Course Information

Description. This course studies the properties of elementary functions, such as polynomial, absolute value, radical, rational, exponential, and logarithmic functions. Topics include equations, inequalities, functions, and their graphs. Students will formulate, analyze, solve, and interpret mathematical and real-world problems. Intended to provide the algebra skills required for calculus.

Prerequisites: MATH 96 or placement into MATH 112. MATH 118 does not fulfill the requisite.

Level: Elementary

Gen Ed: Quant. Reasoning A

L & S Credit Type: C

Instruction Mode: Online

This class meets for four times, 75-minutes class periods each week over the 8-week summer session and carries the expectation that students will work on course learning activities (e.g. reading, problem sets, and studying) for about two hours outside of classroom for every class period. The syllabus includes additional information about meeting times and expectations for student work.

Meeting Time and Location. MoTuWeTh 10:20AM - 11:35AM, Online

Course Website. https://canvas.wisc.edu/courses/199498

Instructional Team

Instructor: Hyejin Jenny Yeon

Email: hyeon2@wisc.edu
Instructor Availability. The instructor will be available to meet with a student or a group of students via a virtual meeting room called “Algebra Lab Hours” which will be available for 1 hour each day from Sunday through Wednesday. The times are 1:00PM to 2:00PM on Sunday/Tuesday and 9:00AM to 10:00AM on Monday/Wednesday. If this conflicts with one’s schedule, the time can be modified.

Textbook


This course will require WebAssign from Cengage. WebAssign contains the eBook, various study tools, and homework assignments. You have two purchase options: WebAssign Instant Access for Stewart/Redlin/Watson’s College Algebra, Single-Term, 7th Edition or Cengage Unlimited. If you have other courses using Cengage materials this semester, then Cengage Unlimited may be more appropriate. You can also purchase a printed loose-leaf textbook copy in addition one of the purchase options. For WebAssign support, please visit cengage.force.com/s/.

Technologies Used by the Course

This course will operate with Learn@UW Learning Technologies (https://at.doit.wisc.edu/learn-uw/?_ga=2.226994841.546680436.1589224442-731086670.1588024983). Of these, the following services will be used: Canvas, Blackboard Collaborate, Microsoft Team, Kaltura MediaSpace, Google Apps, and Piazza. This may change if the availability or requirement changes by the university.

Learning Outcomes

By the conclusion of this course, students are expected to be able to:

- Solve a variety of equations and inequalities using algebraic techniques;
- Interpret the properties of various functions, including their domains and ranges;
- Graph, transform, combine, compose, and solve for the inverse of different functions;
- Interpret and graph various polynomial, rational, exponential, and logarithmic functions;
- Solve linear and nonlinear systems of equations;
- Model and analyze real-world problems using various functions and their properties;
- Support solutions by applying mathematical concepts and reason to justifications.
Grading and Homework

In this course, you will be evaluated based on the components described below with their corresponding percentages.

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<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Homework</td>
<td>25%</td>
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<tr>
<td>Group Work</td>
<td>10%</td>
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<tr>
<td>Quizzes</td>
<td>10%</td>
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<tr>
<td>Exams</td>
<td>55%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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Homework (Collaboration Encouraged and Allowed). Homework is going to be the most important part of this course. These homework assignments can be accessed through the Canvas website. They are assigned on WebAssign (purchased previously using the previous instructions under the textbook). The due dates for the assignments are located on Canvas, but generally, they are due on Wednesday/Sunday nights at 11:59pm. Some of the problems may require the use of calculators, but a simple calculator or online calculator will suffice and students do not need to purchase a calculator of any sort. Two lowest assignment scores will be dropped from your overall homework score.

Group Work (Please Collaborate). Each student will be assigned to a group at the beginning of the semester and may change a few times throughout the course. The group will consist of 3 to 4 people. Group assignment will be on providing detailed written solutions to a list of homework problems and will be due on the same day as the homework is due. Solutions can be typed or handwritten and will be submitted as a group on Canvas. Piazza will also be used as a way to ask questions and help each other. Instructors may boost overall participation grade if Piazza is providing a positive learning environment for everyone with active questions and answers. Homework questions posted/answered via Piazza will not be considered to be an act of cheating.

Quizzes (Individual Work). There will be three 25 minutes quizzes, administered on Mondays of the second week, fourth week, and the seventh week starting at the beginning of class time.
The quiz will be accessible to students until 1PM. The first quiz weighs 2%, and the second and the third quizzes will weigh 4%.

Exams (Individual Work). There will be three exams during the semester, occurring on Thursdays of the second week, fifth week, and the last day of the class. You will have 75 minutes to complete each exam. The first exam weighs 15%, and the second and the third exam each weigh 20%. Exams are accumulative only in the sense that problems may depend on understanding/knowing previous materials/tools. For example, an exam question about inverse functions may depend on being able to work with rational equations or finding domain, which could have been the materials on the previous exams. In the unusual circumstance that you cannot attend the exam, you will need to discuss the situation as soon as possible with the instructor.

Grading Scale. The following scores correspond to guaranteed grades in this course. This may change only in a favorable direction.

A 92% > AB 88% > B 82% > BC 78% > C 70% > D 60% > F

Academic Policies

Academic Integrity. By enrolling in this course, you assume the responsibilities of an active participant in the University of Wisconsin-Madison’s community of scholars in which everyone’s academic work and behavior are held to the highest academic integrity standards. Academic misconduct compromises the integrity of the university. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. This includes but is not limited to failure on the assignment or course, disciplinary probation, or suspension. Substantial or repeated cases of misconduct will be forwarded to the Office of Student Conduct and Community Standards for additional review.

Diversity and Inclusion. Diversity is a source of strength, creativity, and innovation for University of Wisconsin-Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the
university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals.

The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background of people who as students, faculty, and staff serve Wisconsin and the world.

**Accommodations for Disabilities**

The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and University of Wisconsin-Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform your instructor of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. We will work either directly with you or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student’s educational record, is confidential and protected under Family Educational Rights and Privacy Act (FERPA).