

WBUOnline SCHOOL OF MATHEMATICS & SCIENCES

Wayland Mission Statement:

Wayland Baptist University exists to educate students in an academically challenging, learning-focused and distinctively Christian environment for professional success and service to God and humankind.

Course Title and Number: MATH 2407-VC01; Calculus IITerm: Summer 2019INSTRUCTOR: Dr. Scott R. Franklin, Dean of Math and Sciences, Professor of MathematicsOFFICE PHONE: 806-291-1130EMAIL: franklins@wbu.eduOFFICE: Moody Science Building, Room 121

Class Meeting Time and Location: Online (Asynchronous)

Catalog Description:

Techniques of integration, applications of integration, trigonometric integrals, improper integrals, polar equations, parametric equations, and infinite series.

Prerequisites:

"C" or better in MATH 2406 (Calculus I) or equivalent.

Required Textbook:

WebAssign Access – Calculus – Early Transcendals, by James Stewart (Your access to this e-book and online homework is provided through Redshelf Inclusive Access available through the Redshelf link in Blackboard, under Course Information)

Supplies:

Lecture Notes for Calculus II by Dr. Jessica Ann Faucett (downloadable from Blackboard). Scientific or graphing calculator.

This class will also make use of Maple installed on the lab computers (Plainview campus) or accessed using the Maple server (instructions provided on Blackboard).

Course Outcome Competencies:

- 1. The student will be able to apply integrals in various ways including areas between curves, volumes, arc length and surfaces of revolution.
- 2. The student will be able to apply integrals to applications in physics and engineering, and growth and decay with differential equations.
- 3. The student will be able to apply several different integration techniques including substitution, parts, trigonometric substitution, partial fractions, and improper integrals.
- 4. The student will be familiar with numerical integration and using computer software to evaluate integrals.
- 5. The student will be familiar with sequences, series and convergence, the integral and comparison tests, other convergence tests, Taylor polynomials and approximations, power series, representation of functions by power series, and Taylor and Maclaurin series.



6. The student will be familiar with plane curves and parametric equations, polar coordinates and polar graphs, area and arc length in polar coordinates, and conics and Kepler's Laws.

Attendance Requirements:

Students are expected to participate in all required instructional activities in their courses. In this course, your weekly assignments (including watching the videos, completing the homework, and taking the quizzes) will be the measure of attendance. Any week in which a student does not complete any work, the student will be considered "absent." Any student absent 25% or more (i.e., non-participatory during 3 or more weeks of the term) will receive an F for the course.

Statement on Plagiarism and Academic Dishonesty:

Wayland Baptist University observes a zero tolerance policy regarding academic dishonesty. Per university policy as described in the academic catalog, all cases of academic dishonesty will be reported and second offenses will result in suspension from the university.

Disability Statement:

In compliance with the Americans with Disabilities Act of 1990 (ADA), it is the policy of Wayland Baptist University that no otherwise qualified person with a disability be excluded from participation in, be denied the benefits of, or be subject to discrimination under any educational program or activity in the university. The Coordinator of Counseling Services serves as the coordinator of students with a disability and should be contacted concerning accommodation requests at (806) 291-3765. Documentation of a disability must accompany any request for accommodations.

Course Requirements and Grading Criteria:

Homework: There will be homework assignments for each section covered. The assignments will be completed in WebAssign which will be accessible through Blackboard. Each section's assignment counts as one grade. You may work together, but do not copy. No late homework will be accepted. If there are extreme circumstances, contact your instructor. The three lowest homework assignments will be dropped.

Weekly Quizzes: At the end of each week of the course, you will be required to complete an online quiz covering the sections from that week. The quizzes will be completed in WebAssign which will be accessible through Blackboard. You can take the quiz up to three times and your highest score will be counted.

Exams: During the course, there will be two major exams: a Midterm and a Final. Each test will cover approximately half the course. Both of the tests are to be taken in person at one of the external campuses or a testing center. They will be paper and pencil tests which will be mailed to your instructor for grading. They must be proctored by an approved representative of the University.

Lecture Videos and Notes: You will be required to watch the videos for this course and completely fill in the lecture notes for each section. This will be verified at each of the proctored exams. You will be required to bring it to the exams, although you cannot use it while taking the exam.



Grade Calculation:

| 20% | Homework |
|-----|-----------------------|
| 30% | Weekly Quizzes |
| 40% | Exams (2 at 20% each) |
| 10% | Lecture Notes |

A: 90 – 100 B: 80 – 89 C: 70 – 79 D: 60 – 69 F: Below 60

Students shall have protection through orderly procedures against prejudices or capricious academic evaluation. A student who believes that he or she has not been held to realistic academic standards, just evaluation procedures, or appropriate grading, may appeal the final grade given in the course by using the student grade appeal process described in the Academic Catalog. Appeals may not be made for advanced placement examinations or course bypass examinations. Appeals are limited to the final course grade, which may be upheld, raised, or lowered at any stage of the appeal process. Any recommendation to lower a course grade must be submitted through the Executive Vice President/Provost to the Faculty Assembly Grade Appeals Committee for review and approval. The Faculty Assembly Grade Appeals Committee may instruct that the course grade be upheld, raised, or lowered to a more proper evaluation.

Course Schedule:

Week 1: May 27 – June 3

Videos and Notes for Sections 6.1, 6.2, 6.3, 6.4, & 6.5 Homework Exercises for Sections 6.1, 6.2, 6.3, 6.4, & 6.5 Weekly Quiz covering Sections 6.1, 6.2, 6.3, 6.4, & 6.5 Due by Monday, June 3 at 5:00 pm (CDT)

Week 2: June 3 – June 10

Videos and Notes for Sections 7.1, 7.2, 7.3, & 7.4 Homework Exercises for Sections 7.1, 7.2, 7.3, & 7.4 Weekly Quiz covering Sections 7.1, 7.2, 7.3, & 7.4 Due by Monday, June 10 at 5:00 pm (CDT)

Week 3: June 10 – June 17

Videos and Notes for Sections 7.5, 7.6, 7.7, & 7.8 Homework Exercises for Sections 7.5, 7.6, 7.7, & 7.8 Weekly Quiz covering Sections 7.5, 7.6, 7.7, & 7.8 Due by Monday, June 17 at 5:00 pm (CDT)

Week 4: June 17 – June 24

Videos and Notes for Sections 8.1, 8.2, 8.3, 8.4, & 8.5 Homework Exercises for Sections 8.1, 8.2, 8.3, 8.4, & 8.5 Weekly Quiz covering Sections 8.1, 8.2, 8.3, 8.4, & 8.5 Due by Monday, June 24 at 5:00 pm (CDT)



Week 5: June 24 – July 1

Midterm Exam covering Chapters 6-8 (Paper and Pencil Exam, Proctored) Videos and Notes for Sections 9.1, 9.2, & 9.3 Homework Exercises for Sections 9.1, 9.2, & 9.3 Weekly Quiz covering Sections 9.1, 9.2, & 9.3 Due by Monday, July 1 at 5:00 pm (CDT)

Week 6: July 1 – July 8

Videos and Notes for Sections 9.4, 9.5, 9.6, & 10.1 Homework Exercises for Sections 9.4, 9.5, 9.6, & 10.1 Weekly Quiz covering Sections 9.4, 9.5, 9.6, & 10.1 Due by Monday, July 8 at 5:00 pm (CDT)

Week 7: July 8 – July 15

Videos and Notes for Sections 10.2, 10.3, 10.4, & 10.5 Homework Exercises for Sections 10.2, 10.3, 10.4, & 10.5 Weekly Quiz covering Sections 10.2, 10.3, 10.4, & 10.5 Due by Monday, July 15 at 5:00 pm (CDT)

Week 8: July 15 – July 22

Videos and Notes for Sections 10.6, 11.1, 11.2, & 11.3 Homework Exercises for Sections 10.6, 11.1, 11.2, & 11.3 Weekly Quiz covering Sections 10.6, 11.1, 11.2, & 11.3 Due by Monday, July 22 at 5:00 pm (CDT)

Week 9: July 22 - July 29

Videos and Notes for Sections 11.4, 11.5, 11.6, & 11.7 Homework Exercises for Sections 11.4, 11.5, 11.6, & 11.7 Weekly Quiz covering Sections 11.4, 11.5, 11.6, & 11.7 Due by Monday, July 29 at 5:00 pm (CDT)

Week 10: July 29 – August 5

Videos and Notes for Sections 11.8, 11.9, 11.10, & 11.11 Homework Exercises for Sections 11.8, 11.9, 11.10, & 11.11 Weekly Quiz covering Sections 11.8, 11.9, 11.10, & 11.11 Due by Monday, August 5 at 5:00 pm (CDT)

Week 11: August 5 – August 10 Final Exam covering Chapters 9-11 (Paper and Pencil Exam, Proctored) Due by Saturday, August 10 at 11:59 pm (CDT)

Academic Honesty:

Disciplinary action for academic misconduct is the responsibility of the faculty member assigned to this course. The faculty member is charged with assessing the gravity of any case of academic dishonesty, and with giving sanctions to any student involved.



MATH 2407 VC01 Summer 2019 Syllabus

Important Dates: Last day to drop without record Last day to withdraw with "W" Last day to withdraw with a "WP/WF" Last Class

Tuesday, June 11 Friday, July 19 Friday, July 26 Saturday, August 10

This syllabus is only a plan. The teacher may modify the plan during the course. The requirements and grading criteria may be changed during the course if necessary.