MA30104 Foundation Mathematics 4

Teacher Dr. Keerthi Prabhakar

Contact EP Teacher Room, 2nd Floor Colombet Bldg.

epackeerthi@gmail.com

Class Time EP-M5/1: Thu, period 3; Fri, period 4

EP-M5/2: Mon, period 5; Fri, period 3

Credits 1.0

Course Description

This fundamental statistics course provides students with a comprehensive toolkit for data analysis and interpretation, crucial for research and decision-making across fields. Starting with data collection methods, students learn to gather accurate, relevant data, forming the basis for any analysis.

Basic data analysis introduces students to the organization and preliminary examination of data, setting the stage for deeper insights. Measures of central tendency—including the arithmetic mean, median, mode, harmonic mean, geometric mean, and mid-range—allow students to summarize data by identifying central values, while relative standing measures like quartiles, deciles, and percentiles enable comparisons within data sets.

Students also explore measures of dispersion such as standard deviation and box-and-whisker plots, which reveal data variability and outliers. Standard deviation is particularly emphasized for understanding the spread of data around the mean. This leads into the study of the normal distribution, a foundational concept in statistics that describes how data naturally clusters around the mean, with applications in natural and social sciences.

Finally, students delve into correlation, which assesses the relationship between variables, providing insight into how changes in one variable might predict or impact changes in another. Altogether, this course equips students with statistical methods to analyze, interpret, and communicate data findings effectively, preparing them for data-driven roles in research, business, healthcare, and beyond..

Textbook / Worksheets

Mathematics for the International Student: Mathematics SL, 3rd Edition Teacher will also provide handouts

Course Outline & Objectives

Unit	Topic			
	Fundamental Statistics			
	1. Data collection			
	2. Basic data analysis			
	3. Finding central tendency by using arithmetic means, median,			
	mode*, harmonic mean, geometric mean, and mid-range			
1	4. Finding relative standing by using quartile, deciles, and percentile			
	5. Measures of dispersion by using standard deviation			
	6. Measures of dispersion by using box-and-whisker plots			
	7. Standard Deviation			
	8. Normal Distribution			
	9. Correlation			

Resources Required	☐ Scientific calcu ☐ Ruler ☐ Glue stick, stap	ulator (not a phone-based application)
Suggested		coloured pens/markers/highlighters i-English translator (not a phone-based
Academic Integrity	Policy	
	•	umption College student handbook. There is to be
		g of any kind. These and any other acts of academic
•		and will not be tolerated. Students involved in any
receive a zero.	nonesty, including an	y student supplying or allowing copying, will
receive a zero.		
		or ideas and passing them off as one's work or
	•	failure to give appropriate acknowledgement when
repeating another's id acknowledgement wh	-	or paragraph or failure to give appropriate
acknowledgement wi	ien parapinasing any	of those.
Behavioural Expect	ations	
classmates, the teacher and their actions. Stu	er, and the facilities. Sidents are expected to alculator, writing uter	lents are expected to respect themselves, their Students must accept responsibility for themselves be ready at the start of every class (Notebooks, nsils, etc.) and to participate throughout the lesson
(see the front of your	notebooks). Students	rules set out at the beginning of the academic years earn the scores they receive. At the end of the the student's behavior score (10%).
Additionally, all Tha	i students are expecte	ed to embrace the following desired characteristics:
 Love for the 	country and the King	g, faith in religion
 Possess disc 	1	• Eager to learn
Be self-suffi		Dedicated to work
 Proud to be ' 	Thai	 Have a sense of public

Attendance & Tardiness

• Be an AC gentleman

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

consciousness.

Be honest and upright.

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 by the start of class, a maximum score of 15 will be possible. All late or missed assignments 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 ≥ 80%	4.0
75% ≤ <i>Final Score</i> < 80%	3.5
70% ≤ <i>Final Score</i> < 75%	3.0
$65\% \le Final\ Score < 70\%$	2.5
$60\% \le Final\ Score < 65\%$	2.0
$55\% \le Final\ Score < 60\%$	1.5
$50\% \le Final\ Score < 55\%$	1.0
Final Score < 50%	0.0

Evaluation and Assessment

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

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

Recommendations for Success

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

- 1. Read, read, read the course textbook. Reading the text once is often insufficient, even for native English speakers. 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. Search online, in either Thai or English, if you don't understand a topic discussed in class or to better understand the topic.
- 3. Get a Thai language introductory mathematics book.
- 4. Get a math and physics tutor. The tutor should be helping you learn, not doing the work for you!
- 5. Do **not** copy your classmate's work; struggle through and do the work on your own! This is how you learn!
- 6. See the teacher outside of class time for assistance.



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

MA30216	Universal Mathematics 4
Teacher	Mr. Shiv Kumar
Contact	Science Lab, 2nd floor Colombet Building
	shiv.ku@assumption.ac.th
Class Times	M5/1: Monday Period-4, Tuesday Period-5
	M5/2: Tuesday Period-2, Thursday Period-2
Credits	1.5

Course Description

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 2 and 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

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

Course Outline & Objectives

The content we will be learning during this class is:

- Class notes and work sheets -Work on Complex numbers: Equality, Addition, Subtraction, Multiplication and Division Graphing and absolute values of complex numbers and Complex numbers in polar form Polynomial equations.
- Class notes and work sheets -Work on probability, Basic rules about counting, Permutation, Combination and Binomial theorem and Probability and some important rules of probability.
- Class notes and work sheets -Basic of graphing, Euler graphs and some applications of graph.

Resources

Required	A plastic folder for worksheets.White School NotebookRed and blue pen.
Suggested	Many different colored pens/markers/highlightersRuler

Academic Integrity Policy

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

the copying to take place, will receive a zero. 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 ontime, every time. Unexcused absences or tardiness will not be tolerated. In the case of planned absences, please notify the teacher in as far in advance as possible. Students are expected to catch up on all missed work outside of class time.

Homework & Class work

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

Grading

This course follows to the Assumption College grading scale:

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

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.
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- 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.

${\bf Semester\ Two:\ STUDENT\ SYLLABUS\ FOR\ FOUNDATION\ ENGLISH}$

EP (5)-1-2 Subject Code: EN30104 Teacher: Mr. Steven Raine

COURSE DESCRIPTION:

SAT Reading Preparation

The SAT Reading Preparation course is designed to help students develop the critical reading skills necessary to excel in the Reading section of the SAT exam. This course will cover various reading strategies, text analysis, vocabulary building, and time management techniques to boost your performance in this critical component of the SAT.

Course Goals and Learning Objectives: By the end of this course, students will be able to:

- 1. Develop effective reading strategies for different types of passages.
- 2. Analyze and interpret various types of text, including fiction, non-fiction, and informational graphics.
- 3. Expand and improve their vocabulary through word analysis and context clues.
- 4. Identify and use time management techniques to complete the SAT Reading section within the allocated time.
- 5. Enhance their comprehension and retention skills to answer questions accurately.

Introduction to the SAT Reading Section

- Overview of the SAT exam and Reading section
- Understanding question types
- Setting goals and assessing current reading skills

Reading Strategies

- Active reading techniques
- Passage mapping and annotation
- Identifying main ideas and supporting details

Vocabulary Building

- Word analysis and context clues
- Strategies for learning and retaining new words
- Vocabulary in context

Fiction Passages

- Analyzing narrative structures
- Character development and literary devices
- Practicing fiction passage questions

Non-Fiction Passages

- Recognizing persuasive techniques
- Identifying the author's argument and purpose
- Analyzing informational graphics

Historical and Scientific Passages

- Understanding technical language and jargon
- Summarizing complex information
- Analyzing primary source documents

Time Management

- Strategies for pacing and focus
- Simulated timed practice tests
- Review and reflection

Review and Practice

• Comprehensive review of reading strategies

- Practice with full-length SAT Reading sections
- Identifying strengths and weaknesses

Test-Taking Strategies

- Tips for guessing effectively
- Strategies for tackling challenging questions
- Test anxiety management

Final Practice and Assessment

- Final practice test
- Individual feedback and assessment
- Setting personalized study plans for continued improvement

Course Materials:

- Official SAT Study Guide
- Supplemental reading materials (provided by the instructor)
- Notebooks, highlighters, and pens
- Access to SAT practice tests and online resources

Grading and Assessment: Assessment will be based on assignments, quizzes, participation, and practice tests. Grading will follow a point-based system with specific rubrics for each assignment.

COURSE DESCRIPTION:

IELTS Academic Reading Course

The IELTS Academic Reading course is designed to help students enhance their reading skills and strategies necessary to succeed in the Academic Reading section of the IELTS exam. This course will cover various types of texts and question formats, effective reading strategies, and time management techniques to maximize your performance in this key component of the IELTS.

Course Goals and Learning Objectives: By the end of this course, students will be able to:

- 1. Understand the format and question types in the IELTS Academic Reading section.
- 2. Develop effective reading strategies for various text types.
- 3. Enhance vocabulary and comprehension skills.
- 4. Practice time management to complete the IELTS Reading section within the allocated time.
- 5. Successfully approach different reading tasks, such as skimming, scanning, and indepth analysis.

Introduction to IELTS Academic Reading

- Overview of the IELTS exam and Academic Reading section
- Understanding different question types
- Assessment of students' current reading skills

Reading Strategies

- Overview of effective reading strategies
- Skimming, scanning, and detailed reading techniques
- Note-taking and annotation

Vocabulary Building

- Word analysis and context clues
- Strategies for improving vocabulary
- Vocabulary in context

Multiple-Choice Questions

- Recognizing question patterns
- Strategies for answering multiple-choice questions

• Practice with sample questions

True/False/Not Given and Yes/No/Not Given Questions

- Understanding the nuances of these question types
- Differentiating between fact and opinion
- Practice with sample questions

Matching Headings, Summary Completion, and Sentence Completion

- Approaches to matching headings to paragraphs
- Strategies for completing summaries and sentences
- Practice with sample questions

Time Management

- · Techniques for pacing and focus
- Simulated timed practice tests
- Review and reflection

Review and Final Practice

- Comprehensive review of reading strategies
- Final practice test
- Individual feedback and assessment

Course Materials:

- IELTS Official Cambridge Guide (or similar IELTS preparation book)
- Supplemental reading materials (provided by the instructor)
- Notebooks, highlighters, and pens
- Access to IELTS practice tests and online resources

Grading and Assessment: Assessment will be based on weekly assignments, quizzes, participation, and practice tests. Grading will follow a point-based system with specific rubrics for each assignment.

LEARNING MATERIALS

Textbooks and Test past questions, News, announcements, fictions, non-fictions, media, diagrams, graphs, personal experience, topical events, stories, manners and culture, traditions, festivals, language structures, idioms, life skills, native speakers,

LANGUAGE SKILLS,

Conceptualization, analysis, communication problem-solving, critical thinking & technology.

DESIRED CHARACTERS – 1) Love for the country and the king, faith in the religion 2) Be honest and upright 3) Possess discipline 4) Eager to learn 5) Be self-sufficient 6) Dedicated to work 7) Love for Thainess 8) Have a sense of public consciousness and 9) Be an AC gentleman.

RESOURCES:

Textbooks, Handouts, exam papers, worksheets, student notebooks, presentations, information technology

Required

- Notebooks.
- Dictionary

Suggested

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

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

Homework & Classwork

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

Grading

This course follows to the Assumption College grading scale:

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

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

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

Assessment determination:

This syllabus is based on the important skills that students will need to successful pass the IELTS test at level 6. The assessment will be based on students understanding of what is expected in the different modules of the test (Listening, Reading, and Writing & Speaking).

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 ling-term memories.
- 2. Search online (in English) if you don't understand a topic discussed in class to get a better understanding of the topic.
- 3. Do not copy your classmate's work; struggle through and do the work on your own. This is how you learn.
- 4. Come see the teacher outside of class time for assistance.
- 5. Revise your work, as recommended by your teacher and work to continuously improve your work. Learning is a process, not a product.
- 6. If you don't understand then ask your friends, communication is vital for success in English, communicate with your classmates in English, you'll be surprised how quickly your English improves just by doing this.

Semester One: STUDENT SYLLABUS FOR READING & WRITING ENGLISH

EP (5)-1-2 Subject Code: EN30204 Teacher: Mr. Steven Raine

COURSE DESCRIPTION:

Throughout the year we will prepare students for the SAT READING & IELTS READING, WRITING & SPEAKING a prerequisite for joining a university international program. These skills will be used to master examination question types. Through a series of skill based and enriching lessons using Mr. Raine's expertise and selected authentic test materials, students will strengthen their core knowledge. This course is intensive. Students will many opportunities to participate, and skill will be demonstrated in assessments, homework, and examinations. The course is at an advanced/pre-intermediate level (CEFR C1 & C2 level)

COURSE OBJECTIVES:

The main objectives of this syllabus are:

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

COURSE OUTLINE:

Syllabus is matched with the Thai curriculum Indicators:

	STRANDS
2. comprehension 4. supporting ideas 8. opinions 14. ideas, beliefs 17. Analyze 18. skim/scan 20. investigate/search 21. community/national WRITING 3. answer in sentences 6. explain 7. life skills 8. opinions 10. news 11. Summarize C	Strand 1: Language for Communication F1.1 F1.2 F1.3 Strand 1: Language for Communication F1.1 F1.2 F1.3 Strand 2: Language and Culture F2.1 F2.2 Strand:3 F3.1 Strand 4: Language and Relationship with Community and the World F4.1

SPECIFIC SKILLS:

IELTS WRITING TASK TWO

Writing has two tasks, a report and an essay, both adding up to an overall IELTS writing score of 0-9 and includes: Essay content and structure (patterns of organization, paragraphing, discussion – argument/counter-argument, advantages and disadvantages, topic sentence and supporting ideas, coherence and cohesion,

IELTS WRITING TASK ONE

Writing_includes: Functions (generalization, definitions, classification, comparison and contrast, cause and effect, process and procedure, interpretation of data).

ESSENTIAL KNOWLEDGE Note taking is the essential skill and students should practice listing single words as prompts to speaking.

GRAMMAR: Present perfect versus past simple--Present tenses to describe books and films--Present continuous--Past perfect and continuous-- Prepositions of time --Prepositions of place --Future simple tense --Sentences, simple and compound -conjunctions--Passive voice--adjectives --Superlatives

ENGLISH CULTURAL HISTORY

Studying "A Man for All Seasons" by Robert Bolt

Course Description: This course aims to explore Robert Bolt's classic play, "A Man for All Seasons." We will delve into the historical and literary context, analyze the characters and themes, and engage in critical discussions of the play. By the end of the course, students will have a deeper understanding of the text and its relevance.

Course Goals and Learning Objectives: By the end of this course, students will be able to:

- 1. Understand the historical and cultural context of "A Man for All Seasons."
- 2. Analyze the characters, plot, and themes of the play.
- 3. Engage in critical discussions and debates on moral and ethical issues raised in the text.
- 4. Improve literary analysis and critical thinking skills.
- 5. Develop the ability to write effectively about the play.

Introduction to "A Man for All Seasons"

- Overview of the play and its historical background
- Introduction to the author, Robert Bolt
- Understanding the Renaissance and Reformation period

Character Analysis

- In-depth analysis of key characters, such as Sir Thomas More, King Henry VIII, and Thomas Cromwell
- Exploring character development and motivations
- Discussing the significance of More's moral stance

Themes and Motifs

- Identifying and discussing major themes in the play, including integrity, conscience, and power
- Analyzing motifs, symbols, and literary devices used by the author
- The relevance of the title "A Man for All Seasons"

Ethical and Moral Dilemmas

- Engaging in debates on the ethical and moral dilemmas faced by the characters
- Comparing historical events to the play's portrayal

• Exploring different perspectives on More's choices

Literary Analysis

- Enhancing literary analysis skills
- Close readings of select scenes
- Exploring the use of dialogue, monologues, and dramatic elements

Final Projects and Discussions

- Student presentations on various topics related to the play
- Group discussions and debates
- Summative assessments and evaluations

Course Materials:

- "A Man for All Seasons" by Robert Bolt (required text)
- Secondary texts and articles on the play's historical and literary context (provided by the instructor)
- Notebooks, highlighters, and pens

Grading and Assessment: Assessment will be based on class participation, individual and group discussions, written assignments.

LEARNING MATERIALS

News, announcements, fictions, non-fictions, media, diagrams, graphs, personal experience, topical events, stories, manners and culture, traditions, festivals, language structures, idioms, life skills, native speakers,

LANGUAGE SKILLS.

Conceptualization, analysis, communication problem-solving, critical thinking & technology.

DESIRED CHARACTERS – 1) Love for the country and the king, faith in the religion 2) Be honest and upright 3) Possess discipline 4) Eager to learn 5) Be self-sufficient 6) Dedicated to work 7) Love for Thainess 8) Have a sense of public consciousness and 9) Be an AC gentleman.

RESOURCES:

Textbooks, Handouts, exam papers, worksheets, student notebooks, presentations, information technology

Required

- Notebooks.
- Dictionary

Suggested

• Many different colored pens/markers/highlighters

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Assessment determination:

This syllabus is based on the important skills that students will need to successful pass the IELTS test at level 6. The assessment will be based on students understanding of what is expected in the different modules of the test (Listening, Reading, and Writing & Speaking).

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 ling-term memories.
- 2. Search online (in English) if you don't understand a topic discussed in class to get a better understanding of the topic.
- 3. Do not copy your classmate's work; struggle through and do the work on your own. This is how you learn.
- 4. Come see the teacher outside of class time for assistance.
- 5. Revise your work, as recommended by your teacher and work to continuously improve your work. Learning is a process, not a product.
- 6. If you don't understand then ask your friends, communication is vital for success in English, communicate with your classmates in English, you'll be surprised how quickly your English improves just by doing this.

ST30203 Electricity and Magnetism

Teacher Mr. Glenn Thomas

Contact EP Teacher Room, 2nd Floor Colombet Bldg. **Class Time** EP-M5/2: Mon, period 6; Tues, period 1;

Course Description

This course focuses on continuation of electricity studies from semester 1. 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*. The course is prerequisite to Sc30204 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)

Physics student Book 1 and 2, Miles Hudson 2018 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 Magnetism

- Definitions of magnetism, magnetic fields and magnetic forces.
- Plotting magnetic fields of magnets and current carrying wires.
- Prediction of magnetic fields between various alignments of magnets.
- -Permanent vs Induced magnetism

<u>Unit 2</u> Electromagnetic effects

- Definitions and calculations related to magnetic flux, magnetic flux density and flux linkage
- -Measuring strength of electromagnets to investigate the variables (current, coil urns, iron core)
- Exploration of the interaction between magnetic fields, electric current and electromotive force (right hand rule)
- Predictions of force direction on a motor
- Magnetic forces forces on wires, forces on particles, and the mass spectrometer

Unit 3 Electromagnetic Induction

- Calculations using Faraday's and Lenz's laws.
- Step-up and step-down transformers
- Calculating induced e.m.f.s

Unit 4- Electrical Circuits

- -Series vs Parallel circuit calculations
- -Electrical circuit rules
- E.m.f. and internal resistance

- A.C vs D.C calculations and uses

Resources

Notebooks

Required

- Scientific calculator (not a phone-based application)
- Ruler

Suggested

- 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 of poor attitude in learning Physics will not be tolerated and remedial actions immediately instigated to rectify the situation. Students are always welcome to consult the teacher for guidance of whatever issues related to learning which may arise.

Behavioral Expectations

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

Attendance & Tardiness

Attendance will be taken at the start of every class. Students are expected to be in class ontime, 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 All late or missed assignments will receive a zero.

Grading

Foundation Physics follows to the Assumption College grading scale:

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

Evaluation and Assessment

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

Classwork/Lab	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.

ST30233 Universal Chemistry 3

Teacher Mrs. Anumol Sunny

Contact EP Teacher Room, 2- Floor Colombet Bldg Class EP-M 5/1 (Tuesday, Thursday and Friday)

EP-M5/H (Wednesday & Thursday)

Credits 1.5

Course Description

Although this course is technically called Universal Chemistry 3, in reality, it is the fourth installment within the comprehensive Chemistry program offered here at Assumption College English Program. At this point in the student's progression within the discipline, course material will gradually advance into more concrete, fundamental areas of Chemistry. Within this semester, some elements of inorganic chemistry and organic chemistry are introduced.

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 are a part of the evaluation process. The course is a prerequisite to ST30234 Universal Chemistry 4.

Textbook

• International A Level Chemistry, Oxford International AQA Examinations. By Ted Lister & Janet Renshaw

Course Outline & Objectives

Chapter 5 Kinetics

- Collision Theory
- The Maxwell-Boltzmann Distribution
- Catalysts

Chapter 2 Amount Of Substance

- Relative atomic and molecular masses, Avogadro's Constant, and the mole
- Moles in Solution
- The Ideal Gas Equation
- Empirical Ans Molecular Formula
- Balanced Equation and related Calculations
- Percentage Yield Calculations

Chapter 4 Energetics

- Endothermic and Exothermic Reactions
- Enthalpy
- Measuring Enthalpy Changes
- Hess's Law
- Enthalpy Changes of Combustion
- Representing Thermochemical Cycles
- Bond Enthalpies

Chapter 6 Equilibria

- The Idea of Equilibrium
- Changing the conditions of an equilibrium reaction
- The equilibrium constant expressions
- The effect of changing conditions of equilibria

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Resources

Required

- Assumption Notebook (2)
- Binder/ folder
- Scientific calculator (not a phone-based application)
- Rulei

Suggested

- 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 work or ideas. Examples of plagiarism include the failure to give appropriate acknowledgment when repeating another's idea, phrase, sentence or paragraph, or failure to give appropriate acknowledgment 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 ontime, 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% ≤ <i>Final Score</i> < 80%	3.5
70% ≤ <i>Final Score</i> < 75%	3.0
65% ≤ <i>Final Score</i> < 70%	2.5
60% ≤ <i>Final Score</i> < 65%	2.0
55% ≤ <i>Final Score</i> < 60%	1.5
$50\% \le Final\ Score < 55\%$	1.0
Final Score < 50%	0.0

Evaluation and Assessment

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

Classwork/Labs	20%
Assignments	30%
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 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.

ST30107 Technology of Data Presentation

Teacher Mr. David Thomas

Contact EP Teacher Room, 2nd Floor Colombet Bldg.

Credits 0.5

Course Description

Students will study the following topics: use of information technology to present work appropriately based on the objectives of work, analyzing changes of information technology, selecting appropriate software for presentation. Students will also learn to search for information on the internet and to be able to give references sources.

In this course, students will apply the knowledge and understanding development process, engineering design process, and skill practicing process.

Subsequently, students are expected to develop the 21st century learning skills: learning and innovation skill (think creatively, interested in innovation, have problem solving skill, and communicate effectively), information, media and technology skill (stay up-to-date with the news, have media literacy, and have information technology knowledge and skills), and life and careers skill (stay flexible, be initiative, have responsibility, be enthusiastic to learn across different areas of knowledge and have leadership skills).

The following set of characteristics will additionally be enhanced in students: honesty and integrity, self-discipline, avidity for learning and commitment to work.

Course Outline & Objectives

ST 4.2 S.6/1

1. Knowledge about technology for presentation

- 1.1 Objectives of the presentation
- 1.2 Basic principles for presenting work

2. Principles for selecting ready-made presentation software

- 2.1 Readymade presentation software
- 2.2 Data presentation formats with the use of computer

3. Digital tools to enhance presentations

- 1. Digital camera
- 2. Slide projector
- 3. Printer-3D printer

4.

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

Plagiarism is the act of taking someone else's work or ideas and passing them off as one's own work or ideas. Examples of plagiarism include the failure to give appropriate

acknowledgement when repeating another's idea, phrase, sentence or paragraph, or failure to give appropriate acknowledgement when paraphrasing any of those.

Behavioral Expectations

For the sake of all the members of the class, students are expected to respect themselves, their classmates, the teacher, and the facilities. Students must accept responsibility for themselves and their actions. 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
- Eager to learn
- Be self-sufficient
- Dedicated to work
- Proud to be Thai
- Have a sense of public consciousness
- Be an AC gentleman •
- Be honest and upright

Attendance & Tardiness

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

Homework & Classwork

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

Grading

This course follows to the Assumption College grading scale:

Final Score $\geq 80\%$	4.0
$75\% \le Final\ Score < 80\%$	3.5
$70\% \le Final\ Score < 75\%$	3.0
$65\% \le Final\ Score < 70\%$	2.5
$60\% \le Final\ Score < 65\%$	2.0
$55\% \le Final\ Score < 60\%$	1.5
$50\% \le Final\ Score < 55\%$	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	10%
Quiz	20%
Coursework	20%
Behavior	10% (program mandated)
Midterm (Summative) Exam	20% (program mandated)
Final Exam	20% (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 the textbook. Oftentimes, reading the text once is not enough even for native English speakers. You may need to read the material multiple times to understand. By reading along at home with the lessons taught at school (typically only a few pages per night), students will be able to responsibly manage the material and gain the most from the course.
- 2. Search online, in either Thai or English, if you don't understand a topic discussed in class or simply to get a better understanding of the topic.
- 3. Do **not** copy your classmates work; struggle through and do the work on your own! This is how you learn!
- 4. Come see the teacher outside of class time for assistance.
- 5. Do more than just the bare minimum; there are plenty of problems in the textbook. We only have time for so many of them. Do the review questions at the end of the chapter and see the teacher for the answers.
- 6. Study the notes and vocabulary at least a few minutes every day, such as in homeroom or during any free time you might have in other classes.

OC30106 Foundation Occupational Works 3

Teacher Dr. Hermann Gruenwald

Contact EP Teacher Room, 2nd Floor Colombet Building

DrHermann365@gmail.com

Website Google Classroom

Credits 0.5

Course Description

Students will study about the principles on how to operate the information services organizations; important components of the information services organizations; operations of organization; policy making and planning, human resource management, document management; budgeting and finance; buildings and sites; standards and quality assurance; evaluation and report; partnership with industry. Students will learn through the analytic thinking process, problem solving process, practices, group work, and attitude building process. Students are expected to subsequently develop the ability to communicate, to think, and to solve problems. Life skills and the use of technology are also to be enhanced. Students will additionally be developed learning skills and skills to create innovation -- think creatively, demonstrate innovation, use critical thinking, solve problems wisely, communicate effectively, and be willing to work with others. Information-related skills will also be included in this course. Students are expected to learn about technological media, to keep themselves updated with news and information, to have good judgment on media, to be a well-rounded individual in the field of information technology and to communicate wisely. Another skill that will be fostered is life and career skills which cover flexibility, adaptability, creativity, selfresponsibility and social skills. As for the students' desired characteristics, the course will focus on honesty, discipline, avidity for learning, dedication for work and public-mindedness.

Learning Outcome:

- 1. Apply concepts and principles to effectively manage an organization or the information services organization.
- 2. Explain the principles of operations, policy making, and planning for running organizations or the information services organizations.
- 3. Present how to work and put them into practice in the area of document management, finance, office supplies, building and maintenance.
- 4. Know the principles of quality assurance and evaluate the organizations or information services organizations with morality and ethics.

Course Outline & Objectives

Business Management (*Indicators 1, 2, 3, 4, 6, 8, 10, 11*)

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

Unit 1: Management of the information services organizations

- 1. General administration
- 2. Information services organization management
- 3. Definition/Components of administration
- 4. Types and characteristics of the administrator
- 5. Role and responsibilities of the administrator
- 6. Qualifications of the administrator

Unit 2: Management principles and theories for the information services organization

- 1. Good characteristics of the information services organization
- 2. Administration theories for the information services organizations
- 3. Principles of personnel management
- 4. Writing a project
- 5. Organizations and management
- 6. Organizational structure of the information services organization

Unit 3: Policy, budget plan, and finance

- 1. Policy and planning
- 2. Budget and finance
- 3. Types of budget
- 4. Budget administration policy and standards
- 5. Budget spending of the information services organization

Unit 4: Personnel management

- 1. Principles of personnel management
- 2. Personnel in the information services organization
- 3. Selection of personnel for information services work
- 4. Personnel development

Unit 5: Management of supplies and equipment

- 1. Meaning and importance of supply
- 2. Cycle of supply administration
- 3. Principle for managing and specifying needs for supplies and equipment
- 4. Maintenance of supplies and equipment

Unit 6: General administrative work and document control in the information services organization

- 1. Meaning and importance of the document control work
- 2. Types, kinds, and forms of documents
- 3. Drafting and typing the documents or letters
- 4. Storage and destruction of documents

Unit 7: Building and site administration

- 1. Meaning, objectives and importance of buildings and sites
- 2. Location and management of buildings and sites
- 3. Place decoration

Unit 8: Statistics, reports and public relations

- 1. Meaning and the importance of statistics and reports
- 2. Preparing statistics and reports
- 3. Meaning and the importance of public relations
- 4. Media and public relations
- 5. Qualifications and codes of ethics of public relations professionals

Unit 9: Quality assurance for the information services institute

- 1. Meaning, objectives and benefits
- 2. Quality assurance system selected
- 3. Components of the system
- 4. Implementation of the quality assurance system

Unit 10: Evaluation and development of the information services organization

- 1. Meaning, importance and objectives of evaluation
- 2. Steps and methods of evaluation
- 3. Problems and solutions
- 4. Developing the information services organization

Resources

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

Academic Integrity Policy

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

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

Behavioral Expectations

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

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

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

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

Attendance & Tardiness

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

Homework & Class Work

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

Grading

This course follows to the Assumption College grading scale:

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

Evaluation and Assessment

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

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

Recommendations for Success

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

ST30248 Plant Physiology **Teacher** Mr. Nicholas Crook

Contact EP Teacher Room, 2nd Floor Colombet Bldg.

Email epacnic@gmail.com

Class Time EP-M 5/2: Mon, period 4; Wed, period 2 & 3; Thurs, period 1

Credits 1.5

Course Description

Students will study the following topics: - Types and characteristics of plant tissue; the internal structure of monocotyledonous roots (monocot) and dicotyledon (dicot) roots; the internal structure of the monocot stem and of the dicot stem; the internal structure of leaf blade from a cross section. - Gas exchange and transpiration in plants; the mechanism of the conduction of water and nutrients in plants; the importance of nutrients; examples of important nutrients that affect growth of plants; the mechanism of transport of nutrients in plants. - The experiments about the photosynthesis conducted by scientists in the past; the steps in the photosynthesis process of C3 plants; the mechanism of the carbon dioxide fixation occurred in C3, C4 and CAM plants; the factors relative to light intensity, carbon dioxide intensity and temperature that affect the photosynthesis of plants. - The life cycle with alternation of generations of the flowering plants; the production process of male and female reproductive cells in the flowering plants and their fertilization. - The formation of seeds and fruit in flowering plants; structure of seed and fruit; examples of uses of different structures of seed and fruit; various factors affecting the sprouting of seed and seed dormancy and methods used to overcome the seed dormancy. - Roles and functions of auxin, cytokinin, gibberellin, ethylene and abscisic acid; application of this knowledge for agricultural use; the external stimuli that affect growth in plants. - The innate behavior and the learned behavior of animals; the relationship between behavior and the evolution of nervous system; the communication between animals that cause their behaviors.

Textbook

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

Course Outline & Objectives

Chapter 22: What is a Plant?

- 22.1 The Plant [Indicators 1-3]
 - Describe plants.
 - Explain the characteristics of a plant.
 - Research different types of plant.
- 22.2 The Seedless Plants [Indicators 4-6]
 - Describe the structure & function of the seedless plants.
 - Explain how seedless plants reproduce.
 - Describe the different types of seedless plant.
- 22.3 The Seed Plants [Indicators 7-9, 38]
 - Describe the structure & function of the seed plants.
 - Describe the different types of seed plants.

Chapter 23: The Structure & Function of Flowering Plants.

- 23.1 Plant Tissues [Indicators 13-14, 40]
 - State the functions and identify the structures of plant tissues.
 - Lab to study and classify plant tissues.
- 23.2 Plant Roots [Indicators 13-14, 40]
 - State the functions and identify the structures of plant roots.
 - Lab to study the structure & function of plant roots.
- 23.3 Plant Stem [Indicators 13-14, 40]
 - State the functions and identify the structures of plant stems.
 - Lab to study the structure & function of plant stems.
- 23.4 Plant Leaves [Indicators 13-14, 40]
 - State the functions and identify the structures of plant leaves.
 - Lab to study the structure & function of plant leaves.
- 23.5 Transport of Nutrients in Plants [Indicators 13-14, 40]
 - Describe transpiration, translocation, and nutrients in plants.
 - Explain how water & nutrients are transported in plants.

End of Midterm Exam Content – Start of Final Exam Content

Chapter 8: Plant Photosynthesis

- 8.2 Photosynthesis [Indicators 15-19]
 - Research photosynthesis.
 - Describe the photosynthetic process.
 - Explain light reaction & carbon fixation.
 - Lab on photosynthesis and factors affecting plant photosynthetic rates.
 - Explain photorespiration.
 - Describe the mechanism of the increase in carbon in C4 plants.

Chapter 24: Reproduction in Flowering Plants

- 24.1 Reproduction [Indicator 29]
 - Research life cycle with alternation of generations.
 - Describe the structure of flowers.
 - Describe the different types of flower.
 - Lab on the structure of flowers.
 - Explain gametogenesis in flowering plants.
 - Describe sexual reproduction of flowering plants.
- 24.2 Fruits & Seeds [Indicators 33-35]
 - Describe the formation of fruits and seeds.
 - Describe the structure of fruits and seeds.
 - Describe the different types of fruit.
 - Lab on the structure of fruit.
 - Explain how seeds sprout and factors affecting sprouting of seeds.
- 24.3 Control of Plant Growth & Response [Indicators 36-37]
 - Investigate the chemicals that control the growth of plants.
 - Explain how plants respond to their environment.
 - Discuss factors affecting the growth of plants.
 - Lab to study influences of plant hormones & stimuli on plants.

Resource	es
Required	☐ Textbook: <i>Biology</i> , by Pearson
	□ Plastic Folder for Biology only (to keep handouts, etc.)
Suggested	☐ Many different colored pens/markers/highlighters ☐ Electronic Thai-English translator (not a phone-based application)
	□ Ruler
	☐ Glue stick, stapler, or tape

Academic Integrity Policy

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

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

Behavioral Expectations

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

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

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

• Possess discipline

• Eager to learn

• Be an AC gentleman

• Dedicated to work

Attendance & Tardiness

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

Homework & Classwork

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

Grading

This course follows to the Assumption College grading scale:

Final Score $\geq 80\%$	4.0
75% ≤	3.5
70% ≤	3.0
65% ≤	2.5
60% ≤	2.0
55% ≤	1.5
$50\% \le Final\ Score < 55\%$	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%
Quizzes	20%
Behavior	10% (program mandated)
Midterm (Summative) Exam	20% (program mandated)
Final Exam	20% (program mandated)

Recommendations for Success

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

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

ST30293 Health Science 3

Teacher: Mr. Grant Shorten

Contact: Teachers Room, 2nd Floor Colombet Building.

grant.sh@assumption.ac.th

Class Time: EP-M5/2H

Credits: 0.5

Course Description

The M5 Health Science course offers an advanced exploration of key health topics including hormones, communicable diseases, and non-communicable diseases. This course is designed to deepen students' understanding of how hormonal systems regulate the body, the mechanisms of disease transmission, and the global rise of chronic health conditions. Through an integrated approach, students will gain valuable insights into disease prevention, health management, and the interplay between biological and environmental factors that impact public health.

Textbook

No Textbook

External Resources

Course Outline & Objectives

1. Hormones:

- Investigate the function of hormones and their role in regulating vital processes such as metabolism, growth, and reproduction.
- Study the endocrine system and how hormonal imbalances contribute to disorders like diabetes, thyroid conditions, and hormonal cancers.
- Explore how hormones influence mood, stress responses, and overall mental well-being.

2. Communicable Diseases:

- Understand the causes and transmission methods of communicable diseases, including bacteria, viruses, and parasites.
- Study common and emerging infectious diseases such as influenza, HIV/AIDS, and COVID-19.
- Learn about strategies for disease prevention and control, including vaccinations, sanitation, and public health measures, as well as the role of global health organizations in managing outbreaks.

3. Non-Communicable Diseases:

- Examine the rise of non-communicable diseases (NCDs) such as heart disease, cancer, diabetes, and respiratory diseases, and their impact on global health.
- Explore the lifestyle factors and environmental contributors to NCDs, including diet, physical inactivity, and exposure to harmful substances.
- Learn about prevention strategies, early detection, and the role of health policies in managing and reducing the burden of NCDs on society.



Learning Outcomes:

By the end of the course, students will be able to:

- Understand the function and significance of hormones in maintaining health and identify hormonal disorders.
- Recognize how communicable diseases spread and apply knowledge of prevention and control methods.
- Analyse the risk factors, prevention, and management of non-communicable diseases on both individual and public health levels.

If you have questions about the class or your grade you can email me at: grant.sh@assumption.ac.th

Resources Required

A plastic folder for worksheets. White School Notebook Black and blue pen 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 dishonestly lower the quality of the education and will not be tolerated. Students involved in any form of academic dishonesty, including any student supplying or allowing the copying to take place, will receive a zero. 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.

Behavioural 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.

Behaviour 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 behaviour 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 ontime, 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

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

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.

Course Syllabus - Semester 2/2024

Student Syllabus for: EP5 English for Life Skills 4: EN30244

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

COURSE DESCRIPTION:

This course is for preparation of the IELTS examination.

Welcome to English for Life Skills M4! 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. 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

- Understand the format, structure, and scoring criteria of the IELTS Speaking test.
- Familiarize students with the three parts of the test:
 - o **Part 1:** Introduction & Interview (4-5 minutes)
 - o **Part 2:** Long Turn (3-4 minutes, including preparation time)
 - o **Part 3:** Discussion (4-5 minutes)

Content:

- Structure: Timings and sections explained.
- Assessment Criteria:
 - o **Fluency and Coherence:** Speaking smoothly and logically.
 - o **Lexical Resource:** Using a wide range of vocabulary.
 - o Grammatical Range and Accuracy: Using various structures and grammar correctly.
 - o **Pronunciation:** Clarity and ease of understanding.

Course Syllabus - Semester 2/2024

Learning Objectives:

- Build confidence in answering basic personal questions on familiar topics.
- Practice providing detailed responses to everyday topics.
- Develop strategies for expanding simple answers.

Content:

- Common Topics: Work/study, hometown, family, hobbies, daily routines, and future plans.
- Question Types: Open-ended questions that require more than just "yes/no" answers.
- Answer Expansion: Techniques for elaborating answers, including:
 - o Giving reasons and examples.
 - o Talking about likes/dislikes, experiences, and comparisons.
- Fluency Practice: Responding promptly with varied vocabulary.

Practice Activity:

- Vocabulary building.
- Practicing Part 2 topic responses.
- Sentence-building exercises focusing on fluency and coherence.

Part 2: The Long Turn (Cue Card)

Learning Objectives:

- Develop the ability to speak at length on a given topic.
- Practice structuring a 1-2 minute monologue.
- Enhance skills in organizing thoughts and using cohesive devices (linkers and connectors).

Content:

- Cue Cards: Understanding the format, typically containing:
 - o A topic (e.g., "Describe a place you have visited recently.")
 - o 3-4 prompts (e.g., what you did there, who you went with, why you enjoyed it).
- Preparation Time: Tips for using the 1-minute preparation wisely (brainstorming ideas, outlining).
- Answer Structure: Beginning, middle, and end format for speaking.
- Storytelling Techniques: Using descriptive language, past tenses, and time markers to tell a story.
- Linking Words: Organizing thoughts using high level connectors

Part 3: Discussion

THE ENGLISH PROGRAM AT ASSUMPTION COLLEGE English Department

Course Syllabus - Semester 2/2024

Learning Objectives:

- Engage in a more in-depth discussion, developing ideas, opinions, and complex responses.
- Practice answering abstract and opinion-based questions related to the Part 2 topic.
- Develop skills for responding to challenging follow-up questions.

Content:

- Common Themes: Social issues, education, technology, environment, etc.
- Critical Thinking Skills: Formulating opinions and supporting them with evidence, examples, and reasoning.
- Agreeing/Disagreeing: Phrases for expressing and justifying opinions and handling contrasting viewpoints.
- Complex Sentences: Using conditional structures, modals, and passive voice to add variety to responses.
- Interactive Techniques: Engaging with the examiner by asking for clarification if needed and responding naturally.

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	 □ At least 1 white notebook. □ Dictionary (English to English, not a translating one) □ Extra lines A4 paper for written assignments.
Suggested	☐ Many different colored pens/markers/highlighters
Academic Integrit	y Policy

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

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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.

THE ENGLISH PROGRAM AT ASSUMPTION COLLEGE English Department

Course Syllabus - Semester 2/2024

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:

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

Course Syllabus - Semester 2/2024

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 ling-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.

Parent/Guardian Acknowledgement

Dear Parent/Guardian:	
Please sign below to acknowledge that you hav look forward to teaching your son this year!	re reviewed this course syllabus with your son. Thank
Student's Name	Student's ID No.

THE English

THE **ENGLISH PROGRAM** AT ASSUMPTION COLLEGE

English Department

Course Syllabus - Semester 2/2024

Week	<u>Content</u>
1	Food
2	Technology
3	Technology
4	Education
5	Hobbies
6	Historical Buildings
7	Parties
8	In class midterms
9	MIDTERM EXAMS
10	Movies / Music / Books
11	Goals / future
12	Culture
13	Environment
14	Advertising
15	Business – small businesses
16	How to answer questions about topics you know almost nothing about.
17	In class final exams
18	FINAL EXAMS