Department of Computer Science and Engineering
National Institute of Technology

Calicut - 673 601, Kerala, India
Tel:0495-2286801

Tentative Course Details - Monsoon 2018
(July - November 2018)

Course:

Title : CS 2006 Discrete Structures
Class Timings : ELHC 203/401, Tue 10:15 AM, Wed 9:00 AM, Thu 11:15 AM, Fri 10:15 AM

Instructor:

Faculty : Sudeep K. S. (Room : CSED 103B), Varun Rajan (MB)
Telephone : 0495-2286811. Email : sudeep@nitc.ac.in, varunrajan09@gmail.com

Expected Course Outcomes: At the end the student should be able to

(i) Solve a given recurrence relation and express the solutions in asymptotic notation.
(ii) Develop appropriate probabilistic model for a given problem of algorithmic nature and computation of its statistical parameters.
(iii) Express and solve number theoretic problems using algebraic properties of groups, rings and fields.
(iv) Develop a discrete model for a given computational problem and solve.
(v) Simplify and construct boolean expressions, and prove some basic theorems from a given set of boolean axioms.

References:

1. R. P. Grimaldi, Discrete and Combinatorial Mathematics: An Applied Introduction, Addison Wesley, 1998.
2. D. West, Graph Theory, Prentice Hall, 2002.
3. I. M. Copi, Symbolic logic, Prentice Hall, 1979.
4. Victor Shoup, A Computational Introduction to Number Theory and Algebra, 2008. Available online.

Evaluation:

- Mid Term Test I : 25
- Mid Term Test II : 25
- Quiz / Assignment : 10
- Final Exam : 40
- Practice questions will be uploaded on eduserver periodically, and will help the students understand the concepts better. Solving those questions is considered as a pre-requisite for the tests.

Standard of Conduct:

- Any academic dishonesty will be reported to the department council for permission to assign F grade in the course.