SIOC 203B/ MAE 294B

Course Syllabus

Jump to Today

Goals

- Convey the basic concepts so that students can apply their knowledge in research
- Have a constructive class atmosphere in which discussion is possible
- Give students opportunities to show understanding

Lectures: TuTh 11:00 am–12:20 pm in EBU II 305.

Contact: My e-mail address is sgls@ucsd.edu, but if you have a question, talk to me before or after class, or come to see me. Office hours: I will aim to be available twice a week (time TBD) you can make an appointment to meet me. It is your responsibility to come and find me if you have questions, concerns, etc. Problem class time/format TBD. A combination of in person and Zoom is usually most effective.

Textbook and reserves: I will place the book by Rile, Hobson and Bence on reserve at the library, along with a few others.

Syllabus (may be teaked)

1. Sturm–Liouville theory
2. First-order PDEs
3. The diffusion equation
4. Laplace's equation
5. The wave equation

Lecture schedule (provisional):

- **Jan 9:** Chapter I Sturm–Liouville problems
- Jan 11: (*Cont.*)
- **Jan 16:** (*Cont.*)
- Jan 18: (*Cont.*) HW I due (TBD)
- **Jan 23:** Chapter II First-order PDEs
- Jan 25: (*Cont.*)
- **Jan 30:** (*Cont.*)
- Feb 1: (*Cont.*) HW II due (TBD)
- **Feb 6**: Chapter III The diffusion equation
- Feb 8: (*Cont.*)
- **Feb 13:** (*Cont.*)
- Feb 15: (*Cont.*) HW III due (TBD)
- **Feb 20:** Chapter III Laplace's equation

- Feb 22: (*Cont.*)
- **Feb 27:** (*Cont.*)
- Feb 29: (*Cont.*) **HW IV due (TBD)**
- **Mar 5:** **Chapter IV The wave equation**
- Mar 7: (*Cont.*)
- **Mar 12:** (*Cont.*)
- Mar 14: (*Cont.*) **HW V due (TBD)**

Homework policy: you may discuss problems among yourselves, but everything you write and hand in should be your own work. Regrades: you should write a short explanation and turn it in to me within one week of the homework being due. There will be 5 homeworks. Upload via Gradescope.

Midterm: One or two; to be discussed. Date(s) TBD 80 minutes, open note. Preferably in class then scanned, but if there are two, it might be best not to have at least one in class.

Final: March 21, 11:30 am–2:30 pm. 3 hours, open note. In class then scanned.

Grading policy: I remind you of UCSD's policyLinks to an external site. on academic integrity.