Engineering Tripos Part IB, 2P7: Probability, 2020-21

Lectures
Dr J Sayir [1]

Timing and Structure
Online recorded lectures. One live Q&A session per week in Weeks 1-4.

Aims
The aims of the course are to:

- Show how concepts of probability can be applied to engineering applications.

Objectives
As specific objectives, by the end of the course students should be able to:

- Explain and use simple ideas of probability, mean, variance, etc.
- Manipulate random variables and probability density functions.
- Solve simple statistical problems of engineering importance.

Content
Probability and Statistics

- Probability
- Conditional probability and independence
- Expectation of a random variable
- Probability density function for a continuous random variable
- Key discrete probability mass functions
- Key continuous probability density functions
- Functions of random variables
- Multivariate distributions
- Decision and estimation: basic definitions
- Tests of significance

Further Information
Further information, including details of each lecture and hand-outs are available on the course moodle site.

Booklists
Please refer to the Booklist for Part IB Courses for references to this module, this can be found on the associated Moodle course.

Examination Guidelines
Please refer to Form & conduct of the examinations [2].

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Links
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