

MAED 200: Introduction to *Mathematica*
Spring 2012 Section 001 1 credit hour

Instructor: Trent Kull **Course time and location:**
Office: Bancroft 154 MW 8 - 9:15a, Sims 114
Office phone: 803-323-4547 **Office Hours:** MW: 2 – 3:30p
Math department: 803-323-2175 F: 8:15 – 9:15a
Campus email: kullt@winthrop.edu

Instructor website: <http://faculty.winthrop.edu/kullt/>

Syllabus modifications

The instructor reserves the right to make modifications to this syllabus. Students will be notified in class & by email. Updates will be available at: <http://faculty.winthrop.edu/kullt/MAED 200>.

Grades

To ensure that you receive a certain letter grade (or better), you must attain a minimum overall percentage. These minima are: A: 90; B: 80; C: 70; D: 60.

Text, materials, and learning aids

- There is no required text for this course.
- There are several methods within *Mathematica* to get help with the purposes, syntax and options for all *Mathematica* commands. These methods will be reviewed in class.

Weekly problem sets

A weekly *Mathematica* notebook containing a set of problems will be posted on the course website. You should download this notebook, work the problems and e-mail the completed notebook to me by the due date and time indicated on the assignment. Late work will not be accepted.

Final examination

The final examination will be cumulative. No make-up exams will be given unless prior arrangements have been made with the instructor.

Assignments/assessments

Date	Event	Percentage
January 18	Problem set 1	12.5
January 25	Problem set 2	12.5
February 1	Problem set 3	12.5
February 8	Problem set 4	12.5
February 13	Final exam	50

Accommodations

Winthrop University is dedicated to providing access to education. If you have a disability and require specific accommodations to complete this course, contact the Office of Disability Services (ODS) at 323-3290. Once you have your official notice of accommodations from the Office of Disability Services, please inform me as early as possible in the semester.

Computer use

The use of computers during class time is strictly restricted to *Mathematica* unless otherwise directed by the instructor.

Student learning objectives – Mathematics Department

1. Students apply fundamental mathematical concepts and techniques to solve problems and evaluate results.
2. Students demonstrate the ability to apply appropriate technologies to the study of mathematics and effectively use such technologies to investigate and develop an understanding of mathematical ideas.

Student learning objective – Introduction to *Mathematica*

Students will develop the skills to use *Mathematica*, a comprehensive computer system for doing mathematics, graphics, numerical analysis and much more to solve problems in a variety of disciplines.

For purposes of departmental assessment of student learning in this course, a common technology rubric will be implemented to evaluate students' ability to use *Mathematica* to solve problems.

Policies

1. Review the student code of conduct for university policies on academic misconduct. Academic misconduct will not be tolerated and will result in a failing grade on the assignment and/or in the course. The full handbook is available online at:
<http://www2.winthrop.edu/studentaffairs/handbook/StudentHandbook.pdf>
2. All electronic devices (including cell phones) other than a calculator should be on silent and kept in your book bag or purse throughout class time unless otherwise instructed. (Note if you have some educational, health, or physical reason for an electronic device you must work with your professor to inform them of the accommodation.)
3. The University attendance policy is stated in the current catalog
<http://www.winthrop.edu/recandreg/default.aspx?id=7380>.
4. A grade of C or better in MATH202 is required to enroll in MATH301.
5. Students are expected to use skills from MAED200 to implement the use of *Mathematica*.

SU deadline: January 17

Course withdraw date: January 25

Tentative course schedule

Date		Topic	Assignments
M	1/9	The Basics of <i>Mathematica</i>	
W	1/11	Plotting and Solving with <i>Mathematica</i>	
W	1/18	<i>Mathematica</i> Does Precalculus	Problem Set 1 Due
M	1/23	<i>Mathematica</i> Does Differential Calculus	
W	1/25	<i>Mathematica</i> Does Integral Calculus	Problem Set 2 Due
M	1/30	<i>Mathematica</i> Does Data Analysis: Lists, Tables, and Statistics	
W	2/1	More on Solving : Systems of Equations and Differential Equations	Problem Set 3 Due
M	2/6	<i>Mathematica</i> Does Future Calculus: Sequences and Series, Parametric Equations, and Three-Dimensional Plotting	
W	2/8	Review and evaluation	Problem Set 4 Due
M	2/13	Final examination	