Undergraduate Course Syllabus

MAT 211: Applied Calculus II

Center: Online

Course Prerequisites

MAT 210 or MAT 225 with a grade of C or better; or AP Calculus with exam grade of 3 or better

Course Description

This course is a continuation of MAT 210. Topics include integration by parts, functions of several variables, trigonometric functions, techniques of integration, differential equations, Taylor polynomials and infinite series. Students will learn applications in business, economics, natural sciences and social sciences. Students may not take both MAT 211 and MAT 275 for credit.

Course Outcomes

- Recognize, solve, and interpret applied multivariable calculus problems
- Compute derivatives and integrals of multivariable functions
- Differentiate and integrate trigonometric functions
- Integrate by parts
- Solve and interpret several types of differential equation problems that have real-world applications
- Approximate functions using Taylor polynomials
- Represent functions with and perform operations involving infinite series

Required Materials

Using your learning resources is critical to your success in this course. Please purchase directly through SNHU's online bookstore, MBS Direct, rather than any other vendor. Purchasing directly from the bookstore ensures that you will obtain the correct materials and that the Help Desk, your advisor, and the instructor can provide you with support if you have problems.

Access code for MyMathLab, which includes the following eBook:
MyMathLab
Pearson Custom
ISBN: 978-1-269-91036-1

Optional Materials

Additional Calculus Topics for Calculus for Business, Economics, Life Sciences & Social Sciences (physical textbook)

Barnett, Raymond A.

Prentice Hall, Inc.

12th Edition

2011

ISBN: 978-0-321-65509-7

Calculus for Business, Economics, Life Science, and Social Sciences (physical textbook)

Barnett, Raymond A.

Prentice Hall, Inc.

12th Edition

2011

ISBN: 978-0-321-61399-8

Technology Requirements/Recommendation

Graphing calculator highly recommended

Instructor Availability and Response Time

Your class interaction with the instructor and your classmates will take place in Blackboard on a regular, ongoing basis. Your instructor will be actively engaged within the course throughout the week. You will normally communicate with your instructor in the weekly discussions or the General Questions forum in Blackboard so that your questions and the instructor's answers benefit the entire class. You should feel free, however, to communicate with your instructor via SNHU email at any time, particularly when you want to discuss something of a personal or sensitive nature. Your instructor will generally provide a response within 24 hours.

Grade Distribution

Assignment Category	Number of Graded Items	Point Value per Item	Total Points
Discussions	5	50	250
Homework Problems	7	50	350
Group Project	2	75	150
Group Project Reflection	1	50	50
Final Exam	1	250	250
		Total Course Points:	1,050

This course may also contain practice activities. The purpose of these non-graded activities is to assist you in mastering the learning outcomes in the graded activity items listed above.

University Grading System: Undergraduate

			Total Points.	1,050
Grade	**Numerical Equivalent**	**Points**	**Points Equivalent**	
			Lower	*Upper*
A	93-100	4	977	1050
A-	90-92	3.67	945	976
B+	87-89	3.33	914	944
B	83-86	3	872	913
B-	80-82	2.67	840	871
C+	77-79	2.33	809	839
C	73-76	2	767	808
C-	70-72	1.67	735	766
D+	67-69	1.33	704	734
D	60-66	1	630	703
F	0-59	0	0	629
I	Incomplete			
IF	Incomplete/Failure*			
IP	In Progress (past end of term)			
W	Withdrawn			

*Please refer to the policy page for information on the incomplete grade process.

Grading Guides

Specific activity directions, grading guides, posting requirements, and additional deadlines can be found in the Course Information area in the Assignment Guidelines and Rubrics folder.

Weekly Assignment Schedule

The Learning Modules area in Blackboard contains one module folder for each week of the course. All reading and assignment information can be found in the folders. Assignments and discussion board posts during the first week of each term are due by 11:59 p.m. Eastern Time. Assignments and discussion posts for the remainder of the term are due by 11:59 p.m. of the student's local time zone.

In addition to the textbook readings that are listed, there may be additional required resources within each module in Blackboard.

Module	Topics and Assignments
1	Integration Topics I – Applied Multivariable Calculus *Calculus for Business, Economics, Life Sciences and Social Sciences*, Chapter 7, sections 1 and 2 1-1 Discussion: Getting Started 1-2 Group Project: Introduction 1-3 MyMathLab: Orientation 1-4 MyMathLab: Homework 1

2	Integration Topics II – Derivatives and Integrals of Multivariable Functions *Calculus for Business, Economics, Life Sciences and Social Sciences*, Chapter 7, sections 3 and 4 2-1 Discussion: Problem-Solving Process 2-2 Group Project: Work Time 2-3 MyMathLab: Homework 2	
3	Partial Derivatives, Maxima and Minima *Calculus for Business, Economics, Life Sciences and Social Sciences*, Chapter 8, sections 1–4 3-1 Group Project: Part I – Consumers' and Producers' Surplus 3-2 MyMathLab: Homework 3	
4	Partial Antiderivatives and Double Integrals *Calculus for Business, Economics, Life Sciences and Social Sciences*, Chapter 8, sections 5–7 4-1 Discussion: Functions 4-2 Group Project: Work Time 4-3 MyMathLab: Homework 4	
5	Derivatives and Integration of Trigonometric Functions *Calculus for Business, Economics, Life Sciences and Social Sciences*, Chapter 9, sections 1–3 5-1 Group Project: Part II – Productivity 5-2 MyMathLab: Homework 5	
6	Differential Equations *Additional Calculus Topics for Calculus for Business, Economics, Life Sciences and Social Sciences*, Chapter 1, sections 1–3 6-1 Discussion: Periodic Functions 6-2 MyMathLab: Homework 6	
7	Taylor Series *Additional Calculus Topics for Calculus for Business, Economics, Life Sciences and Social Sciences*, Chapter 2, sections 1–4 7-1 Group Project: Individual Final Reflection 7-2 MyMathLab: Homework 7	
8	Review and Reflection *Calculus for Business, Economics, Life Sciences and Social Sciences*, Chapters 7–9 8-1 Discussion: Reflection 8-2 MyMathLab: Final Exam	

Attendance Policy

Online students are required to submit a graded assignment/discussion to Blackboard during the first week of class. If a student does not submit a posting to the graded assignment/discussion during the first week of class, the student is automatically withdrawn from the course for non-participation. Review the full attendance policy.

Late Assignments Policy

Meeting assigned due dates is critical for demonstrating progress and ensuring appropriate time for instructor feedback on assignments. Students are expected to submit their assignments on or before the due date. Review the full late assignment policy.

SNHU College of Online and Continuing Education Student Handbook

Review the student handbook.

Diversity and Disability Statement

The College of Online and Continuing Education (COCE) at SNHU values diversity and inclusion. SNHU strives to create inclusive and welcoming academic environments. If there are aspects of the instruction or design of this course that present barriers to your inclusion, please notify the Disability Resource Center (DRC) as soon as possible. We will work with you and your instructor to address needs and concerns. We encourage all students with known or suspected physical, medical, sensory, psychiatric, and/or learning disabilities to register with the Disability Resource Center (DRC) in order to assess learning needs and take advantage of available academic accommodations and support services.

SNHU does not discriminate on the basis of race, color, national origin, sex, disability, age, religion, citizenship, marital status, gender identity or expression, sexual orientation, veteran/military status, or genetic information in its programs and activities. Requests for disabilities accommodations within COCE should be directed to:

Disability Resource Center (DRC)
(866) 305-9430
(877) 520-8916 (fax)
drc@snhu.edu

We welcome COCE students, faculty, and staff to consult with the Disability Resource Center (DRC) on disability-related questions or concerns. We look forward to hearing from you.

Complaints regarding discrimination and accommodations should be directed to:

(603) 645-9664
(603) 645-9717 (fax)
adacompliance@snhu.edu

Academic Honesty Policy

Southern New Hampshire University requires all students to adhere to high standards of integrity in their academic work. Activities such as plagiarism and cheating are not condoned by the university. Review the full academic honesty policy.

Copyright Policy

Southern New Hampshire University abides by the provisions of United States Copyright Act (Title 17 of the United States Code). Any person who infringes the copyright law is liable. Review the full copyright policy.

SNHU College of Online and Continuing Education Withdrawal Policy

Review the full withdrawal policy.

Southern New Hampshire University Policies

More information about SNHU policies can be found on the policy page.

Assessment Calibration and Student Work Samples

For the purpose of continuous improvement of our educational training, Southern New Hampshire University's College of Online and Continuing Education may, on occasion, utilize anonymous student work samples for internal professional development and staff training. If you have any questions or concerns, contact your advisor. If you would like to withdraw permission for use of your work, please contact the assessment calibration administrator at assessmentcalibration@snhu.edu. See this document for more information.