

COURSE SYLLABUS

MATH 1483, *Functions & Uses*, FALL 2012, SECTION 6



Instructor: Scott Larson

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

Class Meeting: MWF, 12:30PM-1:20PM, HSCI 316

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.

Schedule. The following course schedule is preliminary.

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

WEDNESDAY	FRIDAY
Dec 12th Final Exam 10-11:50 AM	14th Make-Up Exam 4-5:50 PM