CEN 6076 Software Testing

Credits: 3 credits

Text book, title, author, and year: (1) Foundations of Software Testing, by Aditya P. Mathur, (2) Selected articles and papers are posted on the course we site

Reference materials: N/A

Specific course information

Catalog description: Introduction to the basic principles of software testing. Included topics are quality assessment, proof of correctness, testing and limitations of these methods

Prerequisites: Some knowledge of Software Engineering or permission of instructor. CEN 6076 can be used as a technical elective in all CS and CE graduate programs.

Specific goals for the course: Introduction to the basic principles of software testing. Included topics are quality assessment, proof of correctness, testing and limitations of these methods.

Brief list of topics to be covered:
1. Preliminaries
2. The Taxonomy of Bugs
3. Flow-graph and Path Testing
4. Transaction-Flow Testing
5. Data-Flow Testing
6. Domain Testing
7. Metrics and Complexity
8. Logic-Based Testing
9. Testing Web Services and Service Oriented Architecture (SOA)
10. Software Fault Injection
11. Software Reliability-Engineered Testing
12. Case Studies