

Department of Computer Science

# 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!*