

Fundamentals of Modern Geometry I
Math 3440 Syllabus Fall 2012

Space-Time: FH2030 MWF 2:00 pm - 2:50 pm

Instructor: Mao-Pei Tsui

Office Hours: UH2080B M 3pm-4pm, W 11 am-noon, 3pm-4pm, F 1pm-2pm and 3-4pm

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Homepage: <http://www.math.utoledo.edu/~mtsui/>

Class Web Site: <http://www.math.utoledo.edu/~mtsui/3400f12/3400.html>

Text: *Euclidean and Transformational Geometry*, by Shlomo Libeskind
ISBN-10: 0763743666, ISBN-13: 978-0763743666

Prerequisites: MATH 1840, 1860 or 1930

Important Dates: The last day to Add/Drop is Friday, August 31. The last day to Withdrawal is Friday, October 26. The Final Exam will take place on Thursday, December 13 from 12:30 to 2:30pm.

Homework and Quiz: I will assign problem sets every week, to be handed in. These assignments and their due dates will be posted on the course website and announced in class. You are encouraged to discuss homework problems with your classmates, but you must write up solutions on your own. Weekly quiz will be given in class. The first quiz will be given on August 29th (Wednesday). The date of the quiz will be announced in class and posted online

Exams: We will have three in-class one hour midterm exams, and a (comprehensive) final exam. Making up tests will strictly follow the University's missed class policy. For more information:<http://www.utoledo.edu/index.asp?id=529>.

- Midterm I September 21 (Friday) 2-2:50 pm in class
- Midterm II October 22 (Monday) 2-2:50 pm in class
- Midterm III November 19 (Monday) 2-2:50 pm in class
- Final Exam December 13 (Thursday) 12:30pm-2:30pm in class

Grading: The following percentages are assigned to the components of the student's grade.

Hand in homework	10%
Quiz	10%
Class Attendance And Participation	5%
Midterm I	15%
Midterm II	15%
Midterm III	15%
Final Exam	30%

The assigned letter grade is as follows: A for 90%–100%, B for 80%–89%, C for 70% – 79%, D for 60% – 69%, and F for 0% – 59%. Plus/Minus grades will be assigned accordingly (within 2.5 percent of the grade above/below). Please note that there is no grade of A+.

Academic Dishonesty: Any act of academic dishonesty as defined by the University of Toledo policy on academic dishonesty (found at <http://www.utoledo.edu/dl/students/dishonesty.html>) will result in an F in the course or an F on the item in question, subject to the determination of the instructor.

Non-Discrimination Policy: The University of Toledo is committed to a policy of equal opportunity in education, affirms the values and goals of diversity.

Students with Disabilities: The University will make reasonable academic accommodations for students with documented disabilities. Students should contact the Oce of Accessibility (Rocket Hall 1820; 419.530.4981; officeo-faccessibility@utoledo.edu) as soon as possible for more information and/or to initiate the process for accessing academic accommodations. For the full policy see:<http://www.utoledo.edu/utlc/accessibility/faculty.html>

Course outline: Chapters 1 through 4 in the assigned textbook. We will study angles and triangles, congruence and construction, the parallel postu-

late and the Pythagorean Theorem, circles and polygons, and similar figures and their related measurements.

Learning objectives: The main goal of this course is for students to develop the structure of Euclidean geometry logically and apply the resulting theorems and formulas to address meaningful problems. Students will use experimentation and inductive reasoning to construct geometric concepts, discover geometric relationships, and formulate conjectures. Students will employ deductive logic to construct formal logical arguments and proofs. Students will extend their pre-existing experiences with algebra and geometry to trigonometry and coordinate geometry. Students will use geometry software, compass and straightedge, and other tools to investigate and explore mathematical ideas and relationships and develop multiple strategies for analyzing complex situations.

Additional Remarks: Cell phones and other electronic devices that make noise should be turned off during class. No food is allowed in class. You should try to keep disruptions to a minimum (come to class ON TIME and DO NOT LEAVE EARLY). The reason for this is to provide a good learning environment. During tests, you should have all electronic devices (other than calculators when allowed) turned off and on the floor or in your bag. Cheating will not be tolerated and may result in severe academic sanctions. If a student is caught cheating, his/her test will be taken and he/she will receive a zero for the test or quiz. Disruptive talking in class will not be tolerated. On the other hand, asking and responding to questions in class is strongly encouraged.