

Software Engineering (SFTW)

SFTW 299 Special Topics in Software Engineering 1-6 Credit (1-6,0)

Individual, independent, or directed studies of selected topics in software engineering.

Course Offered at: Daytona Beach, Prescott

SFTW 300 Software Engineering Practices 3 Credits (3,0)

Principles and methods of large-scale software engineering; team collaboration on life-cycle projects including planning, requirements, design, implementation, and quality assurance.

Daytona Beach Prerequisites: CPSC 225

Prescott Prerequisites: CE/SE majors must have C or better in CPSC 125 and CPSC 223

Worldwide Prerequisites: CPSC 225

Course Offered at: Daytona Beach, Prescott, Worldwide

SFTW 310 Analysis and Design of Software Systems 3 Credits (3,0)

Methods for analyzing and designing software systems; requirements analysis; modeling system domain, behavior and functionality; software design application; introduction to design patterns.

Daytona Beach Prerequisites: SFTW 300 and CPSC 225

Prescott Prerequisites: SFTW 300, CPSC 225 and CPSC 317 (SE majors must have a C or better)

Worldwide Prerequisites: SFTW 300, CPSC 225 and CPSC 317 (SE majors must have a C or better)

Course Offered at: Daytona Beach, Prescott, Worldwide

SFTW 320 Software Construction 3 Credits (3,0)

Advanced programming in an object-oriented language; proficiency in general-purpose software development; software maintenance and refactoring techniques; creating quality code; introduction to tools and processes for significant software environments.

Daytona Beach Prerequisites: SFTW 300

Prescott Prerequisites: CPSC 225 and CPSC 420

Worldwide Prerequisites: SFTW 300, CPSC 225 and CPSC 420

Course Offered at: Daytona Beach, Prescott, Worldwide

SFTW 399 Special Topics in Software Engineering 1-6 Credit (1-6,0)

Individual, independent, or directed studies of selected topics in software engineering.

Course Offered at: Daytona Beach, Prescott, Worldwide

SFTW 410 Software Modeling 3 Credits (3,0)

Formal concepts and techniques for modeling and analyzing software artifacts (requirements, design, code); formal specifications; formal modeling tools; survey of recent research and applications in formal methods.

Daytona Beach Prerequisites: CPSC 222 and SFTW 300

Prescott Prerequisites: SFTW 300

Worldwide Prerequisites: CPSC 222 and SFTW 300

Course Offered at: Daytona Beach, Prescott, Worldwide

SFTW 420 Software Quality Assurance 3 Credits (3,0)

Key concepts and practices in software testing and quality assurance; software quality through testing, inspection, and walkthrough; testing techniques and methods; management of testing stages; evaluation of software different testing approaches and their advantages and disadvantages.

Prerequisites: SFTW 300 (SE majors must have a C or better)

Course Offered at: Daytona Beach, Prescott, Worldwide

SFTW 450 Software Team Project I 3 Credits (3,0)

Participate in a two-semester multidisciplinary capstone design course; engage in requirements gathering, team management, analysis, design, implementation, and testing of software/hardware systems; collaborate in teams using defined processes for product development; assess project work with industrial standards and review techniques; emphasize skills for effective participation in engineering development teams in industrial environments.

Daytona Beach Prerequisites: SFTW 310 and SFTW 320, CESC 320 and CESC 320L (SE majors must have a C or better)

Prescott Prerequisites: CESC 320, CESC 320L and SFTW 310 (SE must have C or better)

Prescott Corequisites: CESC 450

Worldwide Prerequisites: SFTW 310 and SFTW 320, CESC 320 and CESC 320L (SE majors must have a C or better)

Course Offered at: Daytona Beach, Prescott, Worldwide

SFTW 451 Software Team Project II 3 Credits (3,0)

Participate in a two-semester multidisciplinary capstone design course; engage in requirements gathering, team management, analysis, design, implementation, and testing of software/hardware systems; collaborate in teams using defined processes for product development; assess project work with industrial standards and review techniques; emphasize skills for effective participation in engineering development teams in industrial environments.

Daytona Beach Prerequisites: SFTW 450

Prescott Prerequisites: SFTW 450 and SFTW 420 (SE majors must have a C or better)

Worldwide Prerequisites: SFTW 450 and SFTW 420 and SFTW 410

Course Offered at: Daytona Beach, Prescott, Worldwide

SFTW 499 Special Topics in Software Engineering 1-6 Credit (1-6,0)

Individual, independent, or directed studies of selected topics in software engineering.

Course Offered at: Daytona Beach, Prescott, Worldwide