

Cedar Crest College
Modern Geometry (MAT-324)
Fall 2008
MW 2:30 p.m. – 3:45 p.m.
BHA 11

Professor: Patrick Ratchford
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Office Hours

Monday, Wednesday 11:30 a.m. – 2:00 p.m.
Tuesday 1:00 p.m. – 3:00 p.m.
Thursday 10:00 a.m. – 2:00 p.m.

Additional Office Hours Available by Appointment

Texts: Wallace and West, *Roads To Geometry*, 3rd ed., Prentice Hall, 2003

Course Description

This course explores Neutral, Euclidean and Non-Euclidean geometries.

Course Outcomes: Upon successful completion of the course the student should be able to

- Demonstrate facility in the art of mathematical proof.
- Demonstrate facility with compass/straightedge construction
- Demonstrate knowledge of the axiomatic method as it applies to Neutral, Euclidean and Hyperbolic geometries.
- Demonstrate facility with the software package Geometer's Sketchpad.
- Demonstrate facility with the oral presentation of mathematics.
- Demonstrate facility in using internet and library resources in mathematics.

Assessment : There will be two exams each accounting for 25% of your final average. Portions of either of the exams may be take-home. Another 25% will consist of take-home assignments. Another 10% will consist of a portfolio of internet and library investigations of various topics in geometry. The final 15% will consist of class participation and presentations. The presentations will be of solved homework problems.

The grade scale that I will use to assign final grades is A (93 and up), 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(Below 60).

Attendance in class is expected of all students and mandatory on exam days. Make-up exams will be given only with prior notification and documentation of a legitimate excuse. Problem assignments are due in-class on the due date and will not be accepted otherwise without 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.
- ◆ Violations of the college plagiarism policy will be reported to the dean and result in a grade of zero for the particular assignment / exam.
- ◆ **Cell phones should be turned off for the duration of the class period.**
- ◆ 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. Please bring your textbook with you to class each day.
- ◆ It will be beneficial for you to have read the day's material before 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.

