



FAKULTI PENGURUSAN DAN INDUSTRI HALAL

PROGRAM	Diploma in Technology Management
COURSE NAME	BUSINESS MATHEMATICS
COURSE CODE	DDWG 1113
CREDIT HOUR	3
SYNOPSIS	This course is design to expose students about the basic concepts, practices and the application of mathematics in their daily activity and businesses. Students need to understand the subject so that they are able to apply the business mathematics concepts in the following subjects such as finances and accounting. At the end of this course, students should gain and able to apply the interest concepts in business mathematics activities. Furthermore, students should be able to differentiate and classifies the trade and cash discount, mark up and markdown, installment payment, and depreciation.
COURSE STRUCTURE	
CHAPTER	TOPICS
1	ARITHMETIC AND GEOMETRIC SQUARE 1.1 Arithmetic sequence 1.2 Nth term and sum of first terms of an arithmetic sequence
2	SIMPLE INTEREST 2.1 Interest 2.2 Simple interest formula 2.3 Simple amount formula 2.4 Four basic concepts 2.5 Present value 2.6 Equation of value
3	COMPOUNT INTEREST 3.1 Time value of money 3.2 Compound interest 3.3 Some important terms



	<p>3.4 Compound interest formula</p> <p>3.5 Effective, nominal and equivalent rates.</p> <p>3.6 Relationship between effective and nominal rates.</p> <p>3.7 Relationship between two nominal rates</p> <p>3.8 Present value</p> <p>3.9 Equation of value</p> <p>4.0 Continuous compounding</p>
4	<p>ANNUITY</p> <p>4.1 Future value of ordinary annuity certain</p> <p>4.2 Present value of ordinary annuity certain</p> <p>4.3 Solving R, n and i.</p> <p>4.4 Amortization</p> <p>4.5 Amortization schedule</p> <p>4.6 Sinking fund</p>
5	<p>TRADE AND CASH DISCOUNTS</p> <p>5.1 Trade discount</p> <p>5.2 Formula for finding the net price.</p> <p>5.3 Chain discount</p> <p>5.4 Formula for finding the net price for a chain discount.</p> <p>5.5 Single discount equivalent</p> <p>5.6 Cash discount</p> <p>5.7 Borrowing to take advantage of the cash discount.</p> <p>5.8 Partial payment of invoice.</p> <p>5.9 Trade and cash discounts</p>
6	<p>MARKUP AND MARKDOWN.</p> <p>6.1 Markup</p> <p>6.2 Markup percent</p> <p>6.3 Conversion of markup percent</p>



	6.4 Markdown 6.5 Profit and loss
7	PROMISSORY NOTE 7.1 Promissory note 7.2 Bank discount 7.3 Simple interest rate equivalent to bank discount rate 7.4 Discounting promissory notes.
8	INSTALLMENT PURCHASES 8.1 Installment purchases 8.2 Interest charge based on reducing balance. 8.3 Interest change based on original balance. 8.4 Unequal installment payments and repayments schedules. 8.5 Rule of 78 in Hire Purchase Act (1976)
9	DEPRECIATION 9.1 Depreciation 9.2 Straight line method 9.3 Declining balance method 9.4 Sum of years digits method
References:	1. Lau Too Kya and Phang Yook Ngor Wee Kok Kiang (2015). Business Mathematics. 3rd Edition. Kuala Lumpur. Penerbit Oxford Fajar Sdn Bhd.