

Instructor: Eduardo Cabral Balreira

Office Hours - MW 3:00–4:00 PM, TR 4:00–5:00 PM, or by appointment

Office - Marrs McLean Science 115J

Phone - x-8243

Email - ebalreira@trinity.edu

Web page - Information for this course will be posted under teaching tab at trinity.edu/ebalreir or directly at the course web page:

http://lagrange.math.trinity.edu/balreira/teach/spring07/math3357/math_3357S07.shtml

Textbook: “Partial Differential Equations with Fourier Series and Boundary Value Problems”, 2nd edition by Nakhle H. Asmar

Time and Place: TR 8:30 AM–9:45 AM in MMS 130

Objectives: This course will be an introduction to the theory of Partial Differential Equations and its applications. We will roughly cover chapters 1–8 of our textbook. Our core topics will include Fourier Analysis, classical equations of mathematical physics, namely; the wave equation, the heat equation, and Laplace’s equation. Other topics to be included are the method of Separation of variables, Special functions and the Sturm-Liouville theory, and Fourier Transform.

Schedule:

	Date	Day of the Week	Time	Room	Points
Exam 1	Feb. 13th	Tuesday	12:45 PM–2:00 PM	MMS 130	100
Exam 2	Mar. 27th	Tuesday	12:45 PM–2:00 PM	MMS 130	100
Exam 3	Apr. 19th	Thursday	12:45 PM–2:00 PM	MMS 130	100
Final	May 4th	Friday	6:30 PM–9:30 PM	TBA	200
Homework	collected weekly on Tuesdays				150
Projects	assigned throughout the semester				50
Total Points:					700

Cutoffs for major grades (A, B, C, D, F) will be assigned for each exam and announced in class. Your Final grade will be assigned on the basis of your total score out of 700.

Exams: There will be three exams and a Final with dates and locations indicated above. You will receive **zero points** for a missed exam. In case of an excused absence (e.g., a documented illness or a sanctioned University activity), the instructor may approve a replacement for an in-class exam. You are responsible to provide me with appropriate written documentation for approval ASAP (preferably before the exam). The final exam will be given only at the scheduled time, please observe the date and make plans for any travel accordingly.

Homework assignments: Homework is a vital part of the class, not only to show that you have mastered the concepts learned in class, but also to long-term memory retention and establish real life problem solving techniques.

Homework problems will be assigned every lecture and they will be posted in class as well as on the course web page. Assigned problems will come mostly from the exercises in the book and will be **due every Tuesday**. The lowest homework score will be dropped, which means absolutely **no late homework** will be accepted. Also, you will receive **no credit** for just copying the answers from the back of the book with **no explanations**.

You are authorized, and encouraged, to collaborate on homework, but please submit your own work on your own paper. Remember that the purpose of collaboration is to help you learn the material, not to allow you to copy someone else work.

Class Attendance: You are expected to attend every class. Excessive absences will result in dismissal from the class.

Getting Help: I am available to meet with you during my regular office hours or you may schedule an appointment if necessary. You are also welcome to drop in at any time, but please understand that I may not be there or have other scheduled meetings if you have not made an appointment. You can also email me with questions, but I may not reply during the evening.

Electronic devices: You may use a calculator or a computer software to assist you to solve your homework problems, if needed. However, you can only use a calculator during the exam. Please make sure that **cell phones** and pagers are **turned off or silenced** during class.

Academic Honor Code: All students are covered by a policy that prohibits dishonesty in academic work. The Academic Integrity Policy (AIP) covers all students who entered Trinity before the fall of 2004. The Academic Honor Code covers all those who entered the fall of 2004 or later.

The Integrity Policy and the Code share many features: each asserts that the academic community is based on honesty and trust; each contains the same violations; each provides for a procedure to determine if a violation has occurred and what the punishment will be; each provides for an appeal process.

The main difference is that the faculty implements the AIP while the Code is implemented by the Academic Honor Council. Under the Integrity Policy, the faculty member determines whether a violation has occurred as well as the punishment for the violation (if any) within certain guidelines. Under the Code, a faculty member will (or a student may) report an alleged violation to the Academic Honor Council. It is the task of the Council to investigate, adjudicate, and assign a punishment within certain guidelines if a violation has been verified.

Students who are under the Honor Code are required to pledge all written work that is submitted for a grade: On my honor, I have neither given nor received any unauthorized assistance on this work and their signature. The pledge may be abbreviated pledged with a signature.