SHORT COURSE DETAILS
DIP1MAT01 Basic Business Mathematics 1

1. **Name of Series**
   Diploma programme for Business

2. **Name of Course**
   Basic Business Mathematics 1

3. **Synopsis of Course (60-word limit)**

   This course encompasses the central mathematical concepts required for successful future application in social and business studies. As such, this course includes an introduction to elements of finite mathematics such as linear functions, inequalities, matrices, sets, and combinatorics, coupled with basic arithmetic applications in business such as payroll computation, markups, and trade discounts. The course has been developed to provide students with the ability to analyze business-related models using basic mathematical concepts and apply appropriate mathematical techniques to solving business-related problems.

4. **For Whom?**

   - Students who are waiting for their SPM results.
   - Students from other institutions
   - Part time Diploma students

5. **Course Outcomes (100-word limit)**

   By the end of the course, students will be able to:
   a. Explain, identify, and interpret the fundamental concepts of linear equations, linear inequalities, linear programming, set theory, basic counting techniques, matrices, systems of linear equations, and mathematics of finance to analyse and solve business-related problems.
   b. Solve issues and problems related to business application models.
   c. Apply mathematical situation in task to solve business-related problems.

6. **Delivery Mode**

   Online Lecture, Online Workshop with discussions, real-life cases, role playing and tutorials. Online assessment.

7. **Duration of Course**

   4 weeks' course
   2 - 3 hours per week.
   Cumulative learning 4 credit hrs for the total course

8. Level of Course & Microcredential Credit Value, if any

Diploma/4 credit hours per subject

9. Course Outline

a. Functions
b. Linear Inequalities
c. Linear Programming
d. Matrix Algebra
e. Systems of Linear Equations - Adjoint Method & Cramer's Rule
f. Systems of Linear Equations - Gauss Jordan Elimination Method
g. Set Theory
h. Counting Techniques
i. Payroll and Commissions
j. Markup
k. Discount

10. Short Bio of Trainer/s (50-word limit)

Lecturer: **Dr Ernest Lim Kok Seng**
BA Hons (Maths) (Western Michigan), MSc (UPM), PhD Maths (USM)

Dr. Ernest Lim is a Senior Lecturer at Faculty of Business, Economics & Accounting, HELP University. He has been teaching at various universities for more than 25 years and supervising students in their dissertation writings. His teaching includes Quantitative Methods, Business Mathematics, Business Statistics and Research Methodologies. Besides teaching, he also presented papers at international conferences and has been publishing his studies in international journals. His areas of interest focus mainly on Business Mathematics & Statistics and Pedagogy (Teaching & Learning).