

# Course Description

## Department of Mathematics

|   |                                     |   |  |                   |   |
|---|-------------------------------------|---|--|-------------------|---|
| Nature of the course<br><input type="checkbox"/> required <input checked="" type="checkbox"/> elective  |                                     | Area<br><input type="checkbox"/> Algebra <input type="checkbox"/> Analysis <input type="checkbox"/> Geometry <input checked="" type="checkbox"/> Statistics<br><input type="checkbox"/> Applied Mathematics <input type="checkbox"/> Discrete Mathematics <input type="checkbox"/> Others |  |                   |   |
| Calculus <input type="checkbox"/> Calculus A <input type="checkbox"/> Calculus B  |                                     |   |  |                   |   |
| Course number   | 221 U1580                           | Section number  |  | Number of credits | 3 |
| Course title  | ADVANCED STATISTICAL INFERENCE (II) |   |  |                   |   |
| Instructor  | Cheng Ming-Yen                      |   |  |                   |   |
| <p>I. Contents :</p> <p>Principles of data reduction, point estimation, hypothesis testing, interval estimation, efficiency, robustness, analysis of variance, linear regression, logistic regression, regression with errors in variables.</p> <p>II. Course prerequisite :</p> <p>Advanced Calculus, Introduction to Probability, Advanced statistical inference (I).</p> <p>III. Reference material ( textbook(s) ) :</p> <p>Casella, G. and Berger, R.L. (2002). Statistical Inference. Second Edition. Duxbury Press.</p> <p>IV. Grading scheme :</p> <p>Homework 30%, Midterm Exam 30%, Final Exam 40%.</p> <p>V. Others :</p> <p>VI. Course Goal :</p> |                                     |   |  |                   |   |
|   |                                     |   |  | 紙 本 簽 名 確 認 處     |   |
|   |                                     |   |  | 中華民國 年 月 日        |   |