



**Division of
Academic Enhancement**
UNIVERSITY OF GEORGIA

**UNIV 1108 – Essentials of Math Modeling
Spring 2018**

Course Instructor Information

Instructor: Kevin Kennedy
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Department Phone: 706-542-7575
Office: Milledge 251
Office Hours: Monday, Wednesday and Friday 1:30- 3:00 PM and by appointment as needed.

Course Meeting Information

Meetings: MWF, 12:00 PM
Location: MLC 247

UNIV Courses are offered by the Division of Academic Enhancement, a unit of the Office of Instruction at the University of Georgia.

The Division empowers all students to achieve success with innovative courses, programs, services, and student-centered initiatives. The DAE supports students as they transition into higher education and sustains their progress through the University's unique academic environment. We are committed to students, committed to success.

Course Description

Essentials of Mathematical Modeling gives students the essential tools to prepare them to take Introduction to Mathematical Modeling. Students learn vital calculator techniques that will allow them to solve virtually any equation and are introduced to a variety of functions used to model problems in the real world.

Learning Objectives

Upon successful completion of this course, students will be able to:

1. Use their graphing calculators to solve, graph and analyze functions.
2. Understand functions and be able to use and interpret function notation.
3. Create and use linear, quadratic, exponential and logarithmic functions to solve real world problems.
4. Analyze and interpret real world data by choosing the appropriate functional model.

Assignments and Projects

Students will be evaluated in the following areas:

Homework (50% of final grade)

Grades made on the online homework assignments are 50% of the final grade. For students coming into the class part way through the semester, homework for sections that the rest of the class has already taken tests on will be excused. Students coming into the class later on in the semester will be expected to make up homework assignments that they have missed for the current section.

Tests (30% of final grade)

Four tests will be given over the course of the class. Test grades account for 30% of the final grade. Tests will be pencil and paper and in class. Partial credit may be given.

For students coming into the class part way through the semester, tests taken by the rest of the class before their entry into the class will be excused.

Students coming into the class will be expected to take the test for the current section of the material. Allowances may be made for students coming into the class who need additional time to prepare for the current test.

Final Exam (20% of final grade)

All students will be expected to take the final exam. The final exam is comprehensive and counts as 20% of the final grade.

The final will be in class and conducted on pencil and paper. Partial credit may be given.

Grading/Evaluation

Homework: 50%

Tests (4): 30%

Final Exam: 20%

Grading Scale:

94 -100	A
90 - 93	A-
87 - 89	B+
84 - 86	B
80 - 83	B-
77 - 79	C+
74 - 76	C
70 - 73	C-
67 - 69	D+
64 - 66	D
60 - 63	D-
<60	F

Final grades will be rounded. A grade of 79.5 will be rounded up to 80. A grade of 79.4 will be rounded down to 79.

Make Up Test Policy:

Students who miss a test will have one week to contact me to make arrangements to make up their test. After a week their grade for that test will be recorded as a 0.

Course Materials

In order to complete this course students will be required to have the following:

- A graphing calculator, TI 83 or TI 84.
The content of this course is focused on learning how to use the graphing calculator. While the material in this course can be done using any graphing calculator, this course will be taught with a TI 83 calculator and all of our resources will reference the steps needed to use a TI 83 or TI 84.
- Webassign access.
Webassign access is required to complete the online homework in this course. To purchase your WebAssign access go to www.webassign.net and click on the "Enter Class Key" button in the upper right hand corner of their web site. The class key for this course is:
uga 9314 9934

Students entering this course later on in the semester who already have WebAssign access need to consult their instructor about the possibility of getting their access transferred.

Course Policies

Homework problems will frequently be discussed at the beginning of class. During this time students are allowed to have their laptops and other devices out to look up homework problems that have been giving them issues. Outside of these troubleshooting periods, students are expected to keep their laptops and phones put away.

Participation Policy

In order to be counted as participating in class students need to be present, both physically and mentally, and prepared, having made a good faith attempt at completing their homework.

Attendance will be taken each class. Students are permitted to have a maximum of 3 unexcused absences and up to 6 absences total. Any more than that will result in an automatic drop in their final grade (A to A-, B+ to B) by one step for every 3 unexcused absences. Students who have more than 3 excused absences due to serious illness will need to contact their instructor to make accommodations.

In the event that the university cancels classes, such as for severe weather, students are expected to continue with readings as originally scheduled. Any assignments scheduled during those missed classes, such as a project or paper, are due at the next class meeting unless other instructions are posted at the course website or communicated via email.

Disability Statement

If you anticipate issues related to the format or requirements of this course, please meet with me. I would like us to discuss ways to ensure your full participation in the course. If you determine that formal, disability-related accommodations are necessary, it is very important that you be registered with the Disability Resource Center (Voice: 706-542-8719 or TTY: 706-542-8778) and notify me of your eligibility for reasonable accommodations. We can then plan how best to coordinate your accommodations.

Academic Honesty Policy

As a University of Georgia student, you have agreed to abide by the University's academic honesty policy, "A Culture of Honesty," and the Student Honor Code. All academic work must meet the standards described in "A Culture of Honesty" found at: <https://ovpi.uga.edu/academic-honesty/academic-honesty-policy>. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor.

Other Division Resources

From peer tutoring through the Academic Resource Center to Academic Coaching to Student Success Workshops and more, the Division is committed to the success of all students at the University of Georgia. For more on these and other resources, visit <https://dae.uga.edu>.

Course Outline:

The schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better student learning. All readings are required unless otherwise noted. Students should read/know required material by the date listed, at which time we will discuss or use the scheduled readings in class.

Week	General Topic	Reading Assignment/Other Assignment
1 Jan. 8,10,12	Functions	
2 Jan. 17,19	Functions, Rate of Change	No Class MLK Day Jan. 15
3 Jan. 22,24,26	Rate of Change	Test 1 Jan. 26, HW 1-4 due
4 Jan.29, 31; Feb. 2	Linear Functions	
5 Feb. 5,7,9	Linear Functions	
6 Feb. 12,14,16	Linear Functions	Test 2 Feb. 16, HW 5-7 due
7 Feb. 19, 21, 23	Quadratic Functions	
8 Feb. 26, 28; Mar. 2	Quadratic Functions	
9 Mar. 5, 7, 9	Quadratic Functions	
Mar. 12-16	Spring Break	Spring Break- no class
10 Mar. 19, 21, 23	Quadratic Functions	Test 3 Mar. 23, HW 8-10 due
11 Mar. 26, 28, 30	Exponential Functions	
12 Apr. 2, 4, 6	Exponential Functions	
13 Apr. 9, 11, 13	Exponential Functions	
14 Apr. 16, 18, 20	Exponential Functions	Test 4 Apr. 20, HW 11-14 due
15 Apr. 23, 25	Final Exam Review	

Note: The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.