

CCSS UG PROGRAMME
MATHEMATICS (OPEN COURSE)
(for students not having Mathematics as Core Course)
FIFTH SEMESTER
MM5D02 : MATHEMATICS FOR NATURAL SCIENCES
3 hours/week 4 credits 30 weightage

Text :

Murray R. Spiegel : Statistics, 2nd Edn., Schaum's Outline Series.

Module I (30 hrs)

The idea of sets. Operation on sets. Relations and functions.

Variables and graphs (Chapter 1 of text 1).

Frequency distributions (Chapter 2 of text 1).

The Mean, Median, Mode and other measures of central tendency (Chapter 3 of text 1).

Dispersion or variation, The Range, The Mean deviation, The Semi-inter quartile range, Then 10-90 Percentile range; The standard deviation. Properties of standard deviation. The variance. Short methods of computing standard deviation (Relevant section of Chapter 4 of text 1).

Module II (24 hrs)

Moments, Moments for grouped data, relation between moments, Computation of moment for grouped data. Skewness and Kurtosis. (relevant sections of Chapter 5 from text 1).

Elements of Probability theory (Chapter 6 of text 1).

The Binomial distribution. The Normal distribution. Poisson distribution (Relevant sections from Chapter 7 of text 1)).

References

1. Hogg & Craig: Introduction to Mathematical Statistics.
2. Freund & Walpole: Mathematical Statistics.