

CSCI Course Descriptions

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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, practices, and tools. Topics include: agile software engineering methodologies, requirements engineering, test-driven development, software design patterns, MVC architecture, version control, software metrics, and static analysis. Students work in groups to design and implement a semester-long open source 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.

CSCI 431 Usability Engineering

3.0 SP Prerequisites: CSCI 430 for CSCI majors, or CINS 465 (Web Programming Fundamentals), CDES 314 (Rich Internet Media Design I), CDES 322 (Advanced Web Design), or APCG 360 (Web Page Design) for other majors.

An in-depth study of user experience (UX) design with an emphasis on usability evaluation methods. Students practice hands-on techniques including: usability testing, survey design, card sorting, contextual inquiry, wireframing and rapid prototyping. Students will work in multi-disciplinary teams on user experience design projects.

2 hours discussion, 2 hours activity.

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.