D = Design, I = Implementation, M = Maintenance, P = Performance

Task	Core/Ext	Type	Title	Upload/Outcome	Grade	ILO	Start	End	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Y	Lab	Git Repo Setup	notes, Happy Tutor	P	M	1	1	Y														
2	Y	Lab	C++ For Programmers	code	P	I	1	2	Y	Y													
Gridworld, IDE start																							
3	Y	Spike	Gridworld	spike	P	I	1	2	Y	Y													
4	EXT	Spike	Gridworld Multi-threaded	spike	C	I, P	1	2	Y	Y													
General debugging, stacks and queues, collections and performance																							
5	Y	Lab	Debugging	report	P	I,M,P	2	4		Y	Y	Y											
6	Y	Lab	Data Structure Basics	report	P	D,I	2	4		Y	Y	Y											
7	Y	Spike	Performance Measurement	spike+report	P	D,P	3	5			Y	Y	Y										
Zorkish - states, files and graphs																							
8	Y	Spike	Game State Management	spike+design	P	I,M	3	5			Y	Y	Y										
9	Y	Spike	Game Data Structures	spike+report	P	D,I	4	5				Y	Y										
10	Y	Lab	File Input Output	report	P	I	4	6				Y	Y	Y									
11	Y	Spike	Game Graphs from Data	spike	P	I,M	5	6					Y	Y									
Zorkish - applied patterns (component, composite, command)																							
12	Y	Spike	Command Pattern	spike+design	P	D,I,M	5	8					Y	Y	Y	Y							
13	Y	Spike	Composite and Component Patterns	spike	P	I,M	6	8						Y	Y	Y							
14	EXT	Spike	Configuration Files	spike	C	D,I,M	6	8						Y	Y	Y							
Space Invaders (Using SDL2 for 2D, images, sound, input)																							
15	Y	Lab	SDL2 Concepts	report	P	D,I	6	7						Y	Y								
16	Y	Spike	Sound Board	spike	P	I	7	8							Y	Y							
17	Y	Spike	Sprites & Graphics	spike	P	I	7	8							Y	Y							
18	EXT	Spike	Control Mapping	spike	C	D,I	8	9								Y	Y						
Messages & ECS																							
19	Y	Spike	Messaging: Annoucements & Blackboards	spike	P	D,I,M	8	9								Y	Y						
20	EXT	Spike	Messaging Extended	spike+design	C	D,I,M	9	11									Y	Y	Y				
21	**OPT**	Spike	Entity Component System	spike	C	D,I,M	9	11									Y	Y	Y				
Collisions & Performance																							
22	Y	Spike	Collisions	spike	P	I,M,(P*)	9	11									Y	Y	Y				
23	EXT	Spike	Collisions Extended	spike	C	I,M,P	10	12										Y	Y	Y			
24	Y	Spike	Profiling, Performance & Optimsation	spike+report	P	P	10	11										Y	Y				
25	EXT	Spike	ECS & Performance	spike+report	C	D,I,M,P	10	12										Y	Y	Y			
Final Work, including custom project and research outcomes (D and HD)																							
26	EXT	Doc	Spike Extension Report	report	C	*	10	14										Y	Y	Y	Y	Y	
27	EXT	Doc	Custom Project Plan	plan	C	*	10	12										Y	Y	Y			
28	EXT	Doc	Custom Project (D/HD) Documents	report	D/HD	*	12	15												Y	Y	Y	Y
29	EXT	Doc	Research Plan	plan	C	*	10	12										Y	Y	Y			
30	EXT	Doc	Research Report (for HD)	report	HD	*	12	15												Y	Y	Y	Y
31	Y	Doc	Learning Summary Report	LSR	P	*	10	15										Y	Y	Y	Y	Y	Y