

Course Description

Subject: Mathematics 1 Code: MA 21101 Time: 80 Periods Credit: 2.0

Class: Secondary 1A-B Semester: 1 / 2014 Instructor: Hearlife Diana & Ms. Thatsana Treekitja

Study Unit (Content)	Standard	Indicators
1. Factors and Multiple 1.1 Definition of highest common factor (LOCAL) 1.2 Definition of lowest common multiple (LOCAL)	M 6.1	Capacity for problem-solving, reasoning, and communication; communication and presentation of mathematical concepts; linking various bodies of mathematical knowledge and linking mathematics with other disciplines; and attaining ability for creative thinking m. 2/1 Apply diverse methods for problem-solving. m. 2/4 Accurately and succinctly use mathematical language and symbols for communication, communication of concepts and presentation. M. 1/1 Apply knowledge and properties of integers for problem-solving.
 2. Integers 2.1 Positive integers, negative integers, and the integer zero (ASEAN) 2.2 Addition of integers (LOCAL) 2.3 Subtraction of integers (LOCAL) 2.4 Multiplication of integers (LOCAL) 2.5 Division of integers (LOCAL) 2.6 Properties of integers (ASEAN) 	M 1.1	m1/1 Specify or give examples and compare added integral number, subtracted integral numbers, 0, fractions and decimals. m1/1 Add, subtracts, multiply and divide integral numbers for the purpose of problem-solving and be aware of validity of the answers.

Study Unit (Content)	Standard	Indicators
3. Base and Number Systems 3.1 System of Roman numerals (ASEAN) 3.2 System of Base numbers (ASEAN) 3.3 Changing Base numbers to other Base numbers (ASEAN)	M 1.4	m 1/1 Apply knowledge and properties of integers for problemsolving.
4. Exponential Powers 4. 1 Mean of exponential powers (ASEAN) 4.2 Operation of exponential powers (ASEAN) 4.3 Solve problem by using exponential powers (ASEAN)	M 1.2	m 1/2 Have concept of real numbers expressed in exponential notation with integer indices and write numbers in scientific notation. m 1/3 Explain results of expression in exponential notation of integral numbers, ratios and decimals. m 1/4 Multiply and divide real numbers in the form of exponents with the same bases and integer indices.
5. Basic Geometry 5.1 Points, straight lines, line segments, rays and angles. (ASEAN) 5.2 Construction of basic geometrical figures (ASEAN) 5.3 Bisection a line segment (ASEAN) 5.4 Construction of angles (ASEAN) 5.5 Construction and drawing triangles, quadrilaterals and parallelograms (ASEAN)	M 3.1	m 1/1 Construct and explain steps of basic geometric construction m 1/2 Construct two-dimensional geometric figures by using geometric construction, and explain steps of construction without emphasizing proof.

Measurement and Evaluation

Total 100 marks (Assessment 60 marks: Midterm test / Final test 40 marks)

Measurement and Evaluation	Evaluation Method	Assessment tool	Marks	Standard / Indicators
1. Pre-midterm	Oral participation, Homework, Exercises, Quizzes, Unit Test, Project	Teacher Review, Notebook, Testpaper, Project (presentation)	25	M 1.4 m1/1 M1.1 m1/1 M1.2 m1/1
2. Midterm test	Midterm Examination	Test Paper	20	M 1.1 m1/1
3. Post-midterm	Oral participation, Homework, Exercises, Quizzes, Unit Test, Project	Teacher Review, Notebook, Testpaper, Project (presentation)	25	M1.2 m1/2 M1.2 m1/3 M1.2 m1/4
4. Final test	Test	Examination	20	M1.2 m2/4

Measurement and Evaluation	Evaluation Method	Assessment tool	Marks	Standard / Indicators
5. Desirable Characteristics	1. Observe	1. Observation	10	1.Love of nation, religion and king 2. Honesty and integrity 3. Self-discipline 4. Avidity of learning 5. Being Economy philosophy sufficiency 6. Responsibility and commitment to work 7. Cherishing thai-ness 8. Public-mindedness 9. Awareness of drugs and vice 10. Assertive leadership
6. Competencies	- Solving Word Problems	- Worksheets	1	Understand the concept of the word problem read. Utilize mathematics in a practical way by finding
7. Analytical reading and writing	- Solving Word Problems	- Worksheets	-	Understand the concept of the word problem read. Utilize mathematics in a practical way by finding solution to real world problems.