CS 490M Software Testing

Fall 2006  Credits 3  MW 9:30  Fr 9:30-10:30  Room: LWSN B134
Instructor: Aditya Mathur (apm@purdue.edu)
http://www.cs.purdue.edu/homes/apm/courses/cs490M-fall06

Target majors: Undergraduate Seniors in CS and ECE.

Prerequisites: CS 352 or equivalent. Proficiency in programming. Recommended: CS 307 or experience in developing large software systems.

Objective

Introduce practical testing techniques and their applications.

Topics

Testing preliminaries; Algorithms for test generating tests from requirements and formal models; random testing, stress testing and others; Empirical studies; Applications in Health care, Safety, Security, Aerospace, Automotive, Nuclear. Please visit the course web site for details.

Notable Features

Term projects (40%). Students work in small teams. Projects are sponsored by commercial organizations. Students write reports and make presentations. Opportunities exist for visiting companies located nearby.

Focus on commercial applications of model based software testing via presentations by representatives from the industry (e.g. Pacemaker, Financial Software, Operating Systems).

Gain

- In depth knowledge of the state of the art and state of the practice in testing techniques and tools.
- Preparation for research and the knowledge to impress interviewers from the high tech industry.

Senior in Computer Science or Engineering?
Consider enrolling in this course! This is an excellent opportunity to learn the strengths and weaknesses of test strategies used in large and small commercial organizations and be a leader when you join one of these!