

PME 200101 Engineering Mathematics (II) | 工程數學(二)

Spring 2024

Instructor:

Dr. Meng-Hsuan (Mark) Tien | 田孟軒 助理教授

Office: Engineering Building I – 611

Email: mhtien@pme.nthu.edu.tw

Teaching Assistants:

Recitation Lecturer: Zhi-Qiang Lee 李志強(qianglee98@gmail.com)

Homework & Quiz Grading TA: 陳傳安(b463644901@gmail.com)

Lectures: Monday 3,4 & Wednesday 2 in Engineering Building I – 101

Recitation Class: TBD

Office Hours: Appointment by email

Textbook: E. Kreyszig, *Advanced Engineering Mathematics Abridged Version 10th edition*, Wiley

Course Contents:

Engineering mathematics is a branch of applied mathematics concerning mathematical methods and techniques that are typically used in engineering and industry. This interdisciplinary subject is motivated by engineers' needs for practical and theoretical considerations. Specific topics include:

- Ordinary Differential Equations (Fall semester)
- Laplace Transforms (Fall semester)
- Power Series & Special Functions (Fall semester)
- Linear Algebra (Fall semester)
- Vector Calculus (Spring semester)
- Fourier Transforms (Spring semester)
- Partial Differential Equations (Spring semester)
- Complex Analysis (Spring semester)

Homework & Quizzes:

- Homework assignments will be assigned regularly.
- Each homework will be due at the beginning of class on the due date and solutions to homework problems will be posted online on the same day. No late homework will be accepted.
- There are total 3 – 4 quizzes in the semester, and the grades of all quizzes will be counted toward your final grade. The material covered in each quiz will be adapted from homework problems to ensure that you are completing homework assignments on your own (although discussion with classmates on homework problems is encouraged). No make-up quizzes will be given. You should check posted homework solutions before quizzes and exams to make sure you have a good understanding of each problem.

Exams:

- **Two Exams** will be given to test your understanding of the course material and all the homework assignments. You are responsible to attend each Exam since no make-up exams will be given.
- You are allowed to use a help sheet in each exam. You can write notes and formulas on **one side of an A-4 paper** and **the back side of the paper should be blank**. Violation of this rule will result in a **50% deduction of score for the exam**.

Grades:

The course grade will be determined as follows:

Homework	20 %
Quizzes	20 %
Midterm Exam	30 %
Final Exam	30 %

Minimum grades will be determined based on the suggested university grade scale, the course will be curved if necessary to improve the average and match the other sections:

Grade	Percentage	Grade	Percentage	Grade	Percentage	Grade	Percentage
A+ (4.3)	90 – 100	B+ (3.3)	77 – 79	C+ (2.3)	67 – 69	D (1.0)	50 – 59
A (4.0)	85 – 89	B (3.0)	73 – 76	C (2.0)	63 – 66	F (0)	1 – 49
A- (3.7)	80 – 84	B- (2.7)	70 – 72	C- (1.7)	60 – 62	X (0)	0

Note: You have **three days** from the time any homework, quiz, or exam grade is posted to discuss with the instructor or TA any change in score. After that, **the score will not be changed.**

Academic Misconduct:

Any violation of the class policy will be reported to the Office of Student Affairs.