

Ring Theory (MAT 441), spring 2022

Homework assignment for this week:

Lectures: Mondays and Wednesdays 12-1:15 in WXMLR A111.

Course objectives and material: This course is an introduction to rings. The course objectives are for the students to gain a deep understanding of the underlying concepts, as well as fluency and proficiency in using the corresponding language and tools. The textbook is *Abstract Algebra: An Introduction (3d ed.)* by Thomas W. Hungerford. Previous editions are also acceptable. We will roughly cover chapters 1-6, 10 and 11, corresponding to the following topics: basic integer and modular arithmetic, rings, fields, ideals, rings of polynomials, unique factorization, and introduction to field extensions.

Homework: Assignments will be given online each week, usually by Wednesday, and will be due before class the following Wednesday. No late homework will be accepted; the two lowest homework scores will be dropped.

Exams: There will be two Midterm exams and a Final. The Midterm exams will take place during class time on Wednesday 2/16 and Wednesday 3/30. The Final will take place on Monday 5/2 from 12:10 to 2pm (standard University calendar).

Grading: The final grade will be a weighted average of Homework (20%), Midterms (20% each) and the Final (40%).

Office hours: Mondays and Tuesdays 4:30-5:30 in my office, WXMLR 431. If you would like to meet at another time, please send me an email at paupert@asu.edu, or call me at 480-727-6661 to schedule an appointment.

Disability accommodation: "Qualified students with disabilities who will require disability accommodations in this class are encouraged to make their requests to me at the beginning of the semester either during office hours or by appointment. Note: Prior to receiving disability accommodations, verification of eligibility from Student Accessibility and Inclusive Learning Services (SAILS, formerly called DRC) is required. Disability information is confidential."

Academic integrity: "Academic honesty is expected of all students in all examinations, papers, laboratory work, academic transactions and records. The possible sanctions include, but are not limited to, appropriate grade penalties, course failure (indicated on the transcript as a grade of E), course failure due to academic dishonesty (indicated on the transcript as a grade of XE), loss of registration privileges, disqualification and dismissal. For more information, see <http://provost.asu.edu/academicintegrity>."

Absences related to religious observances/practices: "If you will be absent from class due to a religious observance or practice, it is your responsibility to inform the instructor during the first week of class. Your instructor will work with you on alternative and reasonable arrangements for any time missed."

Absences related to university sanctioned events and activities: "If you will be absent from class due to participation in a university sanctioned event/activity, it is your responsibility to inform the instructor during the first week of class. Your instructor will work with you on alternative and reasonable arrangements for any time missed."

Policy against threatening behavior: "All incidents and allegations of violent or threatening conduct by an ASU student (whether on-or off campus) must be reported to the ASU Police Department (ASU PD) and the Office of the Dean of Students. If either office determines that the behavior poses or has posed a serious threat to personal safety or to the welfare of the campus, the student will not be permitted to return to campus or reside in any ASU residence hall until an appropriate threat assessment has been completed and, if necessary, conditions for return are imposed. ASU PD, the Office of the Dean of Students, and other appropriate offices will coordinate the assessment in light of the relevant circumstances."

Policy on Sexual Discrimination: "Arizona State University is committed to providing an environment free of discrimination, harassment, or retaliation for the entire university community, including all students, faculty members, staff employees, and guests. ASU expressly prohibits discrimination, harassment, and retaliation by employees, students, contractors, or agents of the university based on any protected status: race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, and genetic information."

Title IX: "Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at <https://sexualviolenceprevention.asu.edu/faqs>. As a mandated reporter, I am obligated to report any information I become aware of regarding alleged acts of sexual discrimination, including sexual violence and dating violence. ASU Counseling Services, <https://eoss.asu.edu/counseling>, is available if you wish discuss any concerns confidentially and privately."

Gender identity: "The School of Mathematical and Statistical Sciences encourages faculty to address and refer to students by their preferred name and gender pronoun. If your preferred name is different than what appears on the class roster, or you would like to be addressed using a specific pronoun, please let your instructor know."
