

MATH 489.589 SYLLABUS: SUMMER 2006
ALGEBRAIC STRUCTURES FOR MIDDLE SCHOOL TEACHERS

Professor: Dr. Laurie Burton
Office: AA 303

Phone: 503-838-8345
Email: burtonl@wou.edu

CLASS MEETS
9:40 a.m. – 12:10 p.m. MTWR Arnold Arms 101
June 26 – July 13

Laurie Burton's OFFICE HOURS & SCHEDULE

Time	Monday	Tuesday	Wednesday	Thursday
8:30–9:30	<i>Office</i>	<i>Office</i>	<i>Office</i>	<i>Office</i>
9:40–12:10	489.589	489.589	489.589	489.589
12:10–13:00	<i>Lunch & Office</i>	<i>Lunch & Office</i>	<i>Lunch & Office</i>	<i>Lunch & Office</i>
13:00–15:05	391	391	391	391
15:05–15:30	<i>Office</i>	<i>Office</i>	<i>Office</i>	<i>Office</i>

Please feel free to email for help as well as ask questions in class and come to office hours.

I. COURSE PREREQUISITE

- MTH 213 with a grade of C- or better or consent of instructor.

II. REQUIRED COURSE MATERIALS

- Good calculator, a T. I. – 83 is highly recommended.
- Graph paper, ruler, a 3 ring binder and dividers
- One set of Algebra Pieces, plastic, paper or paperboard, pick up or order plastic or paperboard versions from the Math Learning Center
 - Blackline masters of algebra pieces will be passed out the first day of class (for your reference and future use). You may use these masters to create paper or paperboard versions of the algebra pieces for your use in this course.

MATH LEARNING CENTER 1850 Oxford Street SE Salem, OR
1 - 800-575-8130 Monday - Friday, 8 a.m. - 4:30 p.m.
<http://www.mathlearningcenter.org/>

Plastic Algebra Piece Catalog Item number: ALP

Math in the Mind's Eye (MME) Lessons

You may wish to own the lessons that we use in class, available from the Math Learning Center: "Math and the Mind's Eye Algebra Collection."

III. COURSE OVERVIEW

In this class we will explore integers, algebraic skills; solving linear and quadratic equations, inequalities, functions, graphing and complex numbers. We will connect visual methods (using the Math in the Mind's Eye curriculum and materials) to the NCTM standards with extensive use of group activities and hands-on models.

IV. COURSE WEB PAGE

There will be a link for the Math 489.589 webpage on my home page: <http://www.wou.edu/~burtonl>. In particular, the class webpage: "Assignments & Schedule" will be linked to your Math 489.589 webpage and will include the class schedule, homework assignments and due dates.

V. COURSE REQUIREMENTS AND GRADING

- Attendance, participation, completion of all class materials (10%)
- Homework Assignments (50%)
- Oral Final Exam (10%)
- Final Project & Presentation (30%)

Attendance & Participation

- You must attend all classes
- You must be prepared for class by completing the previously assigned homework
- 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, please try to make up the work by contacting me or a classmate. Normally, points cannot be made up for missed classes unless there are extraordinary circumstances.

Completion of Course Materials

- You must carefully answer all questions and problems posed on all course materials
- You should organize this material carefully in your course notebook and be prepared to share your work at any time

Homework Assignments

Homework problems will be assigned each day. Each homework problem will be collected two class days after the problem is assigned and will be carefully graded. Homework assignments and due dates will be posted on your course web page. Your homework should be the work of a mature learner; it should be neat, clear, well thought out and carefully presented. Your work should show evidence of the thought process you went through to arrive at your solution. Short answers with no explanations will receive no credit. Short answers supported by calculator work only will receive no credit. This is an extremely compressed class; schedule your study and homework time accordingly. In general, late work will receive a 20% per class day late deduction.

Oral Final Exam

On Wednesday, July 12, you will meet with Laurie Burton for a 20 - 25 minute oral final exam. Questions asked will cover the topics studied in this course. Your success will be linked to your ability to understand, use and explain the algebra piece model.

Undergraduate Final Project

Each undergraduate student will create a two-lesson unit for their future classroom. See the Final Project handout for details.

Graduate Final Project

Each graduate student will create a three-lesson unit for their students and, additionally, present these ideas to the 489.689 class. See the Final Project handout for details.

VI. 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%

VII. 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.

VIII. 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.

IX. 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.