Differential Equations II – Spring 2020

Course: Math 3420 Section 001
Place: Curry Hall 210
Instructor: Giordano Tierra Chica
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Office: General Academic Building 471A

Time: TR 12:30PM-1:50PM
Office Hours: Tue, Thur 10:00AM-11:00AM
Wed 10:00AM-11:30AM

Prerequisites: Math 2730 and Math 3310 or 3410.


Course Goals: The aim of the course is to develop a practical understanding of basic aspects of Partial Differential Equations. The course is designed to introduce students to be able to derive the classical partial differential equations in mathematical physics, understand the various possible initial and boundary value problems you can pose for these equations, and be able to solve them in special cases. You should also get a basic understanding of Fourier series.

Topics Covered: We will discuss material related to the following topics as time permits:
Ordinary differential equations arising from partial differential equations by means of separation of variables; method of characteristics for first-order PDEs; boundary value problems for ODEs; comparative study of heat equation, wave equation and Laplace’s equation by separation of variables and numerical methods; further topics in numerical solution of ODEs.

Exam Dates: Midterm I: Tuesday 18th February
Midterm II: Tuesday 7th April
Final Exam: Thursday 7th May 10:30AM-12:30PM.

Course Grading: Homework/Quizzes - 20%, Midterm I- 25%, Midterm II- 25%, Final - 30%.

Letter Grades: A = [100,90], B = (90,80], C = (80,70], D = (70,60], F = (60, 0].

Homework: "Naked numbers are not acceptable." Solutions must include a short write-up describing the problem, your solution technique, and procedural details. All things must be clearly labeled with your name and the problem number or statement. Hand written work must include the steps for solution presented in a neat orderly fashion and in a fairly large size.
**Quizzes:** Depending on need and on how much time is available, we might have quizzes once in a while. I will announce quiz dates in advance. Each quiz will count as one homework assignment and be included in your homework average.

**Attendance Policy:** Attendance is strongly recommended. Students will need the lecture notes in order to prepare for the exams. The textbook by itself is not a suitable resource for exam preparation, since the lecture notes are not exactly the same as the material in the textbook, and the textbook contains much more material than is need for exam preparation. Important information and announcements are oftentimes made during class time, and students are responsible for that information. Students who miss class have the responsibility to ask another student to copy their lecture notes and learn about any class announcements. I will not repeat a lecture for an individual student during office hours if they missed class.

**Policies:** Late work is unacceptable. No make-ups. No cell phones, No texting, No ear buds/head phones, ETC. in class.

**Class Etiquette:** All cell phones are to be turned OFF and kept in your backpack or pocket. Do not have them on the desk. NO CELL PHONE USE OR TEXTING PERMITTED IN CLASS. If you bring a laptop to class do not access your email or communicate with others by email.

**Canvas:** The important information and announcements made during class time will be also posted in Canvas. Please go there regularly to see important announcements.

**Extra credit:** Do not expect to be able to do some extra work to help your grade either before or after the final exam. Your best bet to help your grade is to do the required work at the time it is assigned.

**Disabilities:** The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the Office of Disability Accommodation website at http://www.unt.edu/oda. You may also contact them by phone at 940.565.4323.

**Cheating:** No cheating will be tolerated. Anyone caught cheating will be subject to any penalty the instructor deems appropriate, up to and including an automatic F for the course. Furthermore, a letter will be sent to the appropriate dean.