



COURSE OUTLINE: MTH043 - MATHEMATICS 043

Prepared: Heather Ferguson

Approved: Carolyn Hepburn, Dean, Indigenous Studies and Academic Upgrading

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| Course Code: Title | MTH043: MATHEMATICS 043 |
| Program Number: Name | 8210: LBS-LEVEL 3 |
| Department: | ACADEMIC UPGRADING/LBS |
| Semesters/Terms: | 18F, 19W, 19S |
| Course Description: | A self-directed course in which the learner, under the direct supervision of the professor, reviews basic mathematical skills including operations with whole numbers, fractions and decimals, manipulates ratios and solves problems in basic geometry. Although not assumed, it is entirely possible to complete the requirements for this course in less than one semester. |
| Total Credits: | 4 |
| Hours/Week: | 5 |
| Total Hours: | 40 |
| Prerequisites: | There are no pre-requisites for this course. |
| Corequisites: | There are no co-requisites for this course. |
| Substitutes: | MTH 91 |
| This course is a pre-requisite for: | MTH044 |
| Essential Employability Skills (EES) addressed in this course: | EES 3 Execute mathematical operations accurately. EES 4 Apply a systematic approach to solve problems. |
| Course Evaluation: | Passing Grade: 70%, B |
| Books and Required Resources: | Stepping It Up Foundations for Success in College Math LBS Level 3 Mathematics Publisher: Pearson ISBN: 978-1-256-02754-6 |

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| Course Outcomes and Learning Objectives: | Course Outcome 1 | Learning Objectives for Course Outcome 1 |
| | 1. Upon successful completion of this course, the student will demonstrate the ability to accurately perform operations using whole numbers without use of a calculator. | 1.1 Perform addition of numbers presented in either row or column form. 1.2 Perform subtraction of numbers presented in either row or column form. 1.3 Perform multiplication of whole numbers. 1.4 Perform long division of whole numbers. 1.5 Analyze word problems in order to determine and perform the appropriate operation. 1.6 Find the perimeter of an object with straight sides, area of a rectangle, and volume of a 1.7 rectangular solid with all measures presented as whole numbers. |
| | Course Outcome 2 | Learning Objectives for Course Outcome 2 |



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| | 2. Upon successful completion of this course, the student will demonstrate the ability to accurately perform operations using proper fractions, improper fractions and mixed numbers. | 2.1 Factor whole numbers, including prime factors. 2.2 Simplify fractions and units where necessary. 2.3 Convert whole or mixed numbers to improper fractions and improper fractions to whole or mixed numbers. 2.4 Multiply and divide fractions. 2.5 Find a common denominator. 2.6 Add and subtract fractions. | |
| | Course Outcome 3 | Learning Objectives for Course Outcome 3 | |
| | 3. Upon successful completion of this course, the student will demonstrate the ability to accurately perform operations using decimals. | 3.1 Round to a given number of decimals. 3.2 Identify place value of decimals. 3.3 Add, subtract, multiply and divide using decimals. 3.4 Convert from fractions to decimals and decimals to fractions. 3.5 Find area and perimeter (circumference) of a circle, triangle, parallelogram and composite figures with measures expressed in decimals | |
| | Course Outcome 4 | Learning Objectives for Course Outcome 4 | |
| | 4. Upon successful completion of this course, the student will demonstrate the ability to manipulate rates, ratios and proportions. | 4.1 Understand the concept of ratio. 4.2 Simplify ratios. 4.3 Cancel like units in a ratio where appropriate. 4.4 Find a rate or unit price. 4.5 Determine whether two fractions or rates are proportional. 4.6 Solve proportions and applications of proportions. 4.7 Read a word problem and use the information to create a ratio in order to solve for an unknown value. | |

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| Evaluation Process and Grading System: | Evaluation Type | Evaluation Weight | Course Outcome Assessed |
| | Quizzes and Learning Activities | 20% | |
| | Tests | 80% | |

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| Date: | August 30, 2018 |
| | Please refer to the course outline addendum on the Learning Management System for further information. |