

淡江大學 96 學年度第 2 學期課程教學計畫表(格式二)

壹、科目名稱：Finite Element Method

貳、授課老師：廖國偉

參、開課系所班級：土木一碩士班

肆、必選修：必

伍、學分數：3

陸、先修科目：

柒、教學內容及進度：

1. Introduction (Week 1)
2. Example Applications (Week 1)
3. Bar element (Week 1)
4. Beam element (Week 2)
5. Assembly of elements (Week 3)
6. Interpolation and shape function (Week 4)
7. Formulas for element matrices (Week 5)
8. Linear triangle (Week 6)
9. Quadratic triangle (Week 7)
10. Formulation techniques: Variational methods (Week 8, 9)
11. Formulation techniques: Galerkin methods (Week 11,12)
12. Isoparametric elements (Week 13, 14)
13. Error and convergence (Week 15)
14. Software application (ABAQUS) (Week 16, 17)

捌、授課方式：講授，示範，討論。

玖、教學設備：教學平臺

拾、教材課本：Concepts and applications of finite element analysis

Fourth edition

Robert D. Cook, David S. Malkus

Michael E.Plesha, Robert J. Witt

ISBN: 0-471-35605-0

拾壹、參考書籍：

拾貳、成績考核方式：

	平時成績：	20	%
	期中考成績：	40	%
	期末考成績：	40	%