



MA30105 Foundation Mathematics

Teacher	Dr. Keerthi Prabhakar.P.S
Contact	EP Teacher Room, 2 nd Floor Colombet Bldg.
Class	EP-M6/1: 2 periods a week
Time	EP-M6/2: 2 periods a week
Credits	1.0

Course Description

This foundation mathematics course focuses on the following topics: Sets, Logic, Real Numbers, and the Basics of Statistics.

- **Set Theory** is the foundation for all mathematics and involves operations like union and intersection.
- **Logic** is a formal methodology used in mathematics to arrive at proofs and is the basis for Computer Science.
- Students proceed from Sets and Logic to see how the properties of equality and properties of the **real number system** can be used to solve quadratic and other equations as well as inequalities, including interval notation and absolute value.
- **The Basics of Statistics** provides students with tools for data collection, basic data analysis, determining central tendency, identifying measures of position, and evaluating standard and visual measures of dispersion.

Students will practice mathematical skills and processes which are problem-solving, involve reasoning in general, mathematical implication and presentation, as well as mathematical connections and creative thinking.

Textbooks

Mathematics for the International Student SL (Haese Mathematics)

ISBN 978-1-921972-08-9

Algebra 2 (Glencoe McGraw Hill) ISBN 13:9780078738302

Course Outline & Objectives

1. Sets

- Types of sets and equality of sets
- Subsets and power sets
- Venn-Euler diagrams
- Operations on sets: Union, Intersection, Complement, and Difference



- Members of finite sets and solutions to problems

2. Logic

- Proposition
- Connecting propositions
- The negation of a proposition
- Constructing truth tables for propositions

3. Real Numbers

- Structure and closure properties of real numbers
- Properties of real numbers about addition and multiplication, and properties of equality
- Application of properties of real numbers in solving quadratic equations
- Intervals
- Properties of inequality and solutions of inequalities
- Absolute value

4. Basics of Statistics

- Data collection and basic data analysis
- Finding the central tendency by using arithmetic mean, median, mode, harmonic mean, geometric mean, and midrange
- Measures of position by using quartiles, deciles, and percentiles
- Measure of dispersion by using standard deviation
- Measure of dispersion by using box and whisker plots

Resources

- Graphing Calculator
- Worksheets
- Writing supplies

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 education and will not be tolerated. Students involved in any form of academic dishonesty, including any student supplying or allowing copying, will receive a zero.

Plagiarism is 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:

<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:

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 complicated 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. Students can responsibly manage the material and gain the most from the course by reading along at home with the lessons taught at school (typically only a few pages per night).
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 to understand the topic better.
4. Do not copy your classmates' work; try to struggle independently. This will help you learn.
5. See the teacher outside of class 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 for at least a few minutes every day.



MA30217 Universal Mathematics 5

Teacher Mr. Shiv Kumar
Contact Science Lab, 2nd Floor Colombet Building.
shiv.ku@assumption.ac.th

Class Time EP-M6/1: Tuesday Period 3, Wednesday Period 5, Thursday Period 2
EP-M6/2: Wednesday Period 2, Thursday Period 1, Friday Period 6

Credits 1.5

Course Description

This course is an introduction to Basic Calculus. We begin with an examination of functions and consider ideas such as graphing rates of change. We then go on to consider both finite and infinite limits of functions. Limits will allow us to develop the theory of derivatives along with practical applications of the techniques of differentiation. We will then use the anti-derivative to introduce integrals. The meaning of integration will be covered along with basic techniques of integration. This course is designed to prepare students for a first year university course in the subject which is often quite rigorous.

Textbook

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

Course Outline & Objectives

Unit 1. Basic Calculus

1. Differentiation Pg 353-357
2. Rules of differentiation Pg 360-369
3. Finding the slope/rate of change using differentiation (Class worksheet and Notes)
4. Derivatives of composite functions Pg 371-378
5. Using turning points to solve problems (Class worksheet and Notes)
6. Application of differentiation (Class worksheet and Notes)
7. Stationary, max, and min points (Class worksheet and Notes)
8. Definite integration Pg 454 - 457
9. Area under a curve pg 475 - 479
10. Area between a curve and a straight line Pg 479 - 483

Unit 2. Infinite Sequence and Infinite Series

1. Limit of Sequence Pg 345-346
2. Limits at Infinity Pg 347-348
3. Differentiation from first principal Pg 355-357
4. Sum of Infinite Series (Class worksheet and Notes)

Unit 3. Linear Programming

1. Graphs of Linear Equations and Inequalities (Class worksheet and Notes)
2. Objective Functions and Inequality Constraint (Class worksheet and Notes)
3. Word Problems of Linear Programming (Class worksheet and Notes)



Resources

- | | |
|-----------|--|
| Required | <ul style="list-style-type: none">• A plastic folder for worksheets.• White School Notebook• Red and blue pen. |
| Suggested | <ul style="list-style-type: none">• Many different colored pens/markers/highlighters• 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
- 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 for a full score of 10 points. Late work without excuse will be deducted at the rate of 10% 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> $\geq 80\%$	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)

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.



THE **ENGLISH PROGRAM** AT ASSUMPTION COLLEGE
Course Syllabus – Semester 1/2026

3. Get a Thai language introductory mathematics 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.



Student Syllabus for: EP6 EN30105 - Foundation English

Teacher: Mr. Andrew Simon Neale (*Mr Andy*)

Contact: Simon.an@assumption.ac.th

COURSE DESCRIPTION:

Welcome to Foundation English 5 with Mr Andy. Throughout the semester we will continue to explore the skill groups of reading, writing, speaking and listening. Through a series of engaging and enriching lessons using Mr. Andy's wide range of interactive, challenging and reflective materials, students will continue to strengthen their core knowledge of the language and continue to build their confidence.

This course is writing, reading, listening and speaking intensive. You will regularly practice your writing, reading, listening and speaking skills. In-class essays, participation, presentations, quizzes and exams make up a majority of your grade.

The course is at an advanced beginner/pre-intermediate level and will move along with the pace of the majority of the class. 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.

COURSE OBJECTIVES:

1. To read and understand a wide range of texts.
2. To interpret and explain text in different ways, and to know the difference between formal and informal communication.
3. To confidently express opinions and be able to give reasons and examples to support ideas.
4. Talk and write interactively about personal information and other surrounding incidents, experiences, situations, news/events, and interesting issues, personal or otherwise.
5. To be able to understand fast paced conversations, in different accents, and announcements, in a range of situations.
6. To be able to compare and explain the differences between sentence structures, statements, idioms, verbal phrases and to be able to confidently use and understand them.
7. To be able to confidently take charge of and present in front of the class in English.
8. To be able to write creatively and with a unique voice, and understand when this type of language is appropriate / is not appropriate.

Learning Contents

Study English through a mix of media and activities led and provided by Mr Andy. Study non-fiction, fiction, explore personal opinions, share various experiences, read about global incidents, learn from articles, focus on language structures, idioms, beliefs and cultures of native



speakers, and gather information related to other learning content groups. Through the resources provided, and by engaging in the interactive activities, your overall confidence and ability with all four skills in English will improve this year.

Due to the short time frame students will not cover all elements of the IELTS tests in our sessions but they can select areas which they may know they need / wish to explore and improve further in. **All students are welcome to approach me outside of teaching time to ask for help or marking of practise test papers they may do in their spare time.** Official potential IELTS content for inclusion includes:

- Reading: The reading component consisting of 40 questions, designed to test a wide range of reading skills. These include reading for gist, reading for main ideas, reading for detail, skimming, understanding logical argument and recognizing writers' opinions, attitudes and purpose.
- Writing: Students will be presented with a graph, table, chart or diagram and asked to describe, summarise or explain the information in their own words. They may be asked to describe and explain data, describe the stages of a process, how something works or describe an object or event.
- Vocabulary: Art, business & money, communication & personality, crime & punishment, economics, education, environment, family & children.
- Reading: this includes three long texts which range from the descriptive and factual to the discursive and analytical. These are taken from books, journals, magazines and newspapers. They have been selected for a non-specialist audience but are appropriate for people entering university courses or seeking professional registration.
- Writing: Here, students will be asked to write an essay in response to a point of view, argument or problem. Responses to both tasks must be in a formal style.
- Vocabulary: Food, health, language, technology, travel, society, sport, work.

Resources

- | | |
|-----------|---|
| Required | <ul style="list-style-type: none">• Cambridge Prepare Second Edition workbook• Cambridge Prepare Second Edition student book• 1 white notebook.• Dictionary/thesaurus (or internet access) |
| Suggested | <ul style="list-style-type: none">• 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 for a score of 20 points. If the work is not done for the start of class, a maximum score of 15 will be possible. 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% (10 points) 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.

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. Watch Movies, or TV shows, or YouTube with English accents, with the English subtitles is a good way to improve your speaking and listening skills; it also helps with vocabulary too.
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. This is how you learn. (Remember: GROWTH MINDSET)
5. Come see the teacher outside of class time for assistance or email anytime.
6. 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, Presentation.



ST30204	Mechanical Properties of Matter and Modern Physics
Teacher	Mr. Glenn Thomas
Contact	EP Teacher Room, 2 nd Floor Colombet Bldg.
Credits	1.0

Course Description

This course focuses on a continuation of properties of materials this time exploring solids, liquids and gases. This is followed by radiation physics. The effects of latent heat and its effects on volume, density and energy will be introduced. The course offers both a conceptual foundation and an algebra-based presentation of Physics. Critical thinking skills in solving problems will be the emphasis with a sound basic understanding of conventional Mathematics. The course will use the American high school textbook, Holt *Physics* as a base. Students are encouraged to read widely from different resources which include the Internet, various Physics (both British and American), books published for improving examination skills as well as from Thai Physics books. They can always approach the teacher for references should they require.

Textbook (as a base)

Physics, Holt McDougal 2012

ISBN-13: 978-0-547-58669-4; ISBN-10: 0-547-58669-8

Miscellaneous references available from the teacher upon request.

Course Outline & Objectives

Unit 1 Properties of Solids (Indicators 1, 18-20)-

Define the volume of elasticity of solid, stress, and strain and calculate the value of Young's modulus.

Define and explore the general properties of fluid which are density and pressure of fluid, Pascal's principle, surface tension, and buoyancy.

Define and apply Bernoulli's equation which is related to the flow of streamline fluid without calculating viscosity as the principle of conservation of energy.

Unit 2 Properties of Liquids (Indicators 2-3, 18-20) [Refer to Teacher Notes]

-Define and explore the general properties of fluid which are density and pressure of fluid, Pascal's principle, surface tension, and buoyancy.

-Define and apply Bernoulli's equation which is related to the flow of streamline fluid without calculating viscosity as the principle of conservation of energy.



Unit 3 Effects of Heat (Indicators: 4-6, 18-20) [Refer to Teacher Notes]

- Defines and applies the effects of heat on matter, namely, change of state and temperature change.
- Explain and experiment with the properties of a substance when it is heated: heat capacity, latent heat, specific heat capacity and latent heat.
- Explain, experiment and analyze about other energy transformations, go into heat energy Mixture temperature including the calculation of various quantities from a given situation.

End of Midterm Exam Content – Start of Final Exam Content

Unit 4 Properties of Gases (Indicators: 7-9, 18-20) [Refer to Teacher Notes]

- physical characteristics of the gas, including Boyle's gas properties, Charles' Law, Gay-Lussac's Law including the ideal gas law.
- relationships between pressure, volume, temperature, number of molecules, and kinetic theory of gas Include calculations of relevant quantities from the given situation.
- the changes in energy within the gas system in accordance with the laws of thermodynamics associated with gas kinetic theory and energy conservation rules.

Unit 5 Radiation and Nuclear Physics (Indicators 10-20) [Refer to Teacher Notes]

- The unstable nuclei, decay series, different types of radioactive decay and study of the natures of emitted particles/radiation. S.I. and non-S.I. units in radioactivity.
- Application of radiation in industry, medical therapy and everyday life.

Resources

- | | |
|-----------|---|
| Required | <ul style="list-style-type: none">• Notebooks• 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 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 or 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.

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%). 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

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:

Homework/Classwork	20%
Quiz	20%
Notebook	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 are 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.
Ability for find the time to read Thai Physics (e.g., from the library) would be an additional asset.



ST30234 Universal Chemistry 4

Teacher Ms. Cherise Nieuwoudt
Contact EP Teacher Room, 2- Floor, Colombet Bldg.
Class Time EP-M 6/1 & EP-M 6/2
Credits 1.5

Course Description

This course on chemistry focuses on Electrochemistry, Chemical kinetics, Equilibrium, Acids and Bases, and Organic chemistry. The course offers both a conceptual foundation and a mathematical presentation of chemistry. As with many courses within EP, critical thinking skills are emphasized over those of rote learning. The course will closely follow the order and content of the latest version of the American high school textbook, *Pearson Chemistry*. The course provides foundation for university level chemistry.

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 BMAT- style questions are a part of the evaluation process. The course will follow the content of BMAT Past Paper Worked Solutions (2003-2017) 2018 by Black Stone Tutors. The course is prerequisite to SC30235 Universal Chemistry 5.

Textbook

- *International A Level Chemistry, Oxford (2016), by Ted Lister and Janet Renshaw.*
Supplementary:
- *BMAT Past Paper Worked Solutions (2003-2017) 2018* by Black Stone Tutors

Course Outline & Objectives

Chapter 22: Hydrocarbon Compounds

Section 22.1 Hydrocarbons

- Explain the unique property of Carbon.
- Alkanes.
- Naming of Alkanes.

Section 22.2 Unsaturated Hydrocarbons

- Structure and properties of Alkenes.
- Structure and properties of Alkynes.



- Chemical reactions of Alkenes and alkynes

Section 22.3 Isomers

- Constitutional Isomers and its structure.
- Types of stereoisomers and its structure.

Section 22.4 Hydrocarbon Rings

- Cyclic Hydrocarbon and its Structure
- Aromatic hydrocarbon, structure and its properties

Section 22.5 Hydrocarbons from Earth's Crust

- Formation of natural gas.
- Purification of petroleum.
- Coal Formation

Chapter 23: Functional Groups

Section 23.1 Introduction to functional groups

- Classification of organic compounds.
- General formula for different functional groups.
- Substitution Reaction.

Section 23.2 Alcohol, Ether and Amines

- General formula, naming, properties of alcohols
- Addition reaction, hydration reaction and halogenation reaction of alcohols.
- Properties of ether and general formula.
- Amine: properties and its structure.

Section 23.3 Carbonyl Compounds

- Structural characteristics of aldehydes and ketones.
- Carboxylic acid and its properties.
- Oxidation-reduction reactions.
- Esters and its general formula.

Chapter 24: Chemistry of Life

Section 24.1 A basis for life

- Structure of cells
- Photosynthesis
- Carbon Cycle

Section 24.2 Carbohydrates

- Classification of carbohydrates
- Chemical and Physiological properties of carbohydrates.

Section 24.3 Amino Acids and Their Polymers

- General Structure of amino acids



- Properties of proteins and peptides
- Role of enzymes in living things.

Section 24.4 Lipids

- What distinguish lipids from other biological molecules?

Section 24.5 Nucleic Acids

- Functions of DNA and RNA
- Gene Mutation.
- Application of Technology

Section 24.6 Metabolism

- Metabolism reactions and importance of ATP.
- Nitrogen Cycle
- DNA testing

Chapter 25: Nuclear Chemistry

Section 25.1 Nuclear Radiation

- Radioactivity and different types of radiations

Section 25.2 Nuclear Transformations

- Nuclear decay, stability and half-life.
- Transmutation reactions.

Section 25.3 Fission and Fusion

- Nuclear fission
- Nuclear fusion

Section 25.4 Radiation in your Life

- Methods to detect radiation
- Uses of Radioisotopes

End of Midterm Exam Content – Start of Final Exam Content

Chapter 19: Acids and Bases

Section 19.1: Acids and Base Theories:

- Define the properties of acids and bases.
- Compare and contrast acids and bases as defined by the theories of Arrhenius, Bronsted-Lowry, and Lewis.

Section 19.2: Hydrogen Ions and Acidity

- Describe how $[H^+]$ and $[OH^-]$ are related.
- Classify a solution as neutral, acidic, or basic given the hydrogen ion-ion or hydroxide-ion concentration.



- Convert hydrogen-ion concentrations into pH values and hydroxide-ion concentrations into pH values.
- Describe the purpose of an acid-base pH indicator.

Section 19.3: Strengths of Acids and Bases

- Define strong acids and weak acids.
- Describe how an acid's strength is related to the value of its acid dissociation constant.
- Calculate an acid dissociation constant (K_a) from concentration and pH measurements.
- Order acids by strength according to their acid dissociation constants (K_a).
- Order bases by strength according their base dissociation constants (K_b).

Section 19.4: Neutralization Reactions

- Define the products of an acid-base reaction.
- Explain how acid-base titration is used to calculate the concentration of an acid or a base.
- Explain the concepts of equivalence in neutralization reactions.

Section 19.5: Salts in Solution

- Describe when a solution of a salt is acidic or basic.
- Demonstrate with equations how buffers resist changes in pH.
- Calculate an acid dissociation constant (K_a) from concentration and pH measurements.

Chapter 20: Oxidation and Reduction Reactions

Section 20.1: Describe how oxidation numbers are used to identify redox reactions.

- Define oxidation and reduction in terms of the loss or gain of oxygen and the loss or gain of electrons.
- State the characteristics of a redox reaction and identify the oxidizing agent and reducing agent.
- Describe what happens to iron when it corrodes.

Section 20.2: Oxidation Numbers

- Determine the oxidation number of an atom of any element in a pure substance.
- Define oxidation and reduction in terms of a change in oxidation number and identify atoms being oxidized or reduced in redox reactions.

Section 20.3: Balancing Redox Reactions

- Describe how oxidation numbers are used to identify redox reactions.



- Balance a redox equation using the oxidation-number-change method.
- Balance a redox equation by breaking the equation into oxidation and reduction half-reactions, and then using the half reaction method.

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:

$Final\ Score \geq 80\%$	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:

Homework/Classwork/Projects	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



THE **ENGLISH PROGRAM** AT ASSUMPTION COLLEGE
Course Syllabus – Semester 1/2026

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 classmate's 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.



ST30289 Applied Biochemistry & Microbiology Laboratory

Teacher Miss. Cherise Nieuwoudt
Contact EP Teacher Room, 2- Floor, Colombet Bldg.
Class Time EP-M 6/2H Wednesday Period 6
Credits 0.5

Course Description

This course is a detailed version of chemistry and biology that focuses both on practical and theoretical knowledge. The course gives a broader idea and practical knowledge of both biology and chemistry which will be beneficial for those students, who is aspiring for medical-related courses. Biochemistry & Microbiology is an anchor linking many fields in Life Science like Molecular Biology, Agricultural Science, Genetics, Veterinary Medicine, Human Medicine, Pharmacy, Biotechnology, etc. These are the fields in Life Science that have great potential and high prospects now.

Demonstrations, computer-simulated activities, and laboratory sessions will allow students to learn basic laboratory techniques, and 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.

Textbook

- Prescott's Microbiology, Book by *Christopher J. Woolverton, Joanne Willey, and Linda Sherwood.*
- Lehninger Principles of Biochemistry: International Edition By *David L. Nelson, Michael Cox*

Course Outline & Objectives

Unit 1 Knowledge about science project

1. State and explain basic principles and personal practices that demonstrate awareness of safe lab practices for personal safety, other people's safety, and environmental safety; present guidelines to solve problems when accidents occur.
2. Choose proper equipment or tools to perform lab experiments and to measure different kinds of quantities.
3. Present a plan for a lab experiment, conduct an experiment, and write a lab report.

Unit 2 Basic Biology and Chemistry Laboratory

- 2.1 Use the biochemistry data analysis program.
- 2.2 Apply the aseptic technique correctly and properly for the microbiology laboratory.
- 2.3 Study colonial morphology and cells of microorganisms by using a light microscope.
- 2.4 Experiment to detect microorganisms in food, water, and soil.
- 2.5 Prepare solutions.



- 2.6 Conduct an experiment to properly choose indicators for acid-base titration.
- 2.7 Conduct an experiment to extract caffeine from substance samples by liquid-liquid extraction.
- 2.8 Experiment to find the melting points of solid samples.

Unit 3 Science and problem-solving

- 3.1 Identify a problem, and collect information and concepts related to the problem to develop a project.
- 3.2 Design methods to solve the problem
- 3.3 Plan and solve the problem

Resources

- | | |
|-----------|--|
| Required | <ul style="list-style-type: none">• Assumption Notebook (1)• 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) |

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:

$Final\ Score \geq 80\%$	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:

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



Recommendations for Success

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

1. Read, read, read the Biochemistry and Microbiology 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 book that gives biochemistry and microbiology terms.
4. Do **not** copy your classmate's 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.



ST30249 Molecular Biology and Human Physiology

Teacher Mr. Michael Salutin

Contact EP Science Lab Teacher Room, 2nd Floor, Colombet Bldg.

Class Time EP-M 6/2 Mon, Tue, Wed

Credits 1.5 (1 Class/week)

Course Description

This course is a supplemental course which provides additional information in Biology and Physiology. This course will be beneficial for those who are aspiring for medical related courses.

In this course students will be learning the application of biotechnology in a number of different fields (e.g., agriculture, bioremediation, medical). Added simulations and videos will enhance the learning curve of students.

Textbook

- *International A Level Biology*. Fran Fuller, Glenn Toole and Susan Toole (authors). Oxford University Press. 2016.

Course Outline & Objectives

Unit 1: Genetics

- Ch. 7 – DNA, genes, and chromosomes
- Ch. 8 – Protein synthesis
- Ch. 9 – Genetic diversity, species & taxonomy
- Ch. 28 – Control of transcription and translation
- Ch. 17 – Cell division

Unit 2: Cellular Biology

- Ch. 2 – Cells and cell structure
- Ch. 3 – Biochemical reactions in cells
- Ch. 4 – Transport in and out of cells

Unit 3: Human Organ Systems

- Ch. 5 – Gas exchange and transport of oxygen
- Ch. 15 – Mammalian blood
- Ch. 24 – Response to stimuli
- Ch. 25 – Skeletal muscles as effectors



Resources

- | | |
|-----------|--|
| Required | <ul style="list-style-type: none">• Assumption Notebook (2)• Binder/ folder |
| Suggested | <ul style="list-style-type: none">• tablet |

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

This class 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:

Homework/Classwork/Projects	50%
Quizzes	10%
Behavior	10% (program mandated)
Class Test	30% (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 materials provided. 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.



THE **ENGLISH PROGRAM** AT ASSUMPTION COLLEGE
Course Syllabus – Semester 1/2026

4. Do **not** copy your classmate's 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.



ST30275 Multimedia Creation

Teacher Mr. Matt Harris

Contact Location: 5th Floor Computer Lab

Class Time EP-M 6/1: Wednesday 11:10 – 12:00
EP-M 6/2: Wednesday 13:00 – 13:50

Credits 1.0

Course Description

This course is designed to provide students with fundamental skills and an introduction to the graphic software. The course will focus on computer graphic principles, basic Photoshop and Illustrator tasks.

Students will build a repository of knowledge about computer science, the python programming language, and how python can be applied to solve problems. A thorough exploration of the features of the python programming language will be conducted. Students will be introduced to principles of computer science such as program design, abstraction, and performance. Students will apply knowledge to create interesting programs.

Course Outline & Objectives

Topics include: [Indicator 1,2]

Computer for Project 1 & 2 [Indicator 1, 2]

Graphics
Week 1-2: Introduction to Photoshop
Week 2-4: Masking and layers, photo manipulation
Week 5-7: Adjustment layers, filters. Creating concept art/ poster
Midterm Exam (Week 8 and 9)
Week 10-13: Introduction to Illustrator and use of vector art form
Week 14-15: Typography & layout
Final Exam (Week 16)

Resources

Required

- EP Computer Lab



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. 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:

<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:

STEAM	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.



THE **ENGLISH PROGRAM** AT ASSUMPTION COLLEGE
Course Syllabus – Semester 1/2026

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.



ST30294 H6/2 Health Science 4

Teacher Mr. Michael Dew
Contact EP Teacher Room, 1st Floor, Colombet Bldg.
Class Time EP-M 6/2H: Thursday period 3
Credits 0.5 (1 Period /week)

Course Description

This course on health science focuses on several body systems, health disorders, and prevention. Risk factors, signs, and symptoms will also be covered. The course offers both a conceptual foundation and qualitative presentation of health science. As with many courses within EP, critical thinking skills are emphasized over those of rote learning. The course will closely follow the order and content of the latest version of content as a part of this course, which provides some of the major topics in university level health science.

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 BMAT- style questions are a part of the evaluation process.

Textbook

- *International A Level Health Science, Oxford International AQA Examinations.*
Supplementary:
- *BMAT Past Paper Worked Solutions (2003-2017) 2026*

Course Outline & Objectives

Chapter 1: Excretory System

- 1.1 Structure and Function of the human urinary system organs
- 1.2 Urinary system disease and disorders
- 1.3 Kidney dialysis

Chapter 2: Reproductive System

- 2.1 Structure and function of the human reproductive system organs
- 2.2 Reproductive system disease and disorders
- 2.3 Diagnosis, treatment, and prevention of sexually transmitted infections

Chapter 3: Endocrine System

- 3.1 Structure and Function of the human endocrine system organs
- 3.2 Endocrine system disease and disorders
- 3.3 Endocrine system health and homeostasis



Chapter 4: Skeletal System

- 4.1 Structure and Function of the human skeletal system organs
- 4.2 Skeletal system disease and disorders
- 4.3 Skeletal system health and homeostasis

Resources

- | | |
|-----------|---|
| Required | <ul style="list-style-type: none">• Assumption Notebook (2)• Binder/ folder• Ruler |
| Suggested | <ul style="list-style-type: none">• 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 (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 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/Projects	30%
Class Test	20%
Behavior	10% (program mandated)
Midterm Exam	20% (program mandated)
Final Exam	20% (program mandated)

Recommendations for Success

All students are encouraged to try the following:

1. 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.



THE **ENGLISH PROGRAM** AT ASSUMPTION COLLEGE
Course Syllabus – Semester 1/2026

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 health book.
4. Do **not** copy your classmate's 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 the homeroom or during any free time you might have in other classes.



Student Syllabus for: EP6 *English for Life Skills 6*: EN30245

Teacher: Mr. Joshua Bolen(Mr. Bolen)

COURSE DESCRIPTION:

Welcome to English for Life Skills M6! Through a series of engaging and enriching lessons using Mr. Bolen's selected materials, students will continue to strengthen their core knowledge of the language.

The Students will study and listen to a range of English texts. The Students will study and learn how to give effective presentations. They will use learning skills in the 21st century, which encourages the students to be able to have listening, critical thinking and problem solving skills. The learning skills will be used to make students possess learners' key competencies, which are thinking capability, problem solving capability, capability in applying life skills and capability in technological application. This will be done through the teaching and learning focusing on promoting Thai wisdom with respect to the language and literature and religion and tradition. Teaching and learning also promotes students to live under the Sufficiency Economy Philosophy. Students will be provided with desirable characteristics such as love of nation, religion and king, honesty and integrity and self-discipline. Additional important characteristics are avidity for learning, observance of principles of Sufficiency Economy Philosophy in one's way of life, dedication and commitment to work, cherishing Thai-ness, public-mindedness and gentlemen of Assumption College.

COURSE OBJECTIVES:

Indicators

1. Listen to speakers from a range of countries, using different accents and talking in a range of contexts and situations.
2. Predict content before a listening exercise. Use contextual clues to anticipate topics, potential vocabulary and potential grammatical structures before listening.
3. Listen for gist. Show an understanding of the main ideas of a listening exercise after one listen.
4. Understand signposting language when listening. Show a knowledge and understanding of signposting language and how and why it is used. Make lists of the most common signposting language.
5. Listen for detail. Pick out specific information in a listening passage.
6. Infer relevant details when listening. Use contextual clues to gather information about meaning, who is speaking, what is happening and other questions appropriate to the listening exercise.
7. Practice listening activities that are connected to relevant international exams. Some of these should be done with past-paper questions and done in exam conditions.
8. Explain/discuss how listening can be improved, what techniques can be used and useful sources of practice material.



9. Watch examples of good and bad presentations. Have an accurate understanding of the characteristics of good and bad presentations and be able to plan presentations using the good characteristics and avoiding the bad characteristics. The focus should be on presentation skills that may be useful for university admissions and studying at university.
10. Use verbal communication to effectively present information. Use various techniques such as variation of tone of voice and the stress of important words to convey ideas more clearly and concisely.
11. Use non-verbal communication effectively. Use various techniques such as body language and eye contact to show confidence to the audience.
12. Use signposting language effectively when presenting. Show a knowledge and understanding of signposting language and how and why it is used. Make lists of the most common signposting language that are used during presentations.

Learning Contents

Study English on the topics of news, announcements, poems, skits, pictures, different non-text information styles such as maps, graphs, and initiatives. Study non-fictions, fictions, personal information, various experiences, incidents, themes from analyzed stories, languages, voices, social manners and cultures, traditions and customs, festivals, language structures, idioms, proverbs, poems, ways of life, beliefs and cultures of native speakers, and information related to other learning content groups. Use 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. At the same time, students will have the following intended characteristics which are nationalism, religiosity, loyalty, disciplines, diligence, self-sufficiency, endeavor, love of being Thai, and public mind.

Resources

- | | |
|-----------|---|
| Required | <input type="checkbox"/> At least 1 white notebook. |
| | <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 for a score of 20 points. If the work is not done for the start of class, a maximum score of 15 will be possible. 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% (10 points) 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



$55\% \leq \text{Final Score} < 60\%$	1.5
$50\% \leq \text{Final Score} < 55\%$	1.0
$\text{Final Score} < 50\%$	0.0

Evaluation and Assessment

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

Total Score of all Assessment	Homework 80%
Behavior	10%
Attendance	10%

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. Watch Movies, or TV shows, or YouTube with British / Australian accents, with the English subtitles is a good way to improve your speaking and listening skills; it also helps with vocabulary too.
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. This is how you learn.
5. Come see the teacher outside of class time for assistance.
6. 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, Presentations.
- Whiteboards & Projector.



THE ENGLISH PROGRAM AT ASSUMPTION COLLEGE

English Department

Course Syllabus - Semester 1/2026

Parent/Guardian Acknowledgement

Dear Parent/Guardian:

Please sign below to acknowledge that you have reviewed this course syllabus with your son.
Thank you. I look forward to teaching your son this year!

Student's Name

Student's ID No.

Parent/Guardian Signature

Date



Student Syllabus for: EPM6 Reading and Writing 5: EN30205

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

COURSE DESCRIPTION:

Welcome to EP6 Reading & Writing. This course is designed to further your ability with analyzing reading, and to strengthen formal writing ability. We focus on academic skills. 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: 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 student 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.

Reading: Reading assignments will be coordinated with the topics. These assignments will be used as a vehicle for developing vocabulary, complex structures and increased understanding of the topics.

Resources

- | | |
|-----------|---|
| Required | <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 |



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. 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:

$Final\ Score \geq 80\%$	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 (program mandated)

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%
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, Presentation.
- White notebooks and folder.
- Schoology Course

Parent/Guardian Acknowledgement

Dear Parent/Guardian:

Please sign below to acknowledge that you have reviewed this course syllabus with your son. Thank you. I look forward to teaching your son this year! Should you have any questions please contact the EP Office.

Student's Name

Student's ID No.

Parent/Guardian Signature

Date



Week	Content
1	IELTS Task 2 Writing: Sport, mental vs, Physical strength
2	Evidence Based Reading Questions. Reading Practice test.
3	IELTS Task 2 Writing: Healthcare, elderly.
4-5	IELTS Task 2 Writing & Reading Homework vs. No Homework Reading Practice test.
6-7	IELTS Task 2 Writing & Reading Homework vs. No Homework Reading Practice test
8-9	IELTS Task 2 Writing & Reading Hobbies Reading Practice test
9-10	Midterm Review & Midterm



11-12	IELTS Task 2 Writing & Reading Big Cities and Health Reading Practice test
13-14	IELTS Task 2 Writing & Reading Change good or Bad Reading Practice test
14-15	IELTS Task 2 Writing & Reading Social Media and 1 on 1 interactions Reading Practice test
16-17	IELTS Task 2 Writing & Reading Ideal Society Reading Practice test
18	Mock Test, Writing Mock Test, reading
19	Mock Test, Writing Mock Test, reading
20	Final Exam