



## MA30106 Foundation Mathematics

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<b>Teacher</b>	Dr. Keerthi Prabhakar
<b>Contact</b>	EP Teacher Room, 2 <sup>nd</sup> Floor Colombet Bldg.
<b>Class Time</b>	EP-M6/1: Tue, Period 6; Wed, Period 2 EP-M6/2: Mon, Period 6; Tue, Period 3
<b>Credits</b>	1.0

### Course Description

This foundational mathematics course focuses on equipping university students with essential analytical tools across three key areas: rational exponents, functions, and fundamental statistics. Mastering rational exponents and roots enables students to simplify and manipulate expressions involving roots and powers, essential for advanced work in calculus, algebra, and scientific analysis. Logarithmic functions further extend this by transforming exponential relationships into linear ones, a vital skill for interpreting growth models and analyzing data in finance, engineering, and research.

Understanding functions is equally critical, as they model relationships between variables and real-world phenomena. Students learn to analyze and apply various functions—linear, quadratic, exponential, absolute value, and step functions—to interpret and predict dynamic changes, valuable for fields like economics, physics, and applied sciences.

Fundamental statistics offers a framework for data-driven analysis, guiding students through data collection, measures of central tendency, and dispersion. Techniques such as calculating mean, median, mode, standard deviation, and creating box-and-whisker plots are widely applicable in social sciences, biology, and business. Together, these mathematical concepts form a robust foundation for critical reasoning and quantitative analysis, empowering students to engage confidently with complex, real-world challenges across their academic and professional pursuits.

### 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

Learning Units
<b>1. Rational Exponents</b> <ol style="list-style-type: none"><li>Exponential with rational number exponent</li><li>'<math>n^{\text{th}}</math>' root of real numbers</li><li>Properties of '<math>n^{\text{th}}</math>' root</li><li>Addition, subtraction, multiplication, and division of numbers in the form of root</li><li>Solutions of equations in the form of exponential</li><li>Logarithms to base 'a'</li></ol>



7. Laws of logarithms.
<b>2. Probability</b> <ol style="list-style-type: none"><li>1. Counting principles</li><li>2. Basic Rules of Probability</li><li>3. Permutation and Combination</li></ol>
<b>3. Fundamental Statistics</b> <ol style="list-style-type: none"><li>1. Data collection</li><li>2. Basic data analysis</li><li>3. Finding central tendency by using arithmetic mean, median, mode*, harmonic mean, geometric mean, and mid-range</li><li>4. Finding relative standing by using quartile, deciles, and percentile</li><li>5. Measures of dispersion by using standard deviation</li><li>6. Measures of dispersion by using box-and-whisker plots</li></ol>

#### 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
$75\% \leq \textit{Final Score} < 80\%$	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:

Assignments/Projects	30%
Tests	20%
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 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 for at least a few minutes every day.



## **MA30218 Universal Mathematics 6**

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**Teacher** Mr. Shiv Kumar

**Contact** Science lab, 2<sup>nd</sup> Floor Colombet Building.  
[shiv.ku@assumption.ac.th](mailto:shiv.ku@assumption.ac.th)

**Class Time** EP-M6/1: Tuesday Period-1, Wednesday Period-6, Friday Period-2  
EP-M6/2: Monday Period-4, Wednesday Period-7, Friday Period-4

**Credits** 1.5

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### **Course Description**

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The purpose of this class is to prepare you for the SAT test. In this class, you will be given an SAT style quiz at the beginning of the week every two weeks. Our first quiz will be at the beginning of next week. We will spend class time in between these quizzes going over the answers and learning SAT material and problem solving techniques. We will also review algebra lessons associated with the SATs. Each quiz you take will be graded. However, once we go over the answers in class, you can resubmit your corrected quiz and get a half point for each answer you corrected (you must show your work). For example, if you get a 50% on your quiz, you can change your grade to 75% by re-submitting your corrected quiz. You will also earn class participation by re-submitting your corrected quiz. The midterm test and final test will also be In SAT style format.

### **Textbook**

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

### **Online resources**

*Google classroom, Khan Academy and Kahoot*

### **Course Outline & Objectives**

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The content learning during this class will be:

- Class Notes and worksheets – Review of real number system and properties of real number, work on polynomials with one variable, working with inequalities, one variable inequality, quadratic inequality, square root inequality and absolute values equations, absolute value inequality.
- Chapter 2 – Review of function and different type of function, increasing functions decreasing functions, quadratic functions and identity functions. Review the algebraic functions, composite functions and inverse functions.



- Chapter 3 & 4 – Understanding of exponential and logarithmic functions, working with graphing of exponential and logarithmic functions, working with logarithms and antilogarithms, working with exponential equation and logarithmic equation.
- Class notes and worksheets - understanding of analytical geometric. Understand the distance between two point, midpoint, slope of parallel lines and perpendicular lines. Work with linear equations and distance between two points and parallel lines. Work on conic section including circle, parabola, ellipse and hyperbola.

If you have questions about the class or your grade you can email me at:

[shiv.ku@assumption.ac.th](mailto:shiv.ku@assumption.ac.th)

### **Resources**

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|-----------|--|
| Required  | <ul style="list-style-type: none"><li>• A plastic folder for worksheets.</li><li>• White School Notebook</li><li>• Red and blue pen.</li></ul> |
| Suggested | <ul style="list-style-type: none"><li>• Many different colored pens/markers/highlighters</li><li>• Ruler</li></ul>                             |

### **Academic Integrity Policy**

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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**

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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> ≥ 80%	4.0
<i>75%</i> ≤ <i>Final Score</i> < 80%	3.5
<i>70%</i> ≤ <i>Final Score</i> < 75%	3.0
<i>65%</i> ≤ <i>Final Score</i> < 70%	2.5
<i>60%</i> ≤ <i>Final Score</i> < 65%	2.0
<i>55%</i> ≤ <i>Final Score</i> < 60%	1.5
<i>50%</i> ≤ <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:

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.
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.



## **EN30106 M6: Foundation English 6**

**Teacher** Mr. Andrew Neale

**Contact** EP Teacher Room, 2<sup>nd</sup> Floor Colombet Bldg.  
[simon.an@assumption.ac.th](mailto:simon.an@assumption.ac.th)

**Class Time** EP-M6/1 & M6/2: one-two periods a week

### **Course Description**

The final half of this course will focus on preparing students for both entering the world of work and for the Cambridge C1 level examination. We will focus on improving all four skills in English and learn how to appropriately apply this knowledge for different purposes too (SATs, IELTS, etc). Due to the mixed abilities and aspirations identified in the class, some of the focus will vary from one student to the other. I am passionate about supporting students 121, will address areas for improvement accordingly and will happily remain flexible.

### **Textbooks**

*Prepare 2<sup>nd</sup> edition – Student's Book* - Cambridge Course book

*Prepare 2<sup>nd</sup> edition – Workbook* - Cambridge Course book

### **Course Outline & Objectives**

#### **Week 1 & 2 - Introductions**

- Speaking: Describe the school break
- Listening: Pronunciation - difficult phonetic blends
- Writing: *The Holidays*
- Personal development: *Boys, Books & Beliefs* – reading for pleasure

#### **Weeks 3-6 - Prepare Cambridge Unit 8: Life Skills – Digital Literacy**

- English in context: Appropriate language use online, fake posts
- Vocabulary: online abbreviations and acronyms, common sayings
- Grammar: Capital letter-use online, real-life English versus academic
- Listening: Practise with voice notes

#### **Week 7 - Reading, reading, reading!**

- Academic reading versus reading for pleasure
- Peer review student project: *Perspectives and recommendations*
- Cambridge exam preparation
- Vocabulary: Word count / word bank.

#### **Week 8 - Revision of content / skill development / catch up on missed work**

#### **Week 9 - Midterm Exams**

#### **Week 10 - Christmas / New Year break**

#### **Weeks 11-13 - Achieving Social Equality (Cambridge Prepare, Unit 12)**

- Grammar: the present perfect tense
- Vocabulary: Social change and wealth
- Reading: Cambridge Use of English Part 6
- Writing: *'Writing to Present' (life skills)*

#### **Week 14 - Concerns, fears, challenges, and strategies for future success.**



- Week 15** – Revision of content / skill development / catch up on missed work  
**Week 16** – Final Exams

### **Resources**

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- Required
- 1 notebook (1 white notebook)
  - Folder for English only (to keep handouts, etc.)
  - Textbooks
  - Blue or black pen + red pen for checking work
  - Dictionary (English to English)

Other resources such as worksheets may be given throughout the semester.

### **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 (notebook, worksheets, English Folder, 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**

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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 but some marks will be taken off as a penalty. 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:

Formative Score	50% or less
Behavior	10% (program mandated)
Midterm Exam	20% (program mandated)
Final Exam	20% (program mandated)

### **Recommendations for Success**

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

1. Remember your commitment on how to be the best student (from semester 1).
2. Have your materials for English on your desk at the beginning of class.
3. Pay attention and listen carefully while taking notes.
4. Always use English during discussions.
5. Do your homework yourself and do not copy.
6. Come see the teacher outside of class time for assistance.
7. Give feedback to, and share ideas with, Mr Andy to help maximize your learning.
8. Always try your best.



## **EN30206: EPM6 Reading and Writing 6**

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

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|-----------|--|
| 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**

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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 (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
$75\% \leq \textit{Final Score} < 80\%$	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 (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.***



THE **ENGLISH PROGRAM** AT ASSUMPTION COLLEGE  
Course Syllabus – Semester 2/2025

**Precise resources:**

- **Teacher** Handouts, Worksheets, Presentation.
- White notebooks and folder.
- Schoology Course

Week	Content
1	University Applications: Tell me about yourself
2 & 3	University Applications: Why this university?
3 & 4	University Applications: Why this major?
5	University Applications: Do's and do not for interviews
6	In-class quiz
7	Task 2 writing review
8	Midterm Review
9	<b>Midterms</b>
10	Interviews
11	Interviews
12	Interviews
13	Interviews
14	Interviews
15	<b>Final Exam Review</b>
16	<b>Final Exam</b>



## **Student Syllabus for: EP6 *English for Life Skills 6*: EN30246**

**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, and 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.<br><input type="checkbox"/> Dictionary (English to English, not a translating one)<br><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
$55\% \leq$ <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 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.



## **ST30205 A Level for Physics**

**Teacher** Mr. Glenn Thomas

**Contact** EP Teacher Room, 2<sup>nd</sup> Floor Colombet Bldg.

**Class Time** EP-M6/2: Tues, period 5; Wed, period 5-6,

### **Course Description**

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This course focuses on a continuation of Modern Physics and a supplemental study of any topics not in the curriculum but which should be taught for general understanding and taking SAT and CUATS Physics tests. 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 closely follow the order and content of the latest version of the American high school textbook, Holt *Physics*. 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)**

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*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**

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#### Unit 1 Mechanics and Motions

- Estimation, Orders of magnitude, Fermi Questions
- SI Units, vectors and scalars
- Speed, distance and time
- Constant acceleration equations (SUVAT)
- Kinetic and mechanical energy
- Conservation of momentum

#### Unit 2 Electricity and Energy

- Basic concepts of resistance, voltage and current
- Ohm's Law and its applications to parallel/series circuits
- Thermistors, LDRs and variable resistors
- Potential Dividers circuits
- Transformers and Power

#### Unit 3 Revision



- Plenty of exercises for general revision including both problem solving and multiple choice questions will be used as teaching materials to enable the students to revise and fully equipped with external tests like SAT and CUATS Physics test.

### **Resources**

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

### **Academic Integrity Policy**

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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**

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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**

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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. 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 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	30%
Quiz	20%
Behavior	10% (program mandated)
Midterm (Summative) 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. They should do the prescribed homework.
4. It is useful to organize small study group among the students.
5. Students can consult me individually for techniques in getting high or full scores in external Physics tests like CU-ATS and SAT Subject Tet.
6. Ability for find the time to read Thai Physics (e.g. from the library) would be an additional asset.



**ST30235 Universal Chemistry 5**

**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**

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This course on chemistry focuses on Inorganic elements and compounds in industry, Atoms and Periodic Table and Chemicals for life and the environment. 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 high school textbook, *International A Level Chemistry, Oxford*. 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.

**Textbook**

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- *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**

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**Inorganic elements and compounds in industry**

Section 1 Minerals Industry

- Copper ore
- Mineral, zinc and cadmium
- Tin
- Colloidal minerals - cobalt
- Tungsten
- Antimony ore
- Zircon ore
- Gems

Section 2 Ceramic Industry

- Raw materials used in the ceramic industry
- Product Formulation



- Sintering and coating
- Ceramic products

#### Section 3 Sodium chloride-related industries

- Production of Sodium Chloride
- Production of Sodium Hydroxide and Chlorine Gas

#### Section 4 Fertilizer Industry

- Types of fertilizer
- Nitrogen fertilizers
- Phosphate fertilizers
- Potato fertilizer
- Mixing fertilizer

### **Atoms and Periodic Table**

#### Section 1 Atomic Structure

- Atomic model
- Atomic Particles and the nuclear symbol
- The arrangement of electrons in atoms

#### Section 2 Periodic Table and Properties of Elements and Compounds

- The evolution of the periodic table.
- Properties of elements by mass and by period

### **Chemicals for life and the environment**

#### Section 1 Chemical reaction

- Chemical reactions in everyday life
- Effects of chemical reactions on organisms and the environment
- Chemical reaction rates and factors affecting chemical reactions

#### Section 2 Polymer

- Polymerization / Polymerization
- Benefits / Effects of the Use and Production of Polymers on Organisms and Environment

#### Section 3 Bio molecules

- Carbohydrates
- Fat and oil
- Protein
- Nucleic acid



### **Resources**

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

### **Academic Integrity Policy**

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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 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.



**ST30290 Applied Biochemistry & Microbiology Laboratory**

**Teacher** Miss. Cherise Nieuwoudt

**Contact** EP Teacher Room, 2<sup>nd</sup> Floor, Colombet Bldg.

**Class Time** EP-M 6/2H Wednesday Period 2

**Credits** 0.5

**Course Description**

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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**

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- 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**

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**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"><li>• Assumption Notebook (1)</li><li>• Binder/ folder</li><li>• Scientific calculator (not a phone-based application)</li><li>• Ruler</li></ul> |
| Suggested | <ul style="list-style-type: none"><li>• Many different colored pens/markers/highlighters</li><li>• Electronic Thai-English translator (not a phone-based application)</li></ul>    |

### **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%).



- Possess discipline
- Be an AC gentleman

- Eager to learn
- Dedicated to work

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 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.

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

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**

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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.



**ST30250 Scientific Aptitude and Biology Common Course**

**Teacher** Mr. Michael Salutin  
**Contact** EP Teacher Room, 2-Floor, Colombet Bldg.  
**Class Time** EP-M 6/2H Tue, Wed, Fri  
**Credits** 1.5 (3 Classes/week)

**Course Description**

This course has four units. First, basic plant biology, with an emphasis on plant structures, response to stimuli and photosynthesis. Next, fundamentals of ecology, focusing on energy transfer, nutrient cycling and ecological succession, and how they are related. After that, gas exchange in different invertebrate and vertebrate organisms, and cardiopulmonary fitness in humans. Finally, human reproduction, emphasizing the structure of male and female sex organs, egg production, fertilization and embryo development. Finally, biological concepts as they related to to the social sciences and social issues in Thailand and beyond.

Critical thinking skills are emphasized and students are encouraged apply the information that they learn to solve problems that face humanity.

**Textbook**

- *Biology*, Miller and Levine 2010  
ISBN-13: 978-0-13-361465-7; ISBN-10: 0-13-361465-4

**Course Outline & Objectives**

**Unit 1: Plant Biology**

- 1.1 Plant Structures
- 1.2 Plant Response to Stimuli
- 1.3 Photosynthesis Process

**Unit 2: Ecology**

- 2.1 Energy Transfer
- 2.2 Nutrient Cycling
- 2.3 Ecological Succession

**Unit 3: Gas Exchange**

- 3.1 Gas Exchange in Invertebrates and Vertebrates
- 3.2 Cardiopulmonary Fitness

**Unit 4: Human Reproduction**

- 4.1 Male and Female Reproductive Organs
- 4.2 Egg Production: Hormonal Control and Menstrual Cycle
- 4.3 Fertilization
- 4.4 Embryonic Development

**Resources**

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



### **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% for up to one week after the due date. After this, the maximum score is 25% until the last week of the term. All late or missed assignments that are not turned in ONE WEEK *before* the last week of the term will receive a zero.



### Grading

This class follows to the Assumption College grading scale:

<i>Final Score <math>\geq 80\%</math></i>	4.0
<i><math>75\% \leq \text{Final Score} &lt; 80\%</math></i>	3.5
<i><math>70\% \leq \text{Final Score} &lt; 75\%</math></i>	3.0
<i><math>65\% \leq \text{Final Score} &lt; 70\%</math></i>	2.5
<i><math>60\% \leq \text{Final Score} &lt; 65\%</math></i>	2.0
<i><math>55\% \leq \text{Final Score} &lt; 60\%</math></i>	1.5
<i><math>50\% \leq \text{Final Score} &lt; 55\%</math></i>	1.0
<i>Final Score <math>&lt; 50\%</math></i>	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 2/2025

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.



## **ST30295 H6/2 Health Science**

**Teacher** Mr. Michael Dew

**Contact** EP Teacher Room, 2- Floor, Colombet Bldg.

**Class Time** EP-M 6/2: Tuesday Period 3, Thursday Period 3 and 4

**Credits** 0.5 (1 Period /week)

### **Course Description**

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This course on health science focuses on DNA and RNA in genetics, genetic variation, genetic mutations, evolution and natural selection. 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**

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- *International A Level Health Science, Oxford International AQA Examinations.*
- Supplementary:
- *BMAT Past Paper Worked Solutions (2003-2017) 2018*

### **Course Outline & Objectives**

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#### **Chapter 5: Antibiotics**

- 1.1 Classes and Function of Antibiotics
- 1.2 Chemical Structure of Antibiotics
- 1.3 Antibiotic Resistance
- 1.4 Solutions to Antibiotic Resistance

#### **Chapter 6: Human immune system**

- 2.1 Organs of the immune system
- 2.2 Types of immunity
- 2.3 Cells of the immune system
- 2.4 Diseases of the immune system

#### **Chapter 7: Genetic Engineering**

- 3.1 Gene Therapy
- 3.2 CRISPR Gene Editing



### **Chapter 8: Biotechnology**

- 4.1 DNA and DNA Fingerprinting
- 4.2 Polymerase chain reaction

### **Resources**

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|-----------|---|
| Required  | <ul style="list-style-type: none"><li>• Assumption Notebook (2)</li><li>• Binder/ folder</li><li>• Ruler</li></ul>  |
| Suggested | <ul style="list-style-type: none"><li>• Many different colored pens/markers/highlighters</li><li>• Electronic Thai-English translator (not a phone-based application)</li></ul> |

### **Academic Integrity Policy**

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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*:

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

### **Attendance & Tardiness**

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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
$75\% \leq \textit{Final Score} < 80\%$	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:

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.
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.