



NORTHERN BEACHES SECONDARY COLLEGE MANLY CAMPUS



SOFTWARE ENGINEERING

Have you ever wondered how the games you play, the applications you use on the computer or multimedia CD's & DVD's are made? This course will answer these questions for you. In the course we explore the software Design industry, its evolution, what key roles designers undertake and of course how to actually create software.

There are many different approaches that can be taken to develop software. An understanding of these and the situations in which they are applied is essential in software development, so too is an understanding of how hardware and software are interrelated and need each other to function. Communication, personal and team skills are required by the developers in order to develop solutions that meet the needs of those who will use them. Software Engineering provides students with the flexibility to be able to adapt in a field that is constantly changing, yet vital to the Australian economy.

Course content

Preliminary course

The Year 11 course provides students with opportunities to develop and apply an understanding of the fundamental elements involved in creating software. This includes programming fundamentals, the object - orientated paradigm and mechatronics.

HSC Course

The Year 12 course provides students with opportunities to extend their knowledge, understanding and skills in the development of software. This includes secure software architecture, web programming and software automation. A major software engineering project provides students with the opportunity to further develop project management skills.

Will this course suit me?

The Software engineering course is designed to meet the needs of students who wish to further their studies in the field of in computer science and in particular computer programming. However, the course is perfect for any student interested in design, the creative application of their skills and managing projects.

There is a major HSC school assessed project marked internally by the class teacher and most of our practical skills are applied to individual and group class projects.

What else will I learn?

In this course students will participate in developing a range of skills including: using computer applications as used in industry; developing skills in a range of programming languages; managing projects through to completion and understanding the roles a software developer follows in order to complete a software package.

Why do Software Engineering?

The course gives you the opportunity to learn many skills that are transferable to other aspects of life and school. Most careers today will require that employees have skills in integrating computing into their workflow, including programming skills. This course can assist you in developing these skills. In addition, it offers opportunities for creativity and problem solving. A collaborative work environment in projects forms the basis of most of the assessment Technology.