulum
- ii. Centripetal acceleration and force.
- iii. Motion in a circle (horizontal and vertical)
- iv. The conical pendulum
- v. Rotational Motion: angular displacement, velocity and acceleration; moment of inertia, torque, angular kinetic energy and momentum.

Unit 2 Wave phenomenon in daily life. *(Indicators: 5-22) [Refer to Teacher Notes]*

- i. Properties of waves: reflection, refraction, interference, diffraction, standing waves.
- ii. Light and Vision: anatomy of the hearing organ; nature of light and properties of electromagnetic radiation; geometric properties of light; light intensity and illumination.



- iii. Sound and Hearing: Speed of sound and effect of temperature; reflection and refraction of sound; interference of sound; beats; resonance of sound; power and intensity level of sound; Doppler's effect and shock waves.

End of Midterm Exam Content – Start of Final Exam Content

Unit 3 Electrostatics: (*Indicators: 18-22*) [*Refer to Teacher Notes*]

- i. Coulomb's Law; definition of S.I. unit Coulomb.
- ii. Electric field and definition of Electric Field Intensity
- iii. Electrical potential and potential energy
- iv. Potential difference and work done in moving charges.

Resources

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|-----------|--|
| Required | <input type="checkbox"/> Barron's SAT Physics 2 nd Edition
<input type="checkbox"/> 1 white notebook
<input type="checkbox"/> Folder for Physics only (to keep handouts, etc.) |
| Suggested | <input type="checkbox"/> Many different colored pens/markers/highlighters
<input type="checkbox"/> Electronic Thai-English translator (not a phone-based application)
<input type="checkbox"/> A Matayom-level physics practice book in Thai |

Academic Integrity Policy

Students are expected to following the guidelines laid down in the Assumption College Student Handbook in terms of academic pursuits and excellence. They are strongly and constantly reminded that it is of paramount importance to understand one topic intensively before being able to move on to the next one. However, all the topics are inter-related. Therefore, any forms of idleness of poor attitude in learning Physics will not be tolerated and remedial actions immediately instigated to rectify the situation. Students are always welcome to consult the teacher for guidance of whatever issues related to learning which may arise.

Behavioral Expectations

A good sense of behavioral awareness in the classroom will be strictly reinforced which is essential to the ultimate success of the learning process. Students are not allowed to do other subjects in the Physics class or play with electronic gadgets not related to what is being taught in the classroom. Infraction of behavioral rules will be handled accordingly.

Attendance & Tardiness

Attendance will be taken at the start of every class. Students are expected to be in class on-time, every time. Unexcused absences or tardiness will not be tolerated. In the case of planned absences, please notify the teacher in as far in advance as possible. Students are expected to catch up on all missed work outside of class time.



Classwork

Classwork will be assigned often and must be submitted on or before the due date. Late assignments can be submitted for a maximum of 50% up until the last week of the term. All late or missed assignments that are not turned in *before* the last week of the term will receive a zero.

Grading

Universal Physics follows to the Assumption College grading scale:

$Final\ Score \geq 80\%$	4.0
$75\% \leq Final\ Score < 80\%$	3.5
$70\% \leq Final\ Score < 75\%$	3.0
$65\% \leq Final\ Score < 70\%$	2.5
$60\% \leq Final\ Score < 65\%$	2.0
$55\% \leq Final\ Score < 60\%$	1.5
$50\% \leq Final\ Score < 55\%$	1.0
$Final\ Score < 50\%$	0.0

Evaluation and Assessment

The final semester grade for this course out of 100% is broken down as follows:

Classwork	20%
Quiz	20%
Lab	10%
Behavior	10% (program mandated)
Midterm Exam	20% (program mandated)
Final Exam	20% (program mandated)

Recommendations for Success

Physics can be a difficult course for many students. All students should do the following:

1. Take good notes in the classroom. Go home and revise the notes; make sure every single part is clearly understood. For any doubts, queries, clarifications, the student should immediately note down and ask the teacher either in the classroom or individually in the teachers' room.
2. Students are encouraged to read widely from various textbooks available in the market, from the school library and from the Internet. (e.g., YouTube, Google, etc.)
3. Students must do the prescribed homework.
4. It is useful to organize small study group among the students.
5. Students can consult the teacher individually for techniques in getting high or full scores in external Physics tests like CU-ATS and SAT Subject Test.
6. Ability for find the time to read Thai Physics (e.g., from the library) would be an additional asset.



SC30202 **Periodic Movements & Statics Electricity**

Teacher	Ms. Siri Sawangjai
Contact	EP Teacher Room, 2 nd Floor Colombet Bldg. sirisawangjai@gmail.com
Credits	2.0

A. Course Description

This course focuses on revision of classical mechanics to broaden their knowledge of physics concepts and applications for university preparation. The course offers both a conceptual foundation and an algebra-based presentation of Physics. Critical thinking skills in solving problems will be emphasized with a sound basic understanding of conventional Mathematics. The course will closely follow the order and content of the SAT Physics test prep book by Barron's.

Students are strongly encouraged to read and practice widely from different valuable resources, which include the Internet; various (both British and American) Physics books published for improving examination skills as well as from Thai Physics books. Students shall seek teacher for references and guideline as needed. Additionally, practical lab works and experiments regarding topics are strongly recommended to do when approved.

B. Textbook (a references)

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Barron's SAT Physics 2nd Edition, 2016
ISSN: 2155-6040; ISBN: 978-1-4380-0789-2

C. Course Outline & Objectives

Background: Introduction to Physics (Person)

- iii. SI Units and Dimensions
- iv. Basic Math for Physics

(Keywords: likelihood, probability, accuracy, precision)

Unit 1: Revision of basic mechanics in preparation for further learning in Physics, especially in elasticity, circular motion, simple harmonic motion in preparation for the students to learn Wave Mechanics. *(Indicators: 1-4, 18-22) [Refer to Teacher Notes]*

- vi. Frequency and period of oscillation
- vii. Centripetal acceleration and force.
- viii. Motion in a circle (horizontal and vertical)
- ix. The conical pendulum
- x. Rotational Motion: angular displacement, velocity and acceleration; moment of inertia, torque, angular kinetic energy and momentum.

Unit 2 Wave phenomenon in daily life. *(Indicators: 5-22) [Refer to Teacher Notes]*

- iv. Properties of waves: reflection, refraction, interference, diffraction, standing waves.
- v. Light and Vision: anatomy of the hearing organ; nature of light and properties of electromagnetic radiation; geometric properties of light; light intensity and illumination.



- vi. Sound and Hearing: Speed of sound and effect of temperature; reflection and refraction of sound; interference of sound; beats; resonance of sound; power and intensity level of sound; Doppler's effect and shock waves.

End of Midterm Exam Content – Start of Final Exam Content

Unit 3 Electrostatics: (*Indicators: 18-22*) [*Refer to Teacher Notes*]

- v. Coulomb's Law; definition of S.I. unit Coulomb.
- vi. Electric field and definition of Electric Field Intensity
- vii. Electrical potential and potential energy
- viii. Potential difference and work done in moving charges.

D. Resources

- | | |
|-----------|--|
| Required | <input type="checkbox"/> Barron's SAT Physics 2 nd Edition
<input type="checkbox"/> 1 white notebook
<input type="checkbox"/> Folder for Physics only (to keep handouts, etc.) |
| Suggested | <input type="checkbox"/> Many different colored pens/markers/highlighters
<input type="checkbox"/> Electronic Thai-English translator (not a phone-based application)
<input type="checkbox"/> A Matayom-level physics practice book in Thai |

E. Academic Integrity Policy

Students are expected to following the guidelines laid down in the Assumption College Student Handbook in terms of academic pursuits and excellence. They are strongly and constantly reminded that it is of paramount importance to understand one topic intensively before being able to move on to the next one. However, all the topics are inter-related. Therefore, any forms of idleness of poor attitude in learning Physics will not be tolerated and remedial actions immediately instigated to rectify the situation. Students are always welcome to consult the teacher for guidance of whatever issues related to learning which may arise.

F. Behavioral Expectations

A good sense of behavioral awareness in the classroom will be strictly reinforced which is essential to the ultimate success of the learning process. Students are not allowed to do other subjects in the Physics class or play with electronic gadgets not related to what is being taught in the classroom. Infraction of behavioral rules will be handled accordingly.

G. Attendance & Tardiness

Attendance will be taken at the start of every class. Students are expected to be in class on-time, every time. Unexcused absences or tardiness will not be tolerated. In the case of planned absences, please notify the teacher in as far in advance as possible. Students are expected to catch up on all missed work outside of class time.



H. Classwork

Classwork will be assigned often and must be submitted on or before the due date. Late assignments can be submitted for a maximum of 50% up until the last week of the term. All late or missed assignments that are not turned in *before* the last week of the term will receive a zero.

I. Grading

Universal Physics follows to the Assumption College grading scale:

$Final\ Score \geq 80\%$	4.0
$75\% \leq Final\ Score < 80\%$	3.5
$70\% \leq Final\ Score < 75\%$	3.0
$65\% \leq Final\ Score < 70\%$	2.5
$60\% \leq Final\ Score < 65\%$	2.0
$55\% \leq Final\ Score < 60\%$	1.5
$50\% \leq Final\ Score < 55\%$	1.0
$Final\ Score < 50\%$	0.0

J. Evaluation and Assessment

The final semester grade for this course out of 100% is broken down as follows:

Classwork	20%
Quiz	20%
Lab	10%
Behavior	10% (program mandated)
Midterm Exam	20% (program mandated)
Final Exam	20% (program mandated)

K. Recommendations for Success

Physics can be a difficult course for many students. All students should do the following:

1. Take good notes in the classroom. Go home and revise the notes; make sure every single part is clearly understood. For any doubts, queries, clarifications, the student should immediately note down and ask the teacher either in the classroom or individually in the teachers' room.
2. Students are encouraged to read widely from various textbooks available in the market, from the school library and from the Internet. (e.g., YouTube, Google, etc.)
3. Students must do the prescribed homework.
4. It is useful to organize small study group among the students.
5. Students can consult the teacher individually for techniques in getting high or full scores in external Physics tests like CU-ATS and SAT Subject Test.
6. Ability for find the time to read Thai Physics (e.g., from the library) would be an additional asset.



SC30232 **Universal Chemistry 2**

Teacher	Miss Tharika Yoe
Contact	EP Teacher Room, 2 nd Floor Colombet Bldg
Class Time	EP-M 5/1 & EP-M 5/2
Credits	1.5

Course Description

Although this course is technically called Universal Chemistry 2, in reality it is the third installment within the comprehensive Chemistry program offered here at Assumption College English Program. At this point in the student's progression within the discipline, course material will gradually advance into more concrete, fundamental areas of Chemistry. Within this semester, chemical quantities (the concept of the "mole"), stoichiometry, chemical reactions, and Kinetic Theory as it applies to the physical properties of the states of matter are all introduced.

Demonstrations, computer-simulated activities and laboratory sessions will allow students to learn basic laboratory techniques, lab safety and get a hands-on experience of the theories and concepts learned in the lectures. As with many courses within the English Program, critical thinking skills are emphasized over those of rote learning and SAT-style questions are a part of the evaluation process. The course will follow the content of Barron's SAT Subject Test: Chemistry – 13th edition. The course is prerequisite to SC30233 Universal Chemistry 3.

Textbook

- *Chemistry Reading and Study Workbook*, Pearson (2012), by Wilbraham, Staley, Matta, and Waterman.
- *Chemistry*, Pearson (2012), by Wilbraham, Staley, Matta, and Waterman.

Supplementary:

- *SAT Subject Test Chemistry*, Barron's (13th edition), by Mascetta and Kernion.

Course Outline & Objectives

Chemical Reactions (Chapter 11)

Section 1: Describing Chemical Reactions [Indicators 8, 23-26]

- Balance a chemical equation.

Section 2: Types of Chemical Reactions [Indicators 9, 23-26]



- Classify chemical reactions as one of the five general types of reactions.

Section 3: Reactions in Aqueous Solutions [Indicators 10-11, 23-26]

- Interpret a net ionic equation.
- Predict the formation of a precipitate in a double replacement reaction.

Chemical Quantities (Chapter 10)

Section 1: The Mole: A Measurement of Matter [Indicators 1, 23-26]

- Determine the molar mass of an element and of a compound.

Section 2: Mole-Mass and Mole-Volume Relationships [Indicators 2-4, 23-26]

- Convert between the mass of a substance and the number of moles of a substance
- Identify the molar volume of a gas at STP.
- Convert between the volume of a gas at STP and the number of moles of the gas.

Section 3: Percent Compositions and Chemical Formulas [Indicator 5-7, 23-26]

- Calculate the percent by mass of an element in a compound.
- Calculate the empirical formula of a compound.
- Distinguish between empirical and molecular formulas.

Stoichiometry (Chapter 12)

Section 2: Chemical Calculations [Indicators 12, 23-26]

- Solve stoichiometric problems.

Section 3: Limiting Reagent and Percent Yield [Indicator 13-15, 23-26]

- Distinguish between limiting reagents and excess reagents in a chemical reaction.
- Solve stoichiometric problems involving limiting reagents.
- Calculate and interpret the percent yield of a reaction.

End of Midterm Exam Content – Start of Final Exam Content

Sates of Matter (Chapter 13)

Section 1: The Nature of Gases [Indicators 16-17, 23-26]

- Explain gas pressure in terms of kinetic theory.
- Describe and explain the relationship between the temperature in kelvins and the average kinetic energy of particles.

Section 2: The Nature of Liquids [Indicators 18-20, 23-26]

- Identify the factors that determine the physical properties of a liquid.



- Define evaporation in terms of kinetic energy.
- Identify the conditions under which boiling occurs.

Section 3: The Nature of Solids [Indicators 21, 23-26]

- Describe how the structure and properties of solids are related.

Section 4: Change of State [Indicators 22, 23-26]

- Interpret a phase diagram.

The Behavior of Gases (Chapter 14)

Section 1: Properties of Gases [Indicators 1, 24, 25]

- Identify the three factors that affect gas pressure

Section 2: The Gas Laws [Indicators 2, 3, 24, 25]

- Describe the relationship among the pressure, volume, and temperature of a gas.
- Calculate the pressure, temperature and volume of a gas using gas laws.

Section 3: Ideal Gases [Indicators 4, 5, 24, 25]

- Calculate the amount of a contained gas when the pressure, volume, and temperature are specified.
- Calculate the molar mass of a gas using the ideal gas law.

Section 4: Gases: Mixtures and Movements [Indicator 6, 7, 24, 25]

- Relate the total pressure of a mixture of gases to the partial pressures of the component gases.
- Explain how the molar mass of a gas affects the rate at which gas diffuses and effuses.

Resources

- | | |
|-----------|---|
| Required | <ul style="list-style-type: none">• Assumption Notebook (2)• Binder/ folder• Scientific calculator (not a phone-based application)• Ruler |
| Suggested | <ul style="list-style-type: none">• Many different colored pens/markers/highlighters• Electronic Thai-English translator (not a phone-based application)• A Matayom-level chemistry practice book in Thai |

Academic Integrity Policy

Students are expected to adhere to the Assumption College student handbook. There is to be no plagiarism, no copying, and no cheating of any kind. These and any other acts of academic dishonesty lower the quality of the education and will not be tolerated. Students involved in



any form of academic dishonesty, including any student supplying or allowing the copying to take place, will receive a zero.

Plagiarism is the act of taking someone else's work or ideas and passing them off as one's own work or ideas. Examples of plagiarism include the failure to give appropriate acknowledgement when repeating another's idea, phrase, sentence or paragraph, or failure to give appropriate acknowledgement when paraphrasing any of those.

Behavioral Expectations

For the sake of all the members of the class, students are expected to respect themselves, their classmates, the teacher, and the facilities. Students must accept responsibility for themselves and their actions. Students are expected to be ready at the start of every class (Notebook, textbook, scientific calculator, writing utensils, etc.) and to actively participate throughout the lesson until class is dismissed.

A behavior score (out of 5 points) is taken every day. At the end of the semester the average is taken and used for the student's behavior score (10%).

Additionally, all Thai students are expected to embrace the following *desired characteristics*:

- Possess discipline
- Eager to learn
- Be an AC gentleman
- Dedicated to work

Attendance & Tardiness

Attendance will be taken at the start of every class. Students are expected to be in class on-time, every time. Unexcused absences or tardiness will not be tolerated. In the case of planned absences, please notify the teacher in as far in advance as possible. Students are expected to catch up on all missed work outside of class time.

Homework & Classwork

Homework and classwork will be assigned often and must be submitted on or before the due date. Late assignments can be submitted for a maximum of 50% up until the last week of the term. All late or missed assignments that are not turned in *before* the last week of the term will receive a zero.



Grading

Foundation Chemistry follows to the Assumption College grading scale:

<i>Final Score</i> \geq 80%	4.0
$75\% \leq$ <i>Final Score</i> $<$ 80%	3.5
$70\% \leq$ <i>Final Score</i> $<$ 75%	3.0
$65\% \leq$ <i>Final Score</i> $<$ 70%	2.5
$60\% \leq$ <i>Final Score</i> $<$ 65%	2.0
$55\% \leq$ <i>Final Score</i> $<$ 60%	1.5
$50\% \leq$ <i>Final Score</i> $<$ 55%	1.0
<i>Final Score</i> $<$ 50%	0.0

Evaluation and Assessment

The final semester grade for this course out of 100% is broken down as follows:

Homework/Classwork/Labs	30%
Quizzes	20%
Behavior	10% (program mandated)
Midterm Exam	20% (program mandated)
Final Exam	20% (program mandated)

Recommendations for Success

Chemistry can be a difficult course for many students. All students are encouraged to try the following:

1. Read, read, read the Chemistry textbook. Oftentimes, reading the text once is not enough even for native English speakers. You may need to read the material multiple times to understand. By reading along at home with the lessons taught at school (typically only a few pages per night), students will be able to responsibly manage the material and gain the most from the course.
2. Search online, in either Thai or English, if you don't understand a topic discussed in class or simply to get a better understanding of the topic.
3. Get a Thai language introductory chemistry book.
4. Do **not** copy your classmates work; struggle through and do the work on your own! This is how you learn!
5. Come see the teacher outside of class time for assistance.
6. Do more than just the bare minimum; there are plenty of problems in the textbook. We only have time for so many of them. Do the review questions at the end of the chapter and see the teacher for the answers.
7. Study the notes and vocabulary at least a few minutes every day, such as in homeroom or during any free time you might have in other classes.



SC30257 **Universal Biology 2**

Teacher Mr. Andrew Manfredi
Contact EP Science Lab, 2nd Floor Colombet Bldg.
epacnycandrewusa@gmail.com

Class Time EP-M 5/1: Tuesday, period 1; Wednesday, period 6; Friday, Period 7

Credits 1.5

Course Description

This biology course is divided into 4 units. First, the structure and function of the different parts of flowering plants will be covered, with a central focus on how each part of flowering plants helps them to survive in the various ecosystems in which they inhabit. Next, the process of photosynthesis will be covered in detail, with a focus on how plants have adapted to photosynthesis and factors affecting the rates and success of photosynthesis. Then, biodiversity will be explored, starting from the origin of life and ending with biodiversity in Thailand and ways to slow down or stop loss of biodiversity. Finally, coordination and response will be covered, with an emphasis on how organisms receive and react to information in their respective environments.

Critical thinking skills are emphasized and students are encouraged to see the ‘Big Picture’ and apply the information that they learn to solve problems that face humanity. Preparation for the SAT Biology Subject Tests (Ecology and Molecular) will be integrated into the course topics.

The course is a prerequisite for SC30258 Universal Biology 3.

Textbook

Biology, Miller and Levine 2019
ISBN-13: 978-0-328–92512-4; ISBN-10: 0-328-92512-8

Course Outline & Objectives

1. Structure of Flowering Plants (Text Sections 23.1 – 23.5)(Sect. 2-4)

- 1.1. Observe the structure and function of roots. (SC30257-01)
- 1.2. Observe the structure and function of stems. (SC30257-01)
- 1.3. Observe the structure and function of leaves. (SC30257-01; SC30257-17)
- 1.4. Measure plant transpiration. (SC30257-01; SC30257-18)



1.5. Observe and record the transport of water and mineral salts through plants.

(SC30257-04)

1.6. Observe and record the transport of organic substances through plants.

(SC30257-05)

Hydroponics/Aquaponics Activity: Build a functioning hydroponics system and grow vegetables by integrating knowledge of plant biology.

2. Photosynthesis (Text Sections 9.1 – 9.3)

2.1. Review the history of photosynthesis.

2.2. Rationalize the mechanism of photosynthesis. (SC30257-02)

2.3. Understand photorespiration. (SC30257-03)

2.4. Compare C₃ and C₄ plants. (SC30257-03)

2.5. Explain the adaptations of CAM plants. (SC30257-03)

2.6. Identify factors affecting the rate of photosynthesis. (SC30257-02)

2.7. Identify adaptations of plants for photosynthesis. (SC30257-02)

End of Midterm Exam Content – Start of Final Exam Content

3. Biodiversity (Text Sections 6.3 and 18.1 – 18.3)

3.1. Identify the components of biodiversity. (SC30257-08)

3.2. Calculate biodiversity. (SC30257-06)

3.3. Use taxonomy. (SC30257-09)

3.4. Compare theories for the origin of life.

3.5. Distinguish between kingdoms of organisms. (SC30257-10)

3.6. Explore biodiversity in Thailand. (SC30257-11)

3.7. Analyze the effects of loss of biodiversity. (SC30257-07)

4. Coordination and Response (Text Sections 26.1 and 27.3)

4.1. Survey response systems in different organisms. (SC30257-12)

4.2. Explore connections between all components of the human nervous system:



- 4.2.1. Nerve Cell (SC30257-13)
- 4.2.2. Central Nervous System (SC30257-14)
- 4.2.3. Peripheral Nervous System
- 4.2.4. Reflex Arc
- 4.2.5. Autonomic Nervous System (SC30257-14)
- 4.3. Experiment with the sense organs in humans, safely. (SC30257-15; SC30257-16)

Resources

- | | |
|-----------|---|
| Required | <input type="checkbox"/> 2 notebooks (1 white, 1 pink) |
| | <input type="checkbox"/> Folder for Biology only (to keep handouts, etc.) |
| | <input type="checkbox"/> Ruler |
| | <input type="checkbox"/> Glue stick and stapler |
| Suggested | <input type="checkbox"/> Many different colored pencils/highlighters |
| | <input type="checkbox"/> A Mattayom-level biology practice book in Thai |

Academic Integrity Policy

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Behavioral Expectations

For the sake of all the members of the class, students are expected to respect themselves, their classmates, the teacher, and the facilities. Students must accept responsibility for themselves and their actions. Students are expected to be ready at the start of every class (2 notebooks, textbook, writing utensils, etc.) and to actively participate throughout the lesson until class is dismissed.

Additionally, all Thai students are expected to embrace the following *desired characteristics*:

- Possess discipline
- Eager to learn
- Be an AC gentleman
- Dedicated to work



Attendance & Tardiness

Attendance will be taken at the start of every class. Students are expected to be in class on-time, every time. Unexcused absences or tardiness will not be tolerated. In the case of planned absences, please notify the teacher in as far in advance as possible. Students are expected to catch up on all missed work outside of class time.

Homework & Classwork

Homework and classwork will be assigned often and must be submitted on or before the due date. Late assignments can be submitted for a maximum of 50% up until the last week of the term. All late or missed assignments that are not turned in *before* the last week of the term will receive a zero.

Grading

This course follows to the Assumption College grading scale:

$Final\ Score \geq 80\%$	4.0
$75\% \leq Final\ Score < 80\%$	3.5
$70\% \leq Final\ Score < 75\%$	3.0
$65\% \leq Final\ Score < 70\%$	2.5
$60\% \leq Final\ Score < 65\%$	2.0
$55\% \leq Final\ Score < 60\%$	1.5
$50\% \leq Final\ Score < 55\%$	1.0
$Final\ Score < 50\%$	0.0

Evaluation and Assessment

The final semester grade for this course out of 100% is broken down as follows:

Tests and Quizzes	5%
Behavior/Participation	10% (program mandated)
Classwork, Lab and Homework	45%
Midterm Exam	20% (program mandated)
Final Exam	20% (program mandated)



Recommendations for Success

Biology can be a difficult course for many students. All students are encouraged to try the following:

1. Read the textbook and websites that the teacher recommends.
2. When studying, learning in the classroom and doing homework, always try to think about how the topic we are learning fits into the ‘Big Picture.’
3. Ask questions when you don’t understand. If you don’t understand something, there are likely other students who don’t understand as well. If you ask, then you will be helping those students as well. If you feel more confident asking a question in private, then you may do so.
4. **Do not copy** any work from anyone. This will damage your potential for thinking and being creative. It will also get you a zero. Don’t let other students copy your work either, as it will encourage your friends to be lazy and will harm them in the future.



SC30247 Animal Physiology

Teacher	Mr. Nicholas Crook
Contact	General Office, 2 nd Floor Colombet Bldg. epacnic@gmail.com
Class Time	EP-M 5/2
Credits	1.5

Course Description

Students will study the following topics: Functions responsible for gas exchange among sponge, hydra, planaria, earthworm, insect, fish, frog and bird, the structure of lung in mammals, the structure used for gas exchanging and the process of gas exchanging in humans, the functions of lung and the experiment to measure the air quantity of exhalation in humans, the process of cellular respiration in the conditions that oxygen supply is sufficient and insufficient, the open and closed blood circulatory system, the flowing direction of blood and the movement of blood cells in the fish tail, summary of the relationship between size of blood vein and speed of blood circulation, the structure and the functions of heart and blood vein in humans, heart structure of mammals, the direction of blood flow through human heart, blood circulation in humans, the difference of red blood cell, white blood cell, platelet and plasma, blood type and the principles of blood transfusion in ABO and Rh systems. Students will also study the components and the functions of lymph as well as the structure and functions of lymphatic vessel and lymph node, comparison of the mechanism of non-specific immunity with specific immunity, comparison of the active immunity with the passive immunity, immune system disorder that leads to AIDS, allergies and autoimmune disorders. Students will additionally learn about asexual and sexual reproduction in animals, structures and functions of male and female sexual organs, the process of spermatozoa production, egg cell creation and fertilization in human, the embryonic growth and post embryonic phase in frogs, chickens, and humans. The course will closely follow the order and content of the latest version of the American high school textbook *Biology*, by Pearson. The course is prerequisite to SC30256 Universal Biology 1.

Textbook

Biology, by Pearsons 2019 (ISBN-13: 978-0-328-92512-4)

Course Outline & Objectives

Part 1: Maintaining Equilibrium in the Body

Chapter :

- 8.1 Life is Cellular [Indicators 9-11]
 - ✓ State the cell theory



- ✓ Describe how the different types of microscopes work.
- ✓ Distinguish between prokaryotes and eukaryotes.
- 8.2 Cell Structure [Indicators 12-16]
 - ✓ Describe the structure and function of the cell nucleus.
 - ✓ Describe the roles of vacuoles, lysosomes, and the cytoskeleton.
 - ✓ Identify the role of ribosomes, endoplasmic reticulum, and Golgi apparatus in making proteins.
 - ✓ Describe the function of the chloroplasts and mitochondria in the cell.
 - ✓ Describe the function of the cell membrane.
- 8.3 Cell Transport [Indicators 17-19]
 - ✓ Describe passive transport.
 - ✓ Describe active transport.
- 8.4 Homeostasis and Cells [Indicators 20-21]
 - ✓ Explain how unicellular organisms maintain homeostasis.
 - ✓ Explain how multicellular organisms maintain homeostasis.

End of Midterm Exam Content – Start of Final Exam Content

Part 2: The Chemistry of Life, Into to the Digestive System, and Nutrition

Chapter 2: The Chemistry of Life

- 2.1 The Nature of Matter [Indicators 22-26]
 - ✓ Identify the three subatomic particles found in atoms.
 - ✓ Explain how all of the isotopes of an element are similar and how they are different.
 - ✓ Explain how compounds are different from their component elements.
 - ✓ Describe the two main types of chemical bonds.
- 2.2 Properties of Water [Indicators 27-28]
 - ✓ Discuss the unique properties of water.
 - ✓ Differentiate between solutions and suspensions.
 - ✓ Explain what acidic solutions and basic solutions are.
- 2.3 Carbon Compounds [Indicators 29-30]
 - ✓ Describe the unique qualities of carbon.
 - ✓ Describe the structures and functions of the four groups of macromolecules: carbohydrates, proteins, lipids, and nucleic acids.
- 2.4 Chemical Reactions and Enzymes [Indicators 31-33]
 - ✓ Explain how chemical reactions affect chemical bonds.
 - ✓ Describe how energy changes affect how easily a chemical reactions occur.
 - ✓ Explain why enzymes are important to living things.

Chapter 25: Animal Systems – Part 1

- 25.1 Feeding and Digestion [Indicators 34-35]
 - ✓ Describe how animals obtain food.
 - ✓ Explain how digestion occurs in animals.
 - ✓ Describe how mouthparts are adapted for different diets.



Resources

- | | |
|-----------|---|
| Required | <input type="checkbox"/> Plastic Folder for F. Biology only (to keep handouts, etc.) |
| | <input type="checkbox"/> 2 notebooks (white and pink) |
| Suggested | <input type="checkbox"/> Many different colored pens/markers/highlighters |
| | <input type="checkbox"/> Electronic Thai-English translator (not a phone-based application) |
| | <input type="checkbox"/> Ruler |
| | <input type="checkbox"/> Glue stick, stapler, or tape |

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Behavioral Expectations

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A behavior score (out of 3 points) is taken every day. At the end of the semester the average is taken and used for the student's behavior score (10%). Students *earn* the scores they receive.

Additionally, all Thai students are expected to embrace the following *desired characteristics*:

- Possess discipline
- Eager to learn
- Be an AC gentleman
- Dedicated to work

Attendance & Tardiness

Attendance will be taken at the start of every class. Students are expected to be in class on-time, every time. Unexcused absences or tardiness will not be tolerated. In the case of planned absences, please notify the teacher in as far in advance as possible. Students are expected to catch up on all missed work outside of class time.



Homework & Classwork

Homework and classwork will be assigned often and must be submitted on or before the due date. No late assignments will be accepted unless the student is absent the day the assigned work is due. If a student is absent the day an assignment is due, the assigned work will be due at the beginning of the following class. Remember- it is the student's responsibility to remember what and when assignments are due.

Grading

This course follows to the Assumption College grading scale:

<i>Final Score</i> \geq 80%	4.0
$75\% \leq$ <i>Final Score</i> $<$ 80%	3.5
$70\% \leq$ <i>Final Score</i> $<$ 75%	3.0
$65\% \leq$ <i>Final Score</i> $<$ 70%	2.5
$60\% \leq$ <i>Final Score</i> $<$ 65%	2.0
$55\% \leq$ <i>Final Score</i> $<$ 60%	1.5
$50\% \leq$ <i>Final Score</i> $<$ 55%	1.0
<i>Final Score</i> $<$ 50%	0.0

Evaluation and Assessment

The final semester grade for this course out of 100% is broken down as follows:

Homework/Classwork	45%
Quizzes	5%
Behavior	10% (program mandated)
Midterm (Summative) Exam	20% (program mandated)
Final Exam	20% (program mandated)

Recommendations for Success

Biology can be a difficult course for many students. All students are encouraged to try the following:

1. Read, read, read the *Biology*, by Pearsons textbook. Oftentimes, reading the text once is not enough even for native English speakers. You may need to read the material multiple times to understand. By reading along at home with the lessons taught at school (typically only a few pages per night), students will be able to responsibly manage the material and gain the most from the course.
2. Search online, in either Thai or English, if you don't understand a topic discussed in class or simply to get a better understanding of the topic.
3. Get a Thai language introductory biology book.
4. Do **not** copy your classmates work; struggle through and do the work on your own! This is how you learn!
5. Come see the teacher outside of class time for assistance.



THE **ENGLISH PROGRAM** AT ASSUMPTION COLLEGE
Course Syllabus – Semester 1/2020

6. Do more than just the bare minimum; there are plenty of problems in the textbook. We only have time for so many of them. Do the review questions at the end of the chapter and see the teacher for the answers.
7. Study the notes and vocabulary at least a few minutes every day, such as in homeroom or during any free time you might have in other classes.



HP30103 M5 Foundation Health Studies & Physical Education 3

Teacher	Mr. Brian Mallon
Contact	EP Staff Office, Level 2 bm11332@gmail.com
Credits	0.5

Course Description

Students will learn to understand about the process for promoting and maintaining the efficiency of the function of digestive system, excretory system, respiratory system, and cardiovascular system, plan and recognize values of planning health care for family members, be aware of risky factors and situations to have sexual intercourse, including nightlife, matchmaking, and Internet relationships. Recognize proper problem-solving methods and skills when disappointed in love, realize proper sexual values including sexual behaviors appropriate to Thai society and culture, know how to avoid and protect oneself from risky situations to having an intentional pregnancy, recognize values of health promotion and disease prevention by following the guidelines for health promotion and disease prevention using Thai wisdom, realize and understand non-contagious diseases which are the important problems of the country and local districts, and protection and solutions for heart diseases, blood vessels, obesity, hepatic disease, realize the importance of health assessment and risky behaviors of oneself and family members. Use analytical process, explanation and demonstration, practice, and apply methods of risk reduction, health promotion, and reduction of risky behaviors of oneself and family members, propose methods for protecting consumer rights, and health products in the schools to create knowledge, understanding, and apply it to real-life situations along with having morality, ethics, honesty, disciplines, responsibility, being free from addictive substances and allurements, sense of personal responsibility to environment in one's own community including proposing methods for protecting and solving environmental problems in the community.

Study volleyball playing, creative movement, basic skills for playing volleyball, participation in recreational activities, physical capacity for different works, concept about different types of movement for playing volleyball, concept from scientific principles, movement when playing sports based on types and categories of sports, acceptance and realization of values of



regular exercise and sport playing along with promoting healthy lifestyle, specify creative patterns for attack, defense, and cooperation in sport playing and competition, be responsible for one's duties and responsibilities during participating physical activities and team sports, rights, and rules, regulations, safety, and strategies during sport playing and competition with other people. Use skills and process of physical education which are providing collaboration when participating in physical activities and playing team sports according to specified structures, sportsmanship, spirit in competition, sport aesthetics in sport playing, watching, and competitions to create knowledge, understanding, and apply the knowledge to real-life situations along with having honesty, diligence, endeavor, disciplines, morality, ethics, attitudes towards physical education, public mind, love of being Thai, self-sufficiency, and proper values.

Textbook

No textbook required for this unit

Physical Education Indicators

1. Analyze the concept about different patterns of movement for playing sports.
2. Use personal ability to promote team capability, and consider the effects on other people and society.
3. Play at least one type of Thai sports and international sports both individual and team sports.
4. Show movements creatively.
5. Joint recreational activities outside schools and use the principles and concepts to improve and develop quality of one's life and society.
6. Do the exercise and play sports proper to a personal capacity regularly and use personal ability to increase team capacity, reduce ego, and consider effects on the society.
7. Explain and practice rights, rules, regulations, and tactics during the games and competitions with other people, conclude them as guidelines, and use them in daily life continuously.
8. Express good manners of watching, playing, and competing sports with sportsmanship and use them in daily life continuously.
9. Joint physical activities and play sports happily and admire values and beauty of sports.



Physical Education Course Outline & Objectives

1. Exercises and Playing Sports / Physical Fitness Test / Games [Indicators – 1, 2, 4, 6, 7, 8, 9]

- ✓ Test of Physical Fitness
- ✓ Exercises, playing sports or games
- ✓ Test of Physical Fitness
- ✓ Exercises, playing sports or games
- ✓ Practice form and technique for MOE physical fitness testing.

2. Movements in Exercising and Playing Sports Creatively [Indicators – 1, 2, 3, 4, 5, 6, 7]

- ✓ Physical movement in practicing athletic skills and exercises.
- ✓ Physical connection in practicing athletic skills and exercises.
- ✓ Physical connection and movement to warm-up for athletics.
- ✓ Physical connection and movement in practicing volleyball skills
- ✓ Physical connection and movement in practicing basketball skills

4. General Knowledge about Playing Volleyball [Indicators – 1, 2, 4, 6, 7, 8, 9]

- ✓ Skills, Rules, Regulations, and physical benefits of playing.
- ✓ Analyze concepts related to movements and techniques.
- ✓ Under hand, overhand, serve, set, spike, etc.
- ✓ Sportsmanship
- ✓ Competition and manners when watching the games

Health Indicators

1. Explain warning symptoms from disorders, and guidelines for correctly preventing diseases occurring in different systems in the body.
2. Analyze constant effects of diseases occurring in different systems in the body correctly.
3. Analyze causes of improper personal practices on health care of family members.
4. Realize the importance of personal practices to take care of family members' health to help them have a good health.
5. Provide information about maintaining a good relationship with family, friends, and community.



6. Realize the importance of proper sexual expression and maintaining a good relationship with family, friends, and community.
7. Realize signification of values and sexual behavior proper to the culture.
8. Realize the importance of local wisdom using herbal plants to cook food.
9. Analyze product and service purchasing, terms and conditions of products and service, and realize the importance of the protection of consumer rights.
10. Summarize data about diseases that are crucial problems for Thai people and correct preventions and treatments.
11. Realize the importance of health promotion and disease prevention using Thai wisdom.

Health Course Outline & Objectives

1. Work Efficiency of System of Body Composition [Indicators – 1, 2, 3, 11]

- Digestive system
- Excretory system
- Respiratory system
- Cardiovascular system

2. Planning for Individual Health Care of Family Members [Indicators – 3, 4, 5, 6]

- Planning for health care of family members
- Guidelines for health care of a person and his/ her family members

3. Development of Living Skills & Characteristics Required in Teenagers [Indicators –6, 7]

- Living skills development and promotions of required characteristics in teenagers

4. Development and Promotion of Sexual Health [Indicators – 7, 10, 11]

- Self-protection from risky situations
- Sexual intercourse and unintentional pregnancy
- Proper problem solving methods and skills
- When disappointed in love
- Proper values and sexual behaviors to cultures

5. Personal Care and Health Promotion for Disease Prevention [Indicators – 7, 8, 9, 10, 11]

- Significant contagious & non-contagious diseases of the country and their preventions
- Guidelines and self -practice for health promotion and disease prevention using Thai wisdoms



Resources

Required

- School Physical Education Uniform (a note explaining why the student is out of uniform is required or a behavior score of 0 for this lesson) Needed by the end of online classes when school starts.

Pink resource booklet for note taking (Reminder that any handouts must be stapled or glue into the pink resource). Needed by the end of online classes when school starts.

Suggested

- Fitness and sport activities at least 1-hour each day

Academic Integrity Policy

Students are expected to adhere to the Assumption College student handbook. There is to be no plagiarism, no copying, and no cheating of any kind. These and any other acts of academic dishonesty lower the quality of the education and will not be tolerated. Students involved in any form of academic dishonesty, including any student supplying or allowing the copying to take place, will receive a zero.

Plagiarism is the act of taking someone else's work or ideas and passing them off as one's own work or ideas. Examples of plagiarism include the failure to give appropriate acknowledgement when repeating another's idea, phrase, sentence or paragraph, or failure to give appropriate acknowledgement when paraphrasing any of those.

Behavioral Expectations

For the sake of all the members of the class, students are expected to respect themselves, their classmates, the teacher, and the facilities. Students must accept responsibility for themselves and their actions. Students are expected to be ready at the start of every class (in PE uniform) and to actively participate throughout the lesson until class is dismissed.

Additionally, all Thai students are expected to embrace the following *desired characteristics*:

- Possess discipline
- Eager to learn
- Be an AC gentleman
- Dedicated to work

Attendance & Tardiness

For online classes, attendance will be determined by whether the student completed the weekly work or not. In the case where you know you will not be able to submit an



assignment on time, please notify the teacher in as far in advance as possible. Students are expected to catch up on all missed work.

Homework & Classwork

Homework in Physical Education is limited, however any Homework and must be submitted on or before the due date. Late assignments can be submitted for a maximum of 50% up until the last week of the term. All late or missed assignments that are not turned in *before* the last week of the term will receive a zero.

Grading

This course follows to the Assumption College grading scale:

<i>Final Score</i> \geq 80%	4.0
$75\% \leq$ <i>Final Score</i> $<$ 80%	3.5
$70\% \leq$ <i>Final Score</i> $<$ 75%	3.0
$65\% \leq$ <i>Final Score</i> $<$ 70%	2.5
$60\% \leq$ <i>Final Score</i> $<$ 65%	2.0
$55\% \leq$ <i>Final Score</i> $<$ 60%	1.5
$50\% \leq$ <i>Final Score</i> $<$ 55%	1.0
<i>Final Score</i> $<$ 50%	0.0

Evaluation and Assessment

Health / Physical Education

MOE Physical Fitness Tests	20% (formative scores)
Worksheets and Assignments	30% (formative scores)
Affective Domain	10% (program mandated)
Midterm Exam	20% (program mandated)
Final Exam	20% (program mandated)

Thailand Ministry of Education Fitness Testing

PASS or FAIL



Recommendations for Success

Physical Education is to be enjoyed. All students are encouraged to try the following:

1. Look to do some form of Physical Activity every day.
2. Look to visit parks and tracks where the required fitness testing can be practiced.
3. Come see the teacher outside of class time for assistance.
4. Try new sports. We all have different sports we like and different sports we are good at. We encourage students to learn more about their favorite sports on ‘YouTube’ and other media platforms. If you never try, you will never know if you like it!
5. See PE and movement as an *opportunity* to improve your health and well- being, not a chore. Your teenage years are the most important years to be active and can affect the quality of life you have as an adult.



OT30105 **Foundation Occupational Works 2**

Teacher Dr. Hermann Gruenwald

Contact EP Teacher Room, 2nd Floor Colombet Building
DrHermann365@gmail.com

Website <https://app.schoology.com/course/2452153269/materials>
<https://app.schoology.com/course/2452161295/materials>
<https://app.schoology.com/course/2452169707/materials>

Class Time EP-M5/1, 2, 3: Friday 12 Noon

Credits 0.5

Course Description

In Mathayom five, the Occupational Works course will focus on the basic principles of cooking, processing and preserving foods. Students will learn the basic principles for selecting and purchasing hygienic foods and how to practically apply cooking techniques and processes to make dishes and preserved products. Students will decorate, design and create packaging for finished food products.

Students will gain an understanding of healthy diets and so called ‘super foods’ and will work collaboratively to refine their research, planning, designing and presentation skills to producing presentations about ASEAN cuisines and other food related topics.

The goals of the Occupational Works subject are to:

- endow students with creative opportunities and curiosity
- refine skills for individual and group working processes such as management, teamwork, problem-solving and attention to detail
- develop and apply research and investigation skills to coursework
- improve awareness of human impact on the environment for one’s life and family
- acquire technological knowledge for occupational development
- promote awareness of nationalism, religiosity, royalty, honesty, self-discipline, studiousness, self-sufficiency, endeavor, love of being Thai, and public-mindedness.



Course Outline & Objectives

Unit 1: Food and Nutrition (theory)

Unit 1.1: Principles for buying food (*Indicators 1, 3, 5*)

- ✓ Identify where to buy different foods in Bangkok and discuss pros and cons of fresh markets, supermarkets, Royal Project shops etc.
- ✓ Recognize important points of food safety and hygiene when making decisions about purchasing ingredients.

Unit 1.2: Principles in cooking (*Indicators 1, 2, 3, 4, 5, 6, 9, 11*)

- ✓ Research in groups and present to class basic cooking techniques such as how to: braise, steam, marinate, deep fry, stir fry, boil, blanch, grill and bake.
- ✓ Learn and apply basic cooking skills such as washing up and peeling, slicing, chopping and washing vegetables, fruit and meat.
- ✓ Discuss the relationship between good food and living a long life such as the Mediterranean diet and identify foods or ‘super foods’ which are particularly beneficial to living a long life.
- ✓ Recognize the principles of food decoration in modern cuisines.

Unit 1.3: Food processing and preservation (*Indicators 2, 3, 4, 5, 7, 9, 11*)

- ✓ Research food processing and preservation techniques such as pasteurization, drying, smoking, freezing, salting, sugaring and pickling.
- ✓ Understand how value can be added to raw materials through the above processes.

Unit 1.4: ASEAN food (*Indicators 2, 3, 4, 5, 9, 11*)

- ✓ Research, understand and discuss the culture of food in Thailand and other ASEAN nations.
- ✓ Identify raw materials, seasonings and processes unique to other countries.

Unit 1.5: Food and nutrition occupations (*Indicators 8, 9, 10*)

- ✓ Discuss types of food and nutrition occupations and guidelines for taking them up.
- ✓ Students determine if they have aptitude and interest in these occupations.
- ✓ Identify ways to gain experience in any occupations of interest.

Unit 2: Food processing project (practice) (*Indicators 2, 3, 4, 6, 7, 9, 11*)

- ✓ Work in groups to select a raw ingredient and technique suitable for food processing.
- ✓ Collaborate in groups to process and preserve foods.
- ✓ Present finished food products.



Unit 3: Food packaging (practice) (Indicators 2, 3, 5, 6, 7, 9, 11)

- ✓ Design and select appropriate and sustainable materials to make creative packaging for the processed food products.
- ✓ Explain the procedure and concept of making the food products and present work online with photographs and power point presentation.

Resources

Required	<input type="checkbox"/> Pink AC notebook A3 <input type="checkbox"/> AC 3 ring binder portfolio A4 <input type="checkbox"/> Basic stationary (pen, pencil, eraser, ruler, glue, sharpener etc)
Suggested	<input type="checkbox"/> Various colored pens / markers / highlighters / pencils
Occasional	<input type="checkbox"/> Specific food ingredients for unit 2 <input type="checkbox"/> Packaging materials for unit 3 <i>The above will be requested a week in advance of use</i>

Academic Integrity Policy

Students are expected to adhere to the Assumption College student handbook. There is to be no plagiarism, no copying, and no cheating of any kind. These and any other acts of academic dishonesty lower the quality of the education and will not be tolerated. Students involved in any form of academic dishonesty, including any student supplying or allowing the copying to take place, will receive a zero.

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Behavioral Expectations

For the sake of all the members of the class, students are expected to respect themselves, their classmates, the teacher, and the facilities. Students must accept responsibility for themselves and their actions. Students are expected to be ready at the start of every class (sketch book, basic stationary, materials, ingredients etc.) and to actively participate throughout the lesson until class is dismissed.

Behavior and participation is monitored during every class and points are deducted for misbehaviour, non-participation or disruption to the class. This is averaged throughout the semester and calculated as a score of 10 at the end of semester.

Additionally, all Thai students are expected to embrace the following *desired characteristics*:

- Possess discipline
- Be an AC gentleman
- Be eager to learn
- Be dedicated to work



- Be honest and upright
- Have a sense of public-consciousness

Attendance & Tardiness

Attendance will be taken at the start of every class. Students are expected to be in class on-time, every time. Unexcused absences or tardiness will not be tolerated. In the case of planned absences, please notify the teacher in as far in advance as possible. Students are expected to catch up on all missed work outside of class time.

Homework & Classwork

Homework and classwork will be assigned often, must be completed to a high standard and be submitted on or before the due date. Late assignments are subject to 50% less marks for each week they are late. All missed assignments will receive a zero and will dramatically reduce the averaged classwork and homework scores of the individual.

Grading

This course follows to the Assumption College grading scale:

<i>Final Score</i> \geq 80%	4.0	A
$75\% \leq$ <i>Final Score</i> < 80%	3.5	B+
$70\% \leq$ <i>Final Score</i> < 75%	3.0	B
$65\% \leq$ <i>Final Score</i> < 70%	2.5	C+
$60\% \leq$ <i>Final Score</i> < 65%	2.0	C
$55\% \leq$ <i>Final Score</i> < 60%	1.5	D+
$50\% \leq$ <i>Final Score</i> < 55%	1.0	D
<i>Final Score</i> < 50%	0.0	F

Evaluation and Assessment

The final semester grade for this course out of 100% is broken down as follows:

Behavior & Participation	10%	Affective Domain
STEM	10%	Formative
Class Work	20%	Formative
Home Work	20%	Formative
		50% Formative
Midterm Exam	20 %	Exams
Final Exam	20%	Exams

Recommendations for Success

1. Bring all the materials that are needed to complete projects on the day of class
2. Be creative and work hard for your own success and learning.
3. Don't be afraid to experiment and have fun studying
4. Plan projects carefully and have the required materials for your project
5. Keep your notebook tidy, attractive and up-to-date and submit work on time
6. Check schoology.com for assignments and course materials and grades



OT30221 Introduction to Business

Teacher	Dr. Hermann Gruenwald
Contact	EP Teacher Room, 2 nd Floor Colombet Building DrHermann365@gmail.com
Website	https://app.schoolology.com/course/2452223334/materials
Class Time	EP-M5/3: Thursdays 13:00
Credits	0.5

Course Description

In Matheum five students will get an Introduction to Business year of the Business Management course is heavily focused on the principles and methodology of accounting, finance and business. Students will work in groups to devise mock small businesses and practically apply a variety of accounting and financial skills which they will learn throughout the course to the running of the business. Students will also gain some experience of the stock market and keeping track of their personal finances.

Individually, students will research their suitability for potential careers and develop career action plans to guide their advancement of experience gained at university and beyond.

The goals of the Occupational Works subject are to:

- endow students with creative opportunities and curiosity
- refine skills for individual and group working processes such as management, teamwork, problem-solving and attention to detail
- develop and apply research and investigation skills to coursework
- improve awareness of human impact on the environment for one's life and family
- acquire technological knowledge for occupational development
- promote awareness of nationalism, religiosity, royalty, honesty, self-discipline, studiousness, self-sufficiency, endeavor, love of being Thai, and public-mindedness.



Course Outline & Objectives

Unit 2: Forms of Business basics (*Indicator 1, 3, 7, 11*)

- ✓ Understand general knowledge about legal forms of business and the registration of business as .

Unit 3: Business Functions - Marketing (*Indicators 1, 3, 11*)

- ✓ Understand basic functions and departments of business.
- ✓ Distinguish differences of approaches to marketing and market research
- ✓ Understand the purpose of business
- ✓ Understand different business departments.

Unit 4: Finance and accounting (*Indicators 2, 3, 4, 5, 6, 9, 10*)

- ✓ Introduction to finance and accounting.
- ✓ Experience recording transactions in ledger accounts with pencil footings.
- ✓ Recognize the use of accounting methods like trial balance.
- ✓ Make a financial statement.
- ✓ Understand the purpose of the closing entry to bring the temporary journal account balances to zero for the next accounting period.

Unit 5: Business management (*Indicators 1, 2, 3, 4, 6, 8, 10, 11*)

- ✓ Learn basic principles for business management.
- ✓ Discuss and apply management techniques.

Resources

Required	<input type="checkbox"/> A pink A.C. notebook (minimum A4 size) <input type="checkbox"/> Basic stationary (pen, pencil, eraser, ruler, sharpener etc) <input type="checkbox"/> Extra stationary (glue stick, stapler, tape, liquid paper etc.) <input type="checkbox"/> AC Portfolio A4 with clear front cover
Suggested	<input type="checkbox"/> Various colored pens / markers / highlighters / pencils
Occasional	<input type="checkbox"/> Smart phones for research in class <input type="checkbox"/> USB thumb drives to save typed work onto <input type="checkbox"/> Materials potentially needed for special projects <i>The above will be requested a week in advance of use</i>

Academic Integrity Policy

Students are expected to adhere to the Assumption College student handbook. There is to be no plagiarism, no copying, and no cheating of any kind. These and any other acts of academic



dishonestly lower the quality of the education and will not be tolerated. Students involved in any form of academic dishonesty, including any student supplying or allowing the copying to take place, will receive a zero.

Plagiarism is the act of taking someone else's work or ideas and passing them off as one's own work or ideas. Examples of plagiarism include the failure to give appropriate acknowledgement when repeating another's idea, phrase, sentence or paragraph, or failure to give appropriate acknowledgement when paraphrasing any of those.

Behavioral Expectations

For the sake of all the members of the class, students are expected to respect themselves, their classmates, the teacher, and the facilities. Students must accept responsibility for themselves and their actions. Students are expected to be ready at the start of every class (sketch book, basic stationary, materials, ingredients etc.) and to actively participate throughout the lesson until class is dismissed.

Behavior and participation is monitored during every class and points are deducted for misbehavior, non-participation or disruption to the class. This is averaged throughout the semester and calculated as a score of 10 at the end of semester.

Additionally, all Thai students are expected to embrace the following *desired characteristics*:

- Possess discipline
- Be an AC gentleman
- Be honest and upright
- Be eager to learn
- Be dedicated to work
- Have a sense of public-consciousness

Attendance & Tardiness

Attendance will be taken at the start of every class. Students are expected to be in class on-time, every time. Unexcused absences or tardiness will not be tolerated. In the case of planned absences, please notify the teacher in as far in advance as possible. Students are expected to catch up on all missed work outside of class time check schoology for the content of the lectures and the in-class assignments and homework and project assignments.

Homework & Class Work

Homework and class work will be assigned often, must be completed to a high standard and be submitted on or before the due date. Late assignments are subject to 50% less marks for each week they are late. All missed assignments will receive a zero and will dramatically reduce the averaged class work and homework scores of the individual.



Grading

This course follows to the Assumption College grading scale:

$Final\ Score \geq 80\%$	4.0	A
$75\% \leq Final\ Score < 80\%$	3.5	B+
$70\% \leq Final\ Score < 75\%$	3.0	B
$65\% \leq Final\ Score < 70\%$	2.5	C+
$60\% \leq Final\ Score < 65\%$	2.0	C
$55\% \leq Final\ Score < 60\%$	1.5	D+
$50\% \leq Final\ Score < 55\%$	1.0	D
$Final\ Score < 50\%$	0.0	F

Evaluation and Assessment

The final semester grade for this course out of 100% is broken down as follows:

Behavior & Participation	10%	Affective Domain
Class Work	10%	Formative
Home Work	10%	Formative
Presentation	10%	Formative
Portfolio	10%	Formative
Team Work	10%	Formative
		50% Formative
Midterm Exam	20 %	Exams
Final Exam	20%	Exams

Recommendations for Success

1. Bring all the materials that are needed to complete projects on the day of class
2. Be creative and work hard for your own success and learning.
3. Don't be afraid to experiment and have fun studying
4. Plan projects carefully and have the required materials for your project
5. Keep your notebook tidy, attractive and up-to-date and submit work on time
6. Check schoology.com for assignments and course materials and grades



SC30106 Computer Programming

Teacher Mr. Nicholas Sebasco

Contact EP Computer Lab 5th Floor 2003 building
 nick.sebasco@gmail.com

Class Time EP-M5/1-3

Credits 0.5

Course Description

This course is designed to build upon programming learned by the students in M3. The course will focus on introducing students to the general terminology and concepts of programming that apply to all programming languages, applications of python as a tool capable of solving real world problems, and advanced python syntax. Students will build on knowledge from M3 computer programming to learn about more theoretical computer science topics (algorithms, data structures, abstraction, software design). Additionally students will learn how to use python to solve problems and learn practical use cases for python programming. Finally students will learn advanced python syntax not covered in M3 programming.

Course Outline & Objectives

Topics include: [Indicator 1,2,3,4]

Topics
<ul style="list-style-type: none"> • Logic and set theory • Operators, assignment, precedence • Data operations • Advanced control flow • Functional programming • Classes • Algorithms and data structures • Problems solving and program design • 3rd Party Modules • Advanced Syntax

Resources

Required EP Computer Lab



Academic Integrity Policy

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Behavioral Expectations

For the sake of all the members of the class, students are expected to respect themselves, their classmates, the teacher, and the facilities. Students must accept responsibility for themselves and their actions. A behavior score (out of 10 points) is taken every day. At the end of the semester the average is taken and used for the student's behavior score (10%). Students *earn* the scores they receive.

Additionally, all Thai students are expected to embrace the following *desired characteristics*:

- Love for the country and the King, faith in religion
- Possess discipline
- Be self-sufficient
- Proud to be Thai
- Be an AC gentleman
- Eager to learn
- Dedicated to work
- Have a sense of public consciousness
- Be honest and upright

Attendance & Tardiness

Attendance will be taken at the start of every class. Students are expected to be in class on-time, every time. Unexcused absences or tardiness will not be tolerated. In the case of planned absences, please notify the teacher in as far in advance as possible. Students are expected to catch up on all missed work outside of class time.

Homework & Classwork

Homework and classwork will be assigned often and must be submitted on or before the due date. Late assignments can be submitted for a maximum of 50% up until the last week of the term. All late or missed assignments that are not turned in *before* the last week of the term will receive a zero.



Grading

This course follows to the Assumption College grading scale:

$Final\ Score \geq 80\%$	4.0
$75\% \leq Final\ Score < 80\%$	3.5
$70\% \leq Final\ Score < 75\%$	3.0
$65\% \leq Final\ Score < 70\%$	2.5
$60\% \leq Final\ Score < 65\%$	2.0
$55\% \leq Final\ Score < 60\%$	1.5
$50\% \leq Final\ Score < 55\%$	1.0
$Final\ Score < 50\%$	0.0

Evaluation and Assessment

The final semester grade for this course out of 100% is broken down as follows:

STEM	10%
Homework/Classwork	30%
Coursework	30%
Behavior	10% (program mandated)
Midterm Exam/Project	10% (program mandated)
Final Exam	10% (program mandated)

Recommendations for Success

Information technology can be a difficult course for many students. All students are encouraged to try the following:

1. Read, read, read the teacher's online notes. Oftentimes, reading the text once is not enough even for native English speakers. You may need to read the material multiple times to understand. By reading along at home with the lessons taught at school (typically only a few pages per night), students will be able to responsibly manage the material and gain the most from the course.
2. Search online, in either Thai or English, if you don't understand a topic discussed in class or simply to get a better understanding of the topic.
3. Do **not** copy your classmates work; struggle through and do the work on your own! This is how you learn!
4. Come see the teacher outside of class time for assistance.
5. Do more than just the bare minimum; there are plenty of problems in the teacher's online notes. We only have time for so many of them. Do the review questions at the end of the chapter and see the teacher for the answers.
6. Study the notes and vocabulary at least a few minutes every day, such as in homeroom or during any free time you might have in other classes.



SC30275 Multimedia Creation

Teacher Mr. Dave Thomas

Contact EP Teacher Room, 2nd Floor Colombet Bldg.

Credits 0.5

Course Description

Study the knowledge for creating Multimedia projects in a variety of programs. Including Interactive Flash animation projects, Sound editing, movie editing and production of web based projects. Use process to create knowledge and understanding and technological process to create communicative skills, thinking ability, problem-solving ability, and ability to use technology along with possessing honesty, disciplines, diligence, and endeavor.

Course Outline & Objectives

Production of Flash Project [Indicators 1,]

- 1.1 Basic Illustration and development
- 1.2 Tools for Interactivity in Flash and development
- 1.3 Introduction of additional media

Additional Editing [Indicators 2]

- 2.1 Sound Editing
- 2.2 Basic movie editing

Integration into Web Content [Indicators 1, 2, 3]

- 3.1 Development of Web based content
- 3.2 Combining Multimedia into web site Projects

Resources

Required EP Computer Lab

Academic Integrity Policy

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Behavioral Expectations

For the sake of all the members of the class, students are expected to respect themselves, their classmates, the teacher, and the facilities. Students must accept responsibility for themselves and their actions. A behavior score (out of 10 points) is taken every day. At the end of the semester the average is taken and used for the student's behavior score (10%). Students *earn* the scores they receive.

Additionally, all Thai students are expected to embrace the following *desired characteristics*:

- Love for the country and the King, faith in religion
- Possess discipline
- Be self-sufficient
- Proud to be Thai
- Be an AC gentleman
- Eager to learn
- Dedicated to work
- Have a sense of public consciousness
- Be honest and upright

Attendance & Tardiness

Attendance will be taken at the start of every class. Students are expected to be in class on-time, every time. Unexcused absences or tardiness will not be tolerated. In the case of planned absences, please notify the teacher in as far in advance as possible. Students are expected to catch up on all missed work outside of class time.

Homework & Classwork

Homework and classwork will be assigned often and must be submitted on or before the due date. Late assignments can be submitted for a maximum of 50% up until the last week of the term. All late or missed assignments that are not turned in *before* the last week of the term will receive a zero.

Grading

This course follows to the Assumption College grading scale:

$Final\ Score \geq 80\%$	4.0
$75\% \leq Final\ Score < 80\%$	3.5
$70\% \leq Final\ Score < 75\%$	3.0
$65\% \leq Final\ Score < 70\%$	2.5
$60\% \leq Final\ Score < 65\%$	2.0
$55\% \leq Final\ Score < 60\%$	1.5
$50\% \leq Final\ Score < 55\%$	1.0
$Final\ Score < 50\%$	0.0



Evaluation and Assessment

The final semester grade for this course out of 100% is broken down as follows:

STEM	10%
Homework/Classwork	20%
Quiz	20%
Coursework	20%
Behavior	10% (program mandated)
Midterm Exam/Project	10% (program mandated)
Final Exam	10% (program mandated)

Recommendations for Success

Information technology can be a difficult course for many students. All students are encouraged to try the following:

1. Read, read, read the textbook. Oftentimes, reading the text once is not enough even for native English speakers. You may need to read the material multiple times to understand. By reading along at home with the lessons taught at school (typically only a few pages per night), students will be able to responsibly manage the material and gain the most from the course.
2. Search online, in either Thai or English, if you don't understand a topic discussed in class or simply to get a better understanding of the topic.
3. Do **not** copy your classmates work; struggle through and do the work on your own! This is how you learn!
4. Come see the teacher outside of class time for assistance.
5. Do more than just the bare minimum; there are plenty of problems in the textbook. We only have time for so many of them. Do the review questions at the end of the chapter and see the teacher for the answers.
6. Study the notes and vocabulary at least a few minutes every day, such as in homeroom or during any free time you might have in other classes.



EN30103 Foundation English 3

STUDENT SYLLABUS FOR SAT WRITING/LANGUAGE AND READING PREPARATION EP(5)-1-2-3

Teacher: Mr. Steven Raine

COURSE DESCRIPTION:

Throughout semester one we will prepare students for the SAT Examination a prerequisite for joining a university international program. We will master the examination skills of reading, grammar, punctuation, style and organisation and reading. Through a series of skill based and enriching lessons using Mr. Raine's expertise with this test and selected materials from past examinations, students will strengthen their core knowledge of the English language to reach the highest score possible in the English writing and reading parts of this test. This course is intensive. Students will regularly practice SAT English skills. In-class test preparation, participation, SAT assessments, homework, quizzes and exams will make up the majority of student's grades.

The course is at an advanced/pre-intermediate level international examination course and will move along with the pace of the majority of the class. In the SAT Writing and Language context is important and you will have to read above and below the sentence highlighted in the question. A few passages will contain tables, graphs, or charts.

Questions in the SAT Reading focus on direct or indirect information and evidence, and the way the author conveys meaning and makes connections.

COURSE OBJECTIVES:

The main objectives of the syllabus are:

- **Language for Communication**
- **Language and Culture**
- **Language and Relationship with Other Learning Areas**
- **Language and relationship with Community and the World**



COURSE OUTLINE:

Syllabus is matched with the Thai curriculum Indicators:

SAT READING MATCHED TO STANDARD F1.1 F3.1 F4.1

Reading which includes: recognizing argument and counter-argument; distinguishing between main information and supporting detail, fact and opinion, hypothesis versus evidence; summarizing and note-taking.

STRAND 1: Language for Communication Standard F1.1: Indicators Reading: F1.1 M.4-6/2 Standard F1.2: Indicators Reading: F1.1 M.4-6/2 STRAND 4: Language and Relationship with Community and the World Standard F4.1: Indicators: Reading: F4.1 M.4-6/2

SAT WRITING TASK MATCHED TO STANDARD F2.1 F2.2 F3.1

Writing has two tasks, identifying punctuation and grammar errors and correcting style and organisation errors.

- Writing structure (patterns of organization, paragraphing, sentence structure and supporting ideas, coherence and cohesion,
- Functions like punctuation and grammar

STRAND 1: Language for Communication Standard F1.1: Indicators Writing: F1.1 M.4-6/3 Standard F1.2: Indicators Writing: F1.1 M.4-6/3 STRAND 2: Language and Culture Standard F2.2: Writing: F2.2 M.4-6/1 STRAND 3: Language and Relationship with Other Learning Areas Standard F3.1: Indicators: Writing: F3.1 M.4-6/1

SPECIFIC SKILLS:

General comprehension (recognizing relevant/irrelevant information, signposting and importance markers, recognizing sentence connections: proofreading & editing errors.

READING STANDARD F1.1

Predicting, skimming, scanning, moving phrases, sentences and paragraphs to create clarity and formal structures, guessing unknown words from context.



WRITING STANDARD F4.2

- Style (passive constructions, avoiding verbosity)
- (patterns of organization, paragraphing, topic sentence and supporting ideas, style, coherence and cohesion, punctuation & grammar)

Learning Content

Study English about statements, news, announcements, poems, skits, pictures, fictions, non-fictions, non-text media such as diagrams, graphs, and initials, personal experience, various events, main ideas from the stories, languages, voices, social manners and cultures, custom, traditions, festivals, language structures, idioms, proverbs, poems, ways of life, beliefs, and cultures of native speakers, and information related to other learning content groups. Use the process of establishing knowledge and understanding, reading process, process of establishing practical skills, working process, process of language skills, process of establishing attitudes, process of conceptualization, process of analysis, process of establishing realization, and process of establishing communicative knowledge and understanding to create knowledge and understanding, communicative ability, thinking ability, problem-solving ability, life skills, and ability to use technology. Embedded in the learning process, students are enhanced to possess desired characters – 1) Love for the country and the king, faith in the religion 2) Be honest and upright 3) Possess discipline 4) Eager to learn 5) Be self-sufficient 6) Dedicated to work 7) Love for Thainess 8) Have a sense of public consciousness and 9) Be an AC gentleman.

Teaching Topics:

Reading which includes: Predicting, skimming, scanning, detailed reading, guessing unknown words from context, understanding text organization, recognizing argument and counter-argument; distinguishing between main information and supporting detail, fact and opinion, hypothesis versus evidence; summarizing and note-taking.

Writing includes:

- patterns of organization, paragraphing, topic sentence and supporting ideas, coherence and cohesion, Functions (classification, comparison and contrast, cause and effect, , interpretation of data). Style (active constructions, avoiding verbosity)

-

Precise resources:

- **Teacher** Handouts, past exam papers and worksheets;
- Student notebooks;
- **Teacher** Presentations;
- Projector.



Resources

- | | |
|-----------|---|
| Required | <input type="checkbox"/> notebooks. |
| | <input type="checkbox"/> Dictionary (English to English, not a translating one) |
| | <input type="checkbox"/> Extra lines A4 paper for written assignments. |
| Suggested | <input type="checkbox"/> Many different colored pens/markers/highlighters |

Academic Integrity Policy

Students are expected to adhere to the Assumption College student handbook. There is to be no plagiarism, no copying, and no cheating of any kind. These and any other acts of academic dishonesty lower the quality of the education and will not be tolerated. Students involved in any form of academic dishonesty, including any student supplying or allowing the copying to take place, will receive a zero.

Plagiarism is the act of taking someone else's work or ideas and passing them off as one's own work or ideas. Examples of plagiarism include the failure to give appropriate acknowledgement when repeating another's idea, phrase, sentence or paragraph, or failure to give appropriate acknowledgement when paraphrasing any of those.

Behavioral Expectations

For the sake of all the members of the class, students are expected to respect themselves, their classmates, the teacher, and the facilities.

Students must accept responsibility for themselves and their actions. Students are expected to be ready at the start of every class (notebooks, textbook, writing utensils, etc.) and to actively participate throughout the lesson until class is dismissed.

Behavior is monitored every day as per the class rules that are set out at the beginning of the academic year (see the front of your note books). At the end of the semester the average is taken and used for the student's behavior score (20%). Students *earn* the scores they receive.

Additionally, all Thai students are expected to embrace the following *desired characteristics*:

- Love for the country and the King, faith in religion
- Possess discipline
- Be self-sufficient
- Proud to be Thai
- Be an A.C. gentleman
- Eager to learn
- Dedicated to work
- Have a sense of public consciousness
- Be honest and upright



Attendance & Tardiness

Attendance will be taken at the start of every class. Students are expected to be in class on-time, every time. Unexcused absences or tardiness will not be tolerated. In the case of planned absences, please notify the teacher in as far in advance as possible. Students are expected to catch up on all missed work outside of class time.

Homework & Classwork

Homework and classwork will be assigned often and must be submitted on or before the due date.. After more than one day has lapsed, a maximum score of 10 will be available. Late assignments can be submitted for a maximum of 50% up until the last week of the term. All late or missed assignments that are not turned in *before* the last week of the term will receive a zero.

Grading

This course follows to the Assumption College grading scale:

<i>Final Score</i> \geq 80%	4.0
$75\% \leq$ <i>Final Score</i> $<$ 80%	3.5
$70\% \leq$ <i>Final Score</i> $<$ 75%	3.0
$65\% \leq$ <i>Final Score</i> $<$ 70%	2.5
$60\% \leq$ <i>Final Score</i> $<$ 65%	2.0
$55\% \leq$ <i>Final Score</i> $<$ 60%	1.5
$50\% \leq$ <i>Final Score</i> $<$ 55%	1.0
<i>Final Score</i> $<$ 50%	0.0



Evaluation and Assessment

The final semester grade for this course out of 100% is broken down as follows:

Total Score of all Formative Assessment*	50%
Behavior	10%
Midterm (Summative) Exam	20% (program mandated)
Final Exam	20% (program mandated)

* This total score shall be reflected by the cumulative points scored by students on all class assignments, homework, extra credit work, etc.

Assessment determination:

This syllabus is based on the important skills that students will need to successful pass the SAT English at a score of 300-400. The assessment will be based on students understanding of what is expected in the different modules of the test (Punctuation, Grammar, Style and reading).

Recommendations for Success

English can be a difficult course for many students. All students are encouraged to try the following:

1. Be on task during class. Focus and follow instructions and do the required activities to your best abilities. Do not worry about making mistakes as they are the best way for us to incorporate the materials into our long-term memories.
2. Search online (in English) if you don't understand a topic discussed in class to get a better understanding of the topic.
3. Do not copy your classmate's work; struggle through and do the work on your own. This is how you learn.
4. Come see the teacher outside of class time for assistance.
5. Revise your work, as recommended by your teacher and work to continuously improve your work. Learning is a process, not a product.
6. If you don't understand then ask your friends, communication is vital for success in English, communicate with your classmates in English, you'll be surprised how quickly your English improves just by doing this.



Please be aware, this *proposed* syllabus is conditional upon meeting the students on a regular and continual basis. Any breaks in continuity, rescheduling of classes, or reduction of sessions will affect the proposed course content and timing. In other words, amendments will be made depending group strengths and weaknesses, how the groups react to various classroom activities (what they find to be the most helpful) and the program schedule revisions.

Weekly Session**	<u>Content</u>
1 st	Introduction to Course objectives and structures. Teacher and student expectations. Survey of students, their desired course outcomes and needs.
2 nd	Understanding and responding to questions; outlining responses and preparing answers.
3 rd	WRITING - In the SAT Writing and Language context is important and you will have to read above and below the sentence highlighted in the question. A few passages will contain tables, graphs, or charts. Questions
4 th	READING - in the SAT Reading focus on direct or indirect information and evidence, and the way the author conveys meaning and makes connections.
5 th	WRITING – SAT Writing & Language test materials.
6 th	READING –Topic vocabulary building, understanding questions types, reading comprehension.
7 th	WRITING – punctuation & Grammar in SAT.
8 th	WRITING Style and Organisation in SAT
9 TH	Writing Assignment - SAT tests
10 th	Midterm review
	MIDTERMS



EN30203 English Reading and Writing 3

Student Syllabus for: EPM5 Reading and Writing **EN30203**

Teacher: Mr. Joshua Bolen, J.D. (Mr. Bolen)

COURSE DESCRIPTION:

Welcome to EN30203 Reading & Writing. This course is designed to further your ability with for the IELTS examination. We focus only academic skills to improve your IELTS score. You will regularly practice advancing your vocabulary, understanding of question types, and responding formally to a variety of questions. In-class assignments, participation, and exams make up your grade.

The course is at an upper- intermediate level and will move quickly. If you miss a class, it is your responsibility to find out what you have missed, either from your classmates or by seeing me on your own time, not during class time.

Assignment Types:

Question Types & IELTS Topics: This topic will be repeated throughout the Term, almost in every class. Most students are unsure how to respond to question types, generate ideas and respond accordingly. Therefore, in almost every class students will analyze question types, breakdown the question, and prepare responses. These skills are critical for University.

Vocabulary: Students will do various in class assignments which will be matched to the topics, and include learning meaning in context. This activity will be connected to question types, writing and reading assignments.

Writing Assignments: Writing assignments will be matched to the topics. This will include the analysis of question types, preparing responses, outline and planning. Developing complex sentence structures, properly organized task responses, including coherent and cohesive responses to task questions.

Resources

- | | |
|-----------|---|
| Required | <input type="checkbox"/> Schoology Account. |
| | <input type="checkbox"/> At least 2 white notebooks. |
| | <input type="checkbox"/> Dictionary & Thesaurus (English to English) |
| | <input type="checkbox"/> Extra lines A4 paper for written assignments. |
| Suggested | <input type="checkbox"/> Many different colored pens/markers/highlighters |



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Behavioral Expectations

For the sake of all the members of the class, students are expected to respect themselves, their classmates, the teacher, and the facilities. Students must accept responsibility for themselves and their actions. Students are expected to be ready at the start of every class (notebooks, textbook, writing utensils, etc.) and to actively participate throughout the lesson until class is dismissed.

Behavior is monitored every day as per the class rules that are set out at the beginning of the academic year. At the end of the semester the average is taken and used for the student's behavior score (20%). Students *earn* the scores they receive.

Additionally, all Thai students are expected to embrace the following *desired characteristics*:

- Love for the country and the King, faith in religion
- Possess discipline
- Be self-sufficient
- Proud to be Thai
- Be an A.C. gentleman
- Eager to learn
- Dedicated to work
- Have a sense of public consciousness
- Be honest and upright

Attendance & Tardiness

Attendance will be taken at the start of every class. Students are expected to be in class on-time, every time. Unexcused absences or tardiness will not be tolerated. In the case of planned absences, please notify the teacher in as far in advance as possible. Students are expected to catch up on all missed work outside of class time.

Homework & Classwork

Homework and classwork will be assigned often and must be submitted on or before the due date. If the work is not done for the start of class, your maximum score will be reduced. All late or missed assignments that are not turned in *before* the last week of the term will receive a zero.



Grading

This course follows to the Assumption College grading scale:

<i>Final Score</i> \geq 80%	4.0
$75\% \leq$ <i>Final Score</i> < 80%	3.5
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$50\% \leq$ <i>Final Score</i> < 55%	1.0
<i>Final Score</i> < 50%	0.0

Evaluation and Assessment (program mandated)

The final semester grade for this course out of 100% is broken down as follows:

Total Score of all Formative Assessment	50%
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Midterm (Summative) Exam	20%
Final Exam	20%

Recommendations for Success

All students are encouraged to try the following:

1. Be on task during class. Focus and do the required activities to your best abilities.
2. Watch English language media with the English subtitles is a good way to improve English.
3. Search online (in English) if you don't understand a topic discussed in class to get a better understanding of the topic.
4. Do not copy your classmate's work; struggle through and do the work on your own. Come see the teacher outside of class time for assistance.
5. Revise your work as recommended by your teacher and work to continuously improve your work. ***Learning is a process, not a product.***



Precise resources:

- **Teacher** Handouts & Worksheets;
- White notebooks and folder;
- **Teacher** Presentations;
- Notebooks;
- Projector.