**Subject selection for IT courses**

In addition to these courses is the VET in Schools Information & Digital Technology (IDT) course – see sheet

|  |  |
| --- | --- |
| IPT | SDD |
| This course provides students with the opportunity to learn about information-based systems and how social, ethical and non-computer procedures resulting from the processes are considered. Students study different types of information systems and through project work create their own information systems to meet identified needs.    Read the full [Information Processes and Technology course description](https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/stage-6-learning-areas/technologies/course-descriptions).  Read the [version log for Information Processes and Technology Stage 6](https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/stage-6-learning-areas/technologies/information-processes-technology-syllabus/version-log) syllabus and assessment changes.    *From <*[*https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/stage-6-learning-areas/technologies/information-processes-technology-syllabus*](https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/stage-6-learning-areas/technologies/information-processes-technology-syllabus)*>* | This course provides students with the opportunity to develop skills in designing and developing software solutions, project management and communication. 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 other components of computer systems. Students apply a systematic approach to develop and document software solutions using a variety of data structures and language facilities.    Read the full [Software Design and Development course description](https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/stage-6-learning-areas/technologies/course-descriptions).  Read the [version log for Software Design and Development Stage 6](https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/stage-6-learning-areas/technologies/software-design-development/version-log) syllabus and assessment changes.  *From <*[*https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/stage-6-learning-areas/technologies/software-design-development*](https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/stage-6-learning-areas/technologies/software-design-development)*>* |
| What students learn  **Preliminary course**   * + **Introduction to Information Skills and Systems (20%)**   + **Tools for Information Processes (50%)**   + **Developing Information Systems (30%)**   **HSC course**   * + **Project Management (20%)**   + **Information Systems and Databases (20%)**   + **Communication Systems (20%)**   + **Option Strands (40%)** – Students will select TWO of the following options:   + Transaction Processing Systems   + Decision Support Systems   + Automated Manufacturing Systems   + Multimedia Systems.   Course requirements  There is no prerequisite study for the 2-unit Preliminary course. Completion of the 2-unit Preliminary course is a prerequisite to the study of the 2-unit HSC course.  The percentage values in each course refer to indicative course time. A minimum of 40% course time is to be devoted to the integration of content into project work in both Preliminary and HSC courses. It is also expected that a significant proportion of time be devoted to integrated practical activities.  *From:* [*Education Standards IPT*](https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/stage-6-learning-areas/technologies/course-descriptions/!ut/p/z1/lZDBDoIwEEQ_qbOltHCsEShCwgEI2IvhZJooejB-vwQPhoCIc9vkvc3uMMtaZvvu6c7dw9367jLMRytPIjWAB56jEh50rENTJSUpAdaMANckyQjKAhUQdCWpiMIdkCpm__Lx9oXI_BiUKPGnXySjX5DkB8WL2t_m40s0tvkrgF1f3zA7Ip8GeTR84GUmpzLne4MZMK94Cix0OAUWSvp15v1aD2nhUqdfmzya3g!!/#information-processes-and-technology)  The main focus of this course is the use of application packages for word processing, spreadsheeting, relational database development, animation, video and audio. | What students learn  **Preliminary course**   * + **Concepts and Issues in the Design and Development of Software (30%)**   + **Introduction to Software Development (50%)**   + **Developing Software Solutions (20%)**   **HSC course**   * + **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   Course requirements  There is no prerequisite study for the Preliminary course. Completion of the Preliminary course is a prerequisite for the HSC course.  It is a mandatory requirement that students spend a minimum of 20% of Preliminary course time and 25% of HSC course time on practical activities using the computer.  *From:* [*Education Standards SDD*](https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/stage-6-learning-areas/technologies/course-descriptions/!ut/p/z1/lZDBDoIwEEQ_qbOltHCsEShCwgEI2IvhZJooejB-vwQPhoCIc9vkvc3uMMtaZvvu6c7dw9367jLMRytPIjWAB56jEh50rENTJSUpAdaMANckyQjKAhUQdCWpiMIdkCpm__Lx9oXI_BiUKPGnXySjX5DkB8WL2t_m40s0tvkrgF1f3zA7Ip8GeTR84GUmpzLne4MZMK94Cix0OAUWSvp15v1aD2nhUqdfmzya3g!!/#software-design-and-development)  The main focus of this course is the coding of applications and the basic concepts behind all computer languages. Exams are done with complex pseudocode examples. Among other topics, students learn the theory of control structures, data structures, standard algorithms, binary and hexadecimal conversion without a calculator, floating point theory and circuit gates. |
| Past Blackwattle assessments have been:    **Year 11 Assessment Task 1 (30%)** - complete and use a website to present to the class, a "Case Study" of an organisation's Information Technology in the context of the current environment. [Student IPT Projects](https://bwattle.github.io/StudentProjects/A_IPT.html)    **Year 11 Assessment Task 2 (30%)** - groups of students split tasks to create a Pokémon Island with marketing, accounts and a booking system. Together, the group presents their resort to the class with the aid of their website. [Student IPT Projects](https://bwattle.github.io/StudentProjects/A_IPT.html)    **Year 11 Assessment Task 3 (40%)** - 2-hour theory examination.    **Year 12 Assessment Task 1 (20%)** - students build a Microsoft Access relational database with complex forms and reports.    **Year 12 Assessment Task 2 (20%)** - a 1-hour diagnostic test on the topic’s studies to date.    **Year 12 Assessment Task 3 (30%)** - students create a portfolio website where the work from the previous year is collected to be used as for job applications. [Student IPT Projects](https://bwattle.github.io/StudentProjects/A_IPT.html)    **Year 12 Assessment Task 4 (30%)** - 3-hour Trial HSC Examination. | Past Blackwattle assessments have been:    **Year 11 Assessment Task 1 (30%)** - create a simple application, suitable for pre-schoolers in 3 languages to gain familiarity with the evolution of high-level languages.    **Year 11 Assessment Task 2 (30%)** - in groups, students contribute code versions to a GitHub repository, then individually, they create their own repositories and complete the remaining modules of a puzzle game. [Student SDD Projects](https://bwattle.github.io/StudentProjects/A_SDD.html)    **Year 11 Assessment Task 3 (40%)** - 2-hour theory examination.    **Year 12 Assessment Task 1 (20%)** - students build a complex data driven app, hosted on GitHub, and focus on testing and validating user entries.    **Year 12 Assessment Task 2 (20%)** - a 1-hour diagnostic test on the topics studied to date.    **Year 12 Assessment Task 3 (30%)** - students create an application of their own choice, submitting a portfolio showing planning steps and development stages. [Student SDD Projects](https://bwattle.github.io/StudentProjects/A_SDD.html)    **Year 12 Assessment Task 4 (30%)** - 3-hour Trial HSC Examination. |