

# INFORMATION and SOFTWARE TECHNOLOGY (IST)

Students will learn and apply IT skills to real-life contexts in a practical, project-based units. Real-world collaboration and IT problem-solving skills are developed, culminating in a Major Project with a real client. IST is excellent preparation for Year 11 – 12 IT subjects such as Software Design and Development, university IT courses and IT industrial experiences where collaboration with real clients are the norm rather than the exception.

## Course Content

There are 7 compulsory topics and 4 options which are integrated into 6 projects completed over the course:

- **Magazine Design** – includes Desk-Top Publishing (DTP) fundamentals including layout, typesetting, visual hierarchies, online vs. print considerations, image types and formats
- **Programming Fundamentals** – includes study on flowcharts and pseudocode, variables, data types, control structures, user experience (UX) design, game design with Scratch
- **Animation** – includes analysis of vector, path and frame-based animations, file formats, image types and formats, integration of sounds, splicing and editing skills
- **Advanced Information Systems (Databases and Spreadsheets)** – including extensive in-depth study of relational databases, database form design, macro and VBAScript coding, interlinking spreadsheets, advanced statistical functions, data validation
- **Film-Making and Multimedia** – includes film editing and splicing techniques, content collaboration, studies of audio-visual CODECs, film types and formats, video formats
- **Programming for Mobile devices** – includes methods of algorithm descriptions, variables, data types, control structures, object-oriented and event-oriented concepts such as event handlers, object properties and methods through app builders such as XCode, app inventor or Thinkable
- **Programming for the Web** – includes advanced HTML and CSS, extensive study of JavaScript including the Document Object Model, forms, and data validation

## Type of assessment involved in IST

Assessment in IST is mostly completed in group-based projects. This allows for the full development of project management and real-world collaboration skills. Projects contain:

- Folios with three components: Design, Produce, Evaluate
- IT product e.g. animation, interactive website with JavaScript for client etc.

Other assessments such as practical exams and individual projects may also be used.

## What will students gain by studying IST?

- Development of real-world collaborative and project management skills.
- Development of in-depth IT technical knowledge in a wide variety of creative endeavours.
- **A focus on coding and software development skills** which will future-proof your education.
- **Active engagement with and control** over information and communication technologies.

