

電子物理  
Electric Physics  
資訊工程系四日一B  
課號 2732

Instructor：洪士程 副教授

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Room:理工大樓E726


Tel: 7801

# Course Time & Office Hours

## Course Time

 Wednesday 5 (13:30 - 14:20)

 Classroom: G-207

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

 Classroom: T2-509.1

## Office Hours

 Wednesday 10:25-12:10

# Credits

 Required or Elective

Required (必修)

 Credits

3 Credits (三學分)

# Goal

 An basic knowledge of physics.

 Give an introduction to:

- Electrostatics: Electric Fields, Energy , Ohm's Law, Capacitance, Resistance, Electric Current, Voltage, Power
- Magnetism: Magnetic field, Currents, Ampere's law
- Magnetic force, Faraday's law, Maxwell equation.

# Text Book

 College Physics, 4<sup>th</sup> edition, 2012.

 McGW-HILL, ISBN: 978-0073512143

- Alan Giambattista
- Betty Richardson
- Robert Richardson

# Reference Books

 Reference:








University Physics, 2<sup>nd</sup> edition, 1996.

Harris Benson

Publisher: John Wiley & Sons, Inc

ISBN: 0471152641

# Schedule of Progress (1/3)

-  Introduction to course (week 1)
-  Chap 1 Introduction (week 1)
-  Chap 2 Newton's Laws of Mechanics (week 2)
-  Chap 6 Conservation of energy (week 3)
-  Chap 16 Electric Forces and Fields (week 4)
-  Chap 16 Electric Forces and Fields (week 5)
-  Chap 17 Electric Potential (week 6)

# Schedule of Progress (2/3)

 Chap 17 Electric Potential (week 7)

 Chap 17 Electric Potential (week 8)

 Midterm exam (week 9)

 Chap 18 Electric Current and Circuits (week 10)

 Chap 18 Electric Current and Circuits (week 11)

 Chap 19 Magnetic Forces and Fields (week 12)



# Schedule of Progress (3/3)

- 📄 Chap 19 Magnetic Forces and Fields (week 13)
- 📄 Chap 20 Electromagnetic Induction (week 14)
- 📄 Chap 20 Electromagnetic Induction (week 15)
- 📄 Chap 21 Alternating Current (week 16)
- 📄 Chap 21 Alternating Current (week 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%)