

CSI 3370: Software Engineering and Practice

Credits Hours: 4 credits, 3.57 contact hours/week.

Instructor: Nilesh Patel, Ph.D.

Text book: Object Oriented and Classical Software Engineering by Stephen R. Schach – 8th Edition

Specific course information

Introduction to software engineering and practice. Topics include software process models, project management, requirements analysis, software quality assurance, and testing. Course Detail: The field of software engineering includes problem definition, analysis and design methodologies, engineering processes, quality assurance, and maintenance. This course will cover various engineering aspects of developing software in context of web or mobile software system.

Prerequisites: CSI 2300

Required course for CS and IT

Course Objectives: Upon successful completion of this course, students should be able to

- Establish Software Engineering process and activities [ABET CS: (d, f), IT: (d, f, n)]
- Develop ability to estimate project efforts and risks [ABET CS: (d, f), IT: (d, f)]
- Develop ability to capture and analyze software project requirements [ABET CS: (b, i), IT (b, i, k)]
- Develop ability to architect, design and develop software solution [ABET CS: (a, c, i, k), IT: (a, c, i, l)]
- Conduct software quality assurance such as unit testing and system testing [ABET CS: (a, i), IT: (a, i)]

List of Topics:

- Software Engineering process
- Software models
- Project management
- Requirements analysis
- Software quality assurance
- Software testing