MATH 2644 – Calculus II
Section 03, Fall 2016
M 10:10 am – 11:00 am 304 Boyd BLDG; TR 9:30 am -10:45 am 301 Boyd BLDG

Prerequisites: MATH 1634 or MAT 262 or MATH 1501 (Minimum Grade: C)

Instructor: Dr. Rui Xu
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Office hours: M: 9:00 am – 10:10 am, 11:00 am – 12:15 pm, 1:10 pm – 1:50 pm; TR: 9:00 am – 9:30 am, 10:45 am – 12:30 pm or by appointment.

Textbook: Single Variable Calculus: Early Transcendentals Volume 2, 7th Edition, by James Stewart, Thomson Brooks/Cole Publishing Company.

Course Description: A continuation of Math 1634. The definite integral and applications, calculus of transcendental functions, standard techniques of integration, sequences and series.

Learning Outcomes: The student will be able to:

1. Compute areas under curves and between curves.
2. Compute volumes by disks, washers, shells, and cross-sections.
3. Solve applied problems involving work.
4. Evaluate antiderivatives using the techniques of integration by parts, trigonometric integrals, trigonometric substitution, partial fractions.
5. Evaluate improper integrals.
6. Compute arc length of a curve and surface area of a surface of revolution.
7. Solve applied problems in physics and engineering.
8. Understand polar coordinates.
9. Compute area and arc length of curves in polar coordinates.
10. Understand conic sections and conic sections in polar coordinates
11. Determine whether a sequence converges or diverges.
12. Determine whether a series converges conditionally, converges absolutely, or diverges using geometric series, p-series, the comparison test, the limit comparison test, the integral test, the ratio test, the root test, and the alternating series test.
13. Determine the radius of convergence and the interval of convergence of a power series.
14. Compute the Taylor series and Maclaurin series of a function.

Grading Methods: Grades will be assessed based on a total of 700 points (as shown below), using the standard decade scale: (90–100%=A, 80–89%=B, 70–79%=C , 60–69%=D, below 60%=F).

Test 1 (Chapter 6)	90pts
Test 2 (Chapter 7)	100pts
Test 3 (Chapter 8 and Chapter 10)	100pts
Test 4 (Chapter 11)	110pts
Final (Comprehensive)	150pts
Homework	130pts
Attendance	20pts
Total	700pts

Homework & Test policy: You are required to turn in your homework on time, late homework will not be accepted. The lowest 3 homework grades will be dropped. Homework may be graded partially or totally. I may grade a special problem or just look for completeness. Makeup tests will be granted only for excused absences (scheduled University-approved activity such as field trips, debate trips, choir trips, and athletic contests, or verifiable medical doctor's excuse). In that case, the student should contact the instructor in advance to reschedule the makeup test. If that is impossible, the student must contact the instructor the same day of the test by email or phone to let the instructor know. Failure to do so will result in a zero for that test. All students are required to take the final exam at the scheduled time and no makeup for final exam.

Other Policies:

1. Class attendance will be taken every class day. Tardies and early leaves are not allowed. Two tardies/early leaves are counted as one absence. Students are allowed to miss at most 3 classes to get the full 20 pts for attendance and will lose 5 pts for each additional absence.

2. Cell phones should be set to an inaudible setting.

3. The instructor follows the common university policies as shown on the website below

http://www.westga.edu/assetsDept/vpaa/Common_Language_for_Course_Syllabi.pdf

Important Dates:

August 10	: First day of class
September 5	: Labor Day Holiday (no classes)
September 30	: Last day to withdraw with a grade of W
October 6-7	: Fall Break (no classes)
November 21-25	: Thanksgiving Break (no classes)
December 2	: Last Day of Class
December 8 (Thursday), 8:00 am -10:00 am	: Final Exam

Homework Assignments

Section 6.1 : 3,7,9,11,13,17,29

Section 6.2 : 7,9,11,14,31,41,49,58

Section 6.3 : 1,4,5,13,19,25,29,47

Section 6.4 : 2,3,7,9,13,19

Section 6.5 : 1,3,7,9,13

Section 7.1 : 1,3,5,9,11,15,17,24,33,39,51,61

Section 7.2 : 1,3,7,11,14,21,22,23,41,43,61

Section 7.3 : 3,4,7,13,17,22,31(a)

Section 7.4 : 1,6,8,11,17,23,29,43,47

Section 7.5 : 1,7,11,17,23,31,45,49,57,63,71

Section 7.6 : 3,4,6,17,19,26,29

Section 7.8 : 1,7,13,21,29,31,49,57

Section 8.1 : 7,9,11,13,33

Section 8.2 : 1(a), 5,11,14,15

Section 8.3 : 1,7,13,23,27,28,31

Section 10.1 : 4,7,9,11,12,13,21,24

Section 10.2 : 1,5,11,13,17,31,41,42,63,65

Section 10.3 : 1,3,5,11,13,17,25,33,37,57,61

Section 10.4 : 1,4,7,13,21,27,31,41,45,47

Section 11.1 : 3,4,9,12,14,17,18,19,25,27,33,43,53,73,81

Section 11.2 : 1,3,15,17,19,23,25,27,29,31,39,43,51,57

Section 11.3 : 7,9,10,11,13,17,21,29

Section 11.4 : 3,5,7,9,17,19,25,31

Section 11.5 : 3,4,7,11,17,32

Section 11.6 : 2,3,5,7,13,21,31,35(a)(b)

Section 11.7 : 1,3,7,13,23,24,31,33,37

Section 11.8 : 5,7,15,19,23,25

Section 11.9 : 3,5,8,13,15,23,25

Section 11.10 : 5,9,15,18,22,33,35,57,59,63