KINGSCLIFF HIGH SCHOOL

ACHIEVEMENT THROUGH ENDEAVOUR

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Subject Selection Information

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Faculty:

Industrial Arts & Computing Studies

Subject: Software Engineering

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Classification of the Course:

Category A

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Nature of the Course

The Year 11 course introduces students to the basic concepts of computer software design and development. It does this by looking at the different ways in which software can be developed, the tools that can be used to assist in this process and by considering the interaction between software and the other components of the computer system.

The Year 12 course builds on the year 11 course and involves the development and documentation of software using a variety of data structures and language facilities. Students learn to solve a number of interesting and relevant software problems.

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HSC Exam: Yes

Length of Exam: 3 hours

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Internal Assessment Structure

Preliminary Assessment

Concepts and Issues in the Design and Development of Software (30%)
Introduction to Software Development (50%)
Developing Software Solutions (20%)

HSC Assessment

Development and Impact of Software Solutions (15%)
Software Development Cycle (40%)
Developing a Solution Package (25%)
Options (20%) - Study one of the following options:

- Programming paradigms or
- The interrelationship between software and hardware

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Elective fees for the Course:

Preliminary Course - $20
HSC Course - $20

Please note that subject fees cover basic consumables including software licences, video, audio and film equipment, paper and consumables. Students who produce physical projects to support digital projects will need to purchase resources.

Students who choose this subject are expected to pay the subject contribution fee to cover resource expenses.

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Skills Required for this subject and/or any Prerequisites:

There is no prerequisite study for the Year 11 course. Completion of the Year 11 course is a prerequisite for the Year 12 course.

It is a mandatory requirement that students spend a minimum of 20% of Year 11 course time and 25% of Year 12 course time on practical activities using the computer.

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Career Opportunities

Software design and development refers to the creativity, knowledge, values and communication skills required to develop computer programs. The subject provides students with a systematic approach to problem solving, an opportunity to be creative, excellent career prospects and interesting content.

While a variety of computer applications are used in this subject, they are not the primary focus. The focus of this subject is the development of computer-based solutions that require the design of computer software.

Through the production of projects in both the Preliminary and HSC course, students learn vital skills in research, planning and production of digital project solutions for business needs.

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Career Opportunities

Information Processes Technology will help students develop skills that can be applied in a variety of information technology careers. Examples of career paths could include:

- Software Application Developer
- Software Programming
- Computer Network Architect