COURSE OUTLINE: MTH 95 - ACE BUSINESS MATH

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Course Code: Title	MTH 95: ACE BUSINESS MATHEMATICS
Program Number: Name	8220: ACAD CAREER ENTRANCE
Department:	ACAD. UPGRADING SPONSORSHIP
Semesters/Terms:	18F, 19W, 19S
Course Description:	This ACE-credit course enables the student to broaden an understanding of exponential growth as it relates to personal finance. Students investigate exponential functions and manipulate exponential expressions. Applications are made related to compound interest and annuities. Students learn to apply mathematical reasoning in making informed decisions about transportation, accommodation and career choices. The course is delivered in self-directed format under the supervision of a professor. It is entirely possible, though not assumed, that the course can be completed in less than one semester.
Total Credits:	5
Hours/Week:	5
Total Hours:	50
Prerequisites:	MTH 94
Corequisites:	There are no co-requisites for this course.
Substitutes:	ACE015
Essential Employability Skills (EES) addressed in this course:	EES 3 Execute mathematical operations accurately. EES 4 Apply a systematic approach to solve problems. EES 5 Use a variety of thinking skills to anticipate and solve problems. EES 6 Locate, select, organize, and document information using appropriate technology and information systems. EES 7 Analyze, evaluate, and apply relevant information from a variety of sources.
Course Evaluation:	Passing Grade: 70%, B
Books and Required Resources:	Mathematics for Work and Everyday Life MEL3E Lessons 1-5 by Independent Learning Centre Mathematics for Work and Everyday Life MEL3E Lessons 6-10 by Independent Learning Centre Mathematics for Work and Everyday Life MEL3E Lessons 11-15 by Independent Learning Centre Mathematics for Work and Everyday Life MEL3E Lessons 16-20 by Independent Learning Centre

Course Outcomes and Learning Objectives:	**Course Outcome 1**	**Learning Objectives for Course Outcome 1**
	1. Upon successful	

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completion of this course, the student will demonstrate the ability to apply knowledge of exponential functions.	1.1 Sketch graphs of simple exponential functions. 1.2 Solve linear and exponential equations. 1.3 Simplify algebraic expressions using laws of exponents. 1.4 Apply real-life examples of exponential growth and decay.
Course Outcome 2	**Learning Objectives for Course Outcome 2**
2. Upon successful completion of this course, the student will demonstrate the ability to manipulate arithmetic and geometric sequences and series.	2.1 Determine characteristics of an arithmetic sequence. 2.2 Solve for the nth term of an arithmetic sequence. 2.3 Find the sum of n terms of arithmetic and geometric series and solve applications of these formula. 2.4 Find the sum of arithmetic and geometric series and solve problems that involve applications of these series.
Course Outcome 3	**Learning Objectives for Course Outcome 3**
3. Upon successful completion of this course, the student will demonstrate the ability to apply concepts of linear, exponential and quadratic functions to problems in simple and compound interest.	3.1 Compare rates of growth in linear, exponential and quadratic functions. 3.2 Solve problems involving calculations of simple and compound interest. 3.3 Demonstrate an understanding of the relationships among simple interest, arithmetic sequences, and linear growth. 3.4 Demonstrate an understanding of the relationships among compound interest, geometric sequences, and exponential growth. 3.5 Apply principles of compounding to annuities and mortgages.
Course Outcome 4	**Learning Objectives for Course Outcome 4**
4. Upon successful completion of this course, the student will demonstrate the ability to apply mathematical reasoning to personal budgeting decisions.	4.1 Analyze costs related to renting or buying a home and owning and operating a vehicle. 4.2 Design a personal household budget.

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight	Course Outcome Assessed
Five Unit Tests	75%	
Key Questions	25%	

Date: August 30, 2018

Please refer to the course outline addendum on the Learning Management System for further information.