**WAYLAND BAPTIST UNIVERSITY**

**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.

The School of Mathematics and Sciences emphasizes a rigorous, ethical approach to the study of mathematics and science. We believe that success in these disciplines requires a broad base of content knowledge and the development of the critical thinking skills necessary for the ongoing acquisition, processing and communication of current subject matter. The activities of the School, both academic and professional, intentionally reflect the Lordship of Jesus Christ and His centrality to all of Creation.

**Course Title and Number:** MATH 2406-VC01; Calculus I

**Term:** Spring 2018

**Name of Instructor:** Dr. Emilia Moore

**WBU Email Address:** emilia.moore@wayland.wbu.edu

**Catalog Description:** Transcendental functions, limits, derivatives, applications of derivatives, integration, differential equations, and the Fundamental Theorem of Calculus.

**Prerequisites:** MATH 1305 (Trigonometry) or equivalent.

**Required Textbook:**

Stewart Bundle: Calculus: Early Transcendentals, 8th + Enhanced WebAssign Printed Access Card for Calculus, Multi-Term Courses [8th © 2016] (PAC: 9781305616691)

**Required Supplies:**

Lecture Notes for Calculus I by Dr. Jessica Ann Faucett (available through the Wayland Bookstore or downloadable from Blackboard).

Scientific or graphing calculator.

**Course Outline/Outcome Competencies:**

1. The student will be able to manipulate transcendental functions and use them to mathematically model applications.
2. The student will be able to understand and work with limits and continuity and apply them to tangent and velocity problems.
3. The student will be able to find derivatives of several types of functions using both the definition and differentiation rules including the chain rule; and be able to interpret the derivative as a rate of change.
4. The student will be able to apply derivatives in various ways including optimization, graphing, l'Hospital's Rule, and the Mean Value Theorem.
5. The student will be able to perform problems involving antiderivatives and integrals including definite and indefinite integration, interpreting the definite integral as an area, the Fundamental Theorem of Calculus, and the substitution rule.

**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 2 major exams: a Midterm and a Final. Each test will cover approximately half of 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. . Examity may be used by those students who are unable to take the exam in person. There is a fee to use Examity. More details can be found in Blackboard.

<https://www.wbu.edu/wbu-online/current-students/proctored-exams.htm>

**Lecture Video 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 with you to the exams, although you cannot use it while taking the exam.

**Grading**:

20% **Homework**

30% **Weekly Quizzes**

40% **Exams (2 at 20% each)**

10% **Comprehensive Final**

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.

**Tentative Schedule:**

**Week 1:** February 26 – March 4

Videos and Notes for Trigonometry Review and Maple Tutorial

Videos and Notes for Sections 1.1 - 1.4

Homework Exercises for Sections 1.1 - 1.4

Weekly Quiz covering Sections 1.1 - 1.4

Due by Sunday, March 4 at 11:59pm (CST)

**Week 2:** March 5 - March 11

Videos and Notes for Sections 1.5, 2.1 - 2.3

Homework Exercises for Sections 1.5, 2.1 - 2.3

Weekly Quiz covering Sections 1.5, 2.1 - 2.3

Due by Sunday, March 11 at 11:59pm (CST)

**Spring Break:** March 12 - March 16

**Week 3:** March 19 - March 25

Videos and Notes for Sections 2.4 - 2.7

Homework Exercises for Sections 2.4 - 2.7

Weekly Quiz covering Sections 2.4 - 2.7

Due by Sunday, March 25 at 11:59pm (CST)

**Week 4:** March 26 – April 1

Videos and Notes for Sections 2.8, 3.1 - 3.3

Homework Exercises for Sections 2.8, 3.1 - 3.3

Weekly Quiz covering Sections 2.8, 3.1 - 3.3

Due by Sunday, April 1 at 11:59pm (CST)

**Week 5:** April 2- April 8

Videos and Notes for Sections 3.4 - 3.7

Homework Exercises for Sections 3.4 - 3.7

Weekly Quiz covering Sections 3.4 - 3.7

Due by Sunday, April 8 at 11:59pm (CST)

**Week 6:** April 9 - April 15

Videos and Notes for Sections 3.8 - 3.11

Homework Exercises for Sections 3.8 - 3.11

Weekly Quiz covering Sections 3.8 - 3.11

Due by Sunday, April 15 at 11:59pm (CST)

**Week 7:** April 16 - April 22

Midterm Exam covering Chapters 1-3 (Paper and Pencil Exam, Proctored)

Videos and Notes for Sections 4.1 - 4.2

Homework Exercises for Sections 4.1 - 4.2

Weekly Quiz covering Sections 4.1 - 4.2

Due by Sunday, April 22 at 11:59pm (CST)

**Week 8:** April 23 - April 29

Videos and Notes for Sections 4.3 - 4.6

Homework Exercises for Sections 4.3 - 4.6

Weekly Quiz covering Sections 4.3 - 4.6

Due by Sunday, April 29 at 11:59pm (CST)

**Week 9:** April 30 – May 6

Videos and Notes for Sections 4.7 - 4.9, 5.1

Homework Exercises for Sections 4.7 - 4.9, 5.1

Weekly Quiz covering Sections 4.7 - 4.9, 5.1

Due by Sunday, May 6 at 11:59pm (CST)

**Week 10:** May 7 - May 13

Videos and Notes for Sections 5.2 - 5.4

Homework Exercises for Sections 5.2 - 5.4

Weekly Quiz covering Sections 5.2 - 5.4

Due by Sunday, May 13 at 11:59pm (CST)

**Week 11:** May 14- May 19

Final Exam covering Chapters 4-5 (Paper and Pencil Exam, Proctored)

Due by **Saturday**, May 19 at 11:59pm (CST)

**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.

**Important Dates:** February 26 - Term Begins

March 12-16 - Spring Break

 May 19 - Term Ends

 May 22 – Grades are due to the registrar

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.

*Revised 01/22/2018*