Course Outline

Department : Bilingual   **Name of Subject : Mathematics in English**   **Code : M32206**

Teacher's name: Mr. Kim Lester W. Galvan

Level ;

☐ Primary ____   ☑Secondary _M6___   **1st - 2nd Semester / 2014**

Subject :

☐ Main Subject   ☑Optional Subject   ☐ Development Activities for Students   ☐ Others

I. COURSE DESCRIPTION:

My world of Math for Matheyom Level 6 is divided into 2 Chapters which are: Chapter 1- Statistics and Data; and Chapter 2- Data Analysis. The Chapter 1 of the textbook covers the following sub-topics such as: a) definition of statistics; b) examples of cases and problems in statistics; c) descriptive statistics; d) inferential statistics; e) 4 components of statistics; f) decision making and planning in statistics; g) classification of data by means of collecting data; and h) classification of data by the kind of data. Chapter 2 covers: a) frequency distribution table; b) ungrouped frequency distribution table; c) grouped frequency distribution table; d) cumulative grouped frequency distribution table; e) relative frequency; f) relative cumulative frequency; h) graphical presentation of data; i) histogram; and j) a stem-and-leaf plot. This 6th course designed by the Congregation of Montfort Brothers of Saint Gabriel also known as Saint Gabriel's Foundation for Secondary Mathematics aims to: a) build up adeptness in Mathematical Skills; b) be more familiar with concepts and principles in Higher Mathematics; c) develop Higher-order Thinking Skills; and d) promote effective, self-developed and productive citizenry.

A variety of strategies are availed of in order to boost or strengthen the possibility of achieving the given goals:

1. Charts, figures, graphs and diagrams are provided for easy understanding of concepts and visualization of the ideas presented.

2. Illustrative examples are provided for easier grasp of principles studied.

3. Exercises are prepared for skill-building and for checking student's progress.

4. National test- Thailand O- Net 2005-2009 questions are prepared for assessment of students' progress and

evaluation.

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II. GRADE- LEVEL INDICATORS

- Understand simple methodology for opinion polling; can choose central tendency suitable to data and objectives; can find arithmetic mean, median, mode, standard deviation and percentile of data; can analyse data and apply results of data analysis for facilitating decision-making.

- Understand concepts of random sampling and probability; can apply knowledge of probability for projection and for decision-making in various situations.

- Can apply diverse methods for problem-solving; can avail of mathematical and technological knowledge, skills and processes for appropriately solving problems faced in various situations;

- can suitably provide reasoning for decision-making and appropriately present the conclusions reached;

- can use mathematical language and symbols for communication; can communicate and present mathematical concepts accurately and clearly; can link various bodies of mathematical knowledge, principles, and processes with other disciplines; and have attained ability for creative thinking.

III. LEARNING OBJECTIVES
1) Learning Objectives (1st Semester)

Indicators of Semester	In accordance with government curriculum
1. Theorize statistics;	YES

2. Create a list of problems that often need decisions where statistics is essential;	YES
3. Enumerate the factors that greatly affects the correctness of the decision to every problem;	YES
4. Theorize what data is;	YES
5. Compare and contrast quantitative data from qualitative data;	YES
6. Follow the methods of collecting data;	YES
7. Determine the problems concerning the use of data;	YES
8. sum up a data by using frequency distribution;	YES
9. perform problem solving of frequency distribution table; and	YES
10. present a data using a graph.	YES

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V. SUBJECT CONTENTS

1ˢᵗ SEMESTER

Time Duration	Subject Contents
Beginning of the session-Midterm	a) definition of statistics; b) examples of cases and problems in statistics; c) descriptive statistics; d) inferential statistics;

Post Midterm – Final	e) 4 components of statistics; f) decision making and planning in statistics; g) classification of data by means of collecting data; h)classification of data by the kind of data.

EVALUATION

1. **Average marks for evaluation**.

   Authentic Assessment: Written/Practical Exam   =   <u>6**0: 40**</u>

2. **Evaluation of Learning Objectives**

Semester	Learning Objectives (Items)
1	Items 1-9

Authentic Assessment

***Pre-test marks**: <u>**30**</u>

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
1	Class response and participation	10
2	Assignment/ Home work	10
4	Seatwork	10

Written Exam

***Midterm marks**: <u>**20**</u>

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
5	Multiple Choice	10
9	Problem Solving	20

Authentic Assessment

***Post-Test marks: <u>**30**</u>

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
5	Class Participation	10
8	Seatwork, Calculations	20

Written Exam

***Final marks: <u>**20**</u>

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
5	Multiple Choices	10
8	Calculation, Problem Solving	20

VII. SUBJECT CONTENTS

2nd SEMESTER

Time Duration	Subject Contents
Beginning of the session-Final	a) frequency distribution table; b) ungrouped frequency distribution table; c) grouped frequency distribution table; d) cumulative grouped frequency distribution table;
Post Test – Final	d) relative frequency; e) relative cumulative frequency; h) graphical presentation of data; i) histogram;

EVALUATION

1. **Average marks for evaluation**.

   Authentic Assessment: Written/Practical Exam   =   **60: 40**

2. **Evaluation of Learning Objectives**

Semester	Learning Objectives (Items)
2	Items 6-10

Authentic Assessment

***Pre-test marks**: <u>30</u>

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
6	Class response and participation	15
7	Seatwork	15

Written Exam

***Midterm marks**: <u>20</u>

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
8	Multiple Choice	10
9	Problem Solving	10

Authentic Assessment

***Post-Test marks**: <u>30</u>

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
7	Homework, Quiz	10
8	Class Participation	10
9	Seatwork, Calculations	10

Written Exam

***Final marks**: <u>20</u>

Learning Objectives (Items)	Criteria Followed for Assessment	Maximum marks
9	Multiple Choices	10
10	Calculation, Problem Solving	10

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Reference Books /Worksheets/Other Teaching Aids Used:

- Bernabe, J.G (et.al.)(2003). Advance Algebra, Trigonometry and Statistics. 1281 Gregorio Araneta Avenue, Quezon City, Philippines: JTW Corporation.
- St. Gabriel Foundation (2013). My world of Math-Secondary 5. 160 Anna Salai, Chennai Bangkok, Thailand: Orient Blackswan Private Limited.