MA 109: College Algebra- Section 10
Summer 2019

Contact Information:
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Office Hours:
TWR 11:30am-12:30pm (POT 722)
and other times by appointment

Section 10 meets Monday-Friday from 10:00-11:20am in POT OB7.

Content: The goal of this course is to prepare you to use the basic tools of algebra to manipulate both known and unknown numerical quantities. By succeeding in this course, you should be prepared to study elementary calculus (as presented in MA 123) as well as being able to understand and work with mathematical models in your other course work.

Students who successfully complete this course will be able to:

(1) Recognize reasonable answers based on number sense and the algebraic relations that must be satisfied by solutions.
(2) Recognize and operate with covariational and functional relationships between quantities
(3) Read and express those relationships as implicit equations, explicit (functional) equations, graphs, tables of values, and verbal descriptions
(4) Manipulate implicit and explicit equations to solve for a chosen variable, or recast a functional relationship in terms of a chosen independent quantity.
(5) Use algebraic techniques to solve applied and modelling problems in restricted settings appropriate for a general mathematics course
(6) Analyze and evaluate sample arguments and solutions for correctness and reasonableness
(7) Analyze limitations of models, especially in terms of piecewise functions and domain restrictions
(8) Use appropriate technology to understand and solve problems

Textbook: The textbook *College Algebra*, by Jay Abramson and other contributors at OpenStax serves as an important reference work for the course. This textbook is available for free online, or printed for around $50 to $60.

Calculator: Technology such as calculators can be very helpful for exploring mathematics. A simple ($10 to $30) calculator with powers and logs may be needed for some exam questions.

Using the calculator during a test for any reason other than performing the required calculations (for example, to recall a previously stored formula) will be considered cheating. You may use any graphing calculator that is allowed on the ACT. You may not use any calculator that has a computer algebra system (CAS) or a QWERTY keyboard. In particular, you may not use the TI-Nspire CAS, any TI-89, any TI-92, the HP 48GII, any HP 40G, any HP 49G, any HP 50G, the Casio Algebra fx 2.0, the Casio ClassPad 300, the Casio ClassPad 330, or any Casio CFX-9970G.

Expectations: I expect that you will maintain a positive attitude throughout the semester. This means being respectful toward others and yourself. At all times, constructive language should be used to describe the productive struggle of learning math. I expect that you will come to class ready to learn, ask questions, and engage in your own education. It is very important to keep up with your class and to inform me as early as possible of any problems or concerns. I hold office hours at the times listed above; you should feel free to drop in and ask questions about the course content or structure. The goal of this class is for us to work together to grow and learn, which will require patience and persistence. My job as your instructor is to guide you and answer your questions, so please don't hesitate to let me know how I can help you succeed in this class- stop by my office hours anytime, or send me an email. I will answer emails between 8am and 5pm Monday-Friday, and will always try to respond within 24 hours. Please ask or check canvas if you have any other questions.

Attendance: Attendance is mandatory for MA 109, and crucial to your success due to the fast pace of summer classes. Students who miss class due to illness, family emergency, or a university sanctioned activity should request an excused absence from me via email before planned events and as soon as possible after unplanned events. I must have proper documentation and you must make up missed work within a week of the excused absence. Any other absence is considered unexcused. You are expected to arrive to class on time and stay for the duration. If you have special circumstances that require you to arrive late or leave early, please let me know. You will begin the semester with 40 points for attendance, and may lose one point for each day you are absent from class without an excuse or present without participating.

Grading: Your final grade depends primarily on your exam scores, written work, and the homework you complete on WebWork. A full list of assignments for the semester can be found on the course calendar. The points available and grade cutoffs are as in the tables below. There are 600 points possible, with one extra homework assignment for extra credit.

6 Exams	x 50 points each	= 300 points
21 Homework assignments	x 10 points each	= 200 points
6 check-in problems	x 10 points each	= 60 points
Attendance and participation		= 40 points
	Total	=600 points

Grade	Minimum Points
A	540
B	480
C	420
D	360
E	0

Exams: We will have weekly exams in this course covering the material from the previous week's lecture and homework. Exams will occur as stated in the course calendar, during the last 45 minutes of class each Monday.

Exam 6 will consist of two parts. The first part will cover sections 6.2, 6.4, 6.5, and 6.7, and will be counted toward your final grade. The second (optional) part will test material covered in the first five exams, and the lowest score from this part and the first five will be dropped.

Homework: Homework must be submitted online at WebWork, in the appropriate course as accessed from Canvas. Each student is responsible for submitting the assignment in a way and time that the server will accept. Internet outages, different clocks, and other technical difficulties that occur after 5pm on the due date are at your own risk. The homework due dates are listed in the course schedule. Homework assignments are always due at 11:30am. There will also be weekly "check-in" problems assigned and due in class on Wednesdays.

Recording in the Classroom: Video and audio recordings are not permitted during the class unless the student has received prior permission from the instructor. If permission is granted, recording of other students or distribution of recordings is prohibited. All content for this course, including handouts and assignments, is the intellectual property of the instructor and cannot be reproduced, sold, or used for any purpose other than educational work in this class without prior permission from the instructor.

Technology: You are permitted to use laptops and tablets in class to access textbooks and class notes. However, using them for any purpose unrelated to that day's work is strictly prohibited. If I observe that your devices are a distraction to you or your classmates, I reserve the right to revoke this privilege.

Course Calendar: At the end of this document is a tentative calendar for the course. The homework assignments correspond to the sections in the textbook.

Accommodations Due to Disability: If you have a documented disability that requires academic accommodations, please see me as soon as possible. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (DRC). The DRC coordinates campus disability services available to students with disabilities. Visit the DRC website, email the DRC, contact them by phone at (859) 257-2754, or visit their office on the corner of Rose Street and Huguelet Drive in the Multidisciplinary Science Building, Suite 407.

Academic Honesty: All assignments, exams, quizzes, projects, and exercises completed by students for this class should be the product of the personal efforts of the individual whose name appears on the corresponding assignment. Cheating or plagiarism is a serious offense and will not be tolerated. Any potential cheating case will be thoroughly investigated, and could lead to failure in the course or even to expulsion from the university. See Student Rights and Responsibilities in the University Senate Rules (Sections 6.3.1 and 6.3.2) for information on cheating, plagiarism, and penalties. A summary of recent changes to rules on cheating can be found at the academic ombud website.

Week 1	Lecture	Work Due
T 5/7	2.1, 2.2	
W 5/8	3.1	Problem 1
R 5/9	3.2	
F 5/10	3.3a, In-class work	HW 2.1, 2.2
Week 2		
M 5/13	In-class work, Exam 1: 2.1, 2.2, 3.1, 3.2	HW 3.1, 3.2
T 5/14	3.3b, 3.4	
W 5/15	3.5a	Problem 2
R 5/16	3.5b	
F 5/17	3.7, In-class work	HW 3.3, 3.4
Week 3		
M 5/20	In-class work, Exam 2: 3.3, 3.4, 3.5, 3.7	HW 3.5, 3.7
T 5/21	4.1	
W 5/22	4.2	Problem 3
R 5/23	5.1a	
F 5/24	5.1b, In-class work	HW 4.1
Week 4		
M 5/27	In-class work, Exam 3: 4.1, 4.2, 5.1	HW 4.2, 5.1
T 5/28	5.2	
W 5/29	5.3	Problem 4
R 5/30	5.6a	
F 5/31	5.6b, In-class work	HW 5.2
Week 5		
M 6/3	In-class work, Exam 4: 5.2, 5.3, 5.6	HW 5.3, 5.6
T 6/4	5.7	
W 6/5	6.1a	Problem 5
R 6/6	6.1b, 6.3a	
F 6/7	6.3b, In-class work	HW 5.7
Week 6		
M 6/10	In-class work, Exam 5: 5.7, 6.1, 6.3	HW 6.1, 6.3
T 6/11	6.2, 6.4	
W 6/12	6.5	Problem 6
R 6/13	6.7a	
F 6/14	6.7b, In-class work	HW 6.2, 6.4
Week 7		
M 6/17	In-class work, Review	HW 6.5, 6.7
T 6/18		Exam 6