

Cedar Crest College  
Modern Algebra - MAT 316 00 2  
Fall 2009  
MW 1:00 pm-2:15 pm CUR 206

Professor: Dr. Michael Sarver  
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Office Hours

Monday, Wednesday 9:00 a.m. - 9:50 a.m., 11:00am - 11:50am  
Friday 9:00 a.m. - 9:50 a.m.  
Thursday 3:30-4:20pm  
Additional office hours are available by appointment.

**Required Text:**

Gallian, Contemporary Abstract Algebra, 7th ed., Brooks/Cole 2010

**Course Description:**

In this course we will be studying pure mathematics, i.e. mathematics independent of its applications. We may from time to time mention an application of various topics, but our main thrust will be mathematics for mathematics's sake. For many of you, this may be the first such course that you've taken. Unlike the calculus courses you may have taken, our emphasis will not be on the mastery of skills needed to arrive at the correct answer, but rather on mathematical reasoning itself.

There are many branches of pure mathematics but we shall be concerned with the branch known as abstract algebra, which can be thought of as the study and generalization of the structures which underlie our number system.

**Course Outcomes:**

Upon completion of the course a student will be able to

- ★ demonstrate knowledge of the mathematical structures known as sets, groups, and rings.
- ★ demonstrate proficiency in the techniques of mathematical proof.
- ★ demonstrate proficiency in the standards of expository mathematical writing.

**Assessment:**

There will be two exams (midterm and final) each accounting for 25% of your final average. The remaining 50% will consist of graded Home work problems.

The grade scale that I will use to assign final grades is A [93,100], A- [90,93), B+ [87,90), B [83,87), B- [80,83), C+ [77,80), C [73,77), C- [70,73), D+ [67,70), D [60,67), F [0,60).

Attendance in class is expected of all students and mandatory on exam days, but it will not be factored numerically into your grade. Make-up exams will be given only with prior notification and documentation of a legitimate excuse.

**Notes**

- I fully support the Cedar Crest College Honor Code and the Classroom Protocol code as stated in the Customs Book. Appropriate classroom behavior is implicit in the Cedar Crest College Honor Code. Such behavior is defined and guided by complete protection for the rights of all students and faculty to a courteous, respectful classroom environment. That environment is free from distractions such as late arrivals, early departures, inappropriate conversations and any other behaviors that might disrupt instruction and/or compromise students' access to their Cedar Crest College education.
- Students should not make any travel arrangements for the end of the semester until after the final exam schedule is published.
- Cell phones should be turned off for the duration of the class period.

- Collaboration on daily homework is expected and encouraged, but any work turned in for a grade should be your own. Violations of the college plagiarism policy will be reported to the dean and result in a grade of zero for the particular assignment / exam.
- It is vitally important for you to keep current with the work. Students who fall behind early quickly find themselves in a hole that is very difficult, if not impossible, to get out of. I'm more than willing to meet with you during my office hours or otherwise to help you succeed, but you must make the effort. Feel free to drop by my office, even if it's not my scheduled office hour.
- The format of the course will be lecture/discussion with much emphasis on homework discussion. In order for this to work it is vitally important for you to come to class prepared.
- It will be beneficial for you to have read the day's material before coming to class.
- Students with documented disabilities who may need academic accommodations should discuss these needs with me during the first two weeks of class. Any student who wishes to request accommodations should contact the Advising Center.