# Spring 2025 Syllabus    Math 312GT Section 01 - Abstract Algebra Groups

CONTACT INFORMATION

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Classroom: Reese 301

Office hours: M 1-2PM, W 12-1PM, R 2-3PM, F 12-1PM You are encouraged to schedule appointments regularly. Appointments can be made for small groups as well.

Lectures: MWF 10:00AM - 11:15AM

All times are EST.

REQUIRED TEXTBOOK

*Alegbra in Action*, Shahriar Shahriari

The course textbook is very dense. We will not cover everything from the sections we encounter. Instead, certain content from the sections we cover will be emphasized. The reading material (see below) is a good indication of the essential content of each covered section.

An ebook version of the course textbook can be accessed using the following link.

https://ebookcentral.proquest.com/lib/mtholyoke/reader.action?docID=5047875

You may also access the book through the library using the following information.

Call number: QA162 .S465 2017eb

COURSE WEB PAGE

All course information will be posted on the course web page at https://derekyoungmath.bitbucket.io/spring_25_312GT_01/. Please check the course web page frequently for all assignments, solutions and other resources.

COMPUTER SOFTWARE

Use of computer software to help you answer questions on exams is prohibited.

COURSE OBJECTIVE

In this course, we will focus on solving problems by using summation and integration methods. We will start the course be examining sequences and series. We will also study integration techniques as well as use integrations techniques to solve geometric applications. While you should know how to integrate at the beginning of the semester we will be covering

some basic integration content. By the end of the course you will know how to use polynomials to approximate other functions.

PARTICIPATION/ ATTENDANCE:
Active participation in class discussions and activities is expected and encouraged. Your engagement and contributions to the learning environment are valuable components of this course. Participation will be assessed based on:

- Regular attendance and punctuality
- Thoughtful questions and comments during lessons
- Engagement in group work and collaborative activities
- Respectful and constructive interactions with peers and instructor
- Timely completion of in-class assignments and activities

By actively participating in class, you will not only enhance your own understanding of mathematical concepts, but also contribute to a supportive and inclusive learning community.

OFFICE HOURS:
Each week I will be holding three hours of office hours. These hours will be used by students in all courses that I am teaching this semester. Thus you will need to book an appointment to attend scheduled office hours. Each slot will be ten minutes and you can book up to two slots per hour. To book a slot you will need to use the following link.

https://docs.google.com/spreadsheets/d/1A8fRBCHiuflvN_2NSmgke_YZy6urTJTc

You are encouraged to request an appointment with me via email if you can not make my regular scheduled office hours. To request an appointment with me send me an email with a list of times that you can meet with me.

## Before Class

READING MATERIAL
Reading material is content from the course book which is related to the next lecture. Reading this content before the next lecture will open your brain so that I can dump math inside.

Some of the reading content will require you to know terminology which we will have not yet covered. This means you will have to learn the unfamiliar terms in the reading by scanning the previous content from the assigned section.

Reading material is assigned each lecture and will be posted on the course page under the date on which it is assigned.

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| READING QUESTIONS | Reading questions are questions that are related to the reading material. |
| | Reading questions will be posted on the course survey page [https://derekyoungmath.pythonanywhere.com/spring_25_312GT_01_reading_questions](https://derekyoungmath.pythonanywhere.com/spring_25_312GT_01_reading_questions) at least 2 hours before each lecture and will be due before each lecture. |
| | Reading questions will be graded on a credit no credit basis. |

## During Class

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| LECTURES | During the lectures you should take notes in a notebook. You won't have to write down everything that I write down because I will be posting the lecture notes on the course page after each lecture. During the lectures, it is a good idea to write down questions, comments, and ideas. By the way, if you have any questions during the lecture feel free to stop me and ask your questions. You don't have to raise your hand. Chances are I won't see your raised hand immediately if you decide to raise it because I will probably be writing. |
| JOURNALS | Journals are a collection of your solutions to the problems from the worksheets. To create your journal you will need to scan your worksheets and merge them to create one pdf file. |
| | Journals will be due on the same day of the homework assignment. |
| | Journals will be graded on a credit no credit basis. |
| EXAMS | Exams are opportunities for **you** to express your understanding of the content from the lectures. A good way to prepare for the exams is to review the problems from the journals and homeworks. |
| | Exams are opportunities for **me** to give you feedback on your understanding of the content from the lectures. |
| | There will be 2 in-class exams given during the regularly scheduled class period. Please see the schedule posted on the course web page for all exam dates. |

## After Class

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| HOMEWORK | Homework will be assigned once a week. Homework assignments will typically be assigned on Wednesday and due 8:00PM EST on the Friday of the next week. Deadlines for homeworks are strict. Please see the schedule on the course web page for homework due dates. You are allowed to share ideas with other students on homework assignments, but you are |

expected to submit your own answers.

You will need to study the assigned problems. Turning in correct solutions for the book work problems will not be enough for you to do well in the course. Hence you need to know what you know and what you don't know about the problems before you turn in the assignment. If you are able to present your homework problems to someone in the class without using any resources(including your solutions) then you are prepared to turn in your assignment. Otherwise, get help (See how to do this below.) ASAP or do more problems!

You may redo any problem that you incorrectly answer. However, your redo is due exactly one week after your assignment is returned.

# Grading

GRADING

5.0% – Reading Questions

10.0% – Journals

10.0% – Participation

35.0% – Homeworks

35.0% – Exams

5.0% – Final Exam

GRADING
SCALE

| | | | |
|---|---|---|---|
| $A$ | $93 - 100\%$ | $C$ | $73 - 76\%$ |
| $A-$ | $90 - 92\%$ | $C-$ | $70 - 72\%$ |
| $B+$ | $87 - 89\%$ | $D+$ | $67 - 69\%$ |
| $B$ | $83 - 86\%$ | $D$ | $63 - 66\%$ |
| $B-$ | $80 - 82\%$ | $D-$ | $60 - 62\%$ |
| $C+$ | $77 - 79\%$ | $F$ | $0 - 59\%$ |

REDOS

You will be allowed to redo problems on homeworks, assessments and exams by resubmitting the problems from the assignment. Each assignment can be redone once for a maximum of 90% of the assignment. For in-class exams, your redo can only increase your score by 20%. You will have one week from the time your assignment is returned to submit any redos. In order to redo any assignment you must attend class on the day the material from the assignment was covered. Also, you must submit the assignment by the deadline in order to redo it.

# Advice

DISABILITY SERVICES STATEMENT
If you need official accommodations through Disability Services, you have a right to have these met and kept confidential. Please contact Disability Services, disability-services@mtholyoke.edu. If you are eligible for academic accommodations, you will be provided with an accommodation letter.

To use an accommodation, request to use the accommodation in advance. This gives me time to prepare for the accommodation.

Once you receive your accommodation letter, please book an office hours appointment with me. We will discuss your approved accommodations and how to make them work for our class.

For more information on who might be eligible for accommodations and the application process, please see the Disability Services website. (`www.mtholyoke.edu/directory/departments-offices-centers/disability-services`)

ACADEMIC INTEGRITY
"Aka the Honor code aka Don't Cheat!" You need to put in hard work in order to learn, thus it is very important for you to follow the Honor Code in all of your work.

Collaboration on homework assignments is encouraged. All weekly homework assignments will require you to disclose collaborators and outside resources.

It is a violation of the honor code to use sources like a solution manual or chegg.com without citing them. I highly suggest this resource about citing sources and understanding plagarism: from LITS, How to Use Sources Properly.

Exams will be closed book (no outside resources allowed).

If plagiarism or cheating occurs, you will not be given credit for that assignment and that assignment may not be redone.

If you have any questions about what constitutes an Honor Code violation in this class, please talk to me! Honor Code violations will be brought to the Academic Honors Board.

GETTING HELP  When you struggle, the following are sources to access more help:

1. Me! Please, please let me know repeatedly that you need more help. The earlier the better. This is what I am here for. You can not bug me enough.

2. Ask classmates! Form a study group! Post extra questions to the course forum!

3. Ask the TA/grader in the help sessions.

4. Talk to me about getting personalized help from a tutor.

NOTE        The syllabus may be changed at anytime.