

# Course Description Math 411: Advanced Euclidean Geometry

John T. Baldwin

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Spring 2008

3 OR 4 hours. 3 undergraduate hours. 4 graduate hours. Prerequisite(s):  
Grade of C or better in MATH 215. Departmental Approval Required

17594 LCD 05:00 PM - 06:30 PM TR 304 LH 3 hours Restricted to Under-  
grad - Chicago. 19331 LCD 05:00 PM - 06:30 PM TR 304 LH 4 hours Restricted  
to Graduate - Chicago, and Graduate Non-Degree Chicago.

Office hours or T: 4-5 or Th at 3-5, after class if desired or by appointment  
in 327 SEO. (Subject to change)

Feel free to e-mail me at [jbaldwin@uic.edu](mailto:jbaldwin@uic.edu) or phone to make an appointment  
to discuss any difficulties that arise.

Office:327SEO.

Office phone:312-413-2149

e-mail:[jbaldwin@uic.edu](mailto:jbaldwin@uic.edu)

WEBSITE: <http://www2.math.uic.edu/~jbaldwin/mtht411/index>

Most assignments will be made only on the website, so check it frequently.

**Text:** A.I. Weinzweig , *Geometry through Transformations*, Cambridge Uni-  
versity Press.

**Prerequisites:** Grade of C or better in MATH 181 and approval of the  
department.

**Description** This course has a number of goals: developing proof skills  
and an understanding of the axiomatic method, obtaining an overview of Eu-  
clidean Geometry as well as a clear grasp of its foundations, and connecting this  
knowledge with the current tasks of a high school geometry teacher.

We will begin with chapter 6 of the text and hope to make chapter 15. But  
the pace and depth of the course will be adapted to the needs of the students.

**Resources** Material for this course will be disseminated via the text, the

classroom assignments and lectures, doing the problems and exams, and supplementary material handed out in class or on the web. These four modes are supplementary and you are responsible for material presented in any of the forms.

This text is much more formal than anything most of you have read before. The key to learning from such a book is to **work very hard the first week**. There is a lot of vocabulary that will be very strange to you. Make sure the words means what you think.

**Reading Assignments** The weekly reading assignment is on the web. You are expected to read the assignment before class and there may be quick quizzes on the reading assignment.

**Problem Sets:** Doing problems is the way to learn mathematics!

There will be weekly problem sets that will be collected and graded. You are welcome to come talk to me about these problems. The two lowest grades will be dropped. Late homework will be accepted only in exceptional circumstances. Most problem sets will consist of writing proofs. All proofs must be written in complete grammatical sentences. Since learning to write proofs is the central goal of the course you will be graded on the clarity of your writing.

You may discuss homework problems with other students, but you must write up your solution independently.

**Grading:** Your overall performance will be evaluated by the instructor. Contributing to that assessment, there will be 2 midterm exams, homework and a final exam. Each midterm will count for 25% of your final grade. The final will count for 35% and the problem sets will count for 15%. The lowest two problem set grades will be dropped.

Midterm 1: Thursday March 6 Midterm 2: Tuesday April 4 (tentative) or Thursday Apr. 17 Final Exam: Tuesday May 6

**Make up work:** A student who completes an assignment but gets a poor grade will be allowed to redo the assignment (possibly with some additional questions). The maximal score after redoing is the original grade plus half the remaining points. The maximum score for which one can redo the assignment will vary.

**Students with Disabilities:** Students with disabilities who require accommodations for access and participation in this course must be registered with the Office of Disability Services (ODS). Please contact ODS at (312)413-2103 (voice) or (312)413-0123 (TTY).

**MSCS POLICY ON INCOMPLETE GRADES:** The last day to drop the course without penalty is September 5. Incomplete grades are for hardships that occur at the time of the final. IN grades must be approved by the Department. IN grades are normally made up during the first two weeks of the next semester.

**LAS DROP POLICY:** Students not in LAS should consult their college for drop regulations. Undergraduate students in LAS may drop classes during the first two weeks of the semester without prior approval and with no academic penalty. Thereafter, students may drop classes between the 3rd and end of the 6th week for a total of four times over their entire UIC enrollment. Students must see an LAS advisor on the 3rd floor of UH or by appointment (996-3366) to process a drop. It is recommended that students be provided with some evaluative measures of performance prior to the drop deadline. Students with serious extenuating circumstances after the 6th week should be referred to the LAS Academic Advising Center for guidance.