# Honors Calculus I

Math 136-013 - MWF 1:50-2:45 - TR 2:45-3:40, COHH 2117- 4 hours credit

Drop Date: Nov. 4.

#### 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.

Dr. Spraker - Office COHH 3110, Phone: Home 782-6018 Cell (270)320-3629

John.Spraker@wku.edu

People.wku.edu/john.spraker/home.html

Office hours:

MW 11:20-12:25, 3:00-4:00 Other times by appointment or capture.

F 11:20-12:25 TTH 12:35-2:00

Drop Date: Nov. 4

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. You will have homework assigned the very first day of class. To get into WebAssign, click on the WebAssign link in Blackboard on the left, then click on the "Access WebAssign" icon. This will take you to WebAssign. For information on getting started and other helpful information, go to

http://www.cengage.com/training/webassign. Another useful link is

https://techcheck.cengage.com/. If you click on the WebAssign icon, you can check on the status of the WebAssign digital platform. This will allow you to check planned maintenance, outages, up time, etc. Additionally, if you have a technical question, click on the "Need Product Support" link to submit a tech support ticket.

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 Calculus if you miss class.

You are required to purchase a graphing calculator. I will be using the TI 84 plus CE in the classroom and that is the calculator which 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 either "The WKU Store Purchases" or "Day One Access" after the Add/Drop period. For more information on this program or to opt-out of participation, go to our information page, https://www.wkustore.com/t-day-one-access.aspx. The cost of the e-book and Webassign is \$76.50 and it will be placed on your student bill on Wednesday, 9/4/19. Students who stay enrolled in Day One Access are also eligible to purchase an optional low-cost looseleaf copy of the textbook for only \$27.00. (Students who opt-out of Day One Access are not eligible to purchase this low-cost looseleaf version of the book.)
Students who wish to opt-out of this program may do so. The deadline to opt-out is Tuesday, 9/3/19. By opting out you agree to have your e-book and Webassign access terminated and you will be responsible to obtaining the required materials on your own. If you have purchased the optional low-

cost looseleaf book from The WKU Store, you must return it before the opt-out deadline in order complete the opt-out process. It must also be in its original shrinkwrap.

Textbook: Calculus of a Single Variable: Early Transcendental Functions (with Webassign Access), 7th Edition, by Larson, ISBN 281000002784B

ISBN for optional low-cost looseleaf copy: 9781337955737

(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, Sept. 19
Exam II Tuesday, Oct. 8

Exam III Thursday, Oct. 31

Exam IV Thursday, Nov. 21

Final Thursday, Dec. 12 10:30 – 12:30

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

# **Syllabus**

Total:

	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.)

# Ogden Student Course Attendance Statement

The faculty and staff of Ogden College of Science and Engineering are committed to providing you with learning experiences and opportunities. You must assume ownership of your education and be an active participant in the classroom and laboratory to take advantage of these opportunities. Active participation requires you to attend. Scientific studies have shown that attendance during scheduled classroom and laboratory meetings is directly correlated to your performance on assignments and exams and the potential to earn higher grades. Additionally, if you do not regularly attend class, you are missing important information about course topics, due dates, and assignment details that are

37-39

crucial to your success in the course. Therefore, as a student enrolled in an Ogden course, you are expected to attend every class meeting and to inform your instructor regarding the reasons for any absences as soon as practical. Your instructor may incorporate class attendance/participation as part of the grading criteria.

# • 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 will sit down with students, help them get started with their research, make sure the students know how to use the online resources, etc.
- . Students with disabilities:

In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, Room 1074. SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at sarc.connect@wku.edu. Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.

#### Other Policies:

. 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.