

OAKLAND UNIVERSITY
COLLEGE OF ARTS AND SCIENCES
DEPARTMENT OF MATHEMATICS AND STATISTICS

STUDENT INFORMATION SHEET AND SYLLABUS

COURSE : MTH 1222, Calculus for the Social Sciences, 4 Credits

SEMESTER : Winter 2018

Instructor	Office	Phone	E-mail address	Section	Class Time	Room
Zimmerman	363 MSC	248-370-4944	zimmerm3@oakland.edu	10155	MWF 8:00- 9:07 am	263 SFH
Dambrun	363 MSC		njdambro@oakland.edu	10156	MWF 9:20-10:27 am	104 MSC
Zimmerman	363 MSC	248-370-4944	zimmerm3@oakland.edu	13054	MWF 9:20-10:27 am	165 SFH
Dambrun	363 MSC		njdambro@oakland.edu	10158	MWF 10:40-11:47 am	164 MSC
Cesmelioglu	344 MSC	248-370-3438	cesmelio@oakland.edu	12673	MWF 1:20- 2:27 pm	263 SFH
Melekian	MSC Annex, Room K		ccmeleki@oakland.edu	10160	MW 7:30- 9:17 pm	164 MSC

		Time	Room
Supplemental Instruction : (available to ALL sections)		MWF 9:20-10:27 am	263 SFH
		MWF 10:40-11:47 am	378 MSC
		MWF 12:00- 1:07 pm	120 MSC
		MWF 2:40- 3:37 pm	263 SFH

CATALOG DESCRIPTION : The basic concepts, theorems and applications to the social sciences of the differential and integral calculus of one and several variables. (Formerly MTH 122) Satisfies the university general education requirement in the formal reasoning knowledge foundation area.

PREREQUISITES : A grade of 2.0 or higher in MTH 1221 (formerly MTH 121) or MTH 1441 (formerly MTH 141) or an equivalent course at another school, or placement "C". Prerequisites are strictly enforced: if you do not meet the prerequisite, you will not be permitted to remain in the course. In order to do well in this course, you need to have skills developed in Precalculus, including familiarity with polynomial, rational, exponential and logarithmic functions. Students are sometimes unaware, until after they have taken a college mathematics course, of how much more emphasis is placed in college courses on understanding and applying concepts, as opposed to learning how to perform routine computations. Indeed, understanding of mathematical concepts and their applications provides the central issues of college-level work. Students who have not been in such courses often underestimate the amount of time and hard work needed to succeed.

GENERAL EDUCATION LEARNING OUTCOMES : As indicated in the General Education Foundations Knowledge area of Formal Reasoning, the student will demonstrate knowledge of one or more formal reasoning systems such as computer programming, mathematics, statistics, linguistics or logic and application of formal reasoning to read, understand, model and solve problems across a wide variety of applications.

COURSE OBJECTIVES : The successful student in this course should develop an understanding of the basic concepts of limits, continuity, differentiation and integration, learn some applications of these concepts including curve sketching and determining optimum values of a function (e.g., maximizing profits, area of a region, etc.) and develop appropriate problem solving skills that may be applied to models in the Social and Biological Sciences.

TEXT : *Applied Mathematics for the Managerial, Life and Social Sciences, Seventh edition*. The material to be covered is contained in chapters 9-12. (See the tentative schedule below). You are expected to have a copy (e-book or hardcopy) of this textbook. There is a student solutions manual containing solutions to many of the exercises in the book and its purchase is totally optional. A copy of the textbook, student solutions manual and other material will be available on 2-hour reserve at Kresge Library. Please ask your instructor whether WebAssign is required for the course.

CALCULATOR POLICY : For this course, you will need a calculator with exponential and logarithmic functions. Calculators are permitted on all tests, quizzes and the final exam. To receive full credit on tests, be sure to show all the mathematical work necessary for setting up a calculation before using the calculator. Using a calculator to store formulas

you need for a test is not permitted. Devices with exterior communication capabilities are not permitted on any test, quiz or exam.

COMPUTER USAGE : Computer laboratories are not a formal part of this course. However, there are some computational software packages such as Mathematica and Maple that are capable of performing many of the calculations (solving algebraic equations, simplifying complicated algebraic expressions, differentiating, integrating and plotting graphs) that one does in this course. You may use these for verification or visualization purposes. The textbook publisher has also provided WebAssign that provides an online e-book, tutorials, chapter and section reviews, plus a variety of online practice quiz and exercise problem utilities that may be useful. Please ask your instructor whether WebAssign is required for the course.

EXAMS (Daytime classes only) : There will be three in-class exams scheduled for

Jan 31 (Wednesday), Mar 5 (Monday), April 2 (Monday).

These exams are closed book exams and each one is worth 100 points. Absent university closure, these tests are only given on these dates, at the regular class time and in the regular classroom. Any questions about the grading of these tests must be raised with the instructor within 10 work days of their return. The exam schedule for the evening section will be announced separately.

QUIZZES, HOMEWORK, ATTENDANCE : **Attendance is expected at every class.** Homework will be assigned regularly. Each instructor will decide upon the combination of quizzes, homework, attendance and other kinds of student participation that best fits their instructional style. The combined score from these activities will be up to 100 points. The details will be announced by your instructor.

FINAL EXAM (Daytime classes only): The final exam is comprehensive, closed book and worth 200 points. It is scheduled for

Friday, April 20 8:00-10:45 am

in rooms to be announced later. Absent university closure, the final exam is only given on this date and at this time. The final exam for the evening section will be announced separately.

EMERGENCY CLOSING : If the University is officially closed at the time of a scheduled exam, it will be given during the next class period when the University reopens. Closures during the final exam period require rescheduling by the Registrar. The Oakland University emergency closing number is 248-370-2000.

GRADING POLICY : Your course grade will be based upon the percentage of total points you have earned out of the 600 maximum number of points available to you. (100 points for each exam, 90 points for homework/quizzes, 10 points for attendance/in-class work, 200 points for the final exam). There is no fixed grading scale for this course; a conversion formula from your percentage score to Oakland University grades will be determined at the end of the course. However, the following list shows the lowest possible grade that a given percentage score will earn (the grade may be higher than this):

95%→4.0, 80%→3.0, 65%→2.0, 50%→1.0

This list is the best way to measure your performance throughout the semester. Course grades are posted by the Registrar on-line at sail.oakland.edu after the close of the semesters exam period. Any questions about a course grade must be raised with the instructor within 10 work days of its posting by the Registrar.

MAKE-UP POLICY : No make-up tests will be given. If you miss one (respectively two, three) test(s) with a valid excuse, your final exam will be worth 300 (respectively, 400, 500) points; otherwise the missed test will count as a 0. Vacation plans do not constitute a valid excuse.

ACADEMIC HONESTY : Cheating is a serious academic offense. Oakland University policy requires that all suspected instances of cheating be reported to the Academic Conduct Committee for adjudication. Anyone found guilty of cheating in this course will receive a course grade of 0.0, in addition to any penalty assigned by the Academic Conduct Committee. Working with others on a homework assignment does not constitute cheating; handing in an assignment that has essentially been copied from someone else does. Receiving help from someone else or from unauthorized written material during an exam is cheating, as is using a calculator as an electronic "crib sheet." Providing such assistance for someone else also constitutes cheating.

STUDY HABITS : Cultivating good work and study habits is necessary for doing well in mathematical sciences courses. You should keep on top of the subject by doing large amounts of homework (frequently working on problems not assigned), regularly reviewing earlier material, asking questions in class, and making good use of your instructor's office hours and the Academic Skills Center. If you are having difficulty with some concept or mathematical procedure, you should get it clarified as soon as possible. If you make mistakes on exams, rework these problems with the idea that you will not make similar mistakes later. Regular reviewing of older material in the course will put you in good stead when it comes to final exam time. This will help you to avoid the usual non-retention problems that students encounter at the end of the course. You should expect that doing all of these things will take at least two hours outside of class for each hour in class. Many students find it helpful to spend some of this time working with others, in study groups.

ADDITIONAL SUPPORT : You are encouraged to make use of supplemental instruction (SI). Four sections are offered; location and meeting times are given above. SI involves group activity designed to support the material and problem solving. You are encouraged to use the Academic Skills Center (103 NFH) for peer tutoring, study skills seminars, videotapes on mathematical topics, and more. On-line tutoring has been available through the Academic Skills Center (moodle.oakland.edu). If this is not available, you may be able to use old postings. You will need your Oakland University username and password to access on-line tutoring.

DROPPING THE COURSE : The Department of Mathematics and Statistics is committed to achieving the goal of an academically sound freshman and sophomore mathematical sciences curriculum in which most conscientious Oakland University students can expect to be successful. If you are considering dropping the course and wish to discuss the matter further, you are encouraged to contact your instructor.

VETERAN SUPPORT SERVICES : The Office of Veteran Support Services (VSS) is the campus office responsible for supporting student veterans and military families. Through VSS, veterans and their dependents can be connected to campus and community resources to help ensure they are receiving the benefits they have earned. Student veterans and military dependents who wish to learn more about the services afforded to them should contact VSS, by visiting 116 North Foundation Hall, emailing VSS@oakland.edu, by phone at 248-370-2010 or visiting <http://www.oakland.edu/veterans/>.

SPECIAL CONSIDERATIONS : Students with disabilities who may require special considerations should contact the Office of Disability Support Services. Such students should also notify their instructor as soon as possible.

IMPORTANT DATES : The Registrar sets dates for "no-grade" drops and official withdrawal.

Jan 3	Classes begin
Jan 15	Martin Luther King, Jr. Day - No classes
Jan 17	Last day for no-grade drop
Feb 17	Winter recess begins at 10 pm
Feb 26	Classes resume
Mar 14	Last day for official withdrawal (W grade)
Apr 17	Last day of classes
Apr 20	Final Exam, 8:00-10:45 am (daytime classes only)

The complete list for this semester can be found at: www.oakland.edu/important-dates or 248-370-3450. It is the student's responsibility to be aware of the University deadlines for dropping the course.