SENG 265: Software Development Methods - Fall 2025

Schedule for sections A01 and A02 (Mondays, Wednesdays and Thursdays)

Instructor: Dr. Roberto Bittencourt

#	Week	Date	Topic	Readings	Lab	Assignment
1	1	3-Sep	Course overview.	Course outline	No labs	
2		4-Sep	Intro to version control with git.	VCS and git Tutorial		
3	2	8-Sep	Intro to Unix: file system and file attributes. Unix shell: command syntax, types and help (man pages).	Unix Tutorial	1 - git	
4		10-Sep	Unix shell: I/O streams, stream redirection, pipes, wlidcards, quoting, shell history, job control.	Unix Tutorial		
5		11-Sep	Shell scripting: environment and shell variables, commands, variables, comparisons, operators, iterations.	Unix Shell Tutorial		
6	3	15-Sep	Intro to C: basics, data types, arrays, control flow, functions, parameters.	Intro to C Tutorial	2 - Linux	
7		17-Sep	Intro to C: arrays and pointers.	Intro to C Tutorial		
8		18-Sep	Intro to C: strings and file I/O.	Intro to C Tutorial		
9	4	22-Sep	Intro to C: structs, typedef, function prototypes, precompiler, function pointers.	Intro to C Tutorial	3 - Functions, pointers and arrays	A1 - Software development basics (Oct 6)
10		24-Sep	Debugging basics. Debuggers. Step-by-step debugging in a debugger.	Debugging slides		
11		25-Sep	Debugging (cont). Profiling.	Debugging slides		
12	5	29-Sep	C continued: name scope, dynamic memory and arrays.	Intro to C Tutorial	4 - C Memory Model	
13		1-Oct	C continued: ADTs, arrays (cont).	Intro to C Tutorial		
14		2-Oct	Intro to configuration management.	make slides		
15	6	6-Oct	Intro to version control with git (continued).	VCS and git Tutorial	5 - Dynamic Memory	
16		8-Oct	Branches in git.	VCS and git Tutorial		A2 - Dynamic Memory (Oct 20)
17		9-Oct	Intro to Python: basics, assignment, sequences (tuples, lists and strings).	Intro to Python Tutorial		
-	7	13-Oct	**HOLIDAY**		No labs	
-		15-Oct	**MIDTERM**			
18		16-Oct	Intro to Python: reference semantics, dictionaries, functions, debugging.	Intro to Python Tutorial		
19	8	20-Oct	Intro to Python: logical expressions, control flow, string operations, console I/O.	Intro to Python Tutorial	6 - Python	
20		22-Oct	Intro to Python: file I/O, exception handling, scope rules, containers, modules.	Intro to Python Tutorial		A3 - Model (Nov 7)
21		23-Oct	Intro to Python: object-oriented programming.	Intro to Python Tutorial		
22	9	27-Oct	Python unit testing.	unittest slides	7 - Python OO and testing	
23		29-Oct	Models in Python: CRUD basics, search, create.	Model slides		
24		30-Oct	Models in Python: CRUD retrieve, update, delete.	Model slides		
25	10	3-Nov	Models in Python: CRUD list all, sort; object access.	Model slides	8 - Models and CRUD	
26		5-Nov	Files. CRUD in Python with binary files and pickle.	Persistence slides		
27		6-Nov	CRUD in Python with text files and JSON.	Persistence slides		
-	11	10-Nov	**READING BREAK**		No labs	A4 - Persistence (Nov 21)
-		12-Nov	**READING BREAK**			
28		13-Nov	DAO pattern.	Persistence slides		
29	12	17-Nov	Persistence testing.	Persistence slides	9 - CRUD with files	
30		19-Nov	PyQt: apps, event loops, signals, slots and events.	PyQt Tutorial		
31		20-Nov	PyQt: widgets, layout managers and dialogs.	PyQt Tutorial		
32	13	24-Nov	PyQt: toolbars, menus, shortcut keys, windows.	PyQt Tutorial	10 - User interfaces	A5 - GUI (Dec 5)
33		26-Nov	PyQt: table model and table views.	PyQt Tutorial		
34		27-Nov	Regular expressions: basics.	regex slides		
35	14	1-Dec	Regular expressions: advanced.	regex slides	No labs	
36		3-Dec	Review for the final exam	Previous exam		