

Syllabus

Math 332

Spring '23

Text: **Contemporary Abstract Algebra**, 8th edition by Gallian

Instructor: Jed Herman Office: SCI D 287 eherman@uwsp.edu

Office Hours: MTh 12:00-12:50, W 2:00 – 2:50, M 4:00 – 4:50

Office Hours will be available in person and can be made available via zoom on request

Class times & room: MWTh 3:00 – 3:50 pm in SCI A202

Mathematics-specific Goals/Learning Objectives

- Develop confidence in problem solving/proof writing and the ability to communicate your work effectively to others
- Work in groups to master complex ideas and concepts
- Gain an understanding of introductory topics of group theory (cyclic groups, groups of symmetries, permutation groups, normal subgroups, isomorphisms and homomorphisms, and the Fundamental Theorem of Abelian Groups)

Calculators

A calculator is not necessary for this course, but you are welcome to use one. Network-connected and/or symbolic calculators may not be used on exams.

Grading

Grading will be based on an overall percentage score, using the following scale:

90%+ A- or better	80%-89.9% B-, B or B+
70%-79.9% C-, C or C+	60%-69.9% D-, D or D+
<60% F	

I reserve the right to adjust the final percentage +/- up to about 2%, based on my assessment of your effort and/or participation in the class and course in general.

To get your overall score, you will be graded on the following:

Homework	1/5*
Participation/Group Project	1/5*
3 In-class exams	3/5*
Final	<u>+1/5*</u>
Total	100%

Note: you cannot simply add your points together for each activity – a homework point and an exam point, for example, are not worth the same part of your grade.

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Grading (continued)

*Also note: there are 6 scores total, but only 5 count towards your grade. I will drop your lowest exam score (in-class or final). This means 1) you can bomb one test and still do fine in the class, or
2) if you are happy with your grade on the last day of class, you can skip the final (as a reward for consistently good work).

What if my lowest score is homework or participation? This score can also be replaced by the final – **but there are conditions:**

- for homework, you must either have done at least 2/3 of the assignments or earned at least 50% of the points. If you blow off the homework assignments you are not eligible!
- for the participation/group project, you must actively participate in the project. Basically, you can't be dead weight in your group!

Canvas Grading:

Canvas provides a useful location to submit assignments and record grades. It even has an automatic feature to “total” the assignments stored on it, producing some sort of misshapen “Grade” which students sometimes think is related to their course grade. It is not. **DO NOT LOOK AT THE CANVAS COURSE TOTAL AND EXPECT IT TO REFLECT YOUR ACTUAL COURSE GRADE.** When we get towards the end of the semester I will add a few columns to the Canvas grades which show where you stand.

Homework

Advanced mathematics often requires time to ponder ideas and write them out. There will therefore be homework due roughly every two weeks. These should be written up **NEATLY AND CLEARLY, ORGANIZED IN AN OBVIOUS MANNER.** Submit them on Canvas – scan or take pictures of your work and upload it to the appropriate place. **DO NOT IGNORE THESE ASSIGNMENTS!**

Class Participation

You are expected to come to class and participate in whatever we are doing that day. Some days we will work in small discussion group on math problems, some days will be more like a traditional lecture, punctuated with prompts and questions. Actively participating is a part of your course grade!

I realize, however, that some ideas take time to make sense. To help with this, there will be discussion boards on Canvas to allow you to post your questions, thoughts, and comments. There will be one board per chapter; posts *with actual content about the relevant material* can count as part of your course participation. These can be original posts or responses to the posts of others.

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Attendance

You are expected to attend class every day. That said, things happen – people get sick, unexpected things happen. If you miss class, you should let me know what is going on (email is best, but in an emergency you can contact the [Dean of Students office](#), 715-346-2611). Note that you will be responsible for the missed material AND for the missed participation time (see previous paragraph about Canvas discussion posts).

Important: missing an exam or group quiz day will only be allowed in exceptional circumstances and will require ACCEPTABLE DOCUMENTATION as to the reason for the absence.

Group Project (Mastery)

Your instructor believes that one of the best ways to obtain deep knowledge of a subject is to learn it well enough to explain it to others. The last few weeks of class will consist of student groups *presenting material from text chapters*. Groups will be three or four students each, and groups will be selected according to chapter (so you will pick your topic, not your teammates). More on this later, but for now know that your group will develop a lesson plan and a suggested homework assignment, and you will have two class days to present material for your chapter.

When other groups present, it is useful for you to pay attention: **the third in-class exam will primarily consist of material from these chapters**. So if you don't pay attention and ask questions and take notes, you won't do well on that exam!

What if they don't present well? That could screw up our grade! Your instructor has used this method of instruction in several classes (more than 12 semesters worth of courses) and knows how to handle such things. Occasionally groups do crash and burn, but there are ways to recover... and you have a book to follow anyways. It will be fine. **Every group will be required to discuss their topics and presentation with the professor in a meeting (in-person or zoom).**

What if my group members don't do enough – or don't do anything? Again, I've seen this. And dealt with it. It will be okay.

In case you are curious, the chapters will be chosen from the book's Special Topics (chapters 25, 26, 27, 28, 29, 30 and 31). Remember: your group will be expected to master the concepts in ONE of these chapters well enough to explain them to the rest of the class. Many chapters refer to previous ones (for example, chapter 28 refers to theorem 26.5 in chapter 26) – but you will not need to know much about the previous chapter, just the result as quoted in your own chapter.

Exams

There will be three exams and a cumulative final. The exams are scheduled for the following days: February 27, April 13 and May 8; the final is on Wednesday, May 15 **at 2:45 pm to 4:45 pm**. Note that the actual dates of in class exams may vary slightly.

Extra Credit and Canvas Discussion Boards

There will be a Canvas discussion board topic listed for semi-weekly homework preparation. If you post a question or an answer to a question on this board, you will receive extra credit (max +1 point per week can be earned). Your SUBJECT LINE should include the problem number, and your MESSAGE should include a restatement (full or partial) of the problem. This way, other students will be able to read and learn from the postings. *To be eligible for the extra credit, your posting must have content – a posting such as “I agree” or “That doesn’t seem right” does not earn any extra credit on homework.*

There will be four kinds of discussion boards set up for this course on Canvas:

1) A board for homework problems are optional and can earn you extra credit (see above)

Make sure to post the problem number and state or summarize the problem statement when you post a question!

2) A board for comments and thoughts about the course (see section on participation, above)

2) A general discussion board. This is set up to allow you to ask your professor questions, or to offer a place for discussions not about the material (e.g., organizing study sessions, complaints about the book, etc.)

3) Boards for each Mastery Group (once they are set up). These will be important for sharing information and potentially uploading it to Canvas.

All boards will be monitored after the fact. That is, you will post directly to the board, and I will monitor periodically throughout the week. Certain standards apply to postings:

- Postings are never anonymous
- Postings must not contain inappropriate (foul, rude, hostile) language

Violation of these rules may constitute academic misconduct (see below).

Academic Misconduct Policy

I expect you to complete the coursework for this course. Failure to complete an assignment will result in zero points awarded for that assignment. Late assignments may lose points, at the discretion of the instructor. Also see the following link:
<http://www.uwsp.edu/admin/stuaffairs/rights/rightsChap14.pdf>

Student Rights and Responsibilities

All students are expected to know the UWSP student responsibilities found on the Dean of Students webpage. Information on Academic Concerns is available at <https://www.uwsp.edu/dos/Pages/stu-academic.aspx>. Information on Conduct Concerns and on Personal Concerns are also available on the Dean of Students site.

Inclusivity and Accommodations

It is my intent that all students from diverse backgrounds and perspectives be served by this course, that students' learning needs be addressed both in and out of class, and that the diversity brought by everyone in this class be viewed as a resource, strength, and benefit. It is my intent to present materials and activities that are respectful of diversity. I encourage you to make suggestions to this end. Please let me know ways to improve the effectiveness of the course for you personally, or for other students or student groups.

If you have experienced a bias incident (an act of conduct, speech, or expression to which a bias motive is evident as a contributing factor regardless of whether the act is criminal) at UWSP, you have the right to report it using this [link](#). You may also contact the Dean of Students office directly at dos@uwsp.edu.

UWSP is committed to providing reasonable and appropriate **accommodations** to students with disabilities and temporary impairments. If you have a disability or acquire an impairment or injury during the semester and you need assistance, please contact the * Disability Resource Center as soon as possible, in room 108 of the Collins Classroom Center (CCC), at 715-346-3365, or at DATC@uwsp.edu. You may also want to visit their website, [Disability Resource Center \(DRC\) - University of Wisconsin-Stevens Point \(uwsp.edu\)](https://www.uwsp.edu/drc/).