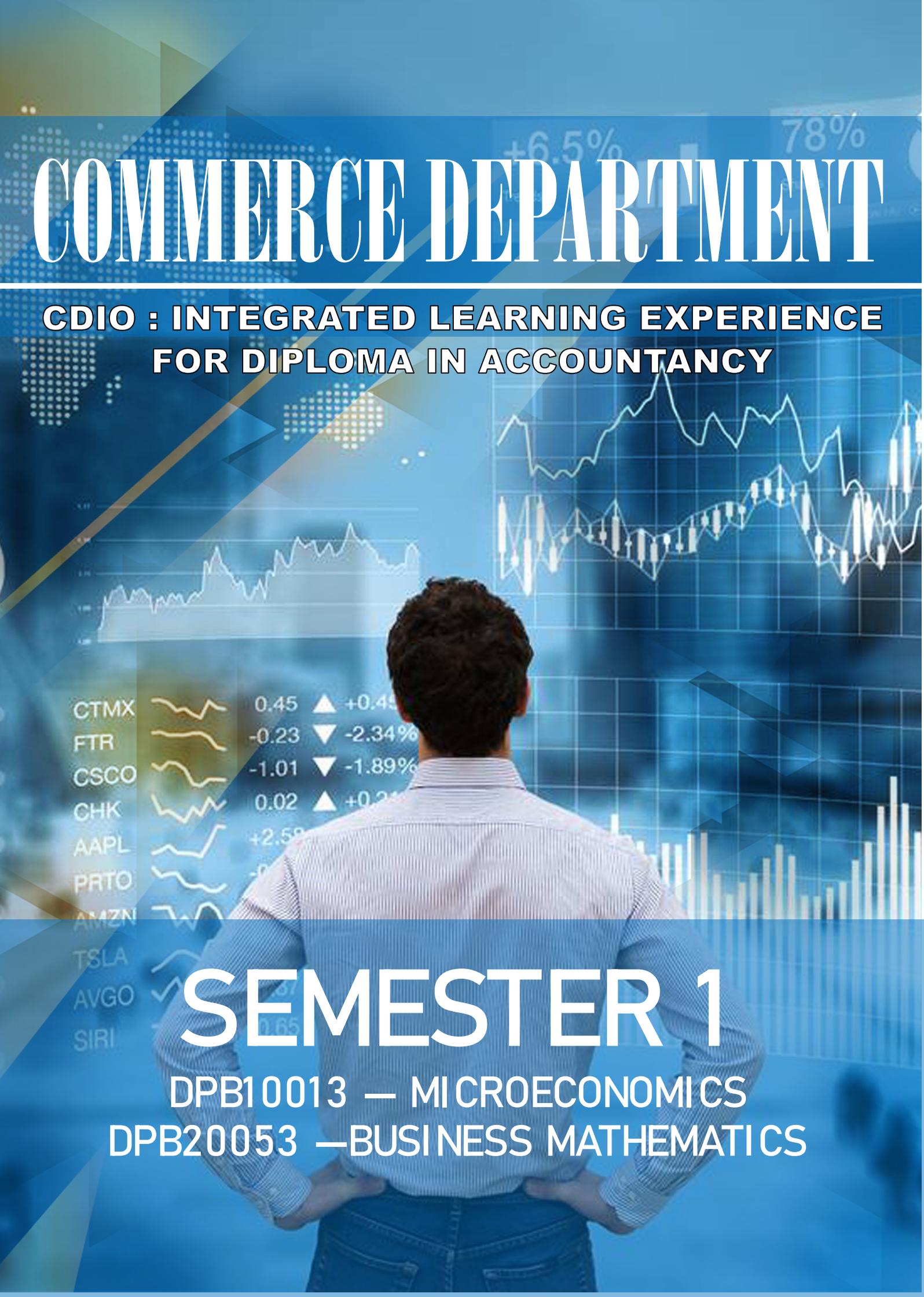


# COMMERCE DEPARTMENT

**CDIO : INTEGRATED LEARNING EXPERIENCE  
FOR DIPLOMA IN ACCOUNTANCY**



The background features a person from behind, looking at a digital display of financial data. The display includes several line graphs and a table of stock prices. The overall theme is finance and commerce.

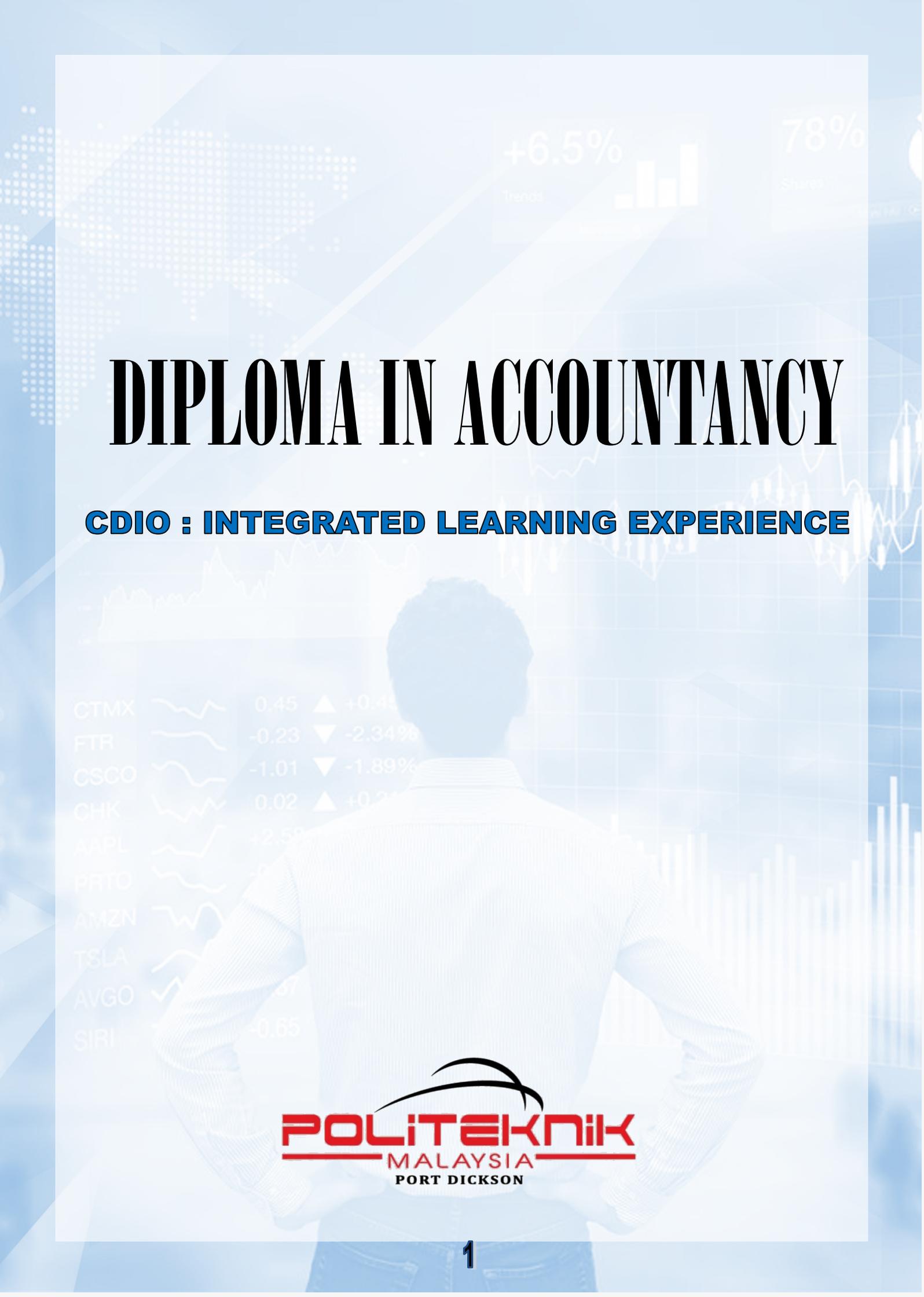
CTMX	0.45	▲	+0.45
FTR	-0.23	▼	-2.34%
CSCO	-1.01	▼	-1.89%
CHK	0.02	▲	+0.21
AAPL	+2.58		
PRTG	-0.12		
AMZN	-0.15		
TSLA	0.37		
AVGO	0.65		
SIRI			

## SEMESTER 1

**DPB10013 — MICROECONOMICS  
DPB20053 — BUSINESS MATHEMATICS**

# DIPLOMA IN ACCOUNTANCY

**CDIO : INTEGRATED LEARNING EXPERIENCE**



CTMX	0.45	▲	+0.45
FTR	-0.23	▼	-2.34%
CSCO	-1.01	▼	-1.89%
CHK	0.02	▲	+0.21%
AAPL	+2.59	▲	+2.59%
PRTG	-0.12	▼	-1.20%
AMZN	0.15	▲	+1.50%
TSLA	0.10	▲	+1.00%
AVGO	0.67	▲	+6.70%
SIRI	-0.65	▼	-6.50%

**POLITEKNIK**  
MALAYSIA  
PORT DICKSON

# ACKNOWLEDGEMENT

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**GRAPHIC DESIGNER**  
**Muhammad Lutfi Bin Othman**

+6.5%

Trends



78%

Shares

CTMX	0.45	▲	+0.45%
FTR	-0.23	▼	-2.34%
CSCO	-1.01	▼	-1.89%
CHK	0.02	▲	+0.21%
AAPL	+2.59	▲	+2.59%
PRTG	-0.10	▼	-0.10%
AMZN	-0.10	▼	-0.10%
TSLA	-0.10	▼	-0.10%
AVGO	-0.10	▼	-0.10%
SIRI	-0.65	▼	-0.65%

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**August 2021**

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# FOREWORD

First and foremost, we bow before Allah in deep gratefulness that His limitless wisdom and mercy granted us enough strength to complete this book. We express thanks from the bottom of our heart to the Holy Prophet Muhammad (May Allah blesses and peace be upon him) forever a torch of guidance and knowledge for humanity as a whole.

In an effort to embrace and cultivate the practise of integrated learning, this book serves as a manual and guideline for lecturers to carry out the teaching process effectively. It focuses on two courses namely **DPB10013 Microeconomics** and **DPB20053 Business Mathematics**. This book is designed to facilitate and foster meaningful and effective learning where students are expected to demonstrate a sound understanding of the nature and application of the courses offered by the Diploma in Accountancy programme. There is also a suggested rubric and marking scheme to give an idea on how to evaluate the assessments. Apart from providing lecturers with guidelines to carry out integrated learning, this book also seeks to inject motivation to them to cultivate one of the good practices in teaching and learning.

It is hoped that this book will benefit various parties, especially the lecturers and students who have the interest in pursuing integrated learning.

# SEMESTER 1

## COMMERCE DEPARTMENT

### INTEGRATED LEARNING EXPERIENCE

### DIPLOMA IN ACCOUNTANCY

#### PROJECT DESCRIPTION

This project integrates two courses namely DPB10013 Microeconomics and DPB20053 Business Mathematics. They are both offered in Semester 1 of Diploma in Accountancy programme. The project is realized by presenting a number of case study to groups of students. Generally, the case study developed relates to the automotive industry as well as the retailing sector. Students are required to suggest the best solution to the case study given. The outcome of the project will not only enhance the student's understanding of both courses; it also helps students to make connections with the real world situation.

#### 1. Skills Development

- Calculate accurately the business mathematical concepts and formulation in solving management problem issue.
- Discuss clearly the impact of economic changes towards market equilibrium, demand and supply.
- Teamwork skills – discussion and brainstorming to do group project task.

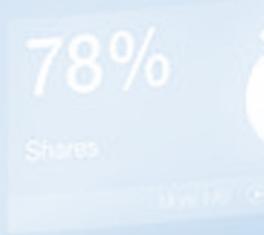
#### 2. Project

- Group task

#### 3. Assessment Methodology

- Rubrics

# COURSES



COURSES	TOPICS	ASSESSMENTS
<b>DPB10013 MICRO- ECONOMICS</b>	<b>Topic 2 &amp; 3</b>  This topic introduces the concepts and formulations of demand and supply theory, the law of demand and supply, factors influencing demand and supply, draw the demand and supply curve. It also covers comparison between movement along the demand/supply curve and shift in the demand/supply curve. Market equilibrium for demand and supply.	Problem Scenario (10%)
<b>DPB20053 BUSINESS MATHEMATICS</b>	<b>Topic 4.</b>  This topic introduces the concepts and formulations of simple interest, promissory notes, rebate and early payments on financial and practise in Malaysia.	End of Chapter (10%)

# DESIGN OF INTEGRATED LEARNING EXPERIENCE - PROJECT

78%

Shares

Project LOs	Courses	Related CLOs	Assessments	Implementation
<p>At the end of the project, students will be able to:</p> <p>1. Develop answers for questions given.</p> <p>2. Submit group task answers in format given.</p>	DPB10013 MICRO-ECONOMICS	<p>CLO3</p> <p>Discuss clearly the impact of economic changes towards market equilibrium.</p>	Problem Scenario (10%)	Week 4
	DPB20053 BUSINESS MATHEMATICS	<p>CLO3</p> <p>Calculate accurately the business mathematical concepts and formulation in solving management problem issue.</p>	End of Chapter (10%)	Week 10

# DESIGN OF INTEGRATED LEARNING EXPERIENCE – PROJECT

## ACTIVITIES/PROGRAMS

- GROUP DISCUSSION
- WEB SEARCH INFORMATION

**DPB10013**

**MICROECONOMICS**

(PROBLEM SCENARIO- 10%)



**DPB20053**

**BUSINESS  
MATHEMATICS**

(END OF CHAPTER- 10%)

# COURSES MAPPING

COURSE /	DPB10013	DPB20053
W1	Intro and Brief Project	
W2	INTEGRATED PROJECT	
W3	Group Discussion: Project Planning	
W4	Project: Task 1	
W5	Design Process	Project: Task 2
W6	Project: Task 2	
W7		Project: Task 3
W8		
W9		
	MID TERM BREAK	
W10	Design Report	Report
W11	Report	
W12	Preparation for Final Submission	
W13	PROJECT SUBMISSION	
W14	PROJECT EVALUATION	

# COURSE OUTLINE



The background features a person in a white shirt looking at a digital display of financial data. The display includes a world map, a line graph, a candlestick chart, and a table of stock prices. The overall theme is financial and business.

CTMX	0.45	▲	+0.45
FTR	-0.23	▼	-2.34%
CSCO	-1.01	▼	-1.89%
CHK	0.02	▲	+0.24%
AAPL	+2.59		
PRTG	-0.01		

## SEMESTER 1

**DPB10013 — MICROECONOMICS**

**DPB20053 — BUSINESS MATHEMATICS**

**COMMERCE DEPARTMENT**  
**COURSE OUTLINE**  
**DECEMBER 2020 SESSION**

1.	NAME OF COURSE	MICROECONOMICS														
	COURSE CODE	DPB10013														
2.	SYNOPSIS	MICROECONOMICS provides information on concepts and basic principles related to microeconomics problems. The course emphasizes the demand and supply theory, elasticity and production as well as market equilibrium. It also provides information on how to determine the efficiency of a market, and how to evaluate the costs and benefits of government intervention in a market.														
3.	CREDIT VALUE	3														
4.	PREREQUISITE/ CO-REQUISITE (IF ANY)	NONE														
5.	COURSE LEARNING OUTCOMES (CLO): Upon completion of this course, students should be able to:															
	CLO1	Explain basic theory and concepts of microeconomics . (C2, PLO1)														
	CLO2	Apply the knowledge of microeconomics theories to solve the business problems. (C3, PLO5)														
	CLO3	Discuss clearly the impact of economic changes towards market equilibrium. (A2, PLO7)														
	PROGRAMME LEARNING OUTCOMES (PLO): PLO 1 : Discuss knowledge of accounting and related field in an organization.  PLO 5 : Apply various types of digital application ethically and propose data driven solutions.  PLO 7: Demonstrate a commitment to continue in professional development and possess entrepreneurial skills.															
6.	ASSESSMENT METHOD: The course assessment consists of:															
	<ul style="list-style-type: none"> <li>i. Continuous Assessment (CA) –50%</li> <li>ii. Final Examination (FE) – 50%</li> </ul> <table border="1"> <thead> <tr> <th>Assessment</th> <th>Quantity</th> <th>Percentage (%)</th> </tr> </thead> <tbody> <tr> <td>Quiz</td> <td>2</td> <td>10%</td> </tr> <tr> <td>Test</td> <td>1</td> <td>10%</td> </tr> <tr> <td>End Of Chapter</td> <td>2</td> <td>20%</td> </tr> <tr> <td>Problem Scenario</td> <td>1</td> <td>10%</td> </tr> </tbody> </table>		Assessment	Quantity	Percentage (%)	Quiz	2	10%	Test	1	10%	End Of Chapter	2	20%	Problem Scenario	1
Assessment	Quantity	Percentage (%)														
Quiz	2	10%														
Test	1	10%														
End Of Chapter	2	20%														
Problem Scenario	1	10%														

7. TEACHING SCHEDULE:					
Topic No.	Topic/Content	Recommended Contact Hours	Assessment Method	Week	
1.0	INTRODUCTION TO MICROECONOMICS Elaborate microeconomic in general, economics problems, and world economy system.	3 hours Lecture 1 hour Tutorial	Quiz	W1	
2.0	THE DEMAND AND SUPPLY THEORY Demonstrate the demand and supply theory	6 hours Lecture 2 hour Tutorial	End of Chapter	W2 - W3	
3.0	MARKET EQUILIBRIUM Demonstrate the market equilibrium process and the government intervention in the market.	3 hours Lecture 1 hour Tutorial	Problem Scenario	W4	
4.0	PRICE ELASTICITY OF DEMAND AND SUPPLY Demonstrate price elasticity of demand theory, income elasticity of demand, cross price elasticity of demand, and the price elasticity of supply.	8 hours Lecture 4 hours Tutorial	End of Chapter	W5 - W7	
5.0	PRODUCTION THEORY Apply production theory in microeconomics	3 hours Lecture 1 hour Tutorial	Test	W8	
6.0	PRODUCTION COST Demonstrate the short run and long run production cost in microeconomics	9 hours Lecture 1 hour Tutorial	Test	W9 - W11	
7.0	DETERMINANT OF OUTPUT LEVEL AND MARKET PRICE STRUCTURE Demonstrate perfect competition market structure, the monopoly market structure, the monopolistic competition market structure, and the oligopoly market.	8 hours Lecture 4 hours Tutorial	Quiz	W12-W14	

8. REFERENCES

Main reference:

Sarimah Aman Shah et al. (2017) Principles of Economics 3<sup>rd</sup> Edition Oxford: Fajar Bakti Sdn Bhd

Additional references:

Deviga V. & Karunagaran M. (2013). Principles of Economics 3<sup>rd</sup> Edition Oxford: Fajar Bakti Sdn Bhd.

Zubair Hasan et al (2014), Economics for Islam Orientation. Shah Alam : Oxford Fajar Sdn. Bhd.

Prepared by:



**SITI AISHAH BINTI MOHD YAMAN**  
Pensyarah  
Jabatan Perdagangan  
Politeknik Port Dickson

( SITI AISHAH BINTI MOHD YAMAN )

**Course Coordinator**

Date : 05.03.2021

Verified by :



**NURULYASMIN JU AHMAD**  
KETUA PROGRAM AKAUNTANSI  
JABATAN PERDAGANGAN  
POLITEKNIK PORT DICKSON

( KJ/KPro/KK Name & Signature )

Date : 05.03.2021

# NOTES OF GUIDANCE



## SEMESTER 1

**DPB10013 — MICROECONOMICS**

**DPB20053 — BUSINESS MATHEMATICS**

# DIPLoma IN ACCOUNTANCY

## PROJECT BRIEFING

### INTRODUCTION

Diploma in Accountancy program for Semester 1 platform has used automotive, property, bakery & laundry products as its CDIO project industry. The automotive company used were from Proton Holdings Berhad and The Perusahaan Otomobil Kedua Sendirian Berhad (Perodua). Both are Malaysia national cars producers.

### DISTRIBUTION OF WORK

Students are divided into three (3) members per group. Each group will be given a problem scenario by the course lecturers.

### METHODS OF SOLUTION:

There are 2 tasks to be done. Students must complete these tasks. Guidelines for each of the tasks are given. Methods used to solve the problem were based on notes of guidance. Topic related to the questions is Demand and Supply Theory.

### APPENDIX

Students are required to attach the pamphlets related to the topic assigned.

# DIPLOMA IN ACCOUNTANCY

## INTEGRATED PROJECT

### TASK 1: SITE VISITS

There are four types of industries for CDIO project: automotive, property, bakery & laundry products. Students are required to do site visits related to the types of problem assigned to them.

The students are required to find pamphlets related to the product assigned to them. Find information for the product such as price, features, unique criteria, etc.

**Note:** Due to the Covid 19 pandemic, students were allowed to find information via websites, email companies' representatives, made phone call, etc.

CTMX			
FTR	-0.23	▼	-2.34%
CSCO	-1.01	▼	-1.89%
CHK	0.02	▲	+0.21%
AAPL	+2.59	▲	+4.81%
PRTG	-0.01	▼	-0.12%
AMZN	-0.01	▼	-0.12%
TSLA	-0.01	▼	-0.12%
AVGO	0.01	▲	+0.12%
SIRI	-0.65	▼	-11.52%

# DIPLoma IN ACCOUNTANCY

## INTEGRATED PROJECT

### TASK 2: REPORT

Students are required to prepare a report for their tasks. Format for the report are as follows:

#### i. INTRODUCTION

- a) State the title of your problem
- b) State the cash price of the item according to your problem.

#### ii. METHODS OF YOUR SOLUTION

2 questions/problems are given to students to find the solution. The questions are based on the type of products assigned to students

#### iii. APPENDIX

Attach pamphlet related to the task given

#### iv. COVER FOR REPORT

Format for report cover is given. Students are required to use this cover format.

**CHAPTER - DEMAND & SUPPLY**

**DPB10013 – MICROECONOMICS (CLO3, PLO7)**

**PROBLEM SCENARIO**

**INSTRUCTION:**

Students are divided into three (3) members per group. Each group will be given a problem scenario, as instructed by the course lecturers.

**Task 1**

**Problem 1:** You are required to find a pamphlet showing the cash price of **Proton X70**

**Problem 2:** You are required to survey a **terrace house**. Find a pamphlet showing the price of the house.

**Problem 3:** Find an advertisement showing the cash price of **Bakery Business products**.

**Problem 4:** You are required to find a pamphlet showing the cash price of **Perodua Aruz**

**Problem 5:** You are required to survey a **Semi Detached house**. Find a pamphlet showing the price of the house

**Problem 6:** You are required to find a pamphlet showing the cash price of **Laundry Business services**

**Problem 7:** You are required to survey a **double story house**. Find a pamphlet showing the price of the house.

**Task 2**

Prepare a report consist the following format:

**I. INTRODUCTION**

- a) State the title of your problem.
- b) State the cash price of the item according to your problem.

## II. METHODS OF YOUR SOLUTION

1. Suppose that competitor price of the item according to your problem is increases by 10%. Examine what would happen to demand, an equilibrium price, and quantity in the market for the product in your problem. Explain and include the factor of demand, and draft graph to illustrates your answer

(7 marks)

2. Suppose that a company invents a better technology to produce the product according to your problem. Examine what would happen to supply, an equilibrium price, and quantity in the market for the product in your problem. Explain and include the factor of supply, and draft graph to illustrates your answer

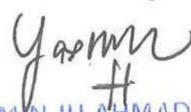
(7 marks)

## III. APPENDIX

Attach pamphlet related to your problem

(2 marks)

Approved

  
NURULYASMIN JU AHMAD  
KETUA PROGRAM AKAUNTANSI  
JABATAN PERDAGANGAN  
POLITEKNIK PORT DICKSON

# PHAMPLET EXAMPLE

## i. Proton X70

### Dimensions



Honda  
CR-V 1.5 TC-P



Proton  
X70 Premium X



Mazda  
CX-5 2.5 High

Price (RM)	175,900	122,800	167,660
Length (mm)	4,584	4,519	4,550
Width (mm)	1,855	1,831	1,840
Height (mm)	1,679	1,694	1,680
Wheelbase (mm)	2,660	2,670	2,700
Weight (kg)	1,549	1,675	1,592
Power (PS)	193	184	195
Power-to-weight (PS per tonne)	124.5	109.8	122.5

# PHAMPLET EXAMPLE

## ii. Terrace House

**SCIENTEX**  
KUNDANG JAYA

**Iris**

**2<sup>nd</sup> Phase** Open for Registration  
第二期公开登记

2 STOREY TERRACE HOUSE 双层排楼 | FREEHOLD 永久地契

**HOC**  
2020-2021  
HOME OWNERS CAMPAIGN  
Is Back!

0\* Legal Fee  
on SPA & Loan Agreement  
免律师费

0\* MOT Stamp Duty  
地契转让印花税

Price from 价格从  
**RM 380K** 起

# PHAMPLET EXAMPLE

## iii. Bakery Business

**KING'S CONFECTIONERY** **OPENING special**

UP TO **40% OFF**

**KIP MALL KOTA WARISAN (SEPANG) Lot G70**

**Golden Cheese Cake + Three Cup Cake 3pcs** RM10.00

**Pizza Hawaii** RM5.30

**Half Baked Cheese Tart 2 for** RM7.00

**Doughnut** RM2.88

**Sausage Roll** RM1.92

**Black Forest** S- RM34.80 L- RM47.40

**Sausage Double Roll** RM2.10

**Portuguese Egg Tart 4 for** RM12.00

**KING'S CONFECTIONERY SDN BHD**

## iv. Laundry Business

**Now Open**

**Divine Touch Laundry & Cleaning Services**

- DRY CLEANING & IRONING
- LAUNDRY SERVICES
- HOUSE CLEANING
- FUMIGATION
- PICK-UP & DELIVERY
- HOME SERVICES
- GENERAL CLEANING

Head Office: 8, Faisol Street, Olu - Old off Sholiba, Igbogbo Ikanda Lagos.  
Branch Office: 25, Agunloye Road, Road 4 before Bridge, Agunloye, Igbogbo Ikanda Lagos.  
Email: divinetouchlaundry1@gmail.com

**Tel: 09058789050, 07065974073**

**COVER FOR MICROECONOMICS ANSWER**



**PORT DICKSON POLYTECHNIC  
COMMERCE DEPARTMENT**

**COURSE: DPB10013 – MICROECONOMICS  
CHAPTER – DEMAND & SUPPLY  
PROBLEM SCENARIO**

**TITLE:**

**PROBLEM \_\_\_\_\_**

**“.....”**

**PREPARED BY:**

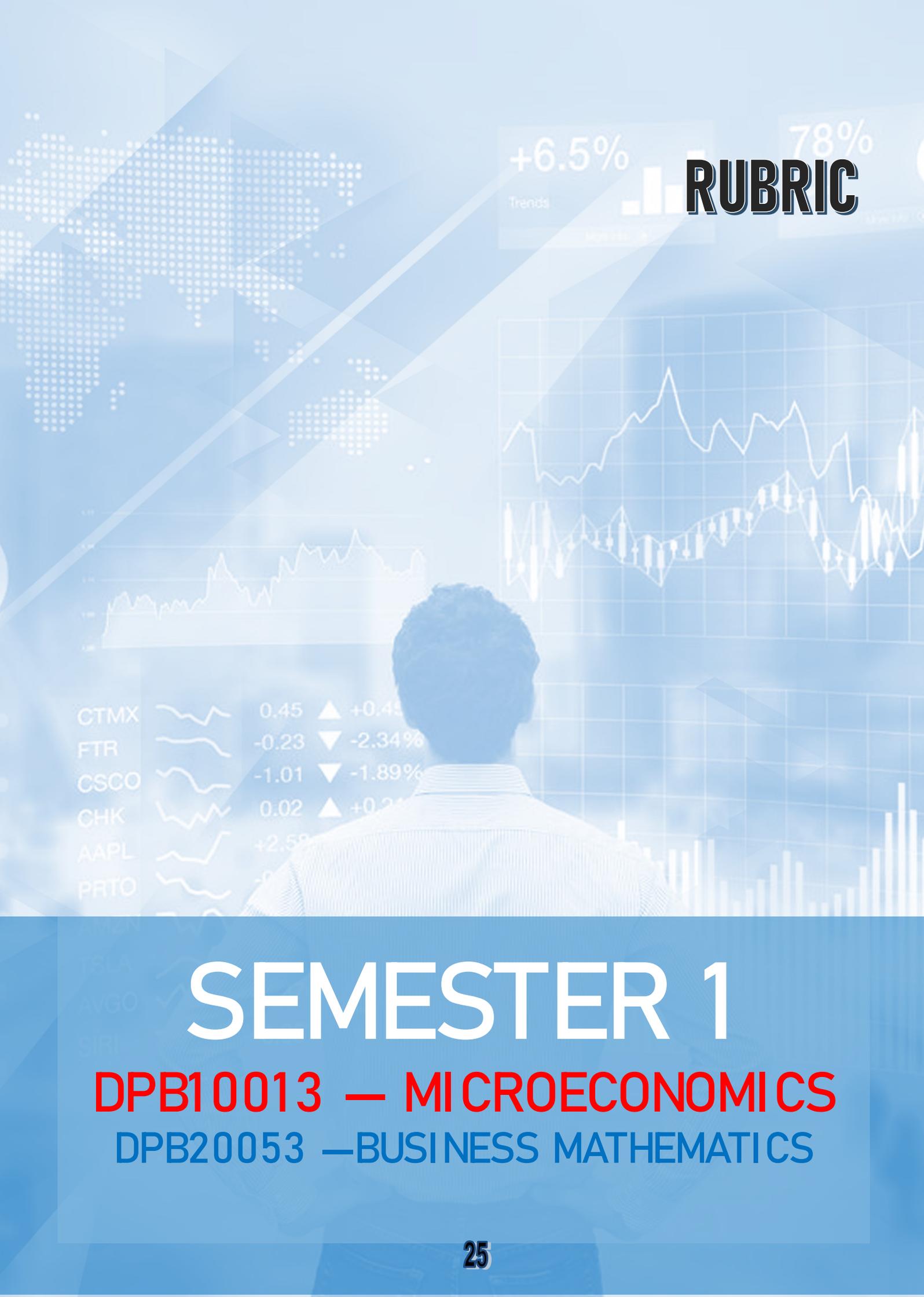
**NAME:**

**MATRIC NUMBER:**

- 1.
- 2.
- 3.

**PREPARED FOR:**

**DATE OF SUBMISSION:**



**RUBRIC**

# SEMESTER 1

**DPB10013 — MICROECONOMICS**

**DPB20053 — BUSINESS MATHEMATICS**

# RUBRIC OF REPORT

	4 Exemplary	3 Proficient	2 Developing	1 or 0 Needs Development	Marks	Score (%)
1. Determine factor of demand and draft graph to describe answer	The groups showing the <b>correct and precise</b> factor of demand and draft graph to describe answer	The groups showing the <b>correct</b> factor of demand and draft graph <b>with one or two minor mistakes</b>	The groups showing the <b>correct</b> factor of demand and draft graph <b>with more than two mistakes</b>	The groups showing the <b>incorrect</b> factor of demand and draft graph <b>several mistakes</b>	/4*7 =	44%
2. Determine factor of supply and draft graph to describe answer	The groups showing the <b>correct and precise</b> factor of supply and draft graph to describe answer	The groups showing the <b>correct</b> factor of supply and draft graph <b>with one or two minor mistakes</b>	The groups showing the <b>correct</b> factor of supply and draft graph <b>with more than two mistakes</b>	The groups showing the <b>incorrect</b> factor of supply and draft graph <b>several mistakes</b>	/4*7 =	44%
3. Appendix			Have attached pamphlets related to the problem scenario	Have <b>not</b> attached pamphlets related to problem scenario	/2*2 =	12%
					16	100%

# COURSE OUTLINE



The background features a person in a white shirt looking at a digital display of financial data. The display includes a world map, a line graph, a candlestick chart, and a table of stock prices. The overall theme is business and finance.

CTMX	0.45	▲	+0.45
FTR	-0.23	▼	-2.34%
CSCO	-1.01	▼	-1.89%
CHK	0.02	▲	+0.21%
AAPL	+2.59		
PRTG	-0.01		

## SEMESTER 1

DPB10013 — MICROECONOMICS

DPB20053 — BUSINESS MATHEMATICS

**JABATAN PERDAGANGAN/ DEPARTMENT OF COMMERCE**

**RANGKA KURSUS/ COURSE OUTLINE**

**SESI DEC 2020/ DEC 2020 SESSION**

1.	NAME OF COURSE	BUSINESS MATHEMATICS															
	COURSE CODE	DPB 20053															
2.	SYNOPSIS	BUSINESS MATHEMATICS provides knowledge of various basic mathematical concepts, management problems and basic operational research techniques based on financial and quantitative methods. The course emphasizes the application of mathematical concepts and solutions in business and management. This course provides information and exposes the student to basic practices in the world of business and finance															
3.	CREDIT VALUE	3															
4.	PREREQUISITE/ CO-REQUISITE (IF ANY)	None															
	COURSE LEARNING OUTCOMES (CLO): Upon completion of this course, students should be able to:																
	CLO1	Calculate business mathematics problems using the various basic equation and formula algebraically or graphically.(PLO 1, C3)															
	CLO2	Apply accurately the business mathematical concepts and formulation in solving management problem issue. (PLO 2, C3)															
	CLO3	Clarify precisely the concept of interest on financial and business practices in Malaysia. (PLO 5, A2)															
5.	PROGRAMME LEARNING OUTCOMES (PLO):  PLO 1 : discuss knowledge of accounting and related field in an organization  PLO 2 : apply financial and non-financial information in decision making process  PLO 5: apply various types of digital application ethically and propose data driven solutions																
6.	ASSESSMENT METHOD: The course assessment consist of: i. Continuous Assessment (CA) – 50%																
	<table border="1"> <thead> <tr> <th>Assessment</th> <th>Quantity</th> <th>Percentage (%)</th> </tr> </thead> <tbody> <tr> <td>Quiz</td> <td>2</td> <td>10%</td> </tr> <tr> <td>Test</td> <td>1</td> <td>10%</td> </tr> <tr> <td>Assignment</td> <td>2</td> <td>20%</td> </tr> <tr> <td>End Of Chapter</td> <td>1</td> <td>10%</td> </tr> </tbody> </table>		Assessment	Quantity	Percentage (%)	Quiz	2	10%	Test	1	10%	Assignment	2	20%	End Of Chapter	1	10%
Assessment	Quantity	Percentage (%)															
Quiz	2	10%															
Test	1	10%															
Assignment	2	20%															
End Of Chapter	1	10%															
	ii. Final Examination (FE) – 50%																

## TEACHING SCHEDULE:

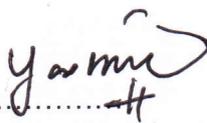
Topic No.	Topic/Content	Recommended Contact Hours	Assessment Method	Week
1.0	<p><b>EQUATIONS</b></p> <p>This topic covers the concepts and formulation of equations, solve business mathematics problems by using the specific equations. It also cover relationship between total cost, revenue and profit as well as fixed cost and variable cost and calculation variable cost, sales price and profit using equation.</p>	6 hours Lecture 2 hours Tutorial	Quiz 1	W3
2.0	<p><b>BREAKEVEN ANALYSIS</b></p> <p>This topic introduces the students to the breakeven situation and analysis, and calculation of sales level, sales price and profit using algebra. It also covers the relationship between cost, revenue, profit by using the graph and label breakeven point, sales value, sales unit and profit/ loss into graph.</p>	4 hours Lecture 2 hours Tutorial	Test 1	W6
3.0	<p><b>CALCULUS</b></p> <p>This topic introduces the concept and rules of differentiation and solve the first and second derivative. It also cover the calculation of the variable, maximum and minimum point , inflection points and solve business mathematics problems by using the concept and rules of differentiation in calculus.</p>	4 hours Lecture 2 hours Tutorial	Test 1	W6
4.0	<p><b>INTEREST</b></p> <p>This topic introduces the concepts and formulations of simple interest, promissory notes, rebate and early payments on financial and practise in Malaysia. It also cover the concept of compound interest and annuity.</p>	14 hours Lecture 6 hours Tutorial	End of Chapter Assignment 1	W10 W11
5.0	<p><b>PROJECT EVALUATION</b></p> <p>This topic cover the capital budgeting factors and environment factors for investment decisions. It also introduces the concept of cash flow and discounting and solve investment management problems.</p>	3 hours Lecture 3 hours Tutorial	Quiz 2	W12
6.0	<p><b>TRANSPORTATION PROBLEMS</b></p> <p>This topic cover the concept and formulation of trasportation problems by using transportation algorithm based on north-west corner method, minimum method and stepping-stone method.</p>	6 hours Lecture 2 hours Tutorial	Assignmnet 2	W14

8.	<p><b>REFERENCES</b></p> <p><b>Main reference supporting the course</b></p> <p><i>Norlia Abd. Rashid, Noorul' Ashikin Md. Salleh &amp; Lau, T. K. (2018). Business Mathematics For Polytechnic. 3rd Edition. Shah Alam : Oxford Fajar.</i></p> <p><b>Additional references supporting the course</b></p> <p><i>Jacques, I. (2018). Mathematics for Economic and Business. 9th Edition. Pearson.</i></p> <p><i>Lau, T. K. (2015). Quantitative Business Analysis for UiTM. 3rd Edition. Shah Alam : Oxford Fajar.</i></p> <p><i>Lau, T. K., Phang, Y. N. &amp; Wee K. K. (2015). Business Mathematics. For UiTM. 5th Edition. Shah Alam : Oxford Fajar.</i></p>
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Prepared by:

Verified by :

  
 .....  
 ( Course Coordinator Name & Signature )

  
 .....  
 ( KJ/KPro/KK Name & Signature )

Date :05/03/2021

Date : 05/03/2021

**NURULYASMIN JU AHMAD**  
 KETUA PROGRAM AKAUNTANSI  
 JABATAN PERDAGANGAN  
 POLITEKNIK PORT DICKSON

# NOTES OF GUIDANCE



## SEMESTER 1

DPB10013 — MICROECONOMICS

**DPB20053 — BUSINESS MATHEMATICS**

# DIPLoma IN ACCOUNTANCY

## PROJECT BRIEFING

### Introduction (Week 1)

End of Chapter is a part of continuous assessment (CA) for the course of DPB20053 Business Mathematics. This assessment offers 10% from the overall marks. This task is to be exposed the students about the concept of interest on financial and business practice in Malaysia. The students enable to calculate interest, monthly payment and rebate.

### Project Planning (Week 2 & 3)

The students will be divided into three (3) members per group. Each group will be given a problem scenario, as instructed by the course lecturers. The students need to discuss among members and create the issues based on the problem scenario given.

The issues must be included the following criteria:

- Background client (names, occupation, salary, age)
- What the client want to buy.(by referring the task)

## Project Task 1(Week 4)

+6.5%

78%

The students required to get all information that is relevant to their task using offline or online information.

Example: pamphlet or brochure



# PERODUA

APPLY NOW

AXA	MODEL	ON THE ROAD PRICE	10% DEPOSIT	90% LOAN	MONTHLY INSTALLMENT			
					5 YRS	7 YRS	9 YRS	*MAX LOAN (YEARS)
	1.0 E (MT)	24,318.37	<b>2,518.37</b>	21,800	421	318	260	290
	1.0 G (AT)	33,696.82	<b>3,396.82</b>	30,300	586	442	361	402
	1.0 GXtra (AT)	35,209.69	<b>3,609.69</b>	31,600	611	460	377	420
	1.0 Style (AT)	38,871.50	<b>3,971.50</b>	34,900	675	509	416	464
	1.0 SE (AT)	38,871.50	<b>3,971.50</b>	34,900	675	509	416	464
	1.0 AV (AT)	42,889.26	<b>4,289.26</b>	38,600	746	562	460	511

**22.5 km/ltr**

ATVA	MODEL	ON THE ROAD PRICE	10% DEPOSIT	90% LOAN	MONTHLY INSTALLMENT			
					5 YRS	7 YRS	9 YRS	*MAX LOAN (YEARS)
	X METALLIC	63,453.83	<b>6,353.83</b>	57,100	1,085	813	662	736
	H METALLIC	68,191.63	<b>6,891.63</b>	61,300	1,165	873	711	791
	H.S.METALLIC	68,691.63	<b>6,891.63</b>	61,800	1,174	880	716	796
	AV METALLIC	73,429.43	<b>7,429.43</b>	66,000	1,254	940	765	851
	AV S.MATTALIC	73,929.43	<b>7,429.43</b>	66,500	1,264	947	771	857
	AV 2TONE	74,256.99	<b>7,456.99</b>	66,800	1,269	951	774	861

**18.9 km/ltr**

BEZA	MODEL	ON THE ROAD PRICE	10% DEPOSIT	90% LOAN	MONTHLY INSTALLMENT			
					5 YRS	7 YRS	9 YRS	*MAX LOAN (YEARS)
	1.0 G (MT)	34,696.75	<b>3,496.75</b>	31,200	603	455	372	414
	1.0 G (AT)	36,689.63	<b>3,689.63</b>	33,000	638	481	394	438
	1.3 X (AT)	44,052.19	<b>4,452.19</b>	39,600	766	577	472	525
	1.3 AV (AT)	50,030.82	<b>5,030.82</b>	45,000	870	656	537	597

**22.0 km/ltr**

ALZA	MODEL	ON THE ROAD PRICE	10% DEPOSIT	90% LOAN	MONTHLY INSTALLMENT			
					5 YRS	7 YRS	9 YRS	*MAX LOAN (YEARS)
	1.5 S (MT)	51,628.27	<b>5,228.27</b>	46,400	897	676	553	616
	1.5 S (AT)	54,400.39	<b>5,500.39</b>	48,900	945	713	583	649
	1.5 SE (AT)	57,008.07	<b>5,708.07</b>	51,300	992	748	612	680
	1.5 AV (AT)	62,484.87	<b>6,284.87</b>	56,200	1,087	819	670	745

**15.0 km/ltr**

MYVI	MODEL	ON THE ROAD PRICE	10% DEPOSIT	90% LOAN	MONTHLY INSTALLMENT			
					5 YRS	7 YRS	9 YRS	*MAX LOAN (YEARS)
	1.3 G (MT)	42,744.63	<b>4,344.63</b>	38,400	742	560	458	510
	1.3 G (AT)	44,536.75	<b>4,536.75</b>	40,000	773	583	477	531
	1.3 X (AT)	46,521.87	<b>4,721.87</b>	41,800	808	609	499	555
	1.3 X ASA (AT)	48,576.99	<b>4,976.99</b>	43,600	843	635	520	579
	1.5 H (AT)	52,264.27	<b>5,364.27</b>	46,900	907	683	559	623
	1.5 AV (AT)	54,486.39	<b>5,586.39</b>	48,900	945	713	583	650

**20.1 km/ltr**

ARUZ	MODEL	ON THE ROAD PRICE	10% DEPOSIT	90% LOAN	MONTHLY INSTALLMENT			
					5 YRS	7 YRS	9 YRS	*MAX LOAN (YEARS)
	1.5 X (AT)	70,706.35	<b>7,106.35</b>	63,600	1,208	906	737	820
	1.5 AV (AT)	75,544.15	<b>7,644.15</b>	67,900	1,290	967	787	876

**Photostat Document Required**

- IC
- Driving Licence D
- Later 3 Months Salary Slips
- Bank Statements 3 Month
- EPF Statements
- SSM (business) - 2 Years
- Bank Statements 6 Month
- E-Filing Income Tax

**Graduate Scheme**

- IC
- Driving Licence D
- Student Card
- Academic Transcript
- Diploma/Degree Cert
- Offer Letter
- Guarantor (if needed)

\* Monthly installment are subject to bank interest rate

\* OTR price shown is with insurance

\* Term and condition apply

\* Fuel Consumption (Model Adv AT)

\* Interest for ARUZ 2.8%

\* Max loan for 9 years installment

**AMIN**

**018 - 363 4321**

[www.perodua.bestdeals.com](http://www.perodua.bestdeals.com)

**\* TRADE-IN Accepted**





# PERMATANG 10



**HAKMILIK  
KEKAL**  
(Rezab  
Melayu)

**RUMAH TERES 1 TINGKAT** Luas binaan : **22' x 55' = XXXL 1210 k/p keatas**  
Luas Binaan: 22' X 55' | Luas Tanah: **Luas Tanah : 22' x 75' = XXXXL 1650 k/p keatas**  
(termasuk dapur basah) 22' X 75' ke atas

Corner Lot : **RM314,990.00** Intermediate Lot : **RM229,990.00** End Lot : **RM254,990.00**



illustration only  
(artist impression)

**4** Bilik Tidur +  
**2** Bilik Air +  
**1** Dapur Basah +  
**1** Dapur Kering +  
**Ketinggian Siling 11'**



**I-MAJU** DEVELOPMENT SDN. BHD.  
(508417-K)

A-43, 1st & 2nd floor, Taman Air Putih Baru, 25300 Kuantan, Phg. Darul Makmur.

**T: 09-568 3981 F: 09-567 3980**

**E: imajudev@gmail.com**

## Project Task 2 (Week 5)

The students need to choose the pamphlet for any 2 banks by referring their problem task using offline or online information.

### Example of Hong Leong pamphlet



Fixed Promotional Rate*	8% p.a.
Available Tenure	2 years - 5 years
Hong Leong Bank Personal Loan Amount	RM20,000 - RM250,000
Hong Leong Islamic Bank Personal Financing-i Amount	RM20,000 - RM150,000

\*Effective interest/profit rates range from 14.13%p.a. to 14.68%p.a.

On top of the promotional rate, you will get 25% rebate on total interest/profit if you pay on time!

Assuming you borrow RM20,000, choose to pay over 5 years, and are eligible for the rebate:

<b>Normal Period</b> 1 <sup>st</sup> - 7 <sup>th</sup> month (RM470 per month)	<b>Rebate Period</b> 8 <sup>th</sup> - 55 <sup>th</sup> month (RM430 per month)	<b>Normal Period</b> 56 <sup>th</sup> - 60 <sup>th</sup> month (RM470 per month)
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## Example of Maybank pamphlet



**MAYBANK PERSONAL LOAN REPAYMENT TABLE**

Loan Amount (RM)	Fixed Interest Rate	Monthly Repayment Amount (RM/Months)				
		24	36	48	60	72
5,000	8%	241.67	172.22	137.50	116.67	102.78
10,000	8%	483.33	344.44	275.00	233.33	205.56
15,000	8%	725.00	516.67	412.50	350.00	308.33
20,000	8%	966.67	688.89	550.00	466.67	411.11
25,000	7%	1,187.50	840.28	666.67	562.50	493.06
30,000	7%	1,425.00	1,008.33	800.00	675.00	591.67
35,000	7%	1,662.50	1,176.39	933.33	787.50	690.28
40,000	7%	1,900.00	1,344.44	1,066.67	900.00	788.89
45,000	7%	2,337.50	1,512.50	1,200.00	1,012.50	887.50
50,000	7%	2,375.00	1,680.56	1,333.33	1,125.00	986.11
55,000	6.5%	2,589.58	1,825.69	1,443.75	1,214.58	1,061.81
60,000	6.5%	2,825.00	1,991.67	1,575.00	1,325.00	1,158.33
65,000	6.5%	3,060.42	2,157.64	1,706.25	1,435.42	1,254.86
70,000	6.5%	3,295.83	2,323.61	1,837.50	1,545.83	1,351.39
75,000	6.5%	3,531.25	2,489.58	1,968.75	1,656.25	1,447.92
80,000	6.5%	3,766.67	2,655.56	2,100.00	1,766.67	1,544.44
85,000	6.5%	4,002.08	2,821.53	2,231.25	1,877.08	1,640.97
90,000	6.5%	4,237.50	2,987.50	2,362.50	1,987.50	1,737.50
95,000	6.5%	4,472.92	3,153.47	2,493.75	2,097.92	1,834.03
100,000	6.5%	4,708.33	3,319.44	2,625.00	2,208.33	1,930.56

## Project Task 2: Design Process

The students need to highlight the main point and the relevant information based on pamphlet such as cash price, deposit by referring the pamphlet.

## Project Task 3: Project (Week 7- 9 )

The students need to:

- ◆ determine the
  - a) Principal –  $P$  (state the deposit amount if any)
  - b) Interest rate –  $r$  (as shown in your pamphlet from bank)
  - c) Date of loan –  $d_1$
  - d) Term of loan –  $t$
  
- ◆ shows the calculation of
  - a) Maturity Date –  $d_2$
  - b) Interest Amount –  $I$
  - c) Maturity value –  $S$
  - d) Monthly payment –  $MP$
  
- ◆ assuming the loan to be settled three (3) years before maturity date, interpret
  - a) the balance of the loan
  - b) the amount of Rebate
  - c) the amount to be paid at three years before maturity date

## Report and Final Submission (Week 10 -13)

The students prepare a report based on the solution of problem scenario and submit the report to their lecturer.

### Submission requirement:

- ◆ Introduction
  - State the title of problem scenario (background of the client)
  - State the cash price of the item according to problem.
  - State the deposit amount required to purchase the item.
  - State the name of the bank to propose for loan
  
- ◆ Content must include; (methods of solution in task 3)
  
- ◆ Conclusion based on the findings, in terms of which bank to be chosen, how long is the term of loan would suggest, the benefit of making early settlement and etc.
  
- ◆ Appendices - pamphlet related to problem scenario.

**REPORT** must be compiled in pdf A4 size report (upload softcopy in CIDOS and submit hardcopy with proper binding)

Marks will be given based on rubrics.

**COMMERCE DEPARTMENT**

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CODE & COURSE : DPB20053 BUSINESS MATHEMATICS  
ASSESSMENT : END OF CHAPTER  
CLO : 3  
CLASS : DAT1A / DAT1B / DAT 1C  
SESSION : DEC 2020

**INSTRUCTION:**

Students are divided into three (3) members per group. Each group will be given a problem scenario, as instructed by the course lecturers.

**Task 1**

**Problem 1:** You are required to find a pamphlet showing the cash price of **Proton X50**

**Problem 2:** You are required to survey a **terrace house**. Find a pamphlet showing the price of the house.

**Problem 3:** Find an advertisement showing the cash price of **Bakery Business products**.

**Problem 4:** You are required to find a pamphlet showing the cash price of **Perodua Aruz**

**Problem 5:** You are required to survey a **Semi Detached house**. Find a pamphlet showing the price of the house

**Problem 6:** You are required to find a pamphlet showing the cash price of **Laundry Business services**

**Problem 7:** You are required to survey a **double story house**. Find a pamphlet showing the price of the house.

**Task 2**

Find a **pamphlet** showing monthly payment series and interest rate charge from any 2 banks according to your problem task given.

**Task 3**

Prepare a report consist the following format:

CLO3 **I. INTRODUCTION**

C1

- a) State the title of your problem.
- b) State the cash price of the item according to your problem.
- c) State the deposit amount required to purchase the item.
- d) State the name of the bank to propose for loan

(2 marks)

**II. METHODS OF YOUR SOLUTION**

CLO3

C4

- 1. Determine the
  - a) Principal – P (state the deposit amount if any)
  - b) Interest rate – r (as shown in your pamphlet from bank)
  - c) Date of loan –  $d_1$
  - d) Term of loan – t

(2 marks)

CLO3

A1

- 2. Shows the calculation of
  - a) Maturity Date –  $d_2$
  - b) Interest Amount – I
  - c) Maturity value – S
  - d) Monthly payment – MP

(8 marks)

CLO3

A2

- 3. Assuming the loan to be settled three (3) years before maturity date, interpret
  - a) the balance of the loan
  - b) the amount of Rebate
  - c) the amount to be paid at three years before maturity date

(6 marks)

**III. CONCLUSION**

CLO3

A2

Clarify your solution in **part II**, in terms of which bank to be chosen, how long is the term of loan would you suggest, the benefit of making early settlement and etc.

(4 marks)

**IV. APPENDIX**

Attach pamphlet related to your problem

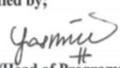
(2 marks)

Prepared by;

  
(Course Lecturer)  
Date 02/03/2021

WAN KHAZANI BINTI WAN KAMARUDIN  
PENSYARAH  
JABATAN PERDAGANGAN

Verified by;

  
(Course coordinator/Head of Programme)  
Date

NURULYASMIN JU AHMAD  
KETUA PROGRAM AKAUNTANSI  
JABATAN PERDAGANGAN  
POLITEKNIK PORT DIKSON 2/3/2021

**COVER FOR BUSINESS MATHEMATICS ANSWERS**



**PORT DICKSON POLYTECHNIC  
COMMERCE DEPARTMENT**

**COURSE: DPB20053 – BUSINESS MATHEMATICS  
CHAPTER 4 – INTEREST  
END OF CHAPTER**

**TITLE:**

**PROBLEM \_\_\_\_\_**

**“.....”**

**PREPARED BY:**

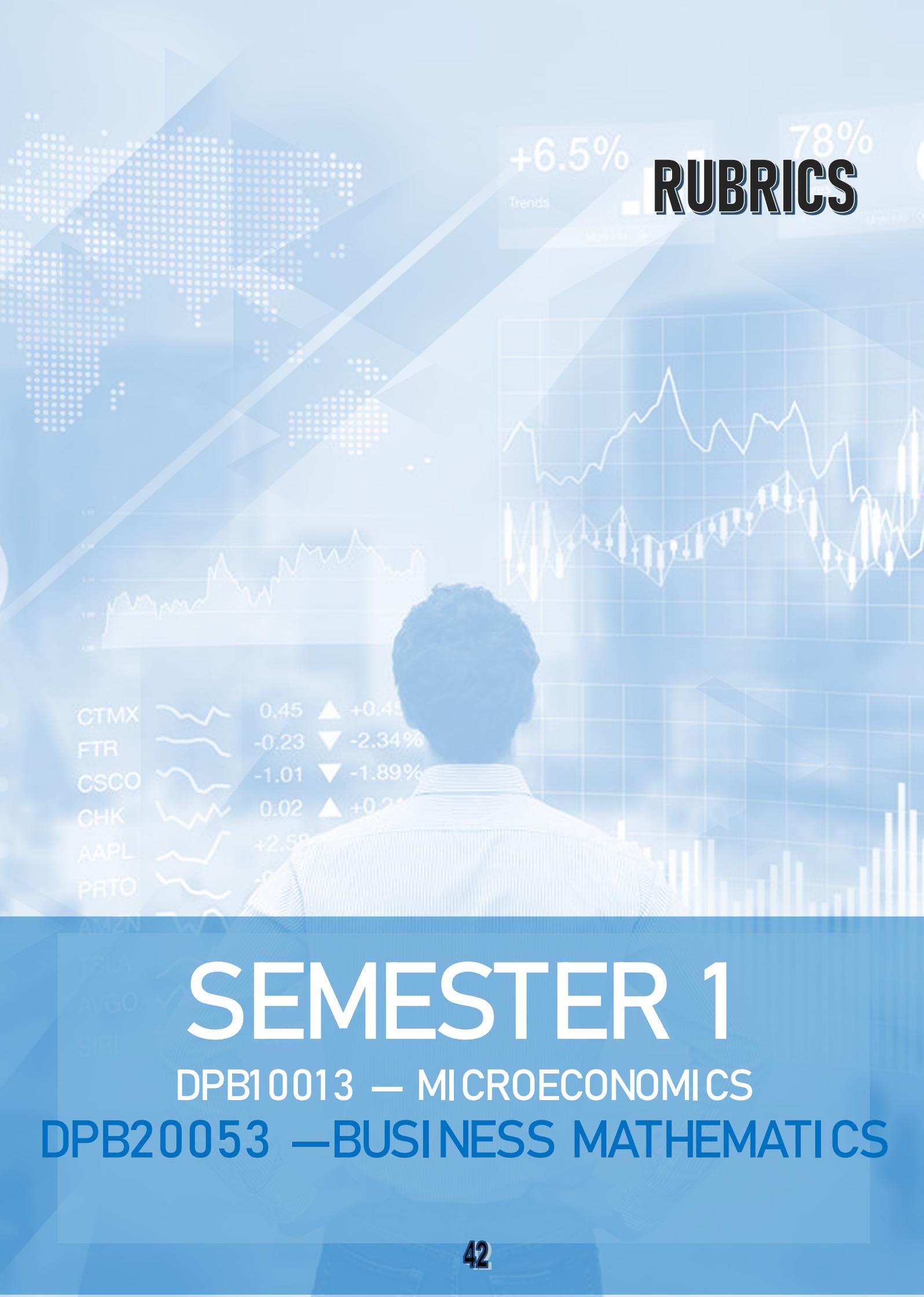
**NAME:**

**MATRIC NUMBER:**

- 1.
- 2.
- 3.

**PREPARED FOR:**

**DATE OF SUBMISSION:**



**RUBRICS**

# SEMESTER 1

DPB10013 — MICROECONOMICS

DPB20053 — BUSINESS MATHEMATICS

# RUBRICS

+6.5%

78%

Trends

Start

## DIGITAL AND NUMERACY SKILL (CLS 3c) BUSINESS MATHE MATICS

	4 Exemplary	3 Proficient	2 Developing	1 or 0 Needs Development	Score
1. Introduction	The groups able to contribute all four requirements <b>correctly</b> and develop the <b>idea very well</b>	The groups able to contribute three requirements <b>correctly</b> and develop the <b>idea well</b>	The groups able to contribute two requirements <b>correctly</b> and develop the <b>idea well</b>	The group is <b>unable</b> to describe the situation of their problem	/4*2 = =
2. Determine the Principal, interest rate, time, and maturity date	The group excellently determine the Principal, interest rate, time, and maturity date correctly and logically	The group able to determine the Principal, interest rate, time, and maturity date with <b>correctly</b>	The group able to determine the Principal, interest rate, time, and maturity date with <b>minor mistakes</b> .	The group able to determine the Principal, interest rate, time, and maturity date with <b>several major mistakes</b>	/4*2 = =
3. Shows the calculation of Interest amount, Maturity Value, Maturity date and Monthly payment	The groups showing the <b>correct and precise</b> calculation of Interest amount, Maturity Value, Maturity date and Monthly payment	The groups showing the <b>correct</b> calculation of Interest amount, Maturity Value, Maturity date and Monthly payment <b>with one or two minor mistakes</b>	The groups showing the <b>correct</b> calculation of Interest amount, Maturity Value, Maturity date and Monthly payment but <b>with more than two mistakes</b>	The groups showing the <b>incorrect</b> results of Interest amount, Maturity Value, Maturity date and Monthly payment <b>several mistakes</b>	/4*8 = =
4. Determine the balance of loan, Rebate, and Amount to be paid	The group <b>correctly and precisely shows the calculation</b> of balance of loan, rebate and amount to be paid	The group shows the calculation of balance of loan, rebate and amount to be paid <b>correctly</b>	The group shows the calculation of balance of loan, rebate and amount to be paid <b>averagely or with few mistakes</b>	The group shows the calculation of balance of loan, rebate and amount to be paid <b>wrongly</b> or several major mistakes	/4*6 = =
5. Conclusion	The group identifies the key elements of the problem and clearly outlines the conclusion part with <b>very well idea</b>	The group identifies the key elements of the problem and outlines the conclusion part with <b>well idea</b>	The group identifies the key elements of the problem and outlines the conclusion part with <b>moderate idea</b>	The group <b>unable</b> to identifies the key elements of the problem and outlines the conclusion part	/4*4 = =
6. Appendix			<b>Have attached</b> pamphlets related to the problem scenario	<b>Have not</b> attached pamphlets related to problem scenario	/2*2 = =

24

# REFERENCES

Deviga V. & Karunagaran M. (2013). Principles of Economics. 3rd Edition Oxford: Fajar Bakti Sdn Bhd.

Jacques, I. (2018). Mathematics for Economic and Business. 9th Edition. Pearson.

Lau, T. K. (2015). Quantitative Business Analysis for UiTM. 3rd Edition. Shah Alam : Oxford Fajar.

Norlia Abd. Rashid, Noorul' Ashikin Md. Salleh & Lau, T. K. (2018). Business Mathematics For Polytechnic. 3rd Edition. Shah Alam : Oxford Fajar.

Sarimah Aman Shah et al. (2017) Principles of Economics 3rd Edition Oxford: Fajar Bakti Sdn Bhd

Zubair Hasan et al (2014) Economics for Islam Orientation. Shah Alam : Oxford Fajar Sdn. Bhd