

**MATH2306 CALCULUS III**  
**KENTUCKY WESLEYAN COLLEGE**  
**FALL 2015**

**Professor:** Kyle Besing

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**Office Hours:** Monday and Wednesday 1:00 – 5:00 pm  
Tuesday and Thursday 10:00 – 10:50 am  
or by appointment

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**Course Description:** Vector-valued functions of real variables and real-valued functions of a vector. Partial derivatives, multiple integrals and line integrals, and Green's Theorem.

**Course Outline:** Vectors and Functions, Partial derivatives, multiple integrals, and vector calculus.

**Material Covered:** Chapters 11-15.

**Prerequisite:** Introductory Calculus

**Meeting times:** Tuesday and Thursday, 10:50 am–12:05 pm

**Meeting location:** Administration Building Room 210

**Credits:** 3 semester hours

**Textbook:** *Calculus for Scientists and Engineers Early Transcendentals, Books a la Carte Edition plus MyMathLab* by Briggs, Cochran, and Gillett. (ISBN: 9780321785374)

**MyMathLab:** This course requires an access code to MyMathLab. Included with that access code is an electronic version of the textbook. A physical copy of the book is not required.

**Course ID:** The Course ID needed to register for this class in MyMathLab is **besing78969**. Go to <http://www.mymathlab.com> and sign up for the course using this Course ID and your access code.

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**Attendance:** Attendance is essential for success in a mathematics course. Students are responsible for any material or announcements given in class. Attendance will be maintained. Four unexcused absences will result in a failing grade.

**Homework:** Homework will be assigned regularly through MyMathLab. Questions about homework should be discussed with the professor either during class or office hours.

**Tests:** There will be three one hour tests as well as a comprehensive final exam.

**Exam Schedule (Tentative):** Note these dates are subject to change.

Test 1 Thursday, September 24

Test 2 Thursday, October 29

Test 3 Tuesday, November 24

**Final Exam:** Friday, December 11 from 8:00 – 10:00 am

**Grading:** Regular tests are worth 100 points and the final exam will be worth 200 points. Homework will count for an additional 100 points for a total of 600 total points possible. The course grade will be determined by the percentage of total points earned throughout the semester.

**Grading Scale:** The following percentages will guarantee at least the associated letter grade. A 90%, B 80%, C 70%, and D 60%. Earning less than 60% of the possible points can result in a grade of F.

**Course Policies:**

- Cell phones are prohibited in the classroom, unless they are turned off and inside a container, like a backpack.
- Headphones connected to listening devices are forbidden in the classroom.
- Excessive talking with other students is disruptive to instruction and will not be tolerated.
- A respectful conduct towards fellow students and your instructor is expected at all times.
- Excused absences will need to be arranged at least 24 hours in advance. Medical emergencies are an exception, but written documentation will need to be produced in this case. Assignments will not be made up for unexcused absences.
- Anyone in violation of course policies will be warned once, then asked to leave the classroom.

**Academic Misconduct Policy:** Kentucky Wesleyan College expects its students to adhere to the highest standards of academic honesty. Any student who, beyond a reasonable doubt, violates these standards is subject to disciplinary action by the faculty member in whose class the academic dishonesty has occurred and by proper college authorities. Examples of acts constituting academic dishonesty include (but are not limited to) the following:

- (1) Knowingly participating in fraudulent activities relating to examinations, assignments or projects: e.g.
  - (a) Plagiarism - claiming or implying that the ideas or works of others are one's own original thoughts (includes making use of reports, term papers, films or other writing advertised for sale).
  - (b) Writing reports, etc., or completing projects for others to submit for evaluation.
  - (c) Submitting work that has been submitted in another class (unless there is written permission and it is acceptable to the instructor).
  - (d) Taking examinations for another student.
  - (e) Any form of cheating during the administration of an examination.
  - (f) Intentionally missing examinations to obtain information from class members for illegitimate make-up of examinations.
  - (g) Providing material or information to another person with knowledge that these materials or information would be used improperly.
- (2) Theft of examinations, projects, grade books, etc. Alteration of grades or scores on examinations, reports or in grade books. Procedures and penalties: A faculty member who finds beyond a reasonable doubt that a student has committed an act of academic dishonesty

shall have the option after consultation with the academic dean of imposing one of the following penalties:

- (a) Substitute examination or assignment.
- (b) A grade of “F” for examination or assignment.
- (c) Expulsion from the class with a grade of “F” for the course.
- (d) Recommendations to the academic dean that the student be expelled from the college.

In addition to being honest, Kentucky Wesleyan students are expected to be civil and respectful to their instructors and fellow students. The faculty member may handle first-time, relatively minor offenses by himself or herself. The faculty member should include the Vice President of Academic Affairs in more serious cases. The Vice President of Academic Affairs may withdraw the student from the class and/or file disciplinary charges to the Vice President of Student Services. See “Student Code of Conduct,” standard #4, in the KWC Student Handbook.

Procedures for review or appeal of penalties may be found in the Kentucky Wesleyan College Student Handbook.

**Disability Support Statement:** *“Kentucky Wesleyan College is committed to providing access to programs and services for qualified students with disabilities. If you are a student with a disability and require accommodations to participate and complete requirements for this class, notify me immediately and contact Dr. Leah Hoover at the Office of Disability Services (FOB #15 or 270-852-3212) for verification of eligibility and determination of specific accommodations.”*

## Tentative Schedule:

Week	Dates	Material Covered
1	8\26 – 8\28	11.1
2	8\31 – 9\4	11.2, 11.3, 11.4
3	9\7– 9 \11	12.1, 12.2, 12.3, 12.4
4	9\14 – 9\18	12.5, 12.6
5	9\21– 9\25	Review, Test 1
6	9\28 – 10\2	12.8, 12.9, 13.1
7	10\5 –10 \9	13.2, 13.3, 13.4
8	10\12– 10\16	13.5, 13.6
9	10\19– 10\23	13.7, 13.8, 13.9
10	10\26– 10\30	Review, Test 2
11	11\2– 11\6	14.1, 14.2, 14.3
12	11\9– 11\13	14.4, 15.1, 15.2
13	11\16– 11\20	15.3, 15.4, 15.5
14	11\23– 11\27	Test 3
15	11\30– 12\4	Review for Final

**Disclaimer Statement:** The professor reserves the right to make changes to the syllabus, including project due dates and test dates (excluding the officially scheduled final examination), when unforeseen circumstances occur. These changes will be announced as early as possible so that students can adjust their schedules.

### Student Learning Objectives:

- **Program Learning Outcome #1** Students will be able to perform mathematical computations efficiently and correctly
- **Program Learning Outcome #2** Students should develop their ability to communicate mathematical ideas and to write mathematical proofs.
- **Program Learning Outcome #3** Students should make connections between mathematical areas.
- **Program Learning Outcome #4** Students should apply mathematics to other disciplines.
- **Course Learning Outcome #1** Students will be able to calculate limits, derivatives, integrals, sequences and series; stating, using and applying relevant theorems( MVT, FTC, Greens, Stokes, Divergence)
- **Course Learning Outcome #2** Students will analyze mathematical statements for their validity and justify their conclusions.
- **Course Learning Outcome #3** Students will utilize their knowledge to solve application problems.