電子物理
Electric Physics
資訊工程系四日一B
課號 2502

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 7 (15:30 - 16:20)
- Classroom: T2-408
- Thursday 2,3 (9:25 - 11:15)
- Classroom: T2-306
- Office Hours
- Tuesday 9:25-12:10

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, 3rd edition, 2010.
- McGW-HILL, ISBN: 978-0-07-128443-1
  - Giambattista
  - Richardson
  - Richardson

Reference Books

Reference:

University Physics, 2nd 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://lms.ctl.cyut.edu.tw/

LMS-數位學習系統

Evaluation

- Quiz (30%)
- Participation (10%)
- Mid exam (30%)
- Final exam (30%)