E0 232 PROBABILITY AND STATISTICS
(AUG-DEC)

INSTRUCTOR: AMBEDKAR DUKKIPATI

DESCRIPTION OF THE COURSE

This course serves as a foundational course for students who enter computer science department for graduate studies. Most of the engineering students, in their under graduation, do not get formal exposure to probability. This course is designed to fill this gap. This course also emphasizes rigorous reasoning which is essential for graduate studies in computer science.

SYLLABUS

Probability spaces, random variables and expectation, moment inequalities, multivariate random variables, sequence of random variables and different modes of convergence, law of large numbers, Markov chains, maximum likelihood estimators, statistical hypothesis testing, Neyman-Pearson lemma, exponential models.

REFERENCES

An Introduction to Probability and Statistics by Vijay K. Rohatgi, A. K. Md. Ehsanes Saleh, Wiley, 2nd edition 2000.

An Intermediate course in Probability, by Allen Gut, Springer, 2008.