

Software Design and Development

COURSE DETAILS

Hours	240 hours
Type	Board Developed Course
Duration	2 years
Unit Value	2-unit Year 11 2-unit Year 12
HSC Exam	Yes
ATAR	Yes
Exclusions	Nil
RECOGNITION	HSC Qualification

COURSE DESCRIPTION

Software Design & Development focuses on the different ways in which software can be developed and the tools that can be used to assist in this process. The interaction between software and other components of the computer system is also considered. Students learn to develop their own software using a variety of computer languages.

The Year 11 course is divided into three core topics: Concepts and Issues in the Design and Development of Software, Introduction to Software Development and Development of Software Solutions.

AIMS

The Software Design and Development Stage 6 Syllabus is designed to develop in students the knowledge, understanding, skills and values to solve problems through the creation of software solutions.

Year 11 COURSE OUTCOMES (from NES A)

- P1.1 describes the functions of hardware and software
- P1.2 describes and uses appropriate data types
- P1.3 describes the interactions between the elements of a computer system
- P2.1 describes developments in the levels of programming languages
- P2.2 describes the effects of program language developments on current practices
- P3.1 identifies the issues relating to the use of software solutions
- P4.1 analysis a given problem in order to generate a computer-based solution
- P4.2 investigates a structured approach in the design and implementation of a software solution
- P4.3 uses a variety of development approaches to generate software solutions and distinguishes between these approaches
- P5.1 uses and justifies the need for appropriate project management techniques
- P5.2 uses and develops documentation to communicate software solutions to others
- P6.1 describes the skills involved in software development
- P6.2 communicates with appropriate personnel throughout the software development process
- P6.3 designs and constructs software solutions with appropriate interfaces

TOPICS COVERED

- Year 11 Course
- Concepts and Issues in the Design and Development of Software
 - Introduction to Development of Software
 - Developing Software Solutions
- Year 12 Course
- Development and Impact of Software Solutions
 - Software Development Cycle
 - Developing a Solution Package
 - Programming paradigms

ASSESSMENT

Assessment strategies may include:

- In class tasks
- Major Project
- Portfolio of work
- Examinations

POTENTIAL CAREERS / REASONS TO CHOOSE COURSE

- Web developer
- Apps developer
- Systems Analyst
- Data Scientist
- Computer Engineer