

**MATH 494.594 SYLLABUS: FALL 2010
GEOMETRY FOR MIDDLE SCHOOL TEACHERS**

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OFFICE HOURS & SCHEDULE					
Time	Monday	Tuesday	Wednesday	Thursday	Friday
11 – 12	Office	Office	Office	Generally not on campus Available by email	
12 – 1:50	396	Lunch	396		
2 - 3	Lunch	Office	Lunch		
3 – 4:30	Office	Meetings	Office		
5 – 6:50	494.594		494.594		

Please feel free to drop by my office during my office hours for help. You do not need to make an appointment to come to office hours. At times other than my listed office hours you are welcome and encouraged to call or email me with questions about the course. If you have direct scheduling conflicts with my office hours and would like further help, please let me know.

COURSE PREREQUISITE

- Prerequisite: Math 396 with a grade of C- or better

REQUIRED COURSE MATERIALS

- Math 494.594 Course pack; available at the WOU Bookstore
- Any basic calculator (we will also use trig functions one day at the end of the term)
- Ruler
- Compass
- Protractor
- 3-ring binder & dividers

GSP ACCESS

- (Optional) The Geometer's Sketchpad can be purchased for \$39.95 through Key Curriculum Press (keypress.com).
- All WOU students can also access the WOU Network version of GSP by logging on to the WOU server—see your 494.594 class page for access information.

COURSE REFERENCE TEXTS (two hour reserve in the Hamersley Library)

- *Mathematics for Elementary Teachers: A Conceptual Approach*, 7th Edition, Bennett and Nelson
- *College Geometry*, Musser, Trimpe and Maurer

COURSE OVERVIEW

In this class we explore geometry concepts beyond our initial study in Math 213 both in hands on exploration based activities and in exploration based Geometer Sketchpad labs. In general we will familiarize ourselves with geometry curricula and current standards upheld by NCTM and OCTM.

LEARNING OBJECTIVES AND GOALS

In this course you will

- Build upon and expand your understanding of geometry and how it can be developed into higher mathematical analysis
- Contemplate and reflect on what middle-school learners need to understand in terms of geometry, be able to do and believe about themselves in the areas of algebra and geometry to be prepared for high school and college level mathematics
- Develop teaching and learning insights through weekly assignments and explorations

COURSE WEB PAGE

There will be a link for the Math 494.594 webpage where most course items will be posted on my home page: <http://www.wou.edu/~burtonl>

In particular, the class homework and schedule page will be linked to your Math 494.594 webpage and will include the class schedule, homework assignments and due dates.

COURSE REQUIREMENTS AND GRADING

Undergraduate Students (Math 494)

1. Attendance and participation (5%)
2. Homework, completion of all class materials, GSP Labs (45%)
3. Midterm Exam (20%)
4. Final Exam (25%)
5. Final Project (5%)

Graduate Students (Math 594)

1. Attendance and participation (3%)
2. Homework, completion of all class materials, GSP Labs (42%)
3. Midterm Exam (20%)
4. Final Exam (25%)
5. Final Project (10%)

Attendance, Participation and Completion of Course Materials

Attendance & Participation in this course means

- You must attend all classes

- You must share your thoughts and strategies both in small groups and with the whole class
- You must work actively and effectively during all group and all class activities
- You must attentively listen and offer useful and constructive comments to other students in the class during group work and when other students present their ideas to the whole class
- If you miss a class, review the course web pages and complete missed work.

Completing Course Materials in this course means

- You have carefully answered all questions and problems posed on all course materials
- You have organized all course materials carefully in your course notebook and are prepared to share your work at any time

Homework Assignments

In this course, a **homework set** will be assigned once a week. Each question will be carefully graded. An **article review** is assigned for each student (see your course pack homework section for directions). **Additional readings** may be assigned. All homework assignments and due dates will be posted on your course homework and schedule page.

See the course **Homework Policy** (course pack) for information about writing up homework. In general, this is a no work, no credit class. You will need time to think about the homework in this course; schedule your study and homework time accordingly.

GSP Labs

Six GSP labs will be assigned throughout the term. You will be expected to write up your explorations, conjectures, and conclusions in a way that a fellow classmate could follow and learn from. Details regarding GSP lab turn in are provided in the **GSP Activity General Directions** (course pack).

Midterm and Final Exam

There will be an in-class midterm exam and an in-class final exam in this course. Graduate students will be assigned additional problems on both exams. See your course homework and schedule page for exam dates.

Final Project

Undergraduate and graduate students will complete final projects towards the end of the term. The projects will consist of researching a new geometry topic, writing a short paper about the topic and giving a brief presentation about the topic during the last week of class. Undergraduate students will complete one topic research paper and graduate students will complete two topic research papers. Additionally, graduate students will integrate a short lesson and activity appropriate for middle school students into each of their papers. Complete directions are included in your course pack final project section.

LATE POLICY

Generally 30% deduction per turn-in day (MW). See the course *Homework Policy* and *GSP Directions* for further details. No notification is required to turn work in late. It is reasonable to expect that each of us may turn in one or two items a term one or two turn in days late. This should not have a large impact on your overall course grade. Excessively turning in work late will have a very strong impact on your overall course grade.

EXCUSED LATE WORK

Excused late work will only be accepted in the case of documented emergency or a documented university sanctioned absence from class (examples: student teaching in the education program, university representation in a music presentation, etc.). Prior notification and my agreement **are required**. Ordinary illness of one or two class days does not count as a documented emergency, even if you have a note from a doctor.

STANDARD GRADING FOR THIS COURSE

Your grade for this course will be based on the following with A-, B+, B-, C+, C- given as is appropriate: A—90%, B—80%, C—70%, D—60%, F—below 60%

CELL PHONE POLICY

- Turn them off (not even on vibrate) during class
- Put them away—cell phones found out in class will be placed on the front table for the rest of the class.
- No texting during class
- Electronic item use during exams or quizzes will be treated as cheating and you will receive a zero score on that exam or quiz.

APPROPRIATE CLASSROOM BEHAVIOR

You are ultimately responsible for your own attendance and performance. Disruptive classroom behavior of any kind, such as talking during lecture or consistently coming to class late etc., is not appropriate. Proscribed Conduct for all students is described in the University Catalog. In particular for this course any student found cheating on an exam or copying from another student's exam paper will receive a zero score on that exam.

LEARNING DISABILITIES

If you have a documented learning disability, please talk to me during the first few days of class, I will be more than happy to accommodate you in any way that I can. If you have a documented disability which requires any academic accommodations, you must go to the Office of Disability Services (ODS) for appropriate coordination of your accommodations. You can drop by APSC 405 or contact ODS at (503) 838-8250 (V,TTY) to schedule an appointment.

INCOMPLETE POLICY

An Incomplete can only be granted for a student who is passing a class and has a documented emergency that prevents them from completing the course.