MATH 392   MWF 11:00-11:50   DEA 301   Winter 2018

Instructor: David Steinberg   **Office Hours:**
Office: 003, Deady Hall   W 3:00 - 4:50, and F 12:00-12:50
Email: dcstein@uoregon.edu   or by appointment (email me)
(Please include *Math 392* in the subject line when emailing me)

Anonymous Feedback: All students are encouraged to give me anonymous feedback about the course or my teaching during the term. Go to *www.gmail.com*, log in with the user name *anonymousinstructorfeedback* , use the password *isn'tmathfun?* and send me a message containing any constructive feedback you would like to give.

Prerequisites: The prerequisite for this course is successful completion of Math 391.

Textbook: *"Essentials of Modern Algebra" by Miller.*

Attendance: Attendance is not mandatory, but you are responsible for any material, announcements, or content that you miss if you do not attend class.

Academic Honesty is taken very seriously. The integrity of your degree depends on it. All instances of academic dishonesty will be reported to the Office of the Dean of Students.

- On homework, you are allowed (and encouraged) to work with other students, but the work you submit must be your own. In other words, figure out problems together, but write solutions separately. For those who get help from tutors, if you are shown how to do a problem, you should still write a solution that is your own. Getting solutions from online sources is also considered cheating.

- On tests, any cheating, in particular copying from others, or allowing others to copy you, will result in failure of the course.

Course Goals: Students will learn the essential mathematic concepts and ideas in field theory, which is a fundamental object of Modern Abstract Algebra. After completing this course satisfactorily, a student will:

- Be able to prove fundamental results about factoring polynomials over fields;

- Be able to determine extension fields, minimum polynomials, and algebraic extensions;

- Be able to state the Galois Correspondence, and understand all of the characters involved.

Quizzes: There will be four quizzes through-out the term, dates below. These will be closed-book, with the exception that you may bring in a summary document providing the statements of theorems and definitions that we have seen in Math 392 (note that you may **not** include statements of theorems or definitions from 391).

Portfolio: On top of quizzes and homework, you will be asked to complete a portfolio and submit drafts through-out the term. This will include two documents, one summary document and one commentary document.

    The summary document will consist of statements of all the definitions and theorems covered in the class. You will be allowed to use this document (and only this document) as a reference during the quizzes.

    The commentary document in your portfolio will contain all of the theorems and definitions of your summary as well as your commentary to these, including additional examples, counter-examples, non-examples, elaborations on definitions or proofs, bits of insight or intuition, questions that you have as they come up, answers to these questions, proofs that you think are better than the ones that the textbook provides, errors in the textbook, etc. Anything you think will help you understand the material is welcome in the commentary. The goal is to create a document that would help you re-learn this material a few years from now.

    Drafts of the portfolio are due one week prior to each quiz. Both documents must be typeset in LaTeX. Theorems and definitions should be numbered as they appear in the textbook, and you should note the page of the textbook that they appear on. This may require some playing with LaTeX's counters. Some resources will be provided. We will discuss how the portfolio will be graded in class.

Final Exam: Unless something goes terribly wrong, there will be no final exam.

Assessment:

    Quizzes – 35% (Monday of weeks 4, 6, and 8, and Friday of week 10)

    Homework – 35% (posted on canvas, due every Friday in class)

    Portfolio – 30% (Drafts due at the beginning of class one week prior to each quiz)

Grading Breakdown: A: 90% or better, B: 80% -89%, C: 70%-79%, D: 60%-69%, F: below 60%. Plus grades will be awarded when the last digit is 8 or higher (98%-100% is an A+). Minus grades will be given if the last digit is either a 0 or 1. Your final percentage will be rounded to the nearest whole number. You must get at least 70% to receive a pass (P) grade (if you are taking this course with the Pass/No Pass option).

Important Dates:

- Monday of the 2nd week – last day to drop without a 'W'

- Wednesday of the 2nd week – last day to add a class

- Sunday at the end of the 7th week – last day to drop the course or change your grading option to P/N.

- Monday, January 15th is a holiday, there will be no class

Canvas: You can use our Canvas website to see syllabus, schedule, homework assignments, your grades and more. To access our canvas site, go to:
http://canvas.uoregon.edu/

Accessibility: The University of Oregon is working to create inclusive learning environments. Please notify me as soon as possible if there are aspects of the instruction or design of this course that result in disability-related barriers to our participation. You may also wish to contact Disability Services in 164 Oregon Hall at 346-1155 or disabsrv@uoregon.edu

Regarding Sexual Violence: The UO is committed to providing an environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic and dating violence, and gender-based stalking. If you (or someone you know) has experienced or experiences gender-based violence (intimate partner violence, attempted or completed sexual assault, harassment, coercion, stalking, etc.), know that you are **not alone.** UO has staff members trained to support survivors in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, helping with legal protective orders, and more.

Please be aware that all UO employees are required reporters. This means that if you tell me about a situation, I may have to report the information to my supervisor or the Office of Affirmative Action and Equal Opportunity. Although I have to report the situation, you will still have options about how your case will be handled, including whether or not you wish to pursue a formal complaint. Our goal is to make sure you are aware of the range of options available to you and have access to the resources you need.

If you wish to speak to someone confidentially, you can call 541-346-SAFE, UO's 24–hour hotline, to be connected to a confidential counselor to discuss your options. You can also visit the SAFE website at safe.uoregon.edu.