

COURSE SYLLABUS

MATH 1483, *Functions & Uses*, FALL 2012, SECTION 8



Instructor: Scott Larson

- Email: slarson@math.okstate.edu
- Phone: 405.744.2284

Class Meeting: MWF, 1:30PM-2:20PM, CLBN 203

Office Hours: MW, 11:30AM-12:20PM and by appointment, MS 409

Textbook: *Functions and Change* by Crauder, Evans, and Noell, 4th Edition

Online Classroom: <http://oc.okstate.edu>

OSU Syllabus Attachments:

- academicaffairs.okstate.edu/faculty-a-staff/46-syllabus-attachment
- academicaffairs.okstate.edu/faculty-a-staff/47-syllabus-fall

Description. Prerequisite(s): Intermediate algebra or placement into 1513. Analysis of functions and their graphs from the viewpoint of rates of change. Linear, exponential, logarithmic and other functions. Applications to the natural sciences, agriculture, business and the social sciences.

Calculators. You will need a calculator that is capable of generating graphs and tables. A TI-83 or TI-84 Plus is recommended as this is what will be demonstrated in class and the kind your instructor is used to. If you don't own one, you may borrow a calculator from the Math Department free of charge, as long as you return it by the last day of finals week. Dates and times that you may borrow calculators will be announced in class.

Mathematics Learning Success Center (MLSC). The MLSC can be an invaluable resource to support your mathematical learning. Location: 4th floor of the Classroom Building.

Attendance. Attendance will be checked at the beginning of each class meeting. You will start with an attendance score of 100. You may miss class twice without affecting this score. No additional absences will be excused for any reason, and each additional missed day will deduct 5 points from your score. If it helps your grade, then your attendance score will be averaged with your lowest 100 point test score (which may be half of your final exam score). If that does not help your grade, then your attendance score will not be used. You are responsible to know the material covered in class and that in the corresponding sections of your textbook.

Homework. Homework is a key part of the course. You will be assigned homework each class meeting and you will be expected to have it completed by the next class period. Group discussions of homework assignments can be helpful, but each student must write up their own solutions in their own words and based on their own work. We will spend a lot of time discussing the homework in class. Most Fridays you will turn in your weeks homework for selective grading. Homework is expected to be neat and well organized. Unreadable homework will not be graded. Late homework will not be accepted. Your best 10 homework scores will be used to calculate your semester homework score.

Exams. There will be 3 midterm exams and a final exam which contribute to your final grade. Each exam will be announced in class and appear online in the course schedule. Make-up exams will be given only under exceptional circumstances and if you contact me in advance. December 14th is the designated date for all make-up exams to be given. Calculators will be allowed, but no books, notes, or any other electronic devices will be permitted during exams.

Grades. There are 700 total possible points in this course:

	Homework	Midterm Exams	Final Exam
Possible Points	200	3×100	200
Possible Points (Six-weeks)	120	1×100	0

Your score will be earned points divided by possible points truncated to an integer percentage, and determines your grade as follows:

Score (%)	0 – 59	60 – 69	70 – 79	80 – 89	90 – 100
Grade	F	D	C	B	A

Curving may be applied in form of a linear adjustment to all scores on a particular exam. I reserve the right to decide borderline cases based on class attendance and subjective impressions such as effort and conscientiousness.

Missed Work. A student shall be offered reasonable accommodation in the event that he or she misses a major assessment activity for a valid and documented reason.

Advice. Complete your homework each day, and do not miss class. People who do these things generally are successful. Those who don't are generally not. If you need help, come see me right away. If you do, I can and will help you.

Academic Integrity. I will respect OSU's commitment to academic integrity and uphold the values of honesty and responsibility that preserve our academic community. For more information, see <http://academicintegrity.okstate.edu>.

Schedule. The following course schedule is preliminary.

MONDAY	WEDNESDAY	FRIDAY
Aug 20th 1 Prologue: <i>Calculator arithmetic</i>	22nd 2 §1.1 <i>Functions given by formulas</i>	24th 3 §1.2 <i>Functions given by tables</i>
27th 4 §1.3 <i>Functions given by graphs</i>	29th 5 §1.4 <i>Functions given by words</i>	31st 6 §2.1 <i>Tables and trends</i>
Sep 3rd University holiday	5th 7 §2.2 <i>Graphs</i>	7th 8 §2.2 <i>Graphs</i>
10th 9 §2.3 <i>Solving linear equations</i>	12th 10 §2.4 <i>Solving nonlinear equations</i>	14th 11 §2.5 <i>Optimization</i>
17th 12 §3.1 <i>The geometry of lines</i>	19th 13 §3.2 <i>Linear functions</i>	21st 14 §3.2 <i>Linear functions</i>
24th 15 Exam 1 Review	26th 16 Exam 1	28th 17 Exam 1 Corrections
Oct 1st 18 §3.3 <i>Modeling linear data</i>	3rd 19 §3.4 <i>Linear regression</i>	5th Fall break
8th 20 §3.5 <i>Systems of equations</i>	10th 21 §4.1 <i>Exponential growth and decay</i>	12th 22 §4.1 <i>Exponential growth and decay</i>
15th 23 §4.2 <i>Modeling exponential data</i>	17th 24 §4.3 <i>Modeling nearly exponential data</i>	19th 25 Exam 2 Review
22nd 26 Exam 2 Review	24th 27 Exam 2	26th 28 Exam 2 Corrections
29th 29 §4.4 <i>Logarithmic functions</i>	31st 30 §5.2 <i>Power functions</i>	Nov 2nd 31 §5.2 <i>Power functions</i>
5th 32 §5.3 <i>Modeling data with power functions</i>	7th 33 §6.1 <i>Velocity</i>	9th 34 §6.1 <i>Velocity</i>
12th 35 Exam 3 Review	14th 36 Exam 3 Review	16th 37 Exam 3
19th 38 Exam 3 Corrections	21st Thanksgiving break	23rd Thanksgiving break
26th 39 §6.2 <i>Rates of change</i>	28th 40 §6.3 <i>Estimating rates of change</i>	30th 41 §6.4 <i>Equations of change</i>
Dec 3rd 42 Final Exam Review	5th 43 Final Exam Review	7th 44 Final Exam Review

FRIDAY
Dec 14th Final Exam 2-3:50 PM Make-Up Exam 4-5:50 PM