**Philip Feain –** Hello and welcome to the VCE Applied Computing Study Design 2025-2028 on-demand Video. The purpose of this video is to support teachers with understanding Unit 3 Outcome 1 Software Development. The purpose of this presentation is to: provide an overview of Unit 3 Outcome 1 Software Development, discuss the major changes to Unit 3 Outcome 1, look at the software tools, look at the outcome statement, go through the key knowledge, look at the key skills, and look at the assessment task.

On the following slides will have an overview of Unit 3 Outcome 1. There have been several major changes to Unit 3 Outcome 1 Software Development. Emerging trends in programming using artificial intelligence has been added. Principles of object-oriented programming have been added. Types of errors have been added. The assessment task for the SAC has been updated and there've also been some other minor changes, edits and updates. Students are required to both study and use an appropriate object-oriented programming language in this outcome.

The outcome statement for Unit 3 Outcome 1 has been updated. Students should be able to interpret teacher-provided solution requirements and designs and use appropriate features of an object-oriented programming language to develop working software modules. The key knowledge and the layout of the content has been updated to make more use of including and to list the items after the including in a vertical list.

The key knowledge here includes: emerging trends in programming using artificial intelligence and characteristics of functional and non-functional requirements, constraints and scope, design tools for representing modules and characteristics of data types, characteristics of data structures, and characteristics of data sources, plain text delimited and XML files, principles of object-oriented programming, features of a programming language, purposes and features of naming conventions for solution elements (variables, interface controls, code structures) and validation techniques for data, purposes of internal documentation and algorithms for sorting and searching, types of errors and debugging and testing techniques for checking modules function correctly.

These skills for Unit 3 Outcome 1 have been updated and map directly to the key knowledge. In terms of the contribution to final assessment the SAC for Unit 3 Outcome 1 will contribute 10 per cent to the study score and the total number of marks for the SAC will be out of 100.

The assessment task has been updated for Unit 3 Outcome 1 with some detail added for clarity. In response to teacher-provided solution requirements and designs, develop four working modules with increasing complexity of programming skills. Module 1: Simple calculations using arithmetic, logical, and conditional operators. Module 2: Reading and writing files. Module 3: Sorting and searching with functions or methods and Module 4: Classes and objects. At least two modules must include a GUI. All modules must include testing. Task time allocated should be at least 8-14 lessons.

Thank you for following this presentation. If you have any questions regarding this presentation or the VCE Applied Computing Study Design you can contact Phil Feain, the Digital Technologies Curriculum Manager, at the contact details below.

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