



CS

## Changes to HSC technology syllabuses

The consultation phase for each of the eight HSC technology draft syllabuses has concluded and the Office of the Board is currently finalising the syllabus packages. It is anticipated that the syllabus packages will be available in schools by July.

Some of the significant issues and developments are outlined below.

### General issues

The number of outcomes in these revised syllabus documents is significantly lower than in the existing syllabuses. This number of outcomes should be more manageable and enable teachers to make more effective use of the outcomes for planning, programming, assessing and reporting. Through the consultation process, the Department has sought to ensure that the outcomes clearly state the expectations of the level and nature of student achievement. Further consultation processes have been implemented to assist in this task.

You will have noticed that the content of syllabus documents now specifies both what students will learn about and what they will learn to do. This should help to clarify for teachers the intended treatment of the content, including the depth of treatment.

The Department has promoted the importance of maximising opportunities for students to gain recognition from each HSC subject if they undertake further training in related VET courses. Processes are currently under way to negotiate recognition by TAFE NSW for each of these HSC subjects.

The introduction of the reporting of student achievement against a standard of performance rather than the ranking of the performance of students against each other is a significant change for the HSC. Student performance will be reported against performance scales which describe levels or bands of student achievement.

### Agriculture

This syllabus has, with some amendments to the draft, been approved by the Board of Studies to be forwarded

to the Minister for approval. The consultation process has brought about a number of significant changes to the existing syllabus and has resulted in a successful blending of the most valuable features of the previous 2 and 3 Unit courses. The preliminary course in the new syllabus provides an overview of agriculture in the Australian context, deals with plant and animal production and involves a farm case study. The core component of the HSC course addresses plant and animal production and a farm or product case study, along with either the study of two elective topics or a research project.

### Food technology

This syllabus, with some amendments to the draft, has been approved by the Board of Studies to be forwarded to the Minister for approval. Through the review and consultation processes, some significant improvements have been made to the existing syllabus, resulting in a blending of the most valuable features of the previous 2 and 3 Unit courses. There is a strengthened articulation of the importance of practical experimentation and food preparation in the subject and increased emphasis on food safety and quality. The preliminary course has three core strands: food availability and selection, food quality and nutrition. The core component of the HSC course addresses the Australian food industry, food manufacture and food product development, along with the study of contemporary food issues related to either nutrition or the marketplace.

### Industrial technology

This syllabus has, with some amendments to the draft, been approved by the Board of Studies to be forwarded to the Minister for approval. Modifications have led to a more streamlined presentation of the content and expanded focus areas. The focus area of Graphics and Multimedia has been divided into separate areas of Graphics Industries and Multimedia Industries. The study of industry remains an essential component of Industrial Technology, with the study of an individual business related to the focus area industry in the preliminary course and a broad study of related businesses occurring in the HSC courses. In both the preliminary and HSC courses, students investigate design and management, workplace communication and industry-specific content related to their focus area. An externally marked major project remains the principal means of examining the outcomes of the HSC course.



## Design and technology

The draft syllabus represents a refinement of the existing design and technology syllabus. In response to advice from the consultation process, the most valuable features of the existing 2 and 3 Unit courses have been retained. The presentation of the content has been restructured to better reflect the process-oriented nature of the subject and the integration of theory and practical work. The syllabus no longer refers to the Related Study. The preliminary course emphasises the use of design projects and hands-on practical activities to develop knowledge and skills in designing and producing. The HSC course involves a study of designing and producing, including the development and realisation of a major design project. An individual case study forms part of the investigation of innovation and emerging technologies. As part of the consultation, the Department has recommended the inclusion of explicit opportunities for students to investigate career opportunities related to designing, producing and manufacture.

## Engineering studies

This draft syllabus represents a major change from the existing Engineering Science syllabus. The consultation process has updated the content and led to the adoption of a modular approach to the writing of the syllabus. The preliminary and HSC courses each include five modules. These modules investigate engineered products, such as household appliances, brakes and civil structures, and engineering fields, such as bio-engineering and aeronautical engineering. The preliminary course includes an elective module which is selected by the school to meet local interests. Each of the modules will involve the generation of an engineering report.

## Information processes and technology

This draft syllabus represents a major change from the existing computing studies syllabuses. The information processes and technology syllabus is designed to enable students to become competent and discriminating users of information processes and computer-based technologies. Project work is an important component of both courses. The preliminary course addresses principles of and tools for information processes as well as computer systems for information processing. The HSC course includes information and communication systems and a selection of option strands. Through the consultation process, the Department has recommended the need for support materials to be developed by the Office of the Board of Studies.

## Software design and development

This draft syllabus represents a major change from the existing computing studies syllabuses. The software design and development syllabus focuses on design and problem solving through the development of software solutions and the consideration of social and ethical issues. Project work and software development processes, concepts and issues in the preliminary course are expanded upon in the HSC course. The HSC course includes the development of software solution packages through project work and the study of an option strand. Through the consultation process, the Department has recommended the need to address perceived course difficulty and gender imbalance, and to ensure that the course content more clearly reflects the range of student abilities and the practical focus of the course. A need for the Office of the Board of Studies to develop support materials was also identified.

## Textiles and design

This draft syllabus represents a major change from the existing textiles and design syllabus. The content has been substantially updated and refined, with a strengthening of the central role of practical applications, through the specification of project work in both the preliminary and HSC courses. The relevance of this subject to the world of work is enhanced through investigation of the Australian textile, clothing, footwear and allied industries and through aspects of the topics of design and properties and performance of textiles. Throughout the process most teachers have strongly supported the HSC examination of this subject being based on 50 % textile project and a 50% written paper. This has now been adopted as the most appropriate examination approach for this subject.

## CS HSC support strategy

### Overview

The establishment, training and resourcing of school-based professional learning teams (PLTs) is central to the Department's HSC support strategy.

Each school has received a grant to assist two or more team members to attend the district training day and school representatives to attend Local Interest Group events.



Local Interest Group (LIG) events scheduled for 1999 are as follows:

*LIG event 1:* School structures and organisation for executive teachers with responsibilities in curriculum planning

*LIG event 2:* Syllabus implementation for head teachers of English, mathematics, and sciences.

*LIG event 3:* Assessment for senior executive and head teachers.

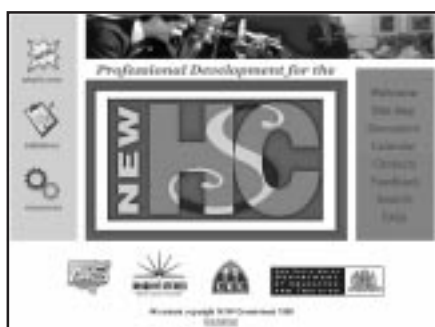
Further information about LIG events is available from Frances Plummer, telephone (02) 9886 7189.

Assessment and reporting issues for the new HSC will be the focus of a series of bulletins. For more information, contact Peter Lorking on telephone: (02) 9886 7683.

Vocational education conferences for teachers of curriculum industry frameworks will be held in each of the 34 districts with a VET-In-Schools Committee. District-based events for industry-specific teachers are also planned. For more information contact Cathy Gerloff on telephone: (02) 9607 1326.

## Curriculum support for technology subjects

<http://www.newhsc.edu.au>



Curriculum support will be provided through the new HSC professional development web site, and workshops. **CURRICULUM SUPPORT** in 1999 will include an HSC supplement offering advice on syllabus changes, programming, teaching and assessing.

### Implementation workshops

The Curriculum Support Directorate has planned three sets of workshops to occur throughout Term 3, 1999 to support the implementation of the range of technology syllabuses. The workshops will focus on three specific groups of subjects.

Teachers of: design and technology  
engineering studies  
food technology  
industrial technology  
textiles and design

Owing to the number of subjects for which most teachers are responsible, a one-day workshop has been designed that will give each teacher the opportunity to overview the changes to three subjects. The workshop will begin with a session addressing some common HSC issues and then consider the new design and technology syllabus. Teachers will then choose to attend a session focusing on either engineering studies or textiles and design, followed by a session addressing either food technology or industrial technology.

The workshop sessions will aim to:

- identify differences between the existing and new HSC syllabuses
- identify the implications of the changes for teaching practice
- describe the new requirements for assessment and reporting
- discuss ideas for programming and planning
- identify further mechanisms for professional support and collaboration.

Workshops are planned for 18 venues across the state and it is anticipated that the following dates and venues will apply.

Mount Druitt	Thursday	29 July
Singleton	Monday	2 August
Newcastle	Tuesday	3 August
Port Macquarie	Thursday	5 August
Griffith	Monday	9 August
Albury	Wednesday	11 August
Bathurst	Friday	13 August
Queanbeyan	Monday	16 August
Moss Vale	Tuesday	17 August
Sutherland	Thursday	19 August
Central Coast	Friday	20 August
Dubbo	Monday	23 August
Bankstown	Wednesday	25 August
Bondi	Thursday	26 August
Northern Beaches	Friday	27 August
Armidale	Tuesday	21 September
Lismore	Thursday	23 September
Parramatta	Friday	24 September



Interested teachers should nominate to attend their most convenient venue. Registration details will be available later in the year.

Teachers of: information processes  
and technology  
software design and  
development

A one-day workshop has been planned to enable teachers to investigate the new syllabuses for software design and development and information processes and technology. The workshop will address some general issues related to the new HSC and then consider each of the syllabuses in detail.

The workshop sessions will aim to:

- identify differences between the existing and new HSC syllabuses
- identify the implications of the changes for teaching practice
- describe the new requirements for assessment and reporting
- discuss ideas for programming and planning
- identify further mechanisms for professional support and collaboration.

Workshops are planned for 15 venues across the state and it is anticipated that the following dates and venues will apply.

Ryde	Monday	9 August
Blacktown	Thursday	12 August
Ballina	Monday	16 August
Coffs Harbour	Wednesday	18 August
Tamworth	Tuesday	24 August
Maitland	Thursday	26 August
Port Jackson	Monday	30 August
Liverpool	Wednesday	1 September
Dubbo	Tuesday	7 September
Bathurst	Thursday	9 September
Wollongong	Monday	13 September
Batemans Bay	Wednesday	15 September
Wagga Wagga	Friday	17 September
Taree	Tuesday	21 September
Central Coast	Thursday	23 September

Interested teachers should nominate to attend their most convenient venue. Registration details will be available later in the year.

## Teachers of agriculture

A one-day workshop has been planned to thoroughly analyse the new agriculture syllabus. The workshop will address some general issues related to the new HSC and then consider the agriculture syllabus in detail.

The workshop sessions will aim to:

- identify differences between the existing and new HSC syllabuses
- identify the implications of the changes for teaching practice
- describe the new requirements for assessment and reporting
- discuss ideas for programming and planning
- identify further mechanisms for professional support and collaboration.

Workshops are planned for 11 venues across the state and it is anticipated that the following dates and venues will apply.

Hornsby	Wednesday	4 August
Dubbo	Tuesday	10 August
Orange	Wednesday	11 August
Wagga	Friday	13 August
Grafton	Tuesday	17 August
Taree	Thursday	19 August
Lake Macquarie	Friday	20 August
Campbelltown	Tuesday	24 August
Nowra	Thursday	26 August
Penrith	Friday	27 August
Tamworth	Tuesday	31 August

Interested teachers should nominate to attend their most convenient venue. Registration details will be available later in the year.

For more information contact Lyndall Foster on telephone: (02) 9886 7623