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| **No.** | **Type** | **Name** | **Included?** | **Rationale** |
| 1 | Lab | Bitbucket Setup | Y | Demonstrates the basic ability to use a repository to maintain a software project (ILO 1). |
| 2 | Lab | C++ for Programmers | Y | Demonstrates basic C++ implementation (ILO 2). |
| 3 | Spike | Gridworld | Y | Demonstrates basic planning capability (ILO 1) and basic C++ implementation (ILO 2). |
| 4 | Extension | Gridworld Multi-threaded | N | Not completed. |
| 5 | Spike | IDE Familiarity | Y | Demonstrates ability to use Visual Studio to implement (ILO 2), debug and maintain (ILO 4) software projects. |
| 6 | Lab | Debugging | Y | Demonstrates ability to view performance-related information (ILO 3), analyse, debug and maintain existing code (ILO 4), and re-implement it (ILO 2). |
| 7 | Lab | Data Structure Basics | Y | Demonstrates ability to analyse code to debug and maintain it (ILO 4), to research, understand and account for performance concerns (ILO 3), and with understanding why code does or doesn’t work and how it should be coded to work (ILO 2). |
| 8 | Spike | Performance Measurement | Y | Demonstrates my ability to use timer code to assess the performance of other code (ILO 2, 3), and to have Visual Studio optimise compiled code (ILO 3). |
| 9 | Spike | Game State Management | Y | Demonstrates my ability to produce designs for a state pattern (ILO 1), and to implement those designs with a stable multi-file class structure in C++ (ILO 2, ILO 4). |
| 10 | Spike | Game Data Structures | Y | Demonstrates my ability to incorporate assessments of data structure suitability into designs (ILO 1), including regarding performance considerations (ILO 3), and to implement player inventories and commands (ILO 2). |
| 11 | Lab | File Input Output | Y | Demonstrates my ability to read from and write to files, and my understanding regarding such code’s parameters and considerations (ILO 2). |
| 12 | Spike | Game Graphs from Data | Y | Demonstrates designing of game world text file specification format (ILO 1), implementation of the reconstruction of worlds / entities from said text files, and of the move command and direction aliases (ILO 2), and debugging of text files and reading code and reorganisation of look command code (ILO 4). |
| 13 | Lab | Attributes from Components | N | Not completed. Task sheet unavailable. |
| 14 | Spike | Command Pattern | Y | Design and implementation of the command pattern from a textual specification (ILO 1, ILO 2), adapting existing command methods to the new structure to ensure consistency (ILO 4). |
| 15 | Spike | Composite and Component Patterns | Y | Design and implementation of the composite and component patterns and how to incorporate them with existing code, and the redesign and implementation of world text files and the reconstruction of game worlds and entities to work with the new code (ILO 1, ILO 2). |
| 16 | Extension | Configuration Files | Y |  |
| 17 | Lab | Message Systems | N | Not completed. Task sheet unavailable. |
| 18 | Spike | Announcements and Blackboards | Y | Design and implementation of a dispatcher-style, observer pattern-based messaging system (ILO 1, ILO 2), debugging and maintenance of command unlocking code from Task 16, and discussion of future uses of messages beyond their current implementation in this task (ILO 4). |
| 19 | Extension | Messaging Comparison | Y |  |
| 20 | Pass | Test | Y |  |
| 21 | Pass | Test Response | N | Not completed. |
| 22 | Lab | SDL2 Concepts | N | Not completed. Task sheet unavailable? |
| 23 | Spike | Sound Board | Y |  |
| 24 | Spike | Sprites & Graphics | Y |  |
| 25 | Extension | Control Mapping | N | Not completed. |
| 26 | Spike | Collisions | Y |  |
| 27 | Extension | Collisions Extended | N | Not completed. |
| 28 | Spike | Profiling, Performance and Optimisation | N | Not completed. Task sheet unavailable? |
| 29 | Credit | Spike Extension Report | Y |  |
| 30 | Credit | Custom Project Plan | Y |  |
| 31 | Distinction | Custom Project D Level | Y |  |
| 32 | Credit | Research Plan | Y |  |
| 33 | High Distinction | Custom Project HD Level | N | Not completed. Not going for a HD. |
| 34 | High Distinction | Research Report | N | Not completed. Not going for a HD. |
| 35 | Pass | Learning Summary Report | Y | Reiterates my understanding and competency regarding ILOs 1, 2, 3 and 4 for each task. |
| N/A | Distinction / Other | Get the Fog Out | Y | Basis of my custom project report, demonstrates implementation competency (ILO 2) and allows for discussion of performance and maintenance-affecting decisions and future designs (ILOs 3, 4 and 1 respectively). |