

OAKLAND UNIVERSITY  
COLLEGE OF ARTS AND SCIENCES  
DEPARTMENT OF MATHEMATICS AND STATISTICS  
STUDENT INFORMATION SHEET AND SYLLABUS

COURSE: MTH 2554, Multivariable Calculus, 4 Credits (formerly MTH 254)

SEMESTER: Winter 2018

Instructor	Office	Phone	Email	SectionTime	Room
K. T. Andrews	451 MSC	248-370-4025	andrews@oakland.edu	10842 MWF 9:20-10:27 am	172 MSC

Put "MTH 2554" in the subject line of any e-mail message.

Attendance at every lecture class is expected.

SUPPLEMENTAL INSTRUCTION: There is a supplemental instruction(SI) section associated with this course which is scheduled to meet in 172 MSC at MWF 10:40-11:47 am. SI focuses on course-specific study skills to help you review notes, understand and apply key concepts, and prepare for tests. Further information can be found at <https://oakland.edu/tutoring/academic-assistance/SI/> Attendance at SI is optional.

OFFICE HOURS: By individual appointment with the instructor. Such appointments may be made via voicemail, e-mail or by talking to the instructor in class.

CONDUCT: Success in this course requires an atmosphere conducive to learning. As a courtesy to your fellow students and instructor, please come to class on time and refrain from extraneous conversation during class. All electronic devices must be turned off prior to entering the classroom. Quiet consumption of beverages is permitted during class; eating food is not. If circumstances make it necessary for you to leave early, please notify the instructor in advance and leave quietly. Otherwise, come prepared to stay for the entire class.

COURSE(CATALOG) DESCRIPTION: A study of vectors, polar coordinates, three-dimensional geometry, differential calculus of functions of several variables, exact differential equations, multiple integrals, line and surface integrals and vector fields.

PREREQUISITES: A 2.0 or better in MTH 1555 or an equivalent course at another school. 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 mastered the basic differentiation and integration techniques taught in a year of calculus.

COURSE OBJECTIVES: The student should learn how the concepts of derivative and integral extend to vector-valued functions and to functions of several variables and to see how such concepts can be applied to calculate quantities of interest in the sciences and engineering.

TEXT: *Calculus, Early Transcendentals* by James Stewart, Cengage Learning. The current edition is the eighth edition. We will cover almost all of Chapters 12-16 as time permits. You are expected to have a copy of this textbook.

CALCULATOR POLICY: You may use a calculator on all tests and the final exam; however, this is not a course in calculator operation. Any questions you have about the operation of your particular calculator should be addressed by consulting its operating manuals or accompanying technical support. On tests and the final exam calculators may only be used to perform arithmetic operations or to evaluate functions. To receive full credit on tests, be sure to show all the mathematical work necessary for setting up a calculation before using the calculator. Calculators may not be used on tests and the final exam for graphing purposes or to perform calculus operations. Using a calculator to store formulas you need for a test or final exam is not permitted. No calculator or other device with external communications capabilities is permitted on any test or final exam.

TESTS: Test preparation begins on the first day of class and continues throughout the semester. There will be 3 in-class tests scheduled for **February 2, March 9 and April 6**. These tests and the final examination (see below) are closed book tests. Each test is worth 100 points. Absent university closure, these tests are only given on these dates, at the regular classtime 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.

**HOMEWORK:** Homework will be assigned regularly but it will not be collected or graded. However, it is imperative to do the homework in order to do well on the tests.

**FINAL EXAM:** THE FINAL EXAMINATION IS COMPREHENSIVE. It will be given on **Wednesday April 25, 8-11 am in the usual classroom**. The final examination will be worth 200 points. Absent university closure, the final exam is only given on this date, at this time and in the regular classroom.

**EMERGENCY CLOSING:** If the University is officially closed at the time of a scheduled test or examination, 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 500 points available to you (100 points for each test and 200 points for the final examination). There is no fixed grading scale for this course; a conversion formula from your percentage score to an Oakland University grade 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: 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](http://sail.oakland.edu) after the close of the semester's 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 a test and promptly present legitimate, documented evidence for a valid excuse, your final exam will be worth 300 points; otherwise the missed test will be counted as a 0.

**ACADEMIC HONESTY:** Cheating is a serious academic crime. 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. Examples of cheating include receiving help from someone else or from unauthorized written material during a test, or final exam, or using a calculator as an electronic "crib sheet."

**STUDY HABITS:** Cultivating good work and study habits is necessary for doing well in mathematics 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, taking notes in class and making good use of your instructor's office hours and the Tutoring Center. The Tutoring Center (103 NFH) offers a variety of services to assist students including individual and group tutoring, supplemental instruction and study skills assistance. Some additional math resources are available on the Tutoring Center website ([oakland.edu/tutoring](http://oakland.edu/tutoring)). Making up and taking timed practice tests of varying length throughout the course is a basic element of test preparation. 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 a test, 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. You should expect that doing all of these things will take at least two hours outside of class for each hour in class. Some students find it helpful to spend some of this time working with others, in study groups.

**IMPORTANT DATES:** The Registrar sets dates for "no record" drops and official withdrawal. Current information can be found at: [www.oakland.edu/important-dates](http://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.

**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.