



Instructor:
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MATH 2414-Revised Fall 2018

Student Course Document

1. **Course Title:** Calculus II
2. **Prerequisite:** Calculus I (Math 2413)
College Level Readiness in Reading AND Writing
3. **Credit:** Four (4) semester hours
4. **Materials Needed:**
 - 4.1 **Textbook:** **Calculus**, 11th ed., Larson/Edwards, 2018 Cengage Learning.
ISBN: 978-1-337-27534-7
 - 4.2 **Website:** www.LarsonCalculus.com or www.CalcChat.com
 - 4.3 **Optional:** **Student's Solutions Manual**, ISBN-13: 978-1-337-27538-5
 - 4.4 **Calculator:** Students may find it helpful to own a graphing calculator such as a TI-84. Each instructor will announce his/her specific policies concerning classroom usage of calculators during the first week of the semester. |
As a minimum, all students should have a scientific calculator.
5. **Purpose:**

Math 2414 is a continuation of the study of calculus begun in Math 2413. Calculus II emphasizes the calculus techniques of integration, applications of integration, L'Hopital's Rule and indeterminate forms, polar coordinates, parametric equations, infinite sequences and series, and power series.
6. **Major Course Objectives:**
 - 6.1 Use the concepts of definite integrals to solve problems involving area, volume, work, and other physical applications.
 - 6.2 Use substitution, integration by parts, trigonometric substitution, partial fractions, and tables of anti-derivatives to evaluate definite and indefinite integrals.
 - 6.3 Define an improper integral.
 - 6.4 Apply the concepts of limits, convergence, and divergence to evaluate some classes of improper integrals.
 - 6.5 Determine convergence or divergence of sequences and series.
 - 6.6 Use Taylor and MacLaurin series to represent functions.
 - 6.7 Use Taylor or MacLaurin series to integrate functions not integrable by conventional methods.
 - 6.8 Use the concept of parametric equations and polar coordinates to find areas, lengths of curves, and representations of conic sections.
 - 6.9 Apply L'Hôpital's Rule to evaluate limits of indeterminate forms.

7. **Evaluation:**

The allowable final grades in Math 2414 are A (final average of 90 to 100%), B (final average of 80 to 89%), C (final average of 70 to 79%), D (final average of 60 to 69%), and F (final average below 60%), and I (reserved for students unable to complete the last part of the course due to illness or other extenuating circumstances). Note that I's are not to be given to a student who simply gets behind and cannot get caught up.

Link to [LSC Syllabus Policies](#) for information on
FERPA
Title IX
Academic Integrity
Academic Appeals
ADA 504/508
Emergency Procedures (and LoneStarCollegeAlert)
Concealed Carry / Campus Carry



Link to [NH Math Syllabus Information and Resources](#) on

Mathematics Department
Math Achievement Center and Tutoring
Division Counselor
OTS HelpDesk
Student Course Documents
Online Videos
Student Support Material
Math Faculty Websites
Sexual Assault Prevention

