## Eastern Kentucky University

# Department of Mathematics and Statistic MAT 244 Calculus II CRN XXXXX

#### 4 credit hours

Fall XXXX

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E-mail:

Phone:

**Meeting Times:** 

Office Hours:

## **Catalogue Description:**

Formerly MAT 224. Prerequisite: MAT 234 or 234H with a grade of "C" or better. Fundamental integration techniques, numerical integration, applications of integration, improper integrals, differential equations, infinite series, polar and parametric equations, and use of Mathematica or other appropriate technology. Credit will not be awarded to students who have credit for MAT 224, 224H or 244H.

#### **Required Material:**

• **WebAssign:** Includes online version of textbook *Essential Calculus: Early Transcendentals*, 2nd Edition by James Stewart.

Students are required to register for WebAssign immediately. To register for WebAssign, go to http://www.webassign.net and use the class key **eku 5492 0140**. WebAssign is free for 14 days (until 9/4/2017). During this grace period, students must purchase access online or enter a valid access code before they can continue using WebAssign.

**Calculators:** Calculators will be allowed on tests. A TI-83 or TI-84 is the recommended calculator for this course. The use of a TI-89 is not allowed. Cell phones, PDAs, tablets, or any other wireless communication device cannot be used as calculators during a test.

## General Education Goals: Students will be able to

- 1. Use appropriate methods of critical thinking and quantitative reasoning to examine issues and to identify solutions.
- 2. Distinguish the methods that underlie the search for knowledge in the arts, humanities, natural sciences, history, and social and behavioral sciences.
- 3. Integrate knowledge that will deepen their understanding of, and will inform their own choices about, issues of personal and public importance.

#### **General Education Objectives:** Students will be able to

1. Use mathematical methods to state and solve quantitative problems, including those stated in verbal form.

- 2. Use numerical and graphical data to make reasonable and valid conclusions.
- 3. Apply mathematical methods to real-life problems.

# **Student Learning Outcomes:**

Students who successfully complete MAT 244 will demonstrate the ability to ...

- 1. Apply definite integrals to find areas, volumes, average values, and arc length.
- 2. Use different techniques for evaluating integrals.
- 3. Use several numerical approaches for evaluating definite integrals.
- 4. Compute definite integrals that have discontinuous integrands and/or infinite limits of integration.
- 5. Solve simple differential equations.
- 6. Determine whether an infinite sequence or series converges or diverges.

**Preparation Time:** Students are expected to study a minimum of two hours outside class for each hour of class. Hence, students should average a minimum of 8 hours per week reviewing the lecture notes, solving assigned homework problems, reading the primary reference text, looking over supplemental materials and generally synthesizing the course material.

**Grading:** Your midterm and final grades will be determined by the percentage of the total points listed below:

WebAssign	=	60	(20%)
Test 1	=	120	(40%)
Test 2	=	120	(40%)
Midterm Total	=	300	(100%)

WebAssign	=	120	(15%)
Test 1	=	120	(15%)
Test 2	=	120	(15%)
Test 3	=	120	(15%)
Test 4	=	120	(15%)
Final Exam	=	200	(25%)
Semester Total	=	800	(100%)

In accordance with department policy, grades will not be posted or given over the telephone. Midterm grades will be viewable online (EKUDirect/Student Services/Midterm Grades) on No test scores will be dropped or curved. The grading scales for the midterm and final grades are below:

Midterm Total	300-270	269-240	239-210	209-180	179-0
Semester Total	800-720	719-640	639-560	559-480	479-0
Grade	Α	В	С	D	F or FN

**Homework:** There will be homework assignments to be done online throughout the semester. Students are expected to complete homework assignments in WebAssign by their due dates. There will be a homework assignment for each of the section covered. Please log into WebAssign regularly to see the exact due date of each homework. Homework assignments will have an extension feature which will allow you to work for extra two weeks beyond the due date but for a penalty of 10% off the work completed after the due date. Extension window for each assignment will close 14 days after the original due date. Students are encouraged to work with one another on homework.

**Exams:** There will be four in-class interim tests and a comprehensive in-class final exam. To see timing of each, please see the calendar on page 5. The interim tests will generally be limited to material since the last test. Final exam covers the entire semester. Test questions will be mainly drawn from lecture notes, suggested problems from the primary textbook, and assigned homework problems in WebAssign.

**Makeup policy:** Students who miss a test will be allowed to take the general makeup test, if the absence is excused. To qualify for the general makeup, a written excuse with verification from an official such as a doctor must be presented to the course instructor within one week of the absence; otherwise, a zero will be recorded. This makeup will be scheduled during the last week of classes. The general makeup test will cover the curriculum of all four tests except those taken by all the students.

#### **Attendance Policy:**

While no penalty will be assessed directly for absences, students should make every effort to attend every class meeting. In the case of an excused absence with proper documentation, extended deadlines or alternate activities will be provided for any graded activities. However, these accommodations do not always provide equivalent learning opportunities. An acceptable excuse is a doctor's excuse, a university excuse, or a catastrophic emergency resulting in unavoidable absence. Arrangements to complete alternate activities, such as a makeup exam, must be made within one week of returning to class; otherwise, a zero will be recorded.

**Preparation Time:** Students are expected to study a minimum of three hours outside class for each hour of class. Hence, you should average a minimum of 9 hours per week reviewing the lecture notes, solving assigned homework problems, reading the primary reference text, looking over supplemental materials and generally synthesizing the course material.

# Last day to withdraw:

is the last day to drop this class with no tuition charge and no record of the course on the transcript. The last day to withdraw from this course with no withdrawal fee is After that, students withdrawing from the class may incur a \$150 fee. The last day to withdraw from this class is. For additional information about dates for partial refunds, consult the Colonel's Compass, http://colonelscompass.eku.edu/.

#### **Disabilities Statement:**

The University strives to make all learning experiences as accessible as possible. If you are registered with the EKU Center for Student Accessibility (CSA), please obtain your accommodation letters from the CSA, present them to the course instructor, and discuss the accommodations needed. If you believe you need an accommodation and are not registered with the CSA, please contact the office in 361 Whitlock Building by email at disserv@eku.edu or by telephone at (859) 622-2933. Upon individual request, this syllabus can be made available in an alternative format.

A student with a "disability" may be an individual with a physical or psychological impairment that substantially limits one or more major life activities, to include, but not limited to: seeing, hearing, communicating, interacting with others, learning, thinking, concentrating, sitting, standing, lifting, performing manual tasks, working. Additionally, pregnancy accompanied by a medical condition(s), which causes a similar substantial limitation, may also be considered under the Americans with Disabilities Amendments Act (ADAAA).

## **Academic Integrity Statement:**

- Anyone violating the usual standards for academic honesty, for example, anyone attempting
  to obtain or exchange information regarding any quiz or test, or anyone using a fraudulent
  excuse to qualify for a make-up, may receive a course grade of 'F'. Cheating includes buying,
  selling, or otherwise fraudulently obtaining copies of examinations or assignments for the
  purpose of improving one's academic standing. During examinations it includes receiving
  information from other students or other students' exams and referring to unauthorized
  notes or other written information in any form including electronic (e.g., information
  stored in graphing calculators).
- Anyone behaving in a disruptive manner or refusing to follow the usual standards for academic behavior may be barred from attending class and may receive a course grade of 'F'.
- Students are advised that EKUs Academic Integrity policy will be strictly enforced in this course. The Academic Integrity policy is available at http://studentrights.eku.edu/academic- integrity-policy. Questions regarding the policy may be directed to the Office of Academic Integrity.

## **Department Policies:**

- During class, cell phones and pagers must be turned off or set to a silent mode.
- During resource-limited activities, such as in-class exams, students may not use the calculator function of a wireless communication device such as a cell phone or PDA.
- Any student enrolling in a multiple section course for which s/he has already received a grade of "D", "F", or "W" from the instructor who is teaching the section may change to a section taught by a different instructor by seeing the Chair of the Department of Mathematics and Statistics. This change must be completed by the end of the drop/add period.

#### Official E-Mail:

An official EKU E-Mail is established for each registered student, each faculty member, and each staff member. All university communications sent via e-mail will be sent to this EKU e-mail

address.

**Inclement Weather Plan:** On inclement weather days, this class will meet as determined by announcements found at www.eku.edu or (859) 622-BADW.

**Tutoring Center:** The Mathematics and Statistics Tutoring Center is located in Wallace 342, (859) 622-6508 V/TTY, http://www.mathtutor.eku.edu. This service is provided free of charge by the Department of Mathematics and Statistics. The staff will help students to complete homework, improve study skills, decrease mathematics anxiety, and prepare for exams. Students are encouraged to take advantage of this facility. Hours, locations, and phone numbers for additional tutoring facilities on campus are found at http://tutoring.eku.edu/.

## **Course Outline:**

Monday	Tuesday	Thursday
Overview	6.1	6.2
Review: 5.3-5.5		
y to drop this course with	no effect on the transcri	pt and no tuition is
6.2	6.3	6.3
No class	6.4	6.5
Labor day		
Catch up/Review	TEST 1	6.6
t day to withdraw from thi	s course with a "W" and	without a fee is
7.1	7.2	7.2
7.3	7.4	7.4
Catch up/Review	TEST 2	7.5
7.6	7.6	8.1
Midterm grades wi	II be available online on	10/10.
No class	No class	8.2
Fall break	Fall break	
8.2	8.3	8.3
Catch up/Review	TEST 3	8.4
8.4	8.5	8.6
	Overview Review: 5.3–5.5  Ty to drop this course with 6.2  No class Labor day Catch up/Review  To day to withdraw from this 7.1  7.3  Catch up/Review  7.6  Midterm grades with No class Fall break 8.2  Catch up/Review	Overview Review: 5.3–5.5  Ty to drop this course with no effect on the transcription of the t

	The last day to withdr	aw from this course	with a "W" is	
	This requires	payment of a \$150 f	<sup>f</sup> ee.	
Week 13	8.7	8.7	9.1	
Week 14	Catch up/Review	TEST 4	No class	
			Thanksgiving	
Week 15	9.2	9.2	9.3	
Week 16	9.3	9.4	Catch up/Review	
Finals Week		FINAL EXAM		