

機率與統計  
Probabilities and Statistics  
資訊工程系四進三A  
課號 3565

Instructor：洪士程 副教授

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# Course Time & Office Hours

## Course Time

 Wednesday A,B,C (18:25 - 20:40)

 Classroom: G-213

## Office Hours

 Wednesday 15:30 - 17:30

# Credits

 Required or Elective

Required (必修)

 Credits

3 Credits (三學分)

# Goal

 This course gives an introduction to the concepts of probability and the functions of random Variables..

 Give an introduction to:

- Introduction.
- Basic Probability.
- A Single Random Variable.
- Functions of a Random Variable and Expectations.
- Two Random Variables.
- Expectations and Functions.
- Characteristic Function.
- Multiple Random Variables.

# Text Book

 Probability and Statistics for Engineering and Science, 8th Ed., 2012.

 Jay L. Devore

 Brooks Cole (俊傑書局代理)

# Reference Books







 Reference:

Introduction to Probability and Statistics, 4<sup>th</sup>  
edition, 2008.

J. Susan Milton and Jesse C. Arnold

Publisher: McGraw-Hill

# Schedule of Progress (1/2)

-  Introduction to course (week 1)
-  Chap 1 Overview and Descriptive Statistics (week 2)
-  Chap 2 Probability (weeks 3,4)
-  Chap 3 Discrete Random Variables and Probability Distributions (weeks 5,6)
-  Chap 4 Continuous Random Variables and Probability Distributions (weeks 7,8)
-  Midterm exam (week 9)

# Schedule of Progress (2/2)

- 📄 Chap 5 Joint Probability Distributions and Random Samples (weeks 10,11)
- 📄 Chap 6 Point Estimation (weeks 12,13)
- 📄 Chap 7 Statistical Intervals Based on a Single Sample (weeks 14,15)
- 📄 Chap 8 Tests of Hypotheses Based on a Single Sample (weeks 16,17)
- 📄 Final exam (week 18)



# Resources


 Text Book

 Handout

<http://lmsctl.cyut.edu.tw/>

**LMS-數位學習系統**

# Evaluation

 Quiz (30%)

 Participation (10%)

 Mid exam (30%)

 Final exam (30%)