Syllabus for Mathematics 494/594 Fall 2008

**Professor:** Klay Kruczek  
**Phone:** 503-838-8829  
**Office:** MNB 125  
**Email:** kruczekk@wou.edu  
**CLASS MEETS:** 5:00-6:50 p.m. T in MNB 103  
5:00-6:50 p.m. R in MNB 110

### OFFICE HOURS & SCHEDULE

<table>
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<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
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<tbody>
<tr>
<td>10 – 12</td>
<td>Office Hours</td>
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<td>USUALLY NOT ON CAMPUS</td>
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<td>12 – 2</td>
<td>USUALLY NOT ON CAMPUS</td>
<td>Math 396</td>
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<td>2 – 3:30</td>
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<td>Meetings</td>
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<td>Math 231</td>
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<td>3:30 – 5</td>
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<td>Math 494</td>
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*Office hours* are for you, so please come in to introduce yourself in more detail to me and feel free to drop by for help. 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.

**Overview:** During this term we will explore the geometry topics of plane transformations, symmetry, isometries, tessellations, dilations and similarity, and the Pythagorean Theorem. We will work in small cooperative groups in class and in the lab. We will use the software capabilities of The Geometer's Sketchpad to further the conceptual understanding of geometry. Graduate students will do higher level work on exams and present their final project.

**Learning Objectives:**
- Build upon and expand our understanding of what geometry is and what it means to “know” geometry
- Contemplate and reflect on what middle-school learners need to understand, be able to do and believe about themselves in the area of geometry
- Develop teaching and learning insights through weekly assignments and explorations

**Course Goals:** To familiarize ourselves with geometry curricula and current standards upheld by NCTM and OCTM
**Course Requirements and Grading:** Your grade will be determined as follows:

1. **Weekly Assignments (30%)**
2. Labs with *The Geometer's Sketchpad* and In-Class Work (15%)
3. Attendance and Participation (5%)
4. Quizzes (10%)
5. Mid-term Exam (10%)
6. Final Project (15%)
7. Final Oral Exam (15%)

1. **Weekly Assignments** will be collected every week and graded by me. I will be looking for evidence of the thought process you went through to arrive at your solution. Short answers with no explanations will receive no credit. Give yourself enough time to really think about each problem. Please see the writing assignment sheet for more information about this type of assignment.

2. **Labs** will be assigned approximately every week. You will be expected to write up your explorations, conjectures, and conclusions in a way that a fellow classmate could follow and learn from. In the lab, we will be using, *The Geometer's Sketchpad*, which can be purchased together with *Fathom* and *Kaleidomania*, for about $50 through *Key Curriculum Press*.

3. **Attendance and Participation** means being prepared by completing assignments and readings, sharing your thoughts both in small groups and with the whole class. If you miss a class, please try to make up the work by contacting me or a classmate. I will periodically grade in-class assignments.

4. **Quizzes** will be given (approx.) every other Tuesday, with the 1st quiz on 10/7. Quizzes will be based on both returned homework and new material.

5. A **Mid-term Exam** will be given covering in-class work, homework, and GSP. This will be given sometime during the 4th – 6th weeks.

6. The **Final Project** will be assigned later in the term. It will consist of writing a series of lesson plans in geometry for middle school students.

7. For the **Final Oral Exam** presentation will be given during Final Exam week. You will be given a set of questions beforehand to help your prepare.

**Late Work Policy:** There is a 20% penalty for work turned in after its due date, each week past the due date adds another 20%.

**Final Grade Policy:** All points are assigned based the QUALITY of your analytical thinking and writing.

**Assessment Rubric for Weekly Assignments:**
Each problem is assessed according to the following grading scheme:
- Interpretation (0-2 pts.)
- Strategy (0-2 pts.)
- Accuracy (0-3 pts.)
- Completeness (0-3 pts.)
DISABILITIES
If you have a documented disability which requires any academic accommodations, please notify me early in the term. You must go to the Office of Disability Services (ODS) for appropriate coordination of your accommodations. You can go by APSC 405 or contact ODS at (503) 838-8250 to schedule an appointment.

STANDARD GRADING SCALE FOR THIS COURSE
(Total % for the course, usual rounding rules apply)

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<td>87 – 89</td>
<td>B+</td>
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<td>C+</td>
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INCOMPLETE POLICY
If you are passing this course and have a documented reason for not being able to complete the course, I may be able to grant you an incomplete. You must obtain my agreement if you wish to have a grade of incomplete recorded.

CLASS WEB PAGE
Assignments, course information and links may be posted on the 4/594 web page.
➢ Follow the “Course Links” found at: http://www.wou.edu/~kruczekk

APPROPRIATE CLASSROOM BEHAVIOR: Disruptive classroom behavior of any kind, such as talking during lecture or consistently coming to class late etc., is not appropriate. Any student found cheating on an exam or copying from another student's exam paper will receive a zero score on that exam.

CELL PHONE POLICY: Please turn them off before coming to class. In particular, DO NOT TEXT MESSAGE DURING CLASS!!!

CLASS EMAIL (due immediately)
Please email me at: kruczekk@wou.edu
Subject:
➤ Geometry Fall 2008
Body:
➤ Your name
➤ Where you teach, what grade(s) and what topic(s)
➤ Brief note on why you are taking this class
➤ Math classes you have taken—including approximate dates (e.g. Spring 2008)
➤ One Geometry Topic You Find Most Difficult