Syllabus for Engineering Mathematics I

Instructor: Yee-Lin Wu
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6th September, 2022

Textbook: D.G. Zill (2022) "*Advanced Engineering Mathematics*," 7th Ed., Jones and Bartlett Publishers, Boston.

Class hour: 15:10-17:00, Tuesday; 15:10-16:00, Friday.

Office hour: 12:00-13:00, Tuesday.

Schedule

First and Second Weeks: Introduction and Introduction to Differential Equations

Third to Fifth Weeks: Chapter 2 First-Order Differential Equations

HW #1 due on the *11th October*;

***First Examination*: *11th October*;**

Sixth to Ninth Weeks: Chapter 3 Higher-Order Differential Equations

HW # 2 due on the *8th November*;

***Second Examination*: *8th November*;**

Tenth to Thirteenth Weeks: Chapter 4 The Laplace Transform

HW # 3 due on the *6th December*;

***Third Examination*: *6th December*;**

Fourteenth and fifteenth Weeks: Chapter 5 Series Solutions of Linear Equations

Sixteenth and Seventeenth Weeks: Chapter 6 Numerical Solutions of Ordinary Differential Equations

HW #4 due on the 3rd *January*;

***Final Examination*: 3rd *January*.**

Grading: Homework: 20% (4% for each assignment)

Examination: 80%.

Extra credit from ping-pong ball competition (optional)

References;

F.B. Hildbrand "Advanced Calculus for Applications"

E. Kreyszig "Advanced Engineering Mathematics"

C.R. Wylie "Advanced Engineering Mathematics"

D.U. von Rosenberg "Methods for the Numerical Solution of Partial Differential Equations"