

## **CSE 360 Introduction to Software Engineering (3) Syllabus and Course Information**

School of Computing, Informatics, and Decision Systems Engineering, ASU

Course web page in: [www.asu.edu/myasu/](http://www.asu.edu/myasu/)

Meeting Time: MWF: 10:30 PM – 11:20 PM, ECD 117

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### **Instructor and Office Hours**

Instructor: Dr. Janaka Balasooriya  
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**Teaching Assistants: TBA**

### **Course Objectives and Outcomes**

1. To develop an understanding of software engineering discipline
  - A student will understand and apply basic software engineering techniques and approaches covering requirement, design, coding, testing, and maintenance within a process model
  - A student will develop an awareness of national and international standards
  - A student will be able to follow code of ethics
2. To develop software following disciplined engineering processes
  - A student will be able to elicit and model requirements
  - A student will be able to use software architecture models
  - A student will be able to create analysis and design models
  - A student will be able to develop code
  - A student will be able to test code
3. To develop software systems individually and in team settings
  - A student will be able to plan and track software development activities
  - A student will be able to develop software artifacts using current software engineering tools
  - A student will be able to conduct software quality assurance
  - A student will be able to document and evaluate software product artifacts and team activities
  - A student will be able to present software engineering activities and products in oral and written forms

**Curriculum (Major topics covered):** Students will work individually and in groups to learn software engineering theory and practices. Major topics covered include:

1. Software lifecycle models
  - Use of common software engineering process models
  - Strengths/weaknesses of software engineering process models
  - Awareness of software development standards and process improvement practices
  - Software engineering code of ethics
2. Project management
  - Planning and tracking a small-scale software development project
  - Software risk management techniques
  - Awareness of software improvement processes
3. Software development methods
  - Component-based software analysis and design models including structure and behavior
  - Component-based code implementation and documentation
  - Classical analysis and design principles
  - Awareness of trends in modeling methods
4. Software tools for team-based software engineering
  - Analysis and design tools with support for standardized modeling techniques
  - Programming environments that automate parts of program construction process
  - Code management with version control
5. Quality assurance
  - Unit, integration, validation, and system testing
  - White-box and black-box testing techniques
  - Software inspection including code reviews

**Web Site:** <http://myasucourses.asu.edu/>

Login and look for CSE 360 course page.

To be able to login to the myASU site, you need to have an ASURITE account. Activating your ASURITE UserID is a self-service process. You can activate your account by visiting the

**[ASURITE Activation Web site](https://selfsub.asu.edu/apps/WebObjects/ASURITEActivation/)**

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**Prerequisites:** You must have passed CSE210 (or 205) and CSE240 (or 220) to take this course. If you have not, you will automatically be dropped from this course. Java (or C++) programming experience is required.

**Textbook**

- *Software Engineering, A Practitioner's Approach(SEPA)*, 8th Edition, by Roger S. Pressman, ISBN: 0-07-337597-7, McGraw-Hill Higher Education
- Non SEPA reading assigned by the instructor.

**Software:** Rational Development Suite available for use in BYENG 214 lab, JDK (Java) and C++ compilers are available for use in BYENG 214 lab.

**Grading:** No late assignments/quizzes will be accepted without an official doctor's note. All assignments/quizzes, course project must be turned in through Blackboard submission link before 11:59 p.m. on the due dates. Cheating will result in failure in the course plus appropriate penalty. Please reference the ASU academic integrity policy for more information on cheating: <http://ww.asu.edu/studentlife/judicial/integrity.html>

The grading breakdown is as follows:

Item	Percent of Grade
Course Project	40%
Midterm Exam I	10%
Midterm Exam II	10%
Final Exam	20%
Quizzes and Assignments	20%

Final Grade	Percentage
A+	$\geq 97\%$
A	$\geq 90\%$ and $< 97\%$
B+	$\geq 87\%$ and $< 90\%$
B	$\geq 80\%$ and $< 87\%$
C+	$\geq 77$ and $< 80\%$
C	$\geq 70\%$ and $< 77\%$
D	$\geq 60\%$ and $< 70\%$
E	$< 60\%$

**Exams:** A picture ID will be required by all students taking exams. There will be two midterm exams and one final.

**Quizzes and Assignments:** Quizzes will be given in-class. All the assignments will be take-home.

**Group Projects:** All phases of the group project will be added up to 40%. Peer evaluation will be used in the grading of each project so that students are encouraged to fully contribute to their

team projects. Course project must be submitted through the Blackboard submission system. Each student group is required to demonstrate their course project to the TA at the end of the semester.

**Attendance:** Attendance and class participation is strongly encouraged. You are responsible for keeping up with the materials.

**Grading Appeals:** Any questions, corrections, or appeals on grades of quizzes/assignments or exams must be done **in writing (e-mail) within one week** of their distribution in class. State the problem and the rationale for any change in your grade in your appeal.

**Collaboration Policy:** All work performed in CSE 360 must be *original* and *individual* unless specifically directed by the instructor. Violation will be dealt with in conformance with Fulton School and University guidelines.

[http://www.fulton.asu.edu/fulton/departments/acad\\_affairs/integrity.php](http://www.fulton.asu.edu/fulton/departments/acad_affairs/integrity.php)

All instances of cheating will be handled by the Dean's office according to the *ASU Student Academic Integrity Policy* and the [USI 104-01: Student Code of Conduct and Student Disciplinary Procedures](#).

**Announcements:**

Official announcements will be made either in the class or through the course web page. Make sure you regularly (at least once a day every two days) check the web page for any announcement.

**Important Dates**

Please check ASU academic calendar at <http://www.asu.edu/calendar/academic.html> for following deadline and other important dates

**I reserve the right to revise this syllabus as necessary.**