

Syllabus for SENG 6270 601

Course Name:

Software Verification and Validation

Course Prefix and Number:

SENG 6270

Course Section Number:

601

Course Description (from catalog):

Verification and validation strategies and techniques throughout the software life-cycle, including processes that assure the desired software and documentation are developed and maintained.

Required Course Materials for Purchase:

Essentials of Software Testing by Ralf Bierig; Stephen Brown; Edgar Galván; Joe Timoney, ISBN 9781108976480

Student Learning Outcomes or Objectives:

This course provides practical and theoretical knowledge of software testing. Students will learn verification and validation strategies and techniques throughout the software life-cycle. Methods of software testing. Students are required to complete a team project over the course of the semester.

Upon completion of this course, each student will be able to:

- Understand the processes, principles, and techniques of software testing, software verification, and validation
- Develop software testing plans and models
- Generate test cases according to various testing criteria
- Apply different types of testing approaches
- Develop and apply continuous verification methods
- Conduct test reviews and formalize documentation

Assessment of Student Performance – Grading Scale:

Grading	
A	≥ 90
B	≥ 80
C	≥ 70
F	< 70

Assessment of Student Performance – Major Assignments and percentage of final grade:

Quizzes / Assignments:	25%
Middle-term test:	25%
Project:	25%
Final exam:	25%
Total:	100%

Assessment of Student Performance – Attendance/participation if portion of final grade:

N/A

Statement of Engagement with Diverse Scholarly Perspectives

This course aligns with the intent of the university to engage diverse scholarly perspectives to develop critical thinking, analysis, and debate. The inclusion of a course reading does not imply endorsement.