

電子物理
Electric Physics
資訊工程系四日一A
課號 2518

Instructor：洪士程 教授兼系主任

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Room: 資訊大樓M313

Tel: 7631

Course Time & Office Hours

Course Time

 Monday 3,4 (10:25 – 12:10)

 Classroom: T2-205

 Thursday 2

 Classroom: T2-209

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, 4th edition, 2012.

 McGW-HILL, ISBN: 978-0073512143

- Alan Giambattista
- Betty Richardson
- Robert 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://tronclass.cyut.edu.tw/>

TronClass數位教學平台

Evaluation

 Quiz (30%)

 Participation (10%)

 Mid exam (30%)

 Final exam (30%)