

工程數學一

任課老師：何青原

辦公室：機械館 91716, Ext. 62165

Email: cyho@gs.ncku.edu.tw

助教：王日億, Ext. 62159-63

Content

Ch. 2 First-Order ODEs

Ch. 3 Higher Order Linear ODEs

Ch. 5 Series Solution of ODEs

Ch. 7 Vectors

Ch. 9 Vector Calculus

Ch. 8 Matrices

Ch. 10 Systems of Linear DE.

課程大綱

一、課程說明 (Course Description) The course intends to introduce those areas of mathematics which are important in connection with mechanical engineering problems. The course consists of three parts and will be delivered in two separate semesters. The first part includes: ordinary differential equations (ODEs), Vector Calculus and Matrices.

二、教學進度 (Syllabus)

1. First-Order ODEs (2.5 weeks), 2. Second and Higher Order linear ODEs (2.5 weeks), 3. Series Solution of ODEs(1 weeks), 4 Vectors (0.5 weeks), 5 Vector calculus (4.5 weeks), 6 Matrices (3.5 weeks), 7. Systems of Linear DE. (1.5 weeks)

指定用書(Text Book) :

Dennis G. Zill, "Advanced Engineering Mathematics", 6th edition.

參考書籍(Reference) :

Kreyszig, E., "Advanced Engineering Mathematics", 9th edition, John Wiley & Sons, Inc. (2006)

成績考核

1. 點名 (10 %, 3分/次)
2. 小考-1 (30 %):
3. 小考-2 (30 %):
4. 小考-3 (30 %):