

## MATH 118 Fall 2020 UC Irvine

**Course:** Section 44690, MWF 10:00 - 10:50 AM, Room: Zoom. We will be using Canvas as the main hub of the course, which will have homework assignments, lectures, etc. First lecture: Friday, October 2.

**Instructor:** Jeff Viaclovsky, jviaclov@uci.edu. Office hour: On Fridays immediately after class on Zoom.

**Prerequisites:** MATH 3D and MATH 140A.

**Textbook:** *The Qualitative Theory of Ordinary Differential Equations - an Introduction*, by Fred Brauer and John A. Nohel.

**Course Objectives:** To understand basic properties of systems of ODEs, such as existence and uniqueness. To understand how to solve linear systems. Finally, to understand how to use the linear theory to qualitatively describe solutions of systems of *nonlinear* ODEs.

**TA:** Chao-Ming Lin, chaominl@uci.edu. Office hours: Wednesdays 1:00-3:00 PM.

**Discussion Section:** Discussions with TA are on TuTh 10:00-10:50, Room: Zoom. First discussion: Tuesday, October 6.

**Attendance Policy:** Live attendance of Zoom lectures/discussions is strongly encouraged, but not required due to the circumstances. Lectures will be recorded and available for later viewing. If you cannot attend during class time, you still must watch the recorded video on the same day. If you attend live, please mute your audio and video, unless you need to ask a question. You may also ask questions via the chat feature in Zoom. If your internet goes out during a lecture, do not panic – simply watch the recorded lecture later. If my internet goes out during a lecture, do not panic either – I will finish recording the video and then post on Canvas.

**Course Outline:** We will begin by reviewing some essential material from MATH 3D, then we will discuss material from Chapters 1-4 of Brauer-Nohel.

- Homework: usually due on Thursdays. First assignment TBA.
- Quizzes (30 minutes): Oct. 15, Oct. 29, Nov. 19, Dec. 10.
- Midterm Exam (1 hour): Friday, November 13.
- Final Exam (2 hours): Monday, December 14, 10:30AM – 12:30PM.
- Grading: Homework: 20 %, Quizzes: 30%, Exam I: 20%, Final Exam: 30%. Letter grades are the standard cutoffs 90, 80, 70, 60.

**Exam/Quiz Information:** Exams and quizzes should be taken independently during the specified day. Do not spend more than the allotted time. You can either print the exam and write on that, or just write your answers on paper without printing. You must be able scan to a pdf file when you are done, using a camera or scanner. Alternatively, if you have a tablet, you may write directly on the pdf file of the exam. You will then upload the pdf file directly to Canvas. Only pdf files will be accepted, not jpegs nor other image file formats.

**Academic Honesty:** Cheating will not be tolerated. All submitted work must be your own work. During the exam, you may only use a tablet for writing. Otherwise, computer use (google searches, mathematical software, etc.) is not allowed during exams or quizzes. You may discuss homework with classmates, but submitted homework must be in your own words. **Warning:** we will be doing plagiarism searches to check for any solutions copied from internet sources.