# 線性代數 Linear Algebra 資訊工程系四日一A 課號 2463

Instructor: 洪士程 教授

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Room:理工大樓E726

Tel: 7801

## Course Time & Office Hours

- **Course Time**
- Wednesday 7 (15:30 16:20)
- Classroom: G-107
- Friday 3,4 (10:25 12:10)
- Classroom: G-213
- Office Hours
- Tuesday 10:25-12:10

# Credits

Required or Elective

Required (必修)

Credits

3 Credits (三學分)

## Goal

- Impart a knowledge of core areas of linear algebra.
- Develop a skill in applying mathematics.
- Give an introduction to:
- Linear Equations and Vectors
- Matrices and Linear Transformations
- Determinants and Eigenvectors
- General Vector Spaces
- Coordinate Representations
- Inner Product Spaces

#### Text Book

- Linear Algebra with Applications, 8th Ed., 2014.
- Jones and Bartlett, ISBN: 9781449679545
  - Gareth Williams

#### Reference Books

Reference:

Linear Algebra with Applications, 8<sup>th</sup> edition, 2009.

Steven J. Leon

Publisher: Prentice Hall

ISBN: 0131857851

# Schedule of Progress (1/2)

- Introduction to course (week 1)
- Chap 1 Linear Equations and Vectors (weeks 2,3)
- Chap 2 Matrices and Linear Transformations (weeks 4,5,6,7)
- Chap 3 Determinants and Eigenvectors (weeks 8)

# Schedule of Progress (2/2)

- Midterm exam (week 9)
- Chap 3 Determinants and Eigenvectors (week 10)
- Chap 4 General Vector Spaces (weeks 11,12,13)
- Chap 5 Coordinate Representations (weeks 14,15)
- Chap 6 Inner Product Spaces (weeks 16,17)
- Final exam (week 18)

#### Resources

- Text Book
- Handout

http://lms.ctl.cyut.edu.tw/

LMS-數位學習系統

## Evaluation

- Quiz (30%)
- Participation (10%)
- Mid exam (30%)
- Final exam (30%)