Math 306 Geometry
Summer Semester 2014
Lecture: M Tu Th 6:00 – 8:05 pm   Sondheim 101

Instructor: Ms. Jyoti Saraswat
Office: Math/Psych 237, phone 410–455–3785
Office hours: Tuesday and Thursday 5:00–6:00 pm or by appointment.
Email: jyo1@umbc.edu

Textbook required: Marvin J. Greenberg, *Euclidean and Non-Euclidean Geometries: Development and History,* Freeman/Worth; 4th edition (August 15, 2008).

Textbook reference: Judith N. Cederberg, *A course in modern geometries(Undergraduate Texts in Mathematics),* Springer; 2nd edition (November 30, 2000)

Testing and Grading: The usual 90% – 80% – 70% – 60% grading system will be used in this course. Your grade will be calculated as follows:

HW	Best 5 out of 6, worth 30 points each	=	150 points	(30%)
Exams	2 in-class , worth 100 points each	=	200 points	(40%)
Final Exam		=	100 points	(20%)
Class participation	and presentation	=	50 points	(10%)
TOTAL		=	500 points	(100%)

Course Objectives: In this course we will focus on Euclidean geometry and its development. We will begin by surveying axiomatic approaches to geometry, from Euclid's postulates to Hilbert's axioms in detail. We will explore geometry without the parallel postulate (neutral geometry). The rest of the course will consist of a selection of topics from parallel postulates and non-Euclidean geometry. Certain concepts in hyperbolic geometry, focusing on instructive examples and explicit constructions will be introduced. The exact set of topics will be determined based on the available time and the background of the enrolled students.

Attendance and makeup policy: Attendance is crucial to success in this class. We will be covering new material at a rapid rate, and if you fall behind, it will be very difficult to catch up. Make-up exams will be given **at my discretion**, in general only in situations where there is a conflict with a **sanctioned university activity** of which I have been notified **at least a week in advance**. Such activities may include things like a course conflict or an athletic event. I will excuse a missed exam due to illness only if I am notified **before the exam**, and only if you furnish a **signed doctor's note** at the earliest available opportunity. There is no excuse for being habitually late to class. It disturbs the instructor as well as the other students and it will not be tolerated.

Homework : The main emphasis of this course will on proofs and many of the assignments will involve writing neat rigorous proofs. Please ensure that your solutions are organized, legible and grammatically correct. Make sure you include all the relevant information while writing your answers. You are allowed to work with each other but you are expected to write your own answers.

Homework will be assigned each class but will be collected once a week, i.e. every Thursday. Late home work will not be accepted. The problems will involve material from the lectures and from the assigned reading. Your one low homework score will be dropped. Do not wait until the last minute to start the homework!

Exams: There will be two in-class exams given during the lecture: the first on **Tuesday, June 10th**, the second on **Tuesday, June 24th**. Exams are held in the same room as your usual lecture. All exams will be **closed-notes, closed-books**.A missed exam will be counted as a zero. See the attendance policy, above, for the only exceptions to this rule.

Final Exam: The final exam will be held **on July 3rd**. It will consist of two components: a take home examination which you will get one week to finish, and a presentation on choice of topic from the course, with my pre-approval. Depending on the enrollment, presentation time for each student will be decided later into the semester.

Class participation: The class participation points will be awarded based on attendance, class behavior, active involvement in classroom activities, turning assignments in time etc.

Academic Integrity: By enrolling in this course, each student assumes the responsibilities of an active participant in UMBC's scholarly community in which everyone's academic work and behavior are held to the highest standards of honesty. Cheating, fabrication, plagiarism, and helping others to commit these acts are all forms of academic dishonesty, and they are wrong. Academic misconduct could result in disciplinary action that may include but is not limited to suspension or dismissal. To read the full Student Academic Conduct Policy, consult the UMBC Student Handbook, the Faculty Handbook, or the UMBC Policies section of the UMBC Directory. http://www.umbc.edu/provost/integrity/faculty.html

Accommodations: UMBC is committed to eliminating discriminatory obstacles that disadvantage students based on disability. Student Support Services (SSS) is the UMBC department designated to:

- receive and maintain confidential files of disability–related documentation,

- certify eligibility for services,

- determine reasonable accommodations,

- develop with each student plans for the provision of such accommodations, and

- serve as a liaison between faculty members and students regarding disability–related issues.

If you have a disability and want to request accommodations, contact SSS in the Math/Psych Bldg., room 213 or at 410–455–2459. SSS will require you to provide appropriate documentation of disability. If you require accommodations for this class, make an appointment to meet with me to discuss your SSS-approved accommodations.

Class website: Course information (including this syllabus, and homework assignments) will be available at the Blackboard website: http://my.umbc.edu/go/blackboard

Tentative schedule:

Week	Day	Date	Sections Covered	
1	Tu	5/27	Introduction and Chapter 1	
	Th	5/29	Chapter 1	**HW 1 due**
2	Mon	6/2	Chapter 2	
	Tu	6/3	Chapter 2	
	Th	6/5	Chapter 3	**HW 2 due**
3	Mon	6/9	Chapter 3	
	Tu	6/10	**Exam I**	
	Th	6/12	Chapter 4	**HW 3 due**
4	Mon	6/16	Chapter 4	
	Tu	6/17	Chapter 5	**Presentation topic due**
	Th	6/19	Chapter 5	**HW 4 due**
5	Mon	6/23	Chapter 6	
	Tu	6/24	**Exam II**	
	Th	6/26	Chapter 6	**HW 5 due**
6	Mon	6/30	Hyperbolic Geometry	**Presentaion slides due**
	Tu	7/1	Review	
	Th	7/3	**Final**	**HW 6**

Disclaimer:

The instructor reserves the right to modify the information given here for the class. The exam dates and the HW dates are subject to change. The changes, if any will be announced in the class and also via e-mail. It is the student's responsibility to stay informed.