

## Building and Construction General

<b>Year 11 Course Code</b>	GEBCN
<b>Year 12 Course Code</b>	GTBCN
<b>Cost</b>	\$165.00 (cost is approximate – subject to change)

### **Year 11 and Year 12 Course Overview**

The Building and Construction General course develops students' knowledge and practical appreciation of building technologies. The course provides students with a context in which to practise and integrate their knowledge and apply it to meet community and environmental responsibilities. It allows them to apply and extend strategies for problem solving, and develops their skills in planning and management. In achieving the course outcomes, students learn and practise building processes and technologies, principles of design, planning and management and social considerations.

### **Year 11 Course Structure**

Unit 1 - This unit introduces students to the considerations required in building design and explores properties of common, natural or pre-made construction materials, their mechanical properties and use in construction.

Unit 2 - This unit explores properties of common, natural and pre-made construction materials, their production, mechanical properties under direct loads (tension or compression) and use in construction. Concepts in space and computation are developed. Basic plan reading is practised with application in building, as well as skills in areas of content, such as working with materials, spatial perception and computation and levelling. The unit explores processes in contexts drawn from building projects.

### **Year 12 Course Structure**

Unit 3 - This unit explores properties of common construction materials (timber, metals, concrete, grout, brickwork, block work, insulation, mortar and paint); their mechanical properties under load and flexural actions; and their use in construction. Concepts in space and computation are developed. Students practice reading drawn/drafted information as applied to building. Documentation for small projects is developed.

Unit 4 - This unit builds upon the understandings of building materials, structures and structural components and the evaluation of combinations of various materials to sustain the strength of structural components. The methods and materials used in connecting building elements are explored. Further design considerations are studied. Drawing/drafting skills are refined and practised with application to more complex building issues.