Course Description

Subject: **Practical Mathematics 3**   Code: **MA 22202**   **Time:** 40 Periods **Credit:** 1.0

Class: Secondary 2A-B   **Semester:** 1 / 201   **Instructors:** Ms. Marites Magsipoc & Ms. Thatsana Treekitja

Study Unit（Content）	Expected outcomes
1. **Exponential powers**	Students should be able to
1.1 Exponential rules	1. Multiplication and division of exponential powers as same base and exponent is integer number.
1.2 Index notation (scientific notation)	2. Write numbers in scientific notation, $a \times 10^{n}$ when $1 \leq a < 10$ and $'n'$ is an integer. Solve and simplify problems with number in scientific notation.
2. **Polynomials and fraction of** **polynomials**	
2.1 Revision of polynomials	3. Realize reasoning of the answer from calculation and solving.
2.2 Addition, subtraction of polynomials	4. Add, Subtract polynomials.
2.3 Multiplication of polynomials	5. Multiply polynomials.
2.4 Division of polynomials	6. Divide polynomials.

Measurement and Evaluation

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

Measurement and Evaluation	Evaluation Methods	Assessment tool	Points	Expected outcomes
1. Pre - Midterm	1. Test 2. Project	1. Worksheets 2. Project Making Criteria	15 10	1
2, Midterm Test	- Video Presentation - Oral Test	-Teamwork Criteria Assessment - Interview	15 5	1, 2
3. Post - Midterm	1. Test 2. Project	1. Worksheets 2. Project Making Criteria	15 10	3, 4
4. Final Test	Tests	Examination	20	3, 4, 5, 6
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

Measurement and Evaluation	Evaluation Methods	Assessment tool	Points	Expected outcomes
6. Competencies	- Test - Recitation - Presentation	- Examination - Worksheets - Rubrics	-	1. Communication Capacity. 2. Thinking Capacity 3. Problem Solving Capacity 4. Capacity for technology Application 5. Capacity for Applying Life Skills
7. Analytical reading and writing	- Solving Word Problems	- Worksheets	-	1. Understand the concept of the word problem read. 2. Utilize mathematics in a practical way by finding solution to real world problems.

Teamwork Criteria Assessment

Evaluation Criteria: 1 - never

2 - sometimes

3 - always

	Student	Willingness to work with other	Engage in a constructive comment.	Cooperate and help others in their work.	The ability to communicate with fellow students / teachers appropriately.	Express constructive criticism	Total15	Average
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								