

NATIONAL TSING HUA UNIVERSITY
DEPARTMENT OF POWER MECHANICAL ENGINEERING
2014 Fall Semester

Course No.: 10310 PME 200102
Course Title: **Engineering Mathematics I (工程數學一)**
Credits: 3 (M3M4R4 at R101)
Students: 大二生
Teacher: Prof. Che-Wun Hong (洪哲文 教授)
Contents:

Part 1: Ordinary Differential Equations

Chapter 1 1st Order ODEs

Chapter 2 2nd Order ODEs

Chapter 3 Higher Order ODEs

Part 2: Laplace Transforms

Chapter 6 Laplace Transforms

Part 3: Power Series & Special Functions

Chapter 5 Series Solutions and Special Functions

Part 4: Vector Calculus

Chapter 9 Vector Differential Calculus

Chapter 10 Vector Integral Calculus

Textbook:

1. Kreyszig, E., Advanced Engineering Mathematics, 10th Edition, John Wiley & Sons, Inc. (2011)

References:

2. 許世壁, 邱創雄, 工程數學 Engineering Mathematics, 4th Edition, 高立圖書有限公司 (2011)
3. Greenberg, M. D., Advanced Engineering Mathematics, 2nd Edition, Pearson (2006)

Grades:

Homework	10%
Midterm Exam	40%
Final Exam	40%
上課問題回答+Quizzes (+簽到)	10% (+5%)