



University of Nicosia, Cyprus

Course Code CEE-211	Course Title Probability and Statistics for Engineers	ECTS Credits 6
Department Engineering	Semester Fall, Spring	Prerequisites MATH-191
Type of Course Required	Field Civil & Environmental Engineering	Language of Instruction English
Level of Course 1 st Cycle	Year of Study 2 nd	Lecturer(s) Dr Loizos Papaloizou
Mode of Delivery Face-to-face	Work Placement N/A	Co-requisite None

Objectives of the Course:

The main objectives of the course are to:

- Familiarize students with the fundamental concepts of probability and statistics.
- develop an understanding of the role of statistics with emphasis on engineering applications.
- Provide an understanding of the processes by which real-life statistical engineering and science problems are analyzed.
- Acquaint students with computer-based statistical analysis.

Learning Outcomes:

After completion of the course students are expected to be able to:

- Acquire knowledge on statistics and probability theory with emphasis on science and engineering problems.
- Develop designs and conduct experiments.
- Analyze, and evaluate statistical data using a computer software.
- Employ techniques, skills, and the modern engineering tools necessary for engineering practice.

Course Contents:

- Descriptive Statistics
- Probability Theory (Probability, Discrete and Continuous Random Variables and Probability Distributions)
- Joint Probability Distributions and Random Samples
- Point Estimation
- Statistical Intervals and Hypothesis Testing (one and two samples)
- ANOVA

Learning Activities and Teaching Methods:

Lectures, examples, discussion

Assessment Methods:

Homework, computer projects, mid-term exam, final exam.

Required Textbooks/Reading:

Authors	Title	Publisher	Year	ISBN
Jay L. Devore	Probability and Statistics for Engineering and the Sciences	Duxbury Press	2011	978-0538733526

Recommended Textbooks/Reading:

Authors	Title	Publisher	Year	ISBN
Richard L. Scheaffer, Madhuri Mulekar and James T. McClave	Probability and Statistics for Engineers	Cengage Learning	2010	978-0534403027