

**Applied Calculus—MATH 146, Summer 2020, Course Number 08735, 3 credits****Instructor:** April Duchscher**Office Phone Number:** Online**E-mail:** april.duchscher@lrsc.edu**Room Number:** Online**Office Location & Hours:** Online**Class Days & Times:** Online**Course Help:**

Email with any questions. I will respond to emails within 48 hours during the work week, but expect longer response time on weekends and over holidays.

**Prerequisite:** Successful completion of Math 103.**Required Materials:**

- **WebAssign with Cengage eText**

**ISBN:** 9781337772594

This course uses WebAssign and this comes with an electronic copy of the book. Therefore, you are not required to buy an actual textbook, but rather this program. You can still buy a “real” book if you want, but you do not need to.

- Scientific Calculator

**Optional Text:**

*Applied Calculus: For the Managerial, Life, and Social Sciences*, Ninth Edition, by Tan, Chapters 1 – 6

**ISBN:** 9780538498906**Major Units:**

- Preliminaries
- Functions, Limits, and the Derivative
- Differentiation
- Applications of the Derivative
- Exponential and Logarithmic Functions
- Integration

**Course Description:**

Limits, derivatives, integrals, exponential, logarithmic, and applications.

**Homework:**

There will be a homework assignment for each section. Assignments are to be completed using the online homework program WebAssign. In order to complete assignments, students need to purchase an access code and register for WebAssign. Assignments for each week will open Sundays at 12:01 AM and close Saturdays at 11:59 PM. No late work will be accepted. Homework completed 24 hours in advance will be awarded a 10% bonus per assignment.

**Quizzes:**

There will be quizzes given through WebAssign periodically throughout the semester. Due dates for quizzes will be posted in Blackboard.

**Exams:** There will be six equally weighted exams throughout the semester. Exam open dates and due dates will be posted in Blackboard.

Make-up exams are only given in extreme cases. Students that fail to notify me before the exam date will receive a score of 0 for that exam. Cheating will result in a grade of F.

**Final Exam:**

The final exam is comprehensive. Anyone who does not take the final exam will receive a grade of **F** for the class. No early/make-up finals will be given.

**Grading Policies:** Grades in this class will be earned based on your performance for the following components:

- Three Exams: 50%
- Homework: 35%
- Final (Two parts): 15%
  - Exam: 10%
  - Essay: 5%

Final grades will be determined by the weighted percentage of points you earn according to the following scale:

- A: 100-90%
- B: 89-80%
- C: 79-70%
- D: 69-60%
- F: 59-0%

**Course Expectations:**

As a student in this class, I expect that you will complete all assignments, quizzes, and tests by the due dates.

If needed, I will contact you through your assigned LRSC email account only. Please make sure that you are using this account in order to receive important announcements

regarding class. Furthermore, should you have homework and/or general questions, please email me from your LRSC student account.

### **Academic Dishonesty:**

Academic integrity will be taken very seriously in this class. If a student is caught cheating in any way, the minimum penalty will be zero points for the assignment on which the cheating occurred.

If a second instance of cheating occurs, in any of my classes, the student will receive zero points for that assignment and may receive a grade of **F** for the class.

### **General Education Objectives:**

- I.3. To apply knowledge gained in the educational process and use that knowledge in everyday living – *apply knowledge to the real world.*
- I.7. To develop work habits and ethics necessary to function effectively in the workplace- *work-related skills*
- II.3. To use information objectively for solving problems and arriving at alternative solutions – *problem-solving skills.*
- V.1. To develop a conceptual understanding of mathematics and a practical knowledge of mathematical application – *numerical.*
- VII.1. To develop a pattern of intellectual curiosity and inquiry which promotes life-long learning – *value lifelong learning.*

### **Course Objectives:**

Students should gain a conceptual understanding of mathematics that will encourage them to develop a meaningful understanding of calculus concepts and prepare them to advance to higher mathematics courses.

### **Student Outcomes:**

Upon completion of the course the learner will be able to:

- Work with limits as evidenced by classroom activities and objective tests
- Work with derivative functions as evidenced by classroom activities and objective tests
- Work with exponential and logarithmic functions as evidenced by classroom activities and objective tests
- Work with integrals and their applications as evidenced by classroom activities and objective tests
- Demonstrate an understanding of how to solve real world problems using fundamental calculus concepts as evidenced by classroom activities and objective tests

### **Assessment Tools:**

Students are required to complete exams within the allotted amount of time to demonstrate that they have mastered the required skills. The time allowed for exams should be sufficient to complete all problems as well as check answers.

Student learning will be also be assessed through the use of online quizzes and discussion posts.

**Changes:**

The course policies and syllabus described above are subject to change.

**Resources Available:**

- **Help Desk:** If you have any trouble with an eCourse, please contact the NDUS/Blackboard Online 24-hour Help Desk at 1-866-457-6387 for support or LRSC Helpdesk at 701-662-1596. You can email the Help Desk at [helpdesk@lrsconline.com](mailto:helpdesk@lrsconline.com). Help Desk staff are waiting for your call 24 hours a day, 7 days a week, 365 days a year.
- **SmartThinking:** You have access to SmartThinking though LRSC and this provides 24 hour, 7 day a week online tutoring (there is a link in the course shell itself under Course Home).

**Division Mission Statement:**

The Academic Division focuses on the student, providing high-quality, accessible educational opportunities in the liberal arts. The division strives to maintain an educational environment in which students learn to think critically and creatively and to express themselves cogently, broadening their understanding of life and their ability to function successfully and to their full potential in a complex and changing society.