

**Syllabus<sup>1</sup> for MATH 458:  
Applied Mathematical Analysis  
SPRING 2007**

**Instructor:** Dr. Leon Arriola

**Office:** Baker 330

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**Office Hours:** 1:00-3:00 PM MWF and by appointment. I will not be available for office hours on Tuesday or Thursday.

**Course Description:** Selected topics in ordinary differential equations: series solutions, stability, transform methods, special functions, numerical methods, vector differential calculus, line and surface integrals.

**Prerequisites:** MATH 361.

**Tentative Topic Coverage:** Unit 4, Chapter 10 and Unit 5.

**Textbook:** *Advanced Engineering Mathematics* by Lopez, R., published by Addison-Wesley 2001. ISBN: 0-201-38073-0

**Grading:**

25%: Homework/project assignments

50%: 2 Exams (25% each) The dates of the exams will be announced approximately one week in advance.

25%: Comprehensive Final Exam<sup>2</sup>

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

**Homework & Tests:** Approximately the first five to ten minutes of the beginning of class, I will answer questions regarding homework from the previous assignment. For more in-depth answers and discussion, please feel free to come to my office for more personal help. Make sure to bring your book, notes and work so that I can verify your progress and help locate areas that need clarification. The solutions to the tests will be discussed *after* they are returned.

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<sup>1</sup>The instructor reserves the right to modify this syllabus.

<sup>2</sup>No student shall be required to take more than two comprehensive final examinations on the same day. Any student with more than two comprehensive final examinations scheduled on the same day who wants to reschedule the excessive examination(s) will try to make arrangements with the instructors involved. If this is unworkable, the student must notify the Registrar by Friday, March 9, 2007. The Registrar shall arrange times as necessary with instructors involved and shall notify the student of the arrangements by Monday, April 23, 2007.

If you have any questions regarding the course, please **do not hesitate** to come to my office for help. Also, if you are coming from off campus, please call ahead to verify that I will be in my office, as sometimes emergencies arise and I might not be available at the scheduled time.

**Attendance:** Attendance will not be taken, however, you are responsible for all material covered in class, reading assignments, homework and any handouts. You should attend all class sessions, except in the event of **university sponsored events, verifiable medical illness, religious beliefs** or **extreme personal hardship** reasons. Please note that the UWW policy dealing with administrative drops has *changed*. The individual student is now responsible for dropping a course that they are not attending.

**Withdrawal:** Students may withdrawal from the class with a W up to Friday, March 2, 2007. Withdrawals after this date are generally not permitted. *Note:* The individual student is now responsible for dropping a course that they are not attending.

**Religious Beliefs Accommodation:** Board of Regents policy states that students' sincerely held religious beliefs shall be reasonably accommodated with respect to scheduling all examinations and other academic requirements. Students must notify the instructor, within the first three weeks of the beginning of classes, of the specific days or dates on which they will request accommodation from an examination or academic requirement. For additional information, please refer to the section in the University Bulletin and the Timetable titled "Accommodation of Religious Beliefs."

**Academic Misconduct:** The University believes that academic honesty and integrity are fundamental to the mission of higher education and of the University of Wisconsin System. The University has a responsibility to promote academic honesty and integrity and to develop procedures to deal effectively with instances of academic dishonesty. Students are responsible for the honest completion and representation of their work, for the appropriate citation of sources, and for respect of others' academic endeavors. Students who violate these standards are subject to disciplinary action. UWW Chapter 14 identifies procedures to be followed when a student is accused of academic misconduct. For additional information, please refer to the section in the Student Handbook titled "Student Academic Disciplinary Procedure."

**Absence for University–Sponsored Events:** University policy adopted by Faculty Senate and the Whitewater Student Government states that students will not be academically penalized for missing class in order to participate in university–sanctioned events. They will be provided an opportunity to make up any work that is missed, and if class attendance is a requirement, missing a class in order to participate in a university–sanctioned event will not be counted as an absence. A university–sanctioned event is defined to be any intercollegiate athletic contest or other such event as determined by the Provost. Activity sponsors are responsible for obtaining the Provost's prior approval of an event as being university–sanctioned and for providing an official list of participants. Students are responsible for notifying their instructors in advance of their participation in such events.

**University Statement:** The University of Wisconsin-Whitewater is dedicated to a safe, supportive and non-discriminatory learning environment. It is the responsibility of

all undergraduate and graduate students to familiarize themselves with University policies regarding Special Accommodations, Misconduct, Religious Beliefs Accommodation, Discrimination and Absence for University Sponsored Events. (For details please refer to the Undergraduate and Graduate Timetables; the "Rights and Responsibilities" section of the Undergraduate Bulletin; the Academic Requirements and Policies and the Facilities and Services sections of the Graduate Bulletin; and the Student Academic Disciplinary Procedures" [UWS Chapter 14]; and the "Student Nonacademic Disciplinary Procedures " [UWS Chapter 17]).