Applied Statistics 應用統計

Serial Number	30010
Course Code	SDA024-*
Instructor	Li, Chuan 李泉
Course Name(Chinese)	應用統計
Course Name(English)	Applied Statistics
Credit	3
Teaching goal	This course attempts to provide a comprehensive introduction to basic statistical principles, models, methods and solutions which are most likely encountered and used by students in their study for engineering and sciences. It particularly emphasizes the probabilistic and statistical view to understand real problems happen in our daily life. Through examples, homework, project and exams, students can exercise their mind, clarify the concepts and sophisticate their skills. It is expected that students are able to apply the underlying principles for solving real problems after this course.
Teaching content	Purposes of Course: The field of statistics deals with the collection, presentation, analysis, and use of data to make decisions and solve problems. Because many aspects of engineering practice involve working with data, obviously some knowledge of statistics is important to any engineer. Specifically, statistical techniques can be a powerful aid in designing new products and systems, improving existing designs, and designing, developing, and improving production processes. Statistical methods are used to help us describe and understand variability. By variability, we mean that successive observations of a system or phenomenon do not produce exactly the same result. Statistical thinking can give us a useful way to incorporate this variability into our decision-making processes. Teaching Format: Lecture: 3 hours per week Term project: 1-2 students group carry out a statistical relevant project approved by lecturer. An oral presentation at the end of semester.

	Midterm exams: 1 hour exam, twice a semester Final: 2 hours exam On-line Teaching Resources: Blackboard® for posting important announcement, assigned homework, solutions, lecture notes, reference materials and other class relevant information.
Textbooks/References	Engineering Statistics, Douglas C. Montgomery, George C. Runger, Norma F. Hubele Wiley; 4th edition (December 26, 2006) ISBN-13: 978-0471735571
Way of Instruction	Lecture
Grading	Homework (15%), Midterm (15%*2), Term Project (10%), Final (45%)
Office Hour	TBA

Core Competencies of Department	Rating	Corresponding Assessments
Global vision	(5) Very High	Test/Exam，Assignments，Research Report (printed on paper)
Environmental sustainability	(4) High	Test/Exam，Assignments
Professional knowledge	(5) Very High	Test/Exam，Assignments
Expressiveness & teamwork	(3) Medium	Presentation/Oral Exam，Research Report (printed on paper)