MAP 4305/5304 DIF EQUA EG & PHY
SCI/INTERMED DIFF EQUATNS sections
17F5/17F6

Meeting Time and Rooms:

MWF 4 at LIT 125
Office Hours: MWF 5 or by appointment

Instructor:

Professor Yunmei Chen
486 Little Hall
(352) 392-294-2298
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Prerequisite:
Prerequisite: MAP 2302 is required. It is also desirable to have a decent understanding of a Linear Algebra course.

Text Book:

Fundamentals of Differential Equations and Boundary Value Problems, the 7th edition, Addison-Wesley/Pearson (Publisher), Nagle,Saff,Snider (required)

Goal and Description of the Course:

This course is designed to serve students in engineering, physics, mathematics and related areas. We will cover much of Chapters 8,9, 10 and 11 of the textbook. This includes Series solutions, Matrix methods for systems, Elementary Partial Differential Equations (PDE) and Eigenvalue Problems. The goal is advancing the knowledge of DE and introducing some elementary concepts and methods of PDE.

Homework will be assigned regularly and discussed in class. You are expected to participate in
classroom for the discussion of lectures, assigned reading and homework.

**Arrangement of the course:**

Unit 1: Series solutions of differential equations (Tentatively weeks 1-4, two sections per week)

Unit 2: Matrix methods for linear system (Tentatively weeks 5-8, two sections per week)

Unit 3: Partial differential equations (Tentatively weeks 9-12, two sections per week for the week 9, 10, 11, and section 7 for the week 12)

Unit 4. Eigenvalue problems and Sturm-Liouville (Tentatively weeks 12-16, two sections per week)

**Tests and Grading:**

There will be three exams (25% each). They are scheduled on September 27 (F), November 1 (F) and December 4 (W), respectively. 25% of the grade will come from several pop-quizzes. NO MAKEUPS WITHOUT MEDICAL DOCUMENTATION.

Grades will then be assigned based upon the following scale: A 90% – 100%, B+ 85% – 89%, B 80% – 84%, C+ 75% – 79%, C 70% – 74%, D+ 65% -69%, D 60% – 64%, E 0% – 59%. Current UF grading policies can be found from the following link: https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx.

**Honor Code:** "UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class."

**Class Attendance:** “Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx."

**Accommodations for Students with Disabilities:** “Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, https://www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.”
Online Evaluations: “Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results/.”

Contact information for the Counseling and Wellness Center: https://counseling.ufl.edu/, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.