TAS HSC Subjects 2023

Stage 6 learning at a glance.

Design and Technology

Design and Technology has a unique focus on creativity, innovation and the successful implementation of innovative ideas. It also seeks to develop students' appreciation of the historical and cultural influences on design and the interrelationships of design, technology, society and the environment. Students will investigate the importance of evaluation, the role of computer-based technologies, management, communication and collaborative design, as well as exploring current and emerging technologies. Through the completion of quality design projects, students are provided with the opportunity to develop specific production and manufacturing skills.

Year 11 Course - Designing and Producing
• design theory and practice
• design processes
• environmental, ethical and social issues
• marketing and market research
• the realisation of ideas through the manipulation of techniques, materials tools and other resources
• project analysis, management and evaluation
• research methods
• manufacturing and production.

HSC Course –
− Innovation and Emerging Technologies
− Designing and Producing (and the Major Design Project).
• Project proposal and project management
• Project development and realization
• Project evaluation

60% of the HSC score comes from the Major Design Project, 40% from a 1.5 hour written exam.

Engineering Studies

Both Year 11 and HSC Courses offer students knowledge, understanding and skills in aspects of engineering that include communication, engineering mechanics/hydraulics, engineering materials, historical/societal influences, engineering electricity/electronics and the scope of the profession. Students study engineering by investigating a range of applications and fields of engineering.

Year 11 Course
Students undertake the study of each of the 4 modules:
• Engineering fundamentals
• Engineered products
• Braking systems
• Biomedical engineering
• An engineering report

HSC Course
Students undertake the study of each of the 4 modules:
• Civil Structures
• Personal and Public Transport
• Aeronautical Engineering
• Telecommunications Engineering
• An engineering report

Engineering reports form 20% of the total school-based HSC assessment & a HSC 3 hour written exam.

TAS HSC Subjects 2023

Stage 6 learning at a glance.

Software Design and Development

This subject provides students with a systematic approach to problem-solving, an opportunity to be creative. Student gain an understanding software development and how hardware and software are interrelated, and need each other to function. In order to develop solutions that meet the needs of those who will use them, communication, personal and team skills are required by students as software developers. Software development concepts taught in this course leads to deeper understanding by students, enabling greater flexibility in developing software solutions using newly available technology and languages in the future.

Year 11 Course –
Concepts and Issues in the Design and Development of Software 30%
- Social and ethical issues
- Hardware and software
- Software development approaches

Introduction to Software Development 50%
- Defining and understanding the problem
- Planning and designing software solutions
- Implementing software solutions
- Testing and evaluating software solutions
- Maintaining software solutions

Developing Software Solutions 20% .

HSC Course –
Development and Impact of Software Solutions 15%
- Social and ethical issues
- Application of software development approaches

Software Development Cycle 40%
- Defining and understanding the problem
- Planning and designing software solutions
- Implementing software solutions
- Testing and evaluating software solutions
- Maintaining software solutions

Developing a Solution Package 25%
Options 20% (one of the following is chosen)
- Programming paradigms OR
- The interrelationship between software & hardware

Year 12 Software Project forms more than 45% of internal HSC assessment & a HSC 3 hour written exam.

Textiles and Design (class not running2023)

The Year 11 course concentrates on skills acquisition in the focus areas of apparel, non-apparel, textiles art, costume and furnishings. Practical experiences integrate a range of skills and experimentation in construction, decoration and colouration of textiles. Students apply sources of inspiration in their designs to create and produce unique products. Communication methods for the supporting documentation are also studied. The HSC course builds upon the Year 11 course and involves the completion of a Major Textiles Project which is specific to a chosen focus area of their choice and includes 12 pages of supporting documentation.
No prior sewing skills are required as the Year 11 course will focus on building these skills.

Year 11 Course
Design - 40%
- Principles and element of design
- Contemporary designers

Properties and Performance of Textiles - 50%
- Fabric, yarn and fibre classification
- Appropriate choice of fabrics for textile project

The Australian Textiles, Clothing, Footwear and Allied Industries (TCFAI) - 10%
- Sectors of the industry
- Manufacturing processes

HSC Course
Design - 20%
- Historical design development
- Cultural factors that influence design

Properties and Performance of Textiles - 20%
- Innovations & emerging technologies

The Australian Textiles, Clothing, Footwear and Allied Industries - 10%
- Current issues
- Environmental and sustainable practices

Major Textiles Project - 50%

50% of the HSC score comes from the Major Textiles Project, 50% from a 1.5 hour written exam.