

MATH 482—PRINCIPLES OF MATHEMATICAL ANALYSIS II  
MATH 557—APPLIED ANALYSIS I

SPRING 2008—5T—TR 1:30-2:50—Peltier 249

INSTRUCTOR: Michael Gray, Ph.D.  
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OFFICE HOURS: MWF 10:45-11:45, 1:00-3:00; TR 11:30-1:30, other times by appointment. Also, please let me know in advance if you want to visit my office on Friday afternoons.

Course Description (from Catalog): 482— Three dimensional theory and applications; infinite series; conformal mappings; partial differential equations. 557— Vectors; matrices; differential and integral calculus of functions of several variables; differential and integral vector calculus.

PREREQUISITE: For 482: MATH 481      For 557: MATH 358

MATERIALS: The required textbook is **Introduction to Analysis**, 5<sup>th</sup> Edition, by Edward D. Gaughan, Brooks/Cole Publishing, 1998. ISBN: 0-534-35177-8

STUDENT OUTCOME OBJECTIVES: This course is designed to bridge the gap between the undergraduate calculus sequence and the sophisticated analysis courses encountered at the graduate level. Upon completion of this course, students will be able to understand, use, and prove theorems about:

- continuity and uniform continuity of functions
- properties of continuous functions
- the derivative of a function
- Rolle's Theorem and the Mean Value Theorem
- L'Hospital's Rule and the Inverse-Function Theorem
- The Riemann Integral and integrable functions
- The Fundamental Theorem of Integral Calculus
- Infinite Series

ATTENDANCE POLICY: Students should expect that regular and punctual attendance is necessary to succeed in this course. Students are responsible for being aware of any changes in topic or schedule and for obtaining any class notes given in their absence, and for making arrangements for any make-up work that may be required.

COURSE CONTENT/EVALUATION METHODS: We will cover chapters 3—6 of the textbook, with additional material from handouts. For Math 482, grades are based on three examinations (75%) and a homework grade (25%). For Math 557, grades are based on three examinations (60%), a homework grade (20%), and a project (20%). Details and schedule TBA.

Grading scale:           85-100—A   70-84—B   55-69—C   0-54—F

AMERICANS WITH DISABILITIES ACT: If you have a documented disability that requires assistance, you will need to register with the Office of Disability Services for coordination of your academic accommodations. The Office of Disability Services is located in Peltier Hall, Room 100-A. The phone number is (985) 448-4430 (TDD 449-7002).

ACADEMIC HONESTY POLICY: Nicholls State expects all students to maintain absolute integrity and a high standard of individual honor in all academic work. Students caught cheating will be disciplined according to the process described in Section 1.9 of the Code of Student Conduct.

ACADEMIC GRIEVANCES: The proper procedure for filing grade appeals or grievances related to academic matters is listed in Section 5 of the Code of Student Conduct and at the following link: [http://www.nicholls.edu/documents/student\\_life/code\\_of\\_conduct.pdf](http://www.nicholls.edu/documents/student_life/code_of_conduct.pdf).

#### IMPORTANT DATES

Monday, January 21	Martin Luther King, Jr. Holiday; university closed
Mon-Wed, February 4-6	Mardi Gras and Ash Wednesday; university closed
Thu-Fri, March 20-21	Easter Holidays; university closed
Mon-Fri, March 24-28	Spring Break; university closed
Friday, April 4	Last day to drop course with a “W”   *** <i>DROP DATE</i> ***
Monday, May 12	Final grades due at 9:00 a.m.

CONTINUED LEARNING FOLLOWING AN EXTREME EMERGENCY: In order to make continued learning possible following an extreme emergency, students are responsible for:

- reading regular emergency notifications on the NSU website;
- knowing how to use and access Blackboard;
- being familiar with emergency guidelines;
- evacuating textbooks and other course materials;
- knowing their Blackboard student login and password;
- contacting faculty regarding their intentions for completing the course.