Syllabus for STAT 6001 (Fundamental Mathematical Statistics)
Professor James Fullwood

Lecturer Information

Name: James Fullwood
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Class Meeting Times and Location

The class will meet on Wednesdays from 12:55-15:40, location to be determined.

Office Hours

Fridays, 12:30-14:00.

Reference Textbook

All of Statistics, A Concise Course in Statistical Inference by Larry Wasserman.

Topics

Probability spaces, random variables, cumulative distribution functions, mass/density functions, expectation, conditional expectation, multivariate distributions, convergence of random variables, weak law of large numbers, central limit theorem, estimation, confidence intervals, hypothesis testing, simple linear regression, stochastic processes and Shannon entropy.

Homework

Homework will be assigned after each lecture, which will always be due in class the following lecture.

Project

There will be a computer project assigned towards the end of the course. The project will be carried out in groups of no more than 4 students each.

Exams

There will be a mid-term exam and a cumulative final exam.

Grading

Project: 10%
Homework: 20%
Mid-Term Exam: 30%
Final Exam: 40%