DB201 Aug 2:0

Mathematics and Statistics for Biologists

Instructor

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Teaching Assistant

Email:

Department: Integrated PhD

Course Time: Tue, Thu, 10-11 AM

Lecture venue:

Detailed Course Page:

Announcements

Brief description of the course

This course introduces basic concepts in Mathematics and Statistics. It is a core course for integrated PhD

students. It is also taken by students in many biology departments such as Centre for Neuroscience, MCB etc.

There are three sections in this course, as follows:

Calculus: functions, limits and continuity, differentiation, integration, transcendental functions.

Linear Algebra: vectors, matrices, determinants, linear equations.

Statistics: elements of probability theory, discrete and continuous distributions, measures of central tendency,

variability, confidence intervals, formulation of statistical hypotheses, tests of significance.

Prerequisites

None

Syllabus

Calculus: functions, limits and continuity, differentiation, integration, transcendental functions.

Linear Algebra: vectors, matrices, determinants, linear equations.

Statistics: elements of probability theory, discrete and continuous distributions, measures of central tendency,

variability, confidence intervals, formulation of statistical hypotheses, tests of significance.

Course outcomes

Students are expected to be comfortable with basic mathematical concepts in Calculus, Linear Algebra and

Statistics by the end of the course.

Grading policy

Assigments and/or exams for each of the three segments. Weightage: Calculus: 35%, Linear Algebra: 30%,

Statistics: 35%.

Assignments

Resources