Course Name	SOFTWARE TESTING & QUALITY ASSURANCE	Course Code	COMP 576		
Credit Hours	3	Contact Hours	Theory	Lab	Total
			2	2	4
Offered as	☐ University Requirement ☐ College Requirement ☒ Program Requirement		☐ Required ☒ Elective		
Offered in	☒ BS - Computer Science ☐ BS – Information Systems ☐ BS - Computer & Network Engineering				
Level	10	Prerequisite	COMP 371		

Course Description:

This course will address topics in the verification and validation (V&V) of software. Verification addresses issues related to whether the system is correct (with respect to some specification), validation addresses the question whether the right system was built. An in depth study of verification and validation strategies and techniques as they apply to the development of quality software. Topics include test planning and management, testing tools, technical reviews, formal methods and the economics of software testing. The relationship of testing to other quality assurance activities as well as the integration of verification and validation into the overall software development process are also discussed.

Course objectives:

This course will develop the students' ability to learn:

- Understand the concepts and theory related to software testing.
- Understand different testing techniques used in designing test plans, developing test suites, and evaluating test suite coverage.
- Understand the relationship between black-box and white-box testing and know how to apply as appropriate.
- Learn to use automated testing tools in order to measure code coverage.
- ♦ Understand how software developers can integrate a testing framework into code development in order to incrementally develop and test code.

Grading	☒ Exam 1	10%	☒ Exam 2	10%	☒ Assignment(s)	20%
	☒ Final	40%	☒ Lab	20%	☐ Mini Project	

Text Book:

Software Testing, by Ron Patton, ed. Sams Publishing, ISBN: 0-672-32798-8, 2005.

Reference Book:

Software Testing: A craftsman`s approach, Paul C. Jorgensen ,3rd Edition,2007