SAMSEN WITTAYALAI SCHOOL
ENGLISH PROGRAM

COURSE OUTLINE

Subject: Additional Basic Math (MA21211) **Course Classification**: ☐Foundation ☑Additional
Learning Period: 2 Periods/Week **Credit Unit**: 1.0
Grade Level: Mattayomsuksa 1 (Grade 7) **Semester** 1, **Academic Year** 2022
Learning Area: Mathematics **Samsenwittayalai School** English Program
Teacher: Mr. Bybrum Lemana

I. COURSE DESCRIPTION

The course is aimed at studying and practice skills and processes on calculation, reasoning, problem-solving about *applications of integers, polynomials, exponents, and applications of decimals and fractions*. This course deals mainly with the applications of topics learned in previous math topics and develop students' knowledge and skills through varied exposure to practical applications in real life situations.

By presenting the lessons using actual situations in real life where a given math topic is applied, students will realize the extent of the scope that math has in our lives. Varied examples from authentic situations will be discussed and explored for the students to grasp the value and practicality of learning mathematics. Experiences or situations will be set in the study with practice, exploration, experimentation, summarization, and report. Learning assessment and evaluation methods are diverse and authentic to correspond with the content and required skills.

For an in-depth appreciation of mathematics in real life situation, the course is designed to develop learners' skills in calculation, problem-solving, reasoning, mathematical communication, and application of experience on knowledge, thought, and obtained processes to learn things in daily life creatively. Furthermore, learners are trained to have appreciation with good attitude toward mathematics as well as ability to work systematically, orderly, carefully, responsibly, mindfully, and confidently. The course is intended to foster the development of the knowledge and skills students need to succeed in their subsequent mathematics courses, which will prepare them for the post-secondary destination of their choice.

II. INDICATORS / LEARNING OUTCOMES

1. Learner's reading, analytical thinking and writing skills meet the criteria prescribed by the educational institutions.

2. Learner's desirable characteristics meet the criteria by the educational institutions.

3. Use mathematical knowledge about the applications of integers to solve mathematical problems and real life problems.

4. Understand polynomials and perform operations with polynomials and use them to solve mathematical problems.

5. Understand and apply properties of powers with integral exponents to solve mathematical problems and real life problems.

6. Understand and apply knowledge about decimals and fractions to solve mathematical problems and real life problems.

III. TENTATIVE COURSE OUTLINE

Week	Leaning Unit	Topics	Periods
1-5	1. Applications of Integers		10
		1.1 Calculation	
		1.2 Decimal Number System	
		1.3 Binary Number System	
		1.4 Base Five Number System	
		1.5 Duodecimal Number System	
		1.6 Other Number Systems	
6-9	2. Polynomials		8
		2.1 Monomials	
		2.2 Addition/Subtraction of Monomials	
		2.3 Polynomials	
		2.4 Addition/Subtraction of Polynomials	
		2.5 Product of Polynomials	
		2.6 Quotient of Polynomials	

11-14	3. Exponents		10
		3.1 Meaning of Exponents	
		3.2 Properties of Exponents	
		3.3 Operations with Exponents	
		3.4 Scientific Notation	
15-19	4. Application of Decimals and Fractions		10
		4.1 Use of Grouping Symbols	
		4.2 Operations with Fractions	
		4.3 Proportional Reasoning	
		4.4 Other Applications	
10	Midterm Examination		2
20	Final Examination		2
	Total		42

IV. Teaching Methods and Management ☑

☐ Experiment ☑ Lecture/Discussion ☑ Group work
☑ Individual work ☐ Game ☐ Song
☑ Self-learning ☑ Demonstration ☐ Role play
☑ Project ☐ Experience ☑☐ ICT
☐Local Wisdom based ☐ Others

V. Teaching Materials/ Supplements

☑ Handouts ☑ Worksheets ☐ Teacher's text book
☑ Graphs/ Diagrams ☐ Maps ☐ Pictures
☑ Samples/ Models ☑ Exercises
☐Commercial Text Book ……..……
☐DVD/VCD……..
☑ Website classroom.google.com, meet.google.com, drive.google.com, docs.google.com, www.deltamath.com
☐ Others ……

VI. Assessment and Evaluation

Indicators/ Learning Outcomes Score from SGS	Formative 1		Midterm	Formative II						Final
	1	2		10	11	12	13	14	15	
Total Score	**15**		**15**	**10**	**10**	**15**	**5**			**30**
1. Learner's reading, analytical thinking and writing				10						
2. Learner's desirable characteristics					10					
3. Applications of Integers	10		5							5
4. Polynomials		5	10							5
5. Exponents						15				5
6. Applications of Decimals and Fractions							5			15

VII. Assignment

SGS #	Score (points)	Assignment	Deadline	Type		
				Test	Individual	Group
1	15	1. Submission of work on applications of Integers 2. Unit test on applications of integers	Week 5	✓	✓	
Midterm	15	Midterm Exam (Polynomials)	Week 10	✓		
10	10	Learners' reading, analytical thinking	Week 20			
11	10	Learners' desirable characteristics	Week 20			
12	15	1. Submission of work on exponents. 2. Unit test on exponents.	Week 14	✓	✓	
13	5	1. Submission of work on applications of decimals and fractions. 2. Unit test on applications of decimals and fractions.	Week 19	✓	✓	
Final	30	Final Exam	Week 20	✓		

Note: *Should there be changes, students will be informed in a timely manner.*