

電子物理  
Electric Physics  
資訊工程系四進一A  
課號 3772

Instructor：洪士程

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# Course Time & Office Hours

 Course Time

 Friday C,D,E (20:00 - 22:20)

 Classroom: T2-416

 Office Hours

 Wednesday 9:00-12:00

# 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, 2<sup>nd</sup> edition, 2007.

 McGW-HILL, ISBN: 0071106081

– Giambattista

– Richardson

– Richardson

 中譯本： 物理，2005 (高立圖書公司)

 ISBN: 9864122568

# 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 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

 Homework & Quiz (30%)

 Participation (10%)

 Mid exam (30%)

 Final exam (30%)

# 學習方式要有技巧

📄 學著去適應英文課本、投影片教學。

📄 投影片只是重點提示，課本一定要精讀。

– 來不及抄筆記就請先預習。


– 找別人共同討論。

📄 課程內容很多，課本一定上不完。

– 不可能慢慢教或補課

– 自己回家唸書是在建立將來自我學習能力

# 態度決定一切

 上課遲到、睡覺、看別科的書、跟不上進度發呆？

— 跟不上進度就不要怪別人了！

 是否有心學習

— 預習、複習、作業自己寫

— 每一科、每星期至少花4小時以上唸書

— 有問題上課發問、下課找老師詢問或反應