

Math 2033-201: Structure of the Number System I

Spring 2019

Instructor: Dr. Sarah Cobb
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Office hours:

Monday: 11 AM—12 PM, 3—4 PM
Tuesday: 9—9:30 AM, 11 AM—12 PM
Wednesday: 10 AM – 12 PM
Thursday: 9—9:30 AM, 11 AM—12 PM
Friday: 11 AM—12 PM, 2—3 PM
Other times by appointment

Schedule

Lecture: Monday, Wednesday, Friday, 1:00—1:50 PM, Bolin 101
Unit Exams: February 8, March 4, April 3, April 29 during class time
Final Exam: Monday, May 6, 3:30—5:30 PM, BO 101

Catalog information

Description: Patterns and sequences, sets, the structure of various numeration systems, the four fundamental operations of arithmetic, integers, rational numbers, and elementary number theory. This course stresses conceptual understanding of mathematics through concrete examples, models, multiple representations of ideas and concepts, and processes of mathematical reasoning.

Prerequisites: MATH 1233 with a grade of C or better.

Textbook

Mathematics for Elementary School Teachers, ISBN 978-0-49363-5

Calculators

Scientific (not graphing) calculators will be allowed on certain tests and quizzes. Make sure that you have a calculator and know how to use it. Calculators may not be allowed on certain assessments or parts of assessments.

Grading

Your grade will be computed based on quiz and test scores:

Category	Percentage
Quizzes	15%
Unit Exams	60%
Final Exam	25%

Your final letter grade will be based on the percentage obtained:

Grade	Percentage
A	At least 90%
B	80—90%
C	70—80%
D	60—70%
F	Less than 60%

Homework

Suggested homework exercises from each section are on the last page of this document. Homework will not be collected or graded; however, quizzes and exams will be closely related to homework problems, and some time in class will be spent discussing them. You are strongly encouraged to complete *all* homework problems after each class session. I am happy to help you with the problems during my office hours.

Quizzes

Short quizzes will be given approximately once per week. Your lowest two quiz scores will be dropped. Quizzes cannot be made up for any reason.

It is also possible that certain in-class or out-of-class activities may be counted as quiz grades.

Exams

Four unit exams will be given during the class on February 8, March 4, April 3, and April 29.

If you must miss an exam, please let me know at least one week ahead of the test date and arrange to take the test early. In the case of unexpected and unavoidable absences (such as hospitalization), you must let me know on the day of the test. In this case the exam must be made up within 48 hours and will be subject to a 10% grade penalty. In other circumstances, you will receive a zero on the exam.

A cumulative final exam will be given on Monday, May 6, 3:30—5:30 PM. The final cannot be taken early or late for anything but the most dire emergencies.

Attendance

You are expected to attend every class, if at all possible. This includes arriving on time, staying to the end, participating in class, and behaving respectfully. If you must miss class, please consult a classmate to find out what you missed. Students who miss more than six classes or portions of classes may be dropped from the course with a grade of F.

Classroom Behavior

Respectful behavior in the classroom is required. Any student who is disruptive will be asked to leave class. As much as possible, please avoid talking with classmates and leaving or entering the room during class. Make sure all electronic devices are silenced.

Computers

I do not allow the use of computers in the classroom. This includes laptops, cell phones, tablets, and other similar devices. (Calculators are allowed.) Students using such devices may be asked to leave class. If a cell phone, smart watch, or similar device is visible or audible during a quiz or exam, you may receive a zero on that exam.

If this policy presents a serious problem, please let me know; exceptions may be made in special circumstances.

Academic Misconduct

Cheating on any work in this course will result in no credit for that work. Egregious or repeated incidents may result in more serious consequences, including a failing grade in the course or dismissal from your academic program. All incidents of academic misconduct will be reported as specified in your student handbook.

Changes

Some portions of this syllabus may alter during the semester. When possible, I will announce changes in class as well as sending an email through the D2L email system. You are responsible for knowing everything I announce in class as well as everything I email to your address as listed in D2L. If you miss class, make sure you talk to someone who was there.

Office Hours

Office hours are time that I have set aside to answer questions about the course or course material. I am happy to answer questions about homework problems, quizzes and tests, study practices, grades, and other topics. Please feel free to drop by with or without an appointment at any of the scheduled times listed on the first page. If it is impossible for you to attend scheduled office hours, email me to set up an appointment at another time.

Communicating with Me

The best way to reach me is by email (my email address is on page 1). I will generally respond to email within 24 to 48 hours. I will be in my office during office hours each week and often at other times; feel free to stop by. Any communication not in writing or by email should be considered unofficial.

Services for Students With Disabilities

In accordance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Midwestern State University endeavors to make reasonable accommodations to ensure equal opportunity for qualified persons with disabilities to participate in all educational, social, and recreational programs and activities. After notification of acceptance, students requiring accommodations should make application for such assistance through Disability Support Services, located in the Clark Student Center, Room 168, (940) 397-4140. Current documentation of a disability will be required in order to provide appropriate services, and each request will be individually reviewed. For more details, please contact the Disability Support Services office.

Desire-to-Learn (D2L)

This course will have an active D2L page. You should look there for grades on quizzes and exams, review materials, and announcements.

Section	Suggested Homework Problems
1.1	2, 3, 4, 7, 8, 9, 10, 12, 16, 17, 19, 20, 22, 25, 31, 32, 36, 39, 40, 42, 43, 47, 48, 49
1.3	7, 8, 9, 10, 11, 16, 17, 23, 24, 25, 29, 30, 31, 34, 38, 39, 40, 44, 46
2.1	1, 4, 5, 6, 9, 10, 11, 12, 13, 16, 17, 20, 21, 25, 26, 27, 29, 30, 32, 33, 38, 39, 41, 42, 43
2.2	1, 4, 8, 9, 10, 11, 26, 27, 28, 29, 30, 31, 41, 43, 45, 54, 59, 60, 61, 62, 63, 64
2.3	1, 2, 3, 4, 8, 16, 17, 22, 23, 26, 27, 30, 31, 32, 33, 34, 35, 36, 37, 42, 52, 54, 56, 57, 58, 59, 61, 62
2.4	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 21, 22, 23, 24, 26, 27, 28, 31, 32, 33, 35, 36, 40, 41, 45, 50, 51
3.1	1, 2, 3, 4, 5, 6, 7, 11, 14, 15, 16, 17, 20, 21, 24, 25, 30, 31, 34, 35, 37, 40, 41, 42, 44, 46, 51, 52, 56, 57, 58, 61, 62
3.2	1, 2, 3, 10, 12, 13, 14, 15, 16, 22, 26, 27, 28, 31, 32, 36, 37, 38, 39, 42, 47, 51, 52, 53, 59, 60, 61
3.3	1, 3, 5, 6, 8, 10, 13, 14, 16, 19, 20, 21, 23, 27, 28, 29, 34, 39, 50, 52, 55, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72
4.1	2, 3, 8, 10, 11, 14, 25, 26, 32, 33, 34, 35, 41, 42, 43, 44, 45, 46, 48, 50, 53, 56, 58
4.2	2, 3, 4, 5, 7, 8, 17, 19, 24, 25, 26, 37, 38, 39, 40, 41, 42, 43, 48, 49, 57, 58, 59, 60, 61, 64, 65
4.3	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 16, 20, 21, 25, 26, 27, 33, 34, 37, 39, 41, 43, 45, 46, 48, 50, 53, 56, 58
5.1	1, 2, 3, 5, 7, 13, 17, 22, 23, 27, 31, 33, 34, 35, 36, 37, 41, 42, 46, 49, 50, 53, 54, 55, 58
5.2	1, 2, 3, 4, 5, 6, 16, 17, 28, 30, 31, 32, 33, 34, 38, 39, 41, 42, 43, 46, 49, 50, 51, 53, 54, 55
5.3	1, 2, 3, 7, 9, 11, 12, 16, 17, 25, 29, 30, 31, 32, 33, 42, 45, 50, 55, 56, 57, 59, 60, 61, 62, 63
5.4	1, 2, 3, 4, 7, 9, 12, 14, 16, 20, 22, 29, 30, 32, 35, 36, 39, 41, 45
6.1	1, 2, 4, 5, 6, 7, 9, 19, 20, 29, 31, 34, 35, 39, 40, 42, 43, 45, 46, 47, 52, 54, 55, 57, 58, 59, 63, 67, 68
6.2	1, 2, 5, 6, 7, 9, 10, 11, 12, 18, 21, 22, 29, 31, 34, 36, 37, 39, 41, 45, 46, 51, 57, 58, 61
6.3	1, 2, 4, 5, 7, 8, 10, 12, 13, 17, 22, 24, 27, 29, 31, 33, 38, 39, 41, 42, 43, 46, 47, 48, 49, 50, 51, 55, 59, 60, 61, 63
7.1	1, 3, 5, 7, 8, 10, 13, 15, 19, 21, 26, 27, 28, 29, 35, 37, 39, 41, 43, 44, 49, 50, 51, 52, 53
7.2	2, 3, 4, 5, 6, 7, 9, 10, 11, 13, 14, 15, 16, 20, 21, 22, 31, 33, 37, 39, 40, 41, 42, 43, 44, 45, 46
7.3	1, 2, 3, 4, 5, 9, 10, 11, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33