CSCI Course Descriptions

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1 CSCI 430 Software Engineering

3.0 FA WP

Prerequisites: CSCI 311 for CSCI/CINS/APCG majors or EECE 337 for Engineering majors; ENGL 130 or JOUR 130 (or equivalent) all with a grade of C- or higher.

An overview of software engineering principles and practice. Topics include: traditional software engineering methodologies, agile software engineering methodologies, requirements engineering, software design, risk analysis, quality assurance, testing, group dynamics, communication, and project planning/management. Students work in groups to design and implement a semester long software project.

2 hours discussion, 2 hours activity. This is an approved Writing Proficiency course; a grade of C- or better certifies writing proficiency for majors.

2 CSCI 431 Software Engineering Tools

3.0 SP

Prerequisites: CSCI 430 with a grade of C- or higher.

An in depth look at software development tools and software engineering methodology. Topics include: agile software development, version control, static and dynamic code analysis, bug tracking, debugging, and build management. Students work in groups on a semester long project to understand and modify and existing large open source product. An agile software engineering methodology is used to manage the modification project.

2 hours discussion, 2 hours activity.

3 CSCI 630 Software Engineering

3.0 SP Prerequisites: CSCI 430 and classified graduate standing.
In-depth study and application of the planning, design, implementation, and management of complex software systems. Topics include requirements engineering, formal specifications, object-oriented analysis, design patterns, and peopleware. Teams of students will implement a large software project using a cutting edge software engineering approach.
3 hours discussion.