

淡江大學 學年度第 2 學期課程教學計劃表 (格式二)

- 壹、科目名稱：理論電磁學
貳、授課老師：蕭 秀美 (S318)
參、開課系所班級：物理系 物理組
肆、必選修：必 修
伍、學分數：3
陸、先修科目：
柒、教學內容及進度：

- Magnetostatics –

The Lorentz force law, The Biot-Savart law, The divergence and curl of \mathbf{B} , Amperer's law, Magnetic vector potential, Magnetostatic boundary conditions.

平時考(1)

- Magnetic field in Matter –

Magnetization, The field of a magnetized object, Linear and Nonlinear Media

期中考

- Electrodynamics –

Electromotive force, Ohm's law, Electromagnetic Induction, Faraday's law, Energy in magnetic field, Maxwell's equations

平時考(2)

- Conservation laws –

The Continuity Equation, Poynting's Theorem, Conservation of Momentum, Energy and momentum in electrodynamics

Electromagnetic Waves –

Electromagnetic Waves in vacuum, Electromagnetic Waves in matter

期末考

- 捌、授課方式：課堂講授及分組討論
玖、教學設備：電腦、投影機、放映機
拾、教材課本：Introduction to electrodynamics — D.J. Griffiths(3ed)
拾壹、參考書籍：Electromagnetic fields and waves — P. Lorrain and D. Corson
拾貳、成績考核方式：(暫定)

	平時成績： 40 %
	期中成績： 20 %
	期末成績： 40 %
	讀書報告： %
	其他 (討論、出席)： 10 %