

SOUTHEASTERN LOUISIANA UNIVERSITY
DEPARTMENT OF MATHEMATICS
MATH 201 COURSE INFORMATION SHEET

Effective August 2017

COURSE TITLE: Calculus II

CREDIT: 5 semester hours

PREREQUISITE: Math 200

CATALOGUE DESCRIPTION: The second of a standard three-course sequence on the foundations of differential and integral calculus. Topics include integration techniques, applications of the definite integral, and infinite series. Calculus will be used in the solution of real world applications.

TEXT: *Calculus of a Single Variable*, 11th Edition by Larson and Edwards

PUBLISHER: Cengage Learning

TOPICS COVERED: Based upon the current textbook, the following outline allows for 5 regular examinations and the final examination. The section numbers are given in parentheses after each topic:

Applications of Integration (1 Weeks – Chapter 7)

Arc Length and Surfaces of Revolution (7.4)

Integration Techniques, L'Hopital's Rule, and Improper Integrals (4.5 Weeks – Chapter 8)

Basic Integration Rules (8.1)

Integration by Parts (8.2)

Trigonometric Integrals (8.3)

Trigonometric Substitution (8.4)

Partial Fractions (8.5)

Indeterminate Forms and L'Hopital's Rules (5.6)

Improper Integrals (8.8)

Infinite Series (4.5 Weeks – Chapter 9)

Sequences (9.1)

Series and Convergence (9.2)

The Integral Test and p-series (9.3)

Comparisons of Series (9.4)

Alternating Series (9.5)

The Ratio and Root Tests (9.6)

Taylor Polynomials and Approximations (9.7)

Power Series and Representation of Functions by Power Series (9.8, 9.9)

Taylor and Maclaurin Series (9.10)

Conics, Parametric Equations, and Polar Coordinates (4 Weeks – Chapter 10)

Conics and Calculus (10.1)

Plane Curves and Parametric Equations (10.2)

Parametric Equations and Calculus (10.3)

Polar Coordinates and Polar Graphs (10.4)

Area and Arc Length in Polar Coordinates (10.5)

Polar Equations of Conics and Kepler's Laws (10.6)

EMAIL REQUIREMENT: According to Southeastern Louisiana University policy, your Southeastern email address is the only acceptable email address that I may use in communicating with you.

OFFICE OF DISABILITY SERVICES: If you are a qualified student with a disability seeking accommodations under the Americans with Disabilities Act, you are required to self-identify with the Office of Disability Services, Student Union, Room 1304. No accommodations will be granted without documentation from the Office of Disability Services. The deadline for registering or making accommodation changes is two weeks prior to the start of the Final Exam period. Any requests received after the deadline will generally be considered for the following semester.

ACADEMIC INTEGRITY: Southeastern Louisiana University expects students to maintain the highest standards of academic integrity at all times. Behavior that violates these standards is not acceptable. In this class, examples of *cheating* include the use of unauthorized material or communication with fellow students during a quiz or exam, attempting to benefit from the work of another student, and similar behavior that

defeats the intent of a quiz or exam. I consider cheating as a very serious offense, and it will be grounds for disciplinary action as outlined in the current General Catalogue.

FAMILY MEMBERS: According to Southeastern Louisiana University policy, students cannot bring children to any classroom for day care or baby-sitting.

VICTIMS OF SEXUAL MISCONDUCT: If you are the victim of a sexually oriented crime, please be aware that the University Policy regarding Victims of Sexual Misconduct is located online at

www.southeastern.edu/resources/policies/assets/sexual_misconduct.pdf

as well as at page 68 in the University Student Handbook at

http://www.southeastern.edu/admin/stu_affairs/handbook/index.html

The policy includes definitions of the various sexually oriented offenses prohibited by Southeastern as well as the reporting options for victims and the process of investigation and disciplinary proceedings of the university. For more information log onto

http://www.southeastern.edu/admin/police/victims_soc/index.html