

## Master Syllabus

### **MAT 1460 - Finite Mathematics for Business Analysis**

**Division:** Science, Mathematics and Engineering

**Department:** Mathematics

**Credit Hour Total:** 4.0

**Lecture Hrs:** 4.0

**Prerequisite(s):** MAT 0200

**Other Prerequisite(s):** AND Other with a grade of C or better or satisfactory score on math placement test

**Date Revised:** April 2017

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### **Course Description:**

Applications of finite mathematics and functions to business analysis. Functions, financial mathematics, systems, matrices, inequalities, linear programming, sets, permutations and combinations and elementary probability and statistics. Traditional testing (proctored or in Testing Center) is used in all online sections.

### **General Education Outcomes:**

- ▣ Critical Thinking/Problem Solving Competency

### **Course Outcomes:**

#### **Graphs of Polynomial and Trancendental Functions**

Demonstrate the ability to graph polynomial, exponential and logarithmic functions.

**Assessment Method:** Locally developed exams

**Performance Criteria:** Pass locally developed exams with a score of 70% or better.

#### **Linear, Quadratic, Exponential and Logarithmic Equations**

Demonstrate the ability to solve linear, quadratic, exponential and logarithmic equations.

**Assessment Method:** Locally developed exams

**Performance Criteria:** Pass locally developed exams with a score of 70% or better.

#### **Matrix Operations**

Demonstrate the ability to perform matrix operations.

**Assessment Method:** Locally developed exams

**Performance Criteria:** Pass locally developed exams with a score of 70% or better.

#### **Probability**

Demonstrate the ability to compute probability of an event.

**Assessment Method:** Locally developed exams

**Performance Criteria:** Pass locally developed exams with a score of 70% or better.

### **Outline:**

Functions - Linear, Quadratic, Polynomial, Rational, Exponential, Logarithmic, Piecewise  
Mathematics of Finance - Simple and Compound Interest, Future and Present Value  
Systems and Matrices - Gauss-Jordan Elimination, Operations, Inverses  
Inequalities and Linear Programming - Systems, Geometric Approach to Linear Programming  
Sets, Counting, Probability, Measures of Central Tendency