DEPAUL | School of Continuing and Professional Studies

Advanced Math for Professional Studies
Undergraduate Course Information Guide

Course Number: LL 206, 4 credits, 10 Weeks
Delivery Formats: Online Async

Course Description

This class covers college algebra concepts that professionals can apply in the workplace to solve problems and interpret data. Core topics include: exponential and logarithmic functions, inverse functions, and polynomial and rational functions. Students will use graphing software extensively to investigate how these functions represent patterns of and relationships between variables. The class will also allow students to review the prerequisite algebra needed to manipulate and solve more advanced equations.

Learning Outcomes

After completing this course, you will be able to:

• Understand equations and inequalities.

• Understand how equations translate to functions.

• Can using online graphing software to graph linear and nonlinear functions (including polynomial, rational, Power, Root, Inverse, Exponential and Logarithmic functions).

• Can use graphing techniques to evaluate linear and non-linear functions.

• Understands Absolute Value functions and Inequalities.

• Can evaluate equations with Complex Numbers.

• Understands and can evaluate inverse operations.

• Can evaluate exponential and logarithmic functions.

Learning Strategies and Resources

Some learning activities, assignments and deadlines will vary depending on the delivery format of the course and may differ slightly from what is presented in this document.

The course addresses college algebra concepts that professionals can use for a variety of functions that can be used in the workplace. They will use modeling and graphing to map graphs of varying shapes and purposes to solve functions. Emphasis will be on how algebra for practical uses and to solve problems.

Required Readings

Books and learning materials are available at the DePaul bookstore, at http://depaul-loop.bncollege.com, or through alternative sources.

A Graphical Approach to College Algebra; Hornsby, Lial and Rockswold, ISBN-13: 978-0134696522, ISBN-10: 0134696522

Note: MyMathLab is required for this course. MyMathLab is included only with the purchase of a new textbook. If you buy a used textbook, you must purchase MyMathLab access separately.

Required Software: Microsoft Excel

Strongly Recommended: Basic Training in Excel.
http://www.internet4classrooms.com/on-line_excel.htm

Strongly recommended: Lynda.com Excel tutorials
Lynda.com is free to DePaul students and offers a wide range of Excel tutorials.

Learning Deliverables

There are 5 module quizzes that must be completed in My Math Lab, one for each module. Each quiz is 100 points. There are be 3 excel projects: Linear Models, Polynomial Models and Exponential Models.

Assessment of Student Learning

Distribution of Grade Points

Graded Assignments	Percentage of Final Grade
Excel Projects	40%
Module Quizzes	60%

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Grading Scale

A = 95 to 100	A- = 91 to 94	B+ = 88 to 90
B = 85 to 87	B- = 81 to 84	C+ = 77 to 80
C = 73 to 76	C- = 69 to 72	D+ = 65 to 68
D = 61 to 64	F = 60 or below	INC

Course Schedule

Week or Module Title or Theme	Readings / Learning Activities	Graded Assignments
Weeks 1 and 2, Module 1: Linear Functions, Equations and Graphs	Text Chapter 1	1.1 Introductions 1.2 Linear Models Excel Project 1.3 Module 1 Quiz
Weeks 3 and 4, Module 2: Graphs and Functions	Text Chapter 2	2.1 Module 2 Quiz
Weeks 5 and 6, Module 3: Polynomial Functions	Text Chapter 3	3.1 Polynomial Models Excel Project 3.2 Module 3 Quiz
Weeks 7 and 8, Module 4: Rational, Power and Root Functions	Text Chapter 4	4.1 Module 4 Quiz
Weeks 9 and 10, Module 5: Inverse, Exponential and Logarithmic Functions	Text Chapter 5	5.1 Exponential Models Excel Project 5.2 Module 5 Quiz

Course Policies

For access to all SCPS and DePaul University academic policies, refer to the following links:

SCPS Student Resources Website

DePaul Student Handbook

The D2L Course Website for this course.

Course Syllabus

The official syllabus for this course that includes course dates, instructor information and quarter specific details will be provided by the course instructor by the start of the course and available on the course D2L website.

Course Registration

To find out when this course will be offered next, you can go to the SCPS Registration website for details on how to register for the course.

For information on how this course can apply to your program, contact your academic advisor.

School of Continuing and Professional Studies

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