Math 237-702 - 4 credit hours.

The course will be taught online using Zoom. 11:30 - 12:25 Monday & every other Friday 11:10 - 12:30 Tuesday & Thursday

Instructor: Dr. Spraker

Cell: (270) 320 - 3629 <u>John.spraker@wku.edu</u>

Office Hours: We can schedule individual Zoom meetings as needed.

Fridays that the class will meet: Jan. 29, Feb. 12, 26; Mar. 12, 26; Apr., 9, 23.

Welcome to Math 237, Multivariable Calculus! This probably will be your first introduction to analysis. Math 137 with a grade of C or above and a little maturity are prerequisites. In 237 we will be extending many calculus results to spaces of higher dimension. Calculus and the study of vectors will be combined. Many of our results lay the foundation for applied areas such as physics. It is going to be fun, but you will have to work. There will be numerous quizzes and a final. Homework will be assigned daily using WebAssign.

Keep up! This course will move rapidly. The key to success is to attend class regularly and do your homework every single day. Feel free to schedule Zoom meetings with me if you need additional help. If I did not enjoy talking to students, I would not teach for a living.

• Math 237 Learning Outcomes:

- Interpret information presented in mathematical form.
- Communicate mathematical information symbolically, visually, and/or numerically.
- Know the difference between functions of a single variable and functions of several variables, and be able to distinguish between ordinary derivatives, partial derivatives, and directional derivatives
- Understand multiple integration and line integration, and be able to use them to find area, volumes, and lengths.
- Understand how to apply appropriate mathematical models to solve real-world problems

It is essential that students have a reliable internet connection. The absence of such will not be accepted as an excuse for missing quizzes, the final exam, or homework.

Homework will be assigned daily using WebAssign. Before purchasing any materials be sure to read the information below:

First Day Inclusive Access

To enhance your learning experience and provide affordable access to the right course material, this course is part of an inclusive access model called First Day. You can easily access the required materials for this course at a discounted price, and benefit from single sign-on access with no codes required in Blackboard.

WKU will bill you at the discounted price as a course charge for this course.

It is NOT recommended that you Opt-Out, as these materials are required to complete the course. You can choose to Opt-Out on the first day of class, but you will be responsible for purchasing your course materials at the full retail price and access to your materials may be suspended. For more information and FAQs go to customercare.bncollege.com.

• Textbook: Larson/Edwards - WebAssign Instant Access for Larson/Edwards' Calculus, Single-Term 9781337879644

11th Edition

ISBN for the optional loose-leaf copy: 9781337759496 (A hard copy of the textbook is optional).

Bookstore and Barnes & Noble Customer Care Contact Information:

Customer Care is available 24/7* to help students with questions about accessing their course material, using their eTextbook, or opting-out or in to the First Day program.

- * Please note that Customer Care currently has limited hours of operation and will be available to assist students Monday Friday, 9 a.m. to 6 p.m. (Eastern Time).
- Link to Customer Care website: customercare.bncollege.com
- Open a ticket Online for the Customer Care team: https://tinyurl.com/customercarerequest
- Email the Customer Care team: bookstorecustomercare@bncollege.com
- Call the Customer Care team: 1-844-9-EBOOKS (1-844-932-6657)

Questions? Contact your Bookstore Manager. tm8358@bncollege.com 270-745-246

- Calculator: A graphing calculator is required. I will be using the TI-84 plus CE.
- Quizzes: There will be short quizzes given at the end of class several times each week. All quizzes will be unannounced and students should be prepared to take one every day and submit their answers to Blackboard.

This is how you will submit quizzes on Blackboard. Note that our quizzes will be designated as assignments on Blackboard. This is not to be confused with the homework assignments you will submit via WebAssign.

- 1. Navigate to the assignment location in Blackboard, usually starting from the left-hand pane. For our course the assignments are found under Content.
- 2. Click the assignment title in the right-hand pane.
- 3. Follow instructions to submit the assignment.
- 4. Click Submit. For this course you will submit the quiz by taking a picture of your handwritten work, converting it to a pdf file and uploading this to blackboard. These quizzes will consist of one to three problems. You will have about 5 to 10 minutes at the end of each class period to work the quiz and submit it. I will post feedback on Blackboard, but the grades will be recorded in the WebAssign gradebook. Between now and the beginning of the semester, figure out how you will photograph and convert your work for uploading. The easiest method probably involves a Smartphone and some scanning app, but you may use other methods if you wish.

• Final Exam: 10:30, Tuesday April 27

Grading Policy: Quizzes 60%

Final 20% Homework 20%

Note: This course will use the gradebook in WebAssign.

- Make up Policy: If you are absent, you must contact me before the next class period in order to make up any work missed.
- Important Dates:
- · March 25: Last day to drop classes with a W.
- Note that this semester WKU has no Spring break due to the pandemic.

• Other Policies:

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 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.

· ADA Accommodation Statement

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.