

The Hong Kong University of Science and Technology

UG Course Syllabus

Probability and Random Process in Engineering

ELEC2600

Credits: 4

Exclusion(s): ELEC2600H, MATH2421

Prerequisite(s): MATH 1003 or MATH 1014 or MATH 1020 or MATH 1024

Corequisite(s): MATH2011 or MATH2023

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Course Description

This course introduces the foundational concepts of statistical inference and random processes in electrical engineering, including the necessary probabilistic background. It includes a study of random variables, distribution and density functions, characteristic functions, conditional statistics, expectation, moments, and stochastic processes.

Assessments:

Assessment Task	Contribution to Overall Course grade (%)
Homework assessments	8%
Laboratory assessments	12%
Mid-term examination	35%
Final examination	45%

Required Texts and Materials

Probability, Statistics and Random Processes for Electrical Engineering, 3rd ed., Alberto Leon-Garcia, Addison Wesley, 2009.