Mathematics 1148 College Algebra (4cr.) Autumn 2017 Syllabus

Prerequisite: A grade of C- or better in Mathematics 1075, or Course Code N on the Mathematics Placement Test.

Catalog Description: Functions and their representations, relations, transformations of functions, function composition, algebraic and graphical structure of a function, inverse functions, polynomial functions, and application of functions. Equations and systems of equations, roots, symmetry, solving linear equations and systems, solving polynomial and rational inequalities.

Purpose of Course: College Algebra provides students a college level academic experience that emphasizes the use of algebra and functions in problem solving and modeling, where solutions to problems in real-world situations are formulated, validated, and analyzed using mental, paper-and-pencil, algebraic and technology-based techniques as appropriate using a variety of mathematical notation. Students should develop a framework of problem-solving techniques (e.g., read the problem at least twice; define variables; sketch and label a diagram; list what is given; restate the question asked; identify variables and parameters; use analytical, numerical and graphical solution methods as appropriate; determine the plausibility of and interpret solutions). – Adapted from the MAA/CUPM CRAFTY 2007 College Algebra Guidelines.

This course is intended to satisfy the requirements of the Ohio Board of Regents TMM001 College Algebra course with learning outcomes specified in:
http://regents.ohio.gov/transfer/otm/otm-learning-outcomes.php

GE Information: This Mathematics course can be used, depending on your degree program, to satisfy the Mathematical or Logical Analysis category of the General Education Requirement (GE). The goals and learning objectives for this category are:

- **Goals:** Students develop skills in quantitative literacy and logical reasoning, including the ability to identify valid arguments, and use mathematical models.
- **Expected Learning Outcomes:**
  1. Students comprehend mathematical concepts and methods adequate to construct valid arguments.
  2. Students comprehend mathematical concepts and methods adequate to understand inductive and deductive reasoning.
  3. Students comprehend mathematical concepts and methods adequate to increase their general problem solving skills.

Follow-up Course: Mathematics 1149 for those students needing to take Mathematics 1151. The Math department requires a course grade of C– or better in Math 1148 in order to progress to Math 1149. Other programs may have higher grade requirements.

Textbook: J. Miller, D. Gerken. College Algebra & Trigonometry. 1st Edition McGraw-Hill.
ISBN for Loose-leaf version with ConnectMath Access Code: 978-1259976612

Electronic Option For Textbook: All students are required to have an access code for the ConnectMath Homework System that is used with the course. This online homework/study system includes a (searchable) electronic version of the textbook. New versions of the textbook bought in the campus bookstore come with a student access code.

Technology: All students are **required** to have an access code for the ConnectMath Homework System and all students are **required** to have a graphing calculator, TI-83 or TI-84.

Note: Any calculators (including TI-89 and TI-92) that use a Computer Algebra System (CAS) are not permitted during exams and quizzes.

Course Grade:

Exam 1 (Wednesday September 20th):	100 points (§ 1.7, 2.3–2.6, 9.1–9.2)
Exam 2 (Monday October 23rd):	100 points (§ 2.7-2.8, 3.1-3.3, 3.5)
Exam 3 (Monday November 20th):	100 points (§ 3.6, 4.1-4.4)
Recitation score:	100 points total (Homework: 30 pts & Quizzes: 70 pts)
Final (Monday December 11th):	200 points (All sections covered)
	600 total points for the course

Percentage Grading Scale:

90% A 87% A- 83% B+ 80% B 77% B- 73% C+ 70% C 67% C- 63% D+ 60% D

Exam Rooms: Exams will **NOT** be held in your regular classroom. Room assignments will be **announced in class** and **posted on the Math 1148 website** the week before an exam. If an exam is cancelled because of a university class cancellation (for example, in a snow emergency), the exam will be rescheduled as announced in lecture. Sections that are covered in the interim may appear on the rescheduled exam. You must have your Buck ID at each exam.

Make-Up Exams: You must have a **permission slip** that has been completed by your lecturer to take a make-up exam. To receive a permission slip, you must provide your lecturer with documentation demonstrating a conflict with the regularly scheduled exam. Students who have a time conflict with another regularly scheduled OSU course may take the make-up exam. Students with other types of time conflicts (such as social activities) should prearrange to take the exam at the scheduled time and date. Make-up midterms are scheduled for the morning after each midterm 8:00 – 8:55 am.

Extra Help:

Office Hours: Your lecturer and recitation instructor will have office hours for individual help.

MSLC (Mathematics and Statistics Learning Center) offers the following services:

- Tutor Room: The Math 1148 tutor room is located in MA 010
  and is open Monday through Thursday, 10:20am – 4:00pm and Friday, 10:20am – 1:40pm.
  Evening tutoring hours are Monday through Thursday 4:00pm – 7:00pm
- Exam Review Sessions
- Workshops

Please visit the MSLC website, **https://mslc.osu.edu/courses/math/1148** for more information.

RECITATION:

Homework: Homework consists of online homework (graded) and additional offline assignments (ungraded) from the course textbook. Access information for online homework will be available from your lecturer on the second day of lecture. ***Students are responsible for completing online homework before it falls due – the online homework system does not accept homework that is overdue.***

Quizzes: There are ten quizzes which are based on homework assignments and will be given in your recitation class. The best seven quiz scores will count towards your quiz grade. **There will be no make-up of quizzes; if you miss a quiz that will be one of your three dropped scores.**

MATH 1148 HOMEWORK Autumn 2017

ConnectMath Homework: Each homework problem in ConnectMath is assigned a score of 1-4 points. To earn the maximum of 30 homework points listed on the syllabus, a student needs to earn at least 85% of the available points in ConnectMath. Your course points will be calculated as:

$$\text{The minimum of 30 and } 30 * \left(\frac{Your\ ConnectMath\ Points}{0.85 \cdot (Total\ ConnectMath\ Points)}\right).$$

Due dates are enforced and a student is allowed only five attempts per problem.

Carmen: Carmen is a web-based course tool that allows you to view your grades. You can access Carmen by visiting **http://carmen.osu.edu**. You will need your OSU ID and password (the same ID and password which you use to access the Registrar's website).

Academic Misconduct Statement:

"It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-48.7). For additional information, see the Code of Student Conduct at http://studentlife.osu.edu/csc/."

Disability Services Statement:

"Students with disabilities that have been certified by Student Life Disabilities Services (SLDS) will be appropriately accommodated and should inform the instructor as soon as possible of their needs. SLDS contact information: WWW: http://www.ods.ohio-state.edu/; Email: slds@osu.edu; Phone: 614-292-3307; VRS: 614-429-1334; Address: 098 Baker Hall, 113 W. 12th Avenue.