MAED 200: Introduction to *Mathematica*

Spring 2015   **Section 001**   **1 Credit Hour**

Instructor:	Tom Polaski	**Course Time and Location:**
Office:	Bancroft 152	TR 9:30 a.m.- 10:45 a.m., Sims 114
Office Phone:	803-323-4604	**Office Hours:**
Math Department		M 2:30 p.m. – 4:00 p.m.; TR 12:00 m. – 1:30 p.m.
Phone:	803-323-2175	F 10:00 a.m. – 11:30 a.m.
Campus Email:	polaskit@winthrop.edu	Other times may be arranged by appointment.

The instructor reserves the right to make modifications to this syllabus. Students will be notified in class and by email.

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.

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.

Problem Sets and Grading

Each class day a *Mathematica* notebook containing a set of problems will be posted on the course website. Class time will generally be provided for you to work on this assignment. You should download this notebook, work the problems and e-mail the completed notebook to me before the next class session. Late work will not be accepted. Each problem set will be worth 25 points. The last assignment in the course will be a 100-point cumulative final problem set. A point system will determine your final grade. There are 300 points possible: 200 from the daily problem sets and 100 from the final problem set. An approximate grading scale for each problem set will be determined after it is graded. The semester grading scale will be based upon these grading scales and on the scale for the final problem set. Plusses and minuses are awarded at the discretion of the instructor.

Attendance Policy

Attendance at all scheduled class meetings is strongly encouraged. Your number of absences will not be counted, and will not be used directly to determine your grade.

Equal Access to Education

Winthrop University is dedicated to providing access to education. If you have a disability and need classroom accommodations, please contact the Office of Services for Students with Disabilities (323-3290) as soon as possible. Once you have your Professor Notification Form, please inform your instructor.

Academic Integrity
Review the student code of conduct for university polices 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.

Electronic Devices
All electronic devices (including cell phones) 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 notify your instructor of this accommodation.

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

Tentative Course Schedule

Date		Topic	Assignments
T	1/13	The Basics of *Mathematica* and Plotting	Problem Set 1 Assigned
R	1/15	Solving with *Mathematica*	Problem Set 1 Due Before Class Problem Set 2 Assigned
T	1/20	*Mathematica* Does Precalculus	Problem Set 2 Due Before Class Problem Set 3 Assigned
R	1/22	*Mathematica* Does Differential Calculus	Problem Set 3 Due Before Class Problem Set 4 Assigned
T	1/27	*Mathematica* Does Integral Calculus	Problem Set 4 Due Before Class Problem Set 5 Assigned
R	1/29	*Mathematica* Does Data Analysis: Lists, Tables, and Statistics	Problem Set 5 Due Before Class Problem Set 6 Assigned
T	2/3	More on Solving: Systems of Equations and Differential Equations	Problem Set 6 Due Before Class Problem Set 7 Assigned
R	2/5	*Mathematica* Does Future Calculus: Sequences and Series, Parametric Equations, and Three-Dimensional Plotting	Problem Set 7 Due Before Class Problem Set 8 Assigned
T	2/10	Review and Evaluation	Problem Set 8 Due Before Class Final Examination Assigned
T	2/17		Final Examination Due

Drop/Add: Through W 1/14   **SU and Course Withdraw Date:**   F 1/30 (note difference!)