

Honors Calculus I - Math 136-012 - MWF 11:30-12:25 - TR 11:10-12:05 SH B102 – 4 hours credit

Prerequisites: Four years of high school mathematics, including Algebra II, geometry and trigonometry, and satisfactory score on the Math Placement Exam; or MATH 117, with grade of C or better.

Instructor: Dr. Spraker

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Office Hours: MWF 12:25-1:35, MW 2:45 – 4:00

Others by appointment or capture.

Welcome to Honors Calculus I! This is the first course in the fundamental sequence for the math major. Calculus is needed in many scientific and business fields. We will also study a few numerical applications in this course. The best way to succeed here is to keep up! Do the homework every night and make use of my office hours and those of the recitation instructor. I am always glad to see you. If I did not like talking to students, I would not have chosen teaching as a profession. Office hours are your time rather than mine. If my office hours conflict with your classes, we can occasionally make appointments. Also feel free to call or email me.

Online homework will be assigned daily. We will be using WebAssign which includes the ebook for the course and access to WebAssign is required. Before purchasing anything for the course see the italicized paragraphs below for the details of the new “Day One Access Program” which we will be using for WebAssign. The class key that you will need to be able to self-enroll in the WebAssign section is **wku 4941 7598**. This section cannot be accessed until Jan. 15, but you should self-enroll as quickly as possible after that date since you will have homework assigned the very first day of class. You will also probably have a few additional computer assignments. There will probably be a few special honors problems on the exams and possibly a few special honors assignments. During recitation except on exam days you will have a chance to ask questions and see homework problems worked. This should be helpful to you since there may not be enough time to answer all of your questions during the MWF lecture sessions. Don’t hesitate to ask questions at any time, however. If I am notified ahead of time, I can arrange for a student to take an exam early but seldom late. Always call me if you know that you will be absent. Attendance is your responsibility and you cannot succeed in a fast-paced course like this one if you miss class. The last day to withdraw or change to audit is March 9.

You will need a graphing calculator. I will be using the TI 84 plus CE in the classroom and that is the calculator that I would recommend for you. The TI Nspire with CAS is not allowed for this class and the other versions of the TI Nspire must be set to “Press to Test” mode when taking exams. We may also use the computer lab for a few days.

Learning Outcomes:

Calculus I meets five learning objectives as part of the Colonnade Plan requirement for Quantitative Reasoning. Students will demonstrate the ability to:

1. Interpret information presented in mathematical and/or statistical forms.
2. Illustrate and communicate mathematical and/or statistical information symbolically, visually and/or numerically.
3. Determine when computations are needed and execute the appropriate computations.
4. Apply an appropriate model to the problem to be solved.
5. Make inferences, evaluate assumptions, and assess limitations in estimation modeling and/or statistical analysis.

Important Textbook Information:

(Please read before purchasing anything for this course.)

This course participates in The WKU Store's Day One Access program. This program is designed to provide immediate access to required materials for all students at prices cheaper than any other option. Required materials will be delivered to you automatically by enrolling in this course unless you choose to opt-out. By participating in this program, The WKU Store will bill your Student Billing account, and you will see a charge appear under this Term along with Tuition and Fees ("Account Summary by Term" under the Student Services tab) labelled as "The WKU Store Purchases" after the Add/Drop period. For more information on this program or to opt-out of participation, go to The WKU Store's website (www.wkustore.com) and click the Day One Access link under the Course Materials header.

(This text is included as an ebook in WebAssign, but you have the option of purchasing a loose-leaf version as well if you wish. The electronic version is the only format for the text that is required for the course.)

Exams:

There will be four in-class exams and a comprehensive final. The dates are below.

Exam I	Thursday, Feb. 8
Exam II	Thursday, March 1
Exam III	Thursday, March 29
Exam IV	Thursday, April 19
Final	Monday, May 7 10:30 – 12:30

Your grade will be determined as follows: Exams 60%, Homework 20%, Final Exam 20%.

Syllabus

	Days
Chapter 1: Preparation for Calculus	2
Chapter 2: Limits and Their Properties	5
Chapter 3: Differentiation	9-10
Chapter 4: Application of Differentiation	8
Chapter 5: Integration (Sections 5.1-5.7)	7
Chapter 6: Differential Equations (Sections 6.1-6.3)	3
Chapter 7: Applications of Integration (Section 7.1) (Optional)	
Tests:	3-4 (We will have 4.)
Total:	37-39

- The Learning Center (TLC) Should you require academic assistance with your WKU courses, The Learning Center (located in the Downing Student Union, 2141) provides free supplemental education programs for all currently enrolled WKU students. The Learning Center at Downing Student Union offers certified, one-on-one tutoring in over 200 subjects and eight academic skill areas by appointment or walk in. Online tutoring is offered to distance learners. TLC is also a quiet study area (with side rooms designated for peer-to-peer tutoring) and a computer lab to complete academic coursework. Please call TLC in the Downing Student Union at (270) 745-5065 for more information or to schedule a tutoring appointment. www.wku.edu/tlc

. Libraries:

1. WKU Libraries has subject specialist faculty members who work with every department and program on campus.
2. Students can make an appointment with the subject specialist faculty librarian any time they have a paper or project.
3. As your own personal librarian, the subject specialist library faculty member sit down with students and helps them get started with their research, makes sure the students know how to use the online resources, etc.

. Students with disabilities: In compliance with university policy, students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Student Accessibility Resource Center (SARC) in Downing Student Union 1074. The SARC telephone number is (270) 745-5004; TTY is (270) 745-3030. Per university policy, please DO NOT request accommodations directly from the professor or instructor without a letter of accommodation from the SARC.

. Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's Title IX Sexual Misconduct/Assault Policy (#0.2070) at <https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf>

and

Discrimination and Harassment Policy (#0.2040) at https://wku.edu/policies/hr_policies/2040_discrimination_harassment_policy.pdf.

Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Andrea Anderson, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121.

Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are "Responsible Employees" of the University and MUST report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's Counseling and Testing Center at 270-745-3159.