MH3110 Ordinary Differential Equations

Course Information

Wang Zhongjian

Division of Mathematical Sciences
School of Physical and Mathematical Sciences
Nanyang Technological University, Singapore
Office: SPMS-MAS-05-23
http://www.wangzhongjian.com
Email: zhongjian.wang@utu.edu.sg

Instructor

- **Assistant Professor WANG Zhongjian**
  - Office: SPMS-MAS 05-23;
  - Email: zhongjian.wang@utu.edu.sg; Microsoft Teams: Msg & Call
- **Research Interest**
  - Applied and Computational Mathematics
  - Computational Methods for **Differential Equations**
  - Modelling and Simulations with Engineering Applications
  - Machine Learning Algorithms

Overview of Course Contents

- **Five Chapters**
  - Chapter 1 First-Order ODEs
  - Chapter 2 Second-Order Linear ODEs
  - Chapter 3 Higher Order Linear ODEs
  - Chapter 4 The Laplace Transform
  - Chapter 5 Systems of First-Order Linear ODEs
- **Textbook**
  - W. E. Boyce, R. C. DiPrima, and D. B. Meade. *Elementary Differential Equations and Boundary Value Problems.* Vol. 11. New York: Wiley, 2018. ISBN: 978-1-119-50397-2.

Grading Policy

- **Four CA Quizzes**: $4 \times 12.5\% = 50\%$
  - All quizzes will be in class on Tuesdays or Thursdays
  - Q1: Week 4; Q2: Week 7; Q3: Week 10; Q4: Week 12
  - **Format:** Multiple choice and short answer questions; **Duration:** 20-25 minutes; **Coverage**: TBA
  - **No makeup quiz**! Credits to be transferred to final exam for students with valid Leave of Absence, e.g., MC.
- **Final Exam**: 50%
  - Two-hour, closed book on 1pm-3pm, Tuesday May 7, 2024.

Timetable and Class Schedule

Study Tips to Achieve Your Goals

How to get the most out of your learning journey?

- **Practice**
  - Exercises in lecture notes and textbooks
  - Past year papers
- **Understand concepts and methods**
  - Ask: Why? What? How?
  - Find the right **KEY** to open the **DOOR**
- **Ask, whenever in doubt**
  - **Office hours:** Tuesdays: 4:30pm-5:30pm; Thursdays: 1pm-3pm at SPMS-MAS 05-23 or by appointment via zhongjian.wang@ntu.edu.sg
  - Form study groups