

**SU DEPARTMENT OF COMPUTER SCIENCE SYLLABUS**  
**COSC 425/426**

**Description:** A study of classical and object-oriented software engineering principles and methods.

covered. There

“Software Engineering” (9ed) by Sommerville; Addison Wesley, 2010.  
“The Mythical Man-month” by Brooks, Jr; Addison Wesley, 1995.  
“Object-oriented and Classical Software Engineering” (8ed) by Schach; McGraw, 2011.  
“Introduction to Software Testing” (2ed) by Ammann and Offutt; Cambridge, 2014.  
“The Unified Modeling Language Reference Manual” (2ed) by Booch, Rumbaugh and Jacobson; Addison Wesley, 2004.

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|---|-----|
| Overview. Historical perspective. Agile and traditional software development processes.                           | 2.0 |
| Project management principles. Project planning and software cost estimation.                                     | 4.0 |
| Requirements analysis and specification. Prototyping. Architectural and detailed designs.                         | 4.0 |
| Object-oriented concepts, analysis and design methods and principles. UML.  | 4.0 |
| Test planning, processes, and strategies. Software reviews and inspections.<br>Open -source software development. | 4.0 |

2.0  
28.0

**EVALUATION**

Projects 60%

Exams 40%

XSW/SPW

5/2021