Course Schedule
Version 1.0

SWEN 610: Foundation of Software Engineering

This course is an introduction to Software Engineering process, design, and teamwork. This course is meant to introduce students to general topics in software engineering, and have students practice that knowledge by working on a term-long team-based project. Concepts and methods for the design of small-to-medium sized software systems; Fundamental design concepts and architectural design principles, design notations such as the Unified Modeling Language (UML); Object-oriented analysis and modeling; Dynamic modeling and Software design patterns.

Topic	W #	Date	Subject	Readings	Activities & Deliverables	
					Out	In
Introduction to Software Engineering	1	Aug 20	• Course Overview • SE - Appreciation for software development process	Notes	Outlines & Schedule	
	2	Aug 25-27	• SDLC Models (Agile-OpenUP and Scrum) - Introduction to Inception and Sprint Planning	Notes	• Teaming Document	
Requirements Engineering	3	Sep 01-03	• Functional and Non-Functional Requirements • Sprint Planning	Notes	• Proj-Business Requirements	• Proj-Teaming Document • Slack Teams • Trello board
RTD	4	Sep 08	**RTD # 1**	Notes	RTD (1) Exercise	
Software Design	4	Sep 10	• Elaboration Phase • Design Concepts & Design Principles	Notes		Sprint 0
Introduction to Object Oriented Paradigm (OO)	5	Sep 15 -17	• OO Characteristics • Classes, Objects & Relationships • Domain Model	Notes		
Software Design with OO Paradigm (Static View)	6	Sep 22 - 24	• OOD with UML - Sequence Diagrams and StateChart Diagrams		RTD (2) Exercise	Proj- Domain Model
RTD	7	Sep 29	**RTD # 2**	Notes		Sprint 1 Proj- SRS Document
Exams	8	**Oct 01**	**Exam (Take Home Exam) - Individual**			
Software Design with OO (Dynamic Behavior)	9	Oct 06-08	OOD with UML - Sequence Diagrams and Communication	Notes		
Patterns in Design & Architecture	10	Oct 13-15	• Introduction to Web Services • Introduction to DPs – MVC Pattern Composite, Observer & Adapter Patterns	Notes		
	11	Oct 20-22	Observer & Adapter Patterns Façade & Proxy Patterns	Notes	• RTD (3) Exercise • Reaction Paper Outlinrs	Sprint 2 Proj-Analysis & Design Document
	12	Oct 27-29	State & Strategy Patterns		RTD (4) Exercise	
RTD	13	Nov 03	**RTD # 3**			Reaction paper
Testing	13	Nov 05	• Construction • Unit Testing			
	14	Nov 10	• Code Review • Code Metrics			Sprint 3 Final Proj-Analysis & Design Document
Project	14-15-16	Nov 10-17-19-24	**Project Presentations & Demos**			Sprint Demo – Implemnation Code
Final Exam	**Nov ??**		**Final Exam**			