

**Meeting times:** MWF 11:15-12:20

**Room:** MCLT 137

**Professor:** Tom Edgar

**Office:** MCLT 256

**Phone:** 538-6198

**email:** edgartj@plu.edu

**Office Hours:** MWTh 3:00-4:00; F 2:00-3:00, by appointment, or drop by my office any time I am available.

**Webpage:** [www.plu.edu/~edgartj](http://www.plu.edu/~edgartj)

The website will be done in a wiki and blog format. All announcements, homework assignments, solutions, exam guides, and syllabus changes will be posted on the wiki and blog. You are responsible for checking the wiki or blog regularly, and I recommend using the RSS feature to do so. If you have questions about this, please ask. Additionally, you will be required to help build certain parts of the wiki; this will be discussed at a later date. I also hope the wiki will become a forum to discuss interesting questions and problems from this class.

**Textbook:** *A First Course in Abstract Algebra*, by John Fraleigh

The book is required for the course, and most of the homework assignments will come directly from the book. The book is available for purchase at the Garfield Book Company or online. We will cover most of chapters 0-3 and possibly some from chapters 4 and 7 if time permits.

**Technology:** Sometimes we may use computers in class. Please do not use any other technology during class hours (this includes, but is not limited to, cell phones, iPods, and other hand-held devices). I reserve the right to confiscate any devices not used for the class.

## Objectives

This course will be provide a nice avenue in which to practice reading, writing and understanding proofs. We will learn about numerous “algebraic systems” that are similar to standard number systems that you have studied thus far in your mathematical career. We hope to unlock much of the beauty in axiomatic systems, symmetry, and number systems. Our main topical goal is to understand the basic ideas of group theory. We hope to introduce many of the ideas in historical context as well.

## Grades

Grades will be assigned at the end of the semester distributed in the following way:

Three Take-Home Exams	55%
Homework	25%
Adopt-a-Group Project and Wiki	15%
Quizzes	5%

## Exams

There will be three take-home exams. You may not collaborate with other students on the exams. You may only consult your notes, the text for the course, and me to complete the exam. You have five days to complete each exam. The dates for the three exams are as follows:

Friday, October 2 - Wednesday, October 7  
 Friday, November 6 - Wednesday, November 11  
 Friday, December 11 - Wednesday, December 16

Your two best exam scores will each be worth 20% of your final grade, and the remaining exam is worth 15% of your final grade. The exams will be due by 5:00 pm on the corresponding date, and late exams will not be accepted under any circumstances.

The final exam, according to the registrar, is scheduled for **Wednesday, December 16 from 10:00-11:50 pm**; even though the exam is a take-home, I require attendance on this date. Since there are two sections, the final exam is due as listed above.

## **Homework and Reading**

Homework will be assigned daily and collected weekly; homework will be due by 5:00 pm on the assigned day. Homework should be written neatly and stapled if necessary. I will not accept late homework except under extreme circumstances. I strongly encourage you to collaborate on your homework; however, it is an honor-code violation to simply copy another student's work. If you collaborate, I require that each student hands in his or her own homework. Homework will be graded on clarity and correctness with varying levels of partial credit. Homework will consist of three different types of problems: computations, concepts, and theory. Theory problems will be worth the most, and you will have the opportunity to rewrite one theory problem per homework to get more points. Feel free to stop by to discuss your proofs.

## **Quizzes and Reading**

Periodically throughout the semester we will have group quizzes and individual quizzes. Group quizzes will usually cover material we have not discussed and will be graded based on effort. Each night, I will assign a short (one section) reading assignment. Individual quizzes will be based on your reading of the material and will usually involve basic computations and statements of definitions and theorems or will be short answer questions to be answered on the course wiki.

## **Adopt-a-Group and Wiki**

Each of you will be given the chance to “adopt” your own group structure. Throughout the semester, I will ask you to determine certain properties about your group and add these to the course wiki. Additionally, you will write a paper about your group throughout the semester and hand it in at the end of the semester. We will discuss this project in more detail later in the semester. I will provide lots of feedback for this project.

## **Class Attendance**

Attendance is mandatory for success in a math class. I hope that you will make it to class every day. I will not formally take attendance. However, this class is small, and I will realize if you are missing too many classes. Additionally, it has been my experience that students who come to my classes tend to do well on exams and homeworks; whereas, students who miss do poorly. Please let me know ahead of time if you have a valid excuse for missing a class, and I will do what I can do to help you get caught up.

## **Participation and Feedback**

I enjoy active participation in class: helping me through problems, asking questions, correcting me when necessary, and volunteering to present. I hope that you feel comfortable enough to ask any questions you have during the lectures. Always let me know if you are confused with what I am doing or how I am presenting the material. I cannot remedy the situation if you do not let me know that something is wrong.

## **Success in this Class**

It is common to have a “me vs. the professor” attitude in a class. I want you to know that I am here to help you succeed, and I want you to succeed. You will need to read the textbook, keep up with homework, and ask lots of questions. I am here as a guide to get everyone to their destination. If we work together, we can all succeed in this class. Finally, remember that doing mathematics is learning mathematics, and so you must continue to push through tough problems. If you have a medically recognized disability, please contact the Office of Disability Support Services (x7206) as soon as possible.

## **Academic Dishonesty**

PLU has an expectation that students will not cheat or plagiarize. Academic misconduct will not be treated lightly. Please do all of your own work (even when collaborating with others on homework) and do not consult any sources other than those allowed on exams. For questions about academic integrity, consult <http://www.plu.edu/academics/integ.html>.

Please contact me with any other questions. I reserve the right to change this syllabus at any time throughout the semester. Please see the wiki/blog for changes.