COURSE SYLLABUS

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SEMESTER COURSE OFFERED: Fall/Spring/Summer
DEPARTMENT: Mathematics
COURSE NUMBER: 1432
NAME OF COURSE: Calculus II
NAME OF INSTRUCTOR: Rebecca George (http://www.math.uh.edu/~bekki/)
COURSE WEBPAGE: http://www.math.uh.edu/~bekki/Math1432.html
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The information contained in this class syllabus is subject to change without notice. Students are expected to be aware of any additional course policies presented by the instructor during the course.

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Learning Objectives

The student will master the following:
- Integration Techniques and Applications
- Sequences and Series
- Polar Coordinates
- Parametric Equations

Major Assignments/Exams

Test 1 - 10%
Tests 2, 3, 4 - 15% each
Final exam- 25%
Lab Quizzes and Homework (both written and EMCF) - 10%
Online Quizzes – 7.5%
In-class Poppers and Attendance – 2.5%

Required Reading

The departmental text will be available online through Courseware (www.casa.uh.edu).
List of discussion/lecture topics

Chapter 7 - Applications of Integration
  7.1 Integration Review
  7.2 Area
  7.3 Volume
  7.4 Centroids
  7.5 Arc Length and Surface Area
  7.6 Differential Equations and Exponential Growth/Decay
  7.7 Improper Integrals

Chapter 8 - Techniques of Integration
  8.1 Integration by Parts
  8.2 Powers of Trigonometric Functions
  8.3 Trigonometric Substitutions
  8.4 Integrating Rational Functions
  8.5 Numerical Integration

Chapter 9 - Sequences and Series
  9.1 Sequences and Convergence
  9.2 Numerical Series and Convergence
  9.3 Tests for Convergence
  9.4 The Power Series
  9.5 The Taylor Series

Chapter 10 - Polar Coordinates and Parametric Equations
  10.1 Polar Coordinates and Polar Curves
  10.2 Area and Arc Length in Polar Coordinates
  10.3 Parametric Equations
  10.4 Derivatives for Curves Given Parametrically
  10.5 Arc Length for Curves Given Parametrically
  10.6 Surface Area