

PRACTICAL INFORMATION

Class time: MWF 2:00–2:50 pm
Class room: MATH 012 (hybrid)
Instructor: Lars Winther Christensen
Office: WEEKS 347
Office hours: M 3.30–4.30 pm, TR 9–10 am, or by appointment
E-mail: lars.w.christensen@ttu.edu
Homepage: www.math.ttu.edu/~lchrste/teaching.html

COURSE DESCRIPTION

This course is intended to be *the* introduction to abstract mathematics, with proofs. It is also a Communication Literacy course.

Required text: *Algebra. Pure & Applied* by Papantonopoulou; Pearson (2002).

Prerequisites: Math 2360 and Math 3310.

Expected learning outcomes: Students learn how to think and reason abstractly in the context of algebraic structures and learn how to write correct and clear mathematical arguments in this context. Concepts to be mastered by the students include but are not limited to the following:

- Groups and group homomorphisms.
- Group actions.
- Rings and ring homomorphisms.
- Polynomial rings.

LEARNING ASSESSMENT

Graded assessment is done through homework and exams. Other assessment techniques will also be used; these include direct questioning, problems to be solved in class, and discussions during office hours. Additionally, problems will be assigned for student self-assessment. The homework problems will focus on the concepts listed above. They will be constructed such that they facilitate the students' development of skills in reasoning about algebraic objects and communicating their thoughts. Exam problems will be constructed such as to test if the students have acquired the expected command of the concepts and developed the expected skills in abstract algebra.

COURSE ORGANIZATION

Of the 42 class periods, 38 will be spent on lectures and in-class activities and 4 on exams and feedback. The plan is to cover sections 1.1–1.4 (8 class periods), 2.1–2.5 (7 c.p.), 3.1–3.4 (5 c.p.), 4.1–4.3 (5 c.p.), 6.1–6.3 (5 c.p.), 7.1–7.3 (5 c.p.), and 8.1–8.3 (3 c.p.). Reading assignments are posted on Blackboard, which is updated after every class.

Exams: In-term exams take place on Friday 5 March and Friday 16 April, 2:00–2:50 pm. The final exam is on Friday 7 May, 1:30–4:00 pm.

Other important dates:

Last day to drop a course without penalty	4 February
No classes	26 February
Spring Break	19 March
No classes	5 April
Last day to drop a course	21 April
Last day to withdraw	21 April

ASSIGNMENTS, GRADES, AND GRADING

Two in-term exams are given during the semester. Regular homework will be assigned 15 times during the semester and is due on Wednesdays. Students are encouraged to work together on the homework problems. Results and grades are posted at www.blackboard.ttu.edu.

Grading: On exams and homework, partial credit for correct steps will be awarded even if the final answer is wrong. Full credit will be given only if the final answer and all intermediate steps are correct. A correct final answer does not *per se* guarantee any credit.

Deadlines and make ups: Homework is not accepted after the deadline. Make-up exams are only given if the original exam was missed for a valid, university approved, reason.

Final grade: Attendance (40 class periods), homework (15 assignments), and exams (3) are counted towards the final grade with weights as follows: Attendance 5% ($\frac{1}{8}\%$ ea.), homework 45% (3% ea.), in-term exams 25% (12.5% ea.), and final exam 25%.

GENERAL POLICIES

Academic integrity: It is the aim of the faculty of Texas Tech University to foster a spirit of complete honesty and high standard of integrity. The attempt of students to present as their own any work not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offenders liable to serious consequences, possibly suspension. "Scholastic dishonesty" includes, but is not limited to, cheating, plagiarism, collusion, falsifying academic records, misrepresenting facts, and any act designed to give unfair academic advantage to the student or the attempt to commit such an act. See www.depts.ttu.edu/opmanual/OP34.12.pdf.

Students with disabilities: Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services (SDS) during the instructor's office hours. Please note: instructors are not allowed to provide classroom accommodations to a student until appropriate verification from SDS has been provided. For additional information, please contact SDS in West Hall or call 806-742-2405. Please see more on-line at www.depts.ttu.edu/opmanual/OP34.22.pdf

Religious holy days: Students are allowed to take time to travel and observe a religious holy day as detailed in www.depts.ttu.edu/opmanual/OP34.19.pdf. Note that prior notice must be given to the instructor in writing.

POLICIES RELATED TO THE PANDEMIC

Potential for Course Modality Change

If Texas Tech University campus operations are required to change because of health concerns related to the COVID-19 pandemic, it is possible that this course will move to a fully online delivery format. Should that be necessary, students will likely need a webcam and microphone and will be advised of additional technical and/or equipment requirements, including remote proctoring software.

Illness-Based Absence Policy

If at any time during this semester you feel ill, in the interest of your own health and safety as well as the health and safety of your instructors and classmates, you are encouraged not to attend face-to-face class meetings or events. Please review the steps outlined below that you should follow to ensure your absence for illness will be excused. These steps also apply to not participating in synchronous online class meetings if you feel too ill to do so and missing specified assignment due dates in asynchronous online classes because of illness.

1. If you are ill and think the symptoms might be COVID-19-related:
 - a) Call Student Health Services at 806.743.2848 or your health care provider.
 - b) Self-report as soon as possible using the ttucovid19.ttu.edu management system. This website has specific directions about how to upload documentation from a medical provider and what will happen if your illness renders you unable to participate in classes for more than one week.
 - c) If your illness is determined to be COVID-19-related, remaining documentation and communication will be handled through the Office of the Dean of Students, including notification to your instructors.
 - d) If your illness is determined not to be COVID-19-related, please follow steps 2.a-d below.

2. If you are ill and can attribute your symptoms to something other than COVID-19:
 - a) If your illness renders you unable to attend face-to-face classes, participate in synchronous online classes, or miss specified assignment due dates in asynchronous online classes, you are encouraged to visit with either Student Health Services at 806.743.2848 or your health care provider. Note that Student Health Services and your own and other health care providers may arrange virtual visits.
 - b) During the health provider visit, request a "return to school" note;
 - c) E-mail the instructor a picture of that note;
 - d) Return to class by the next class period after the date indicated on your note.

Following the steps outlined above helps to keep your instructors informed about your absences and ensures your absence or missing an assignment due date because of illness will be marked excused. You will still be responsible to complete within a week of returning to class any assignments, quizzes, or exams you miss because of illness.

Student Absences and the ODOS

Instructors of record (IoR's) have discretion to make decisions regarding student absences and missed assignments or exams. For example, if a student has missed an assignment or exam, the IoR can make the decision to allow a make-up or late submission. IoR's do not need "permission" or authentication from the Office of the Dean of Students (ODOS) to do so. Reference to University OP 34.04 may be helpful. Absences of 5 days or more should be referred to the DOS.

When requesting medical documentation of a student's absences, only dates of service is required. Instructors do not need to know details of the medical situation. ODOS can accept documentation and provide verification (without details) as needed.

If IoR's have students who are affected by COVID and are not allowed to attend in-person classes, this includes not going to the Testing Center to take exams.

Contact Dean of Students (deanofstudents@ttu.edu)

Online Classroom Decorum

Texas Tech University is a community of faculty, students, and staff sharing an expectation of cooperation, professionalism, and civility in all forms of university communication and business. This expectation applies to all interactions in a classroom setting where an exchange of ideas and creative thinking should be encouraged and where intellectual growth and development are fostered. Disruptive students may be subject to sanctions according to the *Texas Tech University Code of Student Conduct*. Faculty members are also expected to maintain the highest standards of professionalism in all interactions with all constituents of the university (www.depts.ttu.edu/ethics/matadorchallenge/ethicalprinciples.php).

Regarding the online classroom's civility, please remember one rule, “the online class setting is the same as the face-to-face class setting.” Disruptive behavior may result in academic response or disciplinary sanctions ranging from a verbal warning to grade implications to potential removal from the course. Disciplinary actions may be initiated pursuant to the *Texas Tech University Code of Student Conduct*. Students are expected to maintain online behaviors that are conducive to learning.

Examples of behavior that may be considered disruptive include:

- Using or posting inappropriate, obscene, or lewd comments, language, or content or discussing inappropriate topics online or via email.
- Enabling or participating in online classroom hijacking (“Zoombombing”) by participating in online classroom streams without being enrolled in the course or by sharing streaming classroom links with parties not enrolled in the course.
- Spamming, hacking, or using TTU or Blackboard platforms for commercial purposes.
- Cyberbullying or online harassment.
- Interfering with or stopping instructional delivery.
- Using non-readable fonts or font sizes.
- Interrupting class discussion by speaking out of turn or having excessively distracting background noise(s) while unmuted.

Syllabus Addendum Regarding Expectations for Student Participation in Online Synchronous Course

This course is designated as an online synchronous course. That means that we will meet in real time at a regularly scheduled class time via a video conferencing tool (e.g., Collaborate, Zoom, Teams, etc.).

To ensure that you are fully engaged in class discussions and account team meetings during class time, you are expected to do the following:

1. Attend all classes regularly.
2. Log into the video conference on time and remain logged in for the duration of the class period.
3. Activate your camera so that you are visible to the instructor and other students in the class. Your camera should remain on for the duration of the class period.
4. Refrain from engaging in non-class related activities during class time that create a distraction for other students in the class and/or limit your ability to engage in the course (e.g., walking around, talking to others off camera, working at a job, driving a vehicle, etc.).
5. Maintain the same level of civility and professionalism that would be expected in a face-to-face classroom setting.

Failure to meet these expectations may result in the following consequences:

1. Being counted as absent for the class meeting.
2. Not receiving credit for class participation for that class period.
3. Other consequences as stipulated in the syllabus, *Texas Tech Code of Student Conduct*, or other university policy.

Repeated failure to meet expectations (e.g., attendance, participation in class, etc.), in addition to the above consequences, may result in the one or more of the following consequences:

1. Referral to the appropriate Associate Dean.
2. Academic penalty, ranging from a warning to failure of the course.