SOFTWARE ENGINEERING

INTENDED AUDIENCE : CSE, IT
PRE-REQUISITES : C Programming, Java or C++ programming

COURSE OUTLINE :
Large scale software development poses special challenges. This course targets to expose the students to the challenges of large scale software development and would expose the students as to how to overcome those. Starting with basic life cycle model concepts, it would discuss requirements specification, design, and testing issues. The concepts will be illustrated with appropriate examples.

ABOUT INSTRUCTOR :
Prof. Rajib Mall is Professor, Department of Computer Science and Engineering at Indian Institute of Technology Kharagpur, West Bengal. He has more than two decades of teaching experience in the areas of real-time systems, program analysis and testing. He has written five text books and over 150 refereed research papers.

COURSE PLAN :

Week 01 : Introduction
Week 02 : Life Cycle Models I
Week 03 : Life Cycle Models II
Week 04 : Requirements analysis and specification
Week 05 : Basics of software design
Week 06 : Procedural design methodology
Week 07 : Object-oriented concepts
Week 08 : Introduction to UML: Class and Interaction Diagrams
Week 09 : Object-oriented analysis and design
Week 10 : Testing I
Week 11 : Testing II
Week 12 : Testing III