

工程數學
Engineering Mathematics
資訊工程系四日二B
課號 2583

Instructor：洪士程 教授


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Room:理工大樓E726


Tel: 7801

Course Time & Office Hours

Course Time


 Wednesday 5,6 (13:30 - 15:20)

 Classroom: G-213

 Thursday 7 (15:30 - 16:20)

 Classroom: T2-408

Office Hours

 Thursday 13:30-15:30

Credits

 Required or Elective

Required (必修)

 Credits

3 Credits (三學分)

Goal

- ☞ Impart a knowledge of core areas of Engineering Math.
- ☞ Develop a skill in applying mathematics.
- ☞ Give an introduction to:
 - Basic content of Engineering Math.
 - The teaching goal is to increase the ability of math analysis.
 - Content: One/High-order Differential equation, Laplace transform, Fourier series and Transform.

Text Book

 Advanced Engineering Mathematics, 10th Ed., 2011.

 Erwin Kreyszig, ISBN:047007446-9
– John Wiley & Sons, NY

Reference Books

 Reference:







Advanced Engineering Mathematics, 6th
edition, 2009.

Peter V. O'Neil

Publisher: Baker & Taylor

ISBN: 0534400779

Schedule of Progress (1/2)

-  Introduction to course (week 1)
-  Chap 1 First Order ODE's
(weeks 2,3)
-  Chap 2 Second Order Linear ODE's.
(weeks 4,5)
-  Chap 3 Higher Order Linear ODE's.
(weeks 6,7)
-  Chap 4 Systems of ODE's Phase Plane, Qualitative
Methods.
(week 8)
-  Midterm exam (week 9)

Schedule of Progress (2/2)

 Chap 4 Systems of ODE's Phase Plane, Qualitative Methods.

(weeks 10)

 Chap 5 Series Solutions of ODE's Special Functions
(weeks 11,12)

 Chap 6 Laplace Transforms

(weeks 13,14,15)

 Chap 11 Fourier Series, Integrals, and Transforms

(weeks 16,17)

 Final exam (week 18)

Resources


 Text Book

 Handout

<http://lmsctl.cyut.edu.tw/>

LMS-數位學習系統

Evaluation

 Quiz (30%)

 Participation (10%)

 Mid exam (30%)

 Final exam (30%)