

# MTH 345 Ring Theory

Winter 2017

Class Meets MTWF 1-1:50pm in MNB 130

**Final Exam: Monday, 3/20 12-1:50pm**

Instructor: Dr. Cheryl Beaver

Office: MNB 123

Phone: (503) 838-8404

Email: beaverc@wou.edu

Website: <http://www.wou.edu/~beaverc>

Office hours: MT: 2-2:50pm, T,W,F: 12-12:50pm \*

**Prerequisites:** MTH 344 with a grade of C- or better.

**Text:** *Contemporary Abstract Algebra, 9<sup>th</sup> Edition* by Gallian.

**Learning Outcomes:** At the end of the term successful students will

1. Demonstrate the ability to make rigorous mathematical arguments in axiomatic and non-axiomatic systems.
2. Demonstrate effective written communication of mathematical concepts.
3. Demonstrate an understanding of rings, factor rings, ideals, integral domains, and fields. Be able to work easily with homomorphisms, matrix and polynomial rings.

**Attendance:** This is an upper division math class, your attendance is expected. The material builds on itself, if you miss several classes you may become too far behind to recover successfully. If you must miss class, please get notes from a classmate and keep me updated on your situation.

**Homework:** Homework from the text and occasionally additional problems will be assigned and graded on a regular basis. Occasionally in-class work will be collected for grading. Assignments will be posted on our class webpage which can be accessed from my homepage: <http://www.wou.edu/~beaverc>.

Much of your learning will occur while doing the homework assignments. Please carefully read the book and schedule lots of time to work on the homework. It can be helpful to work in groups, but always depending on others to get your work done is a mistake. If you work with others, please site them at the end of the assignment and never directly copy another persons work. Proofs require some creativity. It is unlikely that two proofs of the same problem will look exactly alike. You should understand and write up your own solution to each problem in your own words.

**Quizzes:** Quizzes may be given on an as-needed basis. Quizzes will be considered in-class work and count toward your homework grade.

**Exams:** There will be two midterm exams and a final exam. Exams are tentatively scheduled for sometime during the weeks of 2/6 and 3/6. Missed exams may not be made up except in rare cases with prior notification and instructor approval. Cell phones must be turned off during

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\*Please feel free to drop by my office during my office hours for help. You do not need to make an appointment to come to office hours. At times other than my listed office hours you are welcome and encouraged to call or email me with questions about the course. If you have direct scheduling conflicts with my office hours and would like further help, please let me know.

exams. The final exam is Monday 3/20 from 12-1:50pm.

**Late Homework:** Homework is due by 4:30 pm on its due date. You may turn in your homework in the box outside of my office door if I am not in my office (MNB 123). If you are not done with all of your homework by 4:30 on its due date, please turn in what you have done for partial credit as **LATE HOMEWORK IS NOT ACCEPTED**. Your lowest homework score will be dropped. In-class work may not be made up.

**Grades:** Grades will be based on the following: Homework 30%, 2 Midterms 25% each, Final Exam 20%.

**Appropriate Classroom Behavior:** You are ultimately responsible for your own attendance and performance. Disruptive classroom behavior of any kind is not appropriate. Proscribed conduct for all students is described in the University Catalog. Any student found cheating on an exam or copying from another student's exam paper will receive a zero score on that exam.

**Special Accommodations:** If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and the Office of Disability Services, APSC 405, or at 503-838-8250, as early as possible in the term. Students needing medical or mental health care can access the Student Health and Counseling Center by calling 503-838-8313, emailing at [health@wou.edu](mailto:health@wou.edu), or by walking in to schedule an appointment.

**Incomplete Policy:** An Incomplete can only be granted for a student who is passing a class and has a documented emergency that prevents them from completing a very small portion of the course (e.g. the final exam).

**Veterans and Active Military Personnel** with special circumstances are welcome and encouraged to communicate these, in advance if possible, to the instructor.

**Student Success Concerns:** If the instructor determines your performance in this class is placing you at academic risk, you may be referred to a member of the Student Success Team. A student success specialist will offer to work with you to address issues and develop a student success strategy. Regardless of whether a referral has or has not been made, you are ultimately responsible for tracking your own progress in this course. If you would like to meet with a student success specialist regarding any academic struggles you are experiencing, please contact the Academic Advising and Learning Center at 503-838-8428.

**Student Absence Notification:** If for some reason you are absent due to an extenuating circumstance or medical situation, the instructor may ask you to report the incident through official channels before making exceptions to missed or late work. For more information on how to submit a student absence notification request, please contact the Academic Advising and Learning Center at 503-838-8428.

**Cell Phone Policy:** Please put them away. No texting during class.