

Course Syllabus (Midterm – Semester 2)

Learning Group: Foreign Language

Year Level: 9

Subject code

Total: 1.0 credit

Subject: English in Mind

| Chapter/Unit | Topics | Contents | Objectives | Reference |
|---------------------|-------------------------|--|---|-----------------------------|
| 9 | The truth is out there! | 9.1 <u>Reading</u> : - A story about a UFO - Do they exist? 9.2 <u>Listening</u> : A radio show about the Loch Ness Monster 9.3 <u>Speaking</u> : - comparing two versions of the same story - Talking about conspiracy theories - A class debate about strange creatures 9.4 <u>Writing</u> : A story about conspiracy theory 9.5 <u>Vocabulary</u> : Problems 9.6 <u>Grammar</u> : - Linkers of contrast: however/although/ even though/in spite of /dispite of - Modal verbs of deduction 9.7 <u>Pronunciation</u> : / əʊ/ though | <ul style="list-style-type: none"> • By the end of this chapter, students should be able to <ul style="list-style-type: none"> ➤ Analyze the information and prepare for presentation ➤ Understand the use of linking and modal verbs ➤ Debate on the topic using the debate skills they have learnt | (B) 68 – 73 (WB) 54 – 59 |
| 10 | Mysterious places | 10.1 <u>Reading</u> : - Mysterious stones -What do they do in there? 10.2 <u>Listening</u> : An interview about mysterious places 10.3 <u>Speaking</u> : - Discussing photograph of mysterious places - Asking indirect questions - Telling a story 10.4 <u>Writing</u> : A Story 10.5 <u>Vocabulary</u> : - Phrasal Verbs 10.6 <u>Grammar</u> : - Modal Verbs of deduction (past) | <ul style="list-style-type: none"> • By the end of this chapter, students should be able to <ul style="list-style-type: none"> ➤ Reading and think along about places they have never known ➤ Understand the use Phrasal verbs ➤ Discuss and present the places of their own research | (B) 74 – 81 (WB) 60 – 65 |

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| | | - Indirect questions 10.7 <u>Pronunciation</u> : have in must have/might have/can't have/couldn't have | | |
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Course Syllabus (Mid – term – Semester 2)**Learning Group: Mathematics****Year Level: 9****Subject code****Total: 1.0 credit****Subject: Focus Smart + Mathematics**

| Chapter/ Unit | Topics | Contents | Objectives | Reference |
|--------------------------|---------------------|--|---|------------------|
| 6 | Graphs of Functions | 6.1 Function 6.2 Graphs of Functions | <ul style="list-style-type: none">• By the end of this chapter, students should be able to<ul style="list-style-type: none">➤ Plot a graph showing a link of two sets of quantities with linear relationship.➤ Plot graphs of linear equations with two variables.➤ Read and interpret the meaning of system of linear equations with two variables and other graphs.➤ Solve systems of linear equations with two variables which can be applied for problem – solving as well as be aware of the validity of the answers. | Page 109 – 124 |
| 8 | Probability | 8.1 Events and Outcomes 8.2 Probability 8.3 Outcomes from Independent Events | <ul style="list-style-type: none">• By the end of this chapter, students should be able to<ul style="list-style-type: none">➤ Find probability if events from random sampling with equal probability for each result, and apply knowledge of probability for valid projection of event.➤ Apply knowledge of probability for decision – making in various situations. | Page 146 – 162 |

Course Syllabus (Mid – term – Semester 2)

Subject code

Subject: Focus Smart + Science

Total: 1.0 credit

Learning Group: Science

Year Level: 9

| Chapter/ Unit | Topics | Contents | Objectives | Reference |
|--------------------------|-------------------------------------|---|---|-------------------------|
| 7 | Solar System, Stars and Galaxies | 7.1 Planets 7.2 Asteroids, Comets and Meteoroids 7.3 Sun 7.4 Star and Galaxies 7.5 Existence of the Universe 7.6 Sun – Earth – Moon | <ul style="list-style-type: none"> • By the end of this chapter, students should be able to <ul style="list-style-type: none"> ➤ Search relevant information and explain relationships between the Sun, Earth, Moon and other planets, and the effects on the environment and living things on Earth. ➤ Search for relevant information and explain components of the universe, galaxies and the solar system. ➤ Specify position of constellations, and apply the knowledge gained for useful purposes. | Page 157 – 182 |
| | Science Laboratory Experiment | 7.7 Solar System 7.8 Star Projector | | Page 52 – 58 59 – 62 |
| 8 | Space Exploration | 8.1 Astronomy and Space Exploration | <ul style="list-style-type: none"> • By the end of this chapter, students should be able to <ul style="list-style-type: none"> ➤ Search for relevant information and discuss process of utilizing space technology for exploration of space, object in the sky, weather conditions, natural resources for agriculture and communication. | Page 184 – 194 |
| | Science Laboratory Experiment | 8.2 Enzymes Amylase and Benedict test | | Page 12 – 16 |

| Chapter/Unit | Topics | Contents | Objectives | Reference |
|--------------|---|---|--|--------------|
| 7 | Market, Demand, Supply, Competition | 7.1 Stores, Services, Internet shopping, Entertainment 7.2 Demand 7.3 Supply 7.4 Market demand 7.5 Economy Competition 7.5.1 Monopoly 7.5.2 Oligopoly | <ul style="list-style-type: none"> • By the end of this chapter, students should be able to <ul style="list-style-type: none"> ➤ Explain the price mechanism in the economic system. ➤ Explain the government’s roles and functions in the economic system. ➤ Define supply and demand analysis and explain its function. ➤ Explain how supply and demand are relationships between the price of a product and the quantity of the same product. ➤ Define and explain the difference between demand and quantity demanded. ➤ Define and explain the law of demand ➤ Define and explain the difference between supply and quantity supplied. ➤ Define and explain the law of supply. ➤ Define and explain the difference between a supply schedule and a supply curve. ➤ Draw and explain how a supply curve illustrates the law of supply. ➤ Show how the quantity supplied at a particular price is illustrated by the horizontal distance between the vertical axis and the supply curve. ➤ Explain the government’s roles and functions in the economic system. | Page 48 – 61 |

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| | | | <ul style="list-style-type: none"> ➤ Define and describe what a perfect competition is. ➤ Define and describe what monopoly is ➤ Define and describe what oligopoly is. ➤ Define and describe what monopolistic competition is. | |
| 8 | Money, GDP, Unemployment | 8.1 History of Money 8.2 Function f Money 8.3 GDP 8.4 NDP 8.5 Unemployment | <ul style="list-style-type: none"> • By the end of this chapter, students should be able to <ul style="list-style-type: none"> ➤ Know the functions of money. ➤ Know the history of money. ➤ Identify the different types of unemployment. ➤ Define the term ‘inflation’. ➤ Discuss the two theories of inflation. ➤ Numerate and define the four types of unemployment. ➤ Discuss a model of business cycle. | Page 62 – 72 |
| 9 | International Trade | 9.1 WTO 9.2 ASEAN | <ul style="list-style-type: none"> • By the end of this chapter, students should be able to <ul style="list-style-type: none"> ➤ Define the term ‘export’ and ‘import’ ➤ Differentiate absolute advantage from comparative advantage ➤ Identify the problems of trading. ➤ Know the functions of WTO, EU and ASEAN | |

Course Syllabus (Mid – tem Semester 2)

Subject code

Total: ___ credit

Subject: **Health Education Grade 9**Learning Group: **Health Education**Year Level: **9**

| Chapter/ Unit | Topics | Contents | Objectives | Reference |
|--------------------------|---|--|--|------------------|
| 7 | Behavioral risk and violence and stress management skills | 7.1 Why teens become violent 7.2 No one answer to what causes violence 7.3 Increasing the chance of acting out in violence 7.4 Teen violence 7.5 Teen violence prevention 7.6 Teen violence statistics 7.7 Stress and Emotion Management | <ul style="list-style-type: none">• By the end of this chapter, students should be able to<ul style="list-style-type: none">➤ Avoid resorting to violence and persuade friends to avoid resorting violence for problem-solving➤ Analyze the risk factors and the risk behaviors affecting health and the methods of prevention➤ Suggest or to propose the guidelines to prevent diseases that are the main causes of illness and death of the Thai people. | Page 54 – 61 |
| 8 | Health care facilities and Institutions | 8.1 What is health? 8.2 Health care facilities 8.3 Health care services 8.4 Hospitals 8.5 Clinic 8.6 Nursing home 8.7 Home care 8.8 Hospice | <ul style="list-style-type: none">• By the end of this chapter, students should be able to<ul style="list-style-type: none">➤ Explain the methods of avoiding the risk behaviors and the risk situations➤ Apply life skills to protect themselves and to avoid dangerous situation. | Page 62 – 71 |

Course Syllabus –(Mid – Term Semester 2)

Learning Group: Home Econ. Food and Nutrition /Enhancing Personal Wellness

Subject: Home Economics 3

Year Level: 9A-E

Subject Code: OT 23101

Total: 1 period / week

Credit: 1.0

| Chapter/Unit | Topics | Contents | Objectives | Reference |
|--------------|----------------------------|--|---|-----------|
| | Natural Food Preservatives | <p>Natural Food Preservatives, Food is so important for the survival, so food preservation is one of the oldest technologies used by human beings to avoid its spoilage. Different ways and means have been found and improved for the purpose. Boiling, freezing, and refrigeration, pasteurizing, dehydrating, pickling are the traditional few. Sugar, mineral salt and salt are also often used as preservatives. Nuclear radiation is also being used now as food preservatives. Modified packaging techniques like vacuum packing and hypobaric packing also work as food preservatives. Food Preservation is basically done for three reasons:</p> <ul style="list-style-type: none"> -To preserve the natural characteristics of food. - To preserve the appearance of food. - To increase the shelf value of food for storage. <p>Sugar and salt are the earliest natural food preservatives that very efficiently drop the growth of bacteria in food. To preserve meat and fish. Salt is still used as a natural food preservative.</p> | <ul style="list-style-type: none"> • The students should be able to... <ul style="list-style-type: none"> ➤ know the most common methods of food preservation. <div style="text-align: center;">   </div> | |

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| | Cont. Natural Food Preservative | <p>Why freeze the food? Fresh food has a short shelf life. Unless food is preserved in some way it will spoil. Freezing fresh fruits and vegetables yields the highest quality, flavor, texture and nutritional value than any other food preservation method.</p> | <ul style="list-style-type: none"> • The students should be able to... <ul style="list-style-type: none"> ➤ to freeze food , Tips for freezing fruit’, blanching vegetables, etc. | |
| | Chemical Food Preservative | <p>Chemical Food Preservative = They seem to be the best and the most effective for longer shelf life and are generally full proof for the preservation purpose. Ex: Chemical food preservatives- Benzoates / benzoic acid- Nitrites (such as sodium nitrite)- Sulphites (such as Sulphur dioxide) - Sorbates (such as sodium sorbate)</p> | <ul style="list-style-type: none"> • The students should be able to... <ul style="list-style-type: none"> ➤ understand what chemicals they add to some preserved food are. ➤ be aware of chemicals at the back label of canned foods, bottled etc. | |
| | Harmful Preservatives | <p>Harmful Preservatives causes B6 deficiency, genetic effects and cancer, Bromates, caffeine, carrageenan, chlorines, coal tar AZO dyes, gallates, glutamates, mono glutamate, di glycerides, nitrates, saccharin, sodium erythrobate, sulphites and tannin.</p> | <ul style="list-style-type: none"> • The students should be able to... <ul style="list-style-type: none"> ➤ know that some preservatives are not very good to human health. ➤ avoid long term sickness by choosing the products without harmful preservatives. ➤ What are the causes of harmful preservatives to human body? | |
| | Improving Overall health | <p>Path to improved health:</p> <p>Keep track of your food intake by writing down what you eat and drink every day. This record will help you assess your diet. You’ll see if you need to eat more or less from certain food groups.</p> <p>Think about asking for help from a dietitian. They can help you follow a special diet, especially if you have a health issue.</p> <p>Almost everyone can benefit from cutting back on unhealthy fat. If you currently eat a lot of</p> | <ul style="list-style-type: none"> • The students should be able to... <ul style="list-style-type: none"> ➤ know good diets for every member of the family in order to avoid health problems that might lead them to poverty. ➤ know the ways to cut back on unhealthy fats. | |

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| | | <p>fat, commit to cutting back and changing your habits. Unhealthy fats include things such as: dark chicken meat; poultry skin; fatty cuts of pork, beef, and lamb; and high-fat dairy foods (whole milk, butter, cheeses).</p> | | |
| | <p>Ways to Cut back Un-healthy Fats</p> | <p>Ways to cut back on unhealthy fats include:</p> <p>Rather than frying meat, bake, grill, or broil it. Take off the skin before cooking chicken or turkey. Try eating fish at least once a week.</p> <p>Reduce any extra fat. This includes butter on bread, sour cream on baked potatoes, and salad dressings. Use low-fat or nonfat versions of these foods.</p> <p>Eat plenty of fruits and vegetables with your meals and as snacks.</p> <p>Read the nutrition labels on foods before you buy them. If you need help with the labels, ask your doctor or dietitian.</p> <p>When you eat out, be aware of hidden fats and larger portion sizes.</p> <p>Staying hydrated is important for good health. Drink zero- or low-calorie beverages, such as water or tea. Sweetened drinks add lots of sugar and calories to your diet. This includes fruit juice, soda, sports and energy drinks, sweetened or flavored milk, and sweetened iced tea.</p> | <ul style="list-style-type: none"> • The students should be able to... <ul style="list-style-type: none"> ➤ know the disadvantages of Saturated Fats in the body. | |