

Industrial Technology



A Guide to the New Years 7–10 Syllabus

The new *Industrial Technology Years 7–10 Syllabus* will replace the *Technics Years 7–10 Syllabus* (1985) and will be implemented in 2005 with Year 9 students and in 2006 with Year 10 students. Stage 4 outcomes have been provided for those schools that wish to implement the syllabus with Year 7 and Year 8 students concurrently with the *Technology (Mandatory) Years 7–8 Syllabus*.

The new syllabus is informed by contemporary research about how people learn and about how learning outcomes can be enhanced by teaching practice.

The syllabus promotes *assessment for learning* as an essential component of good teaching. It follows the broad directions established in the NSW Board of Studies *K–10 Curriculum Framework* and is part of a continuum of learning from Kindergarten to Year 12 that supports sustained, sequential, high quality learning.

What is similar?

Much of the content is similar to the current *Technics Years 7–10 Syllabus* content. Students will continue to experience programs that:

- develop knowledge, understanding and skills relating to the use of materials, tools and machines
- focus on the production of practical projects as the basis of their learning in Industrial Technology
- provide opportunities for students to engage in the design, production and evaluation of individual projects.

Current programs can be modified to meet the requirements of the new syllabus and many existing units of work will form the bases of effective programs. The majority of existing resources will continue to be relevant.

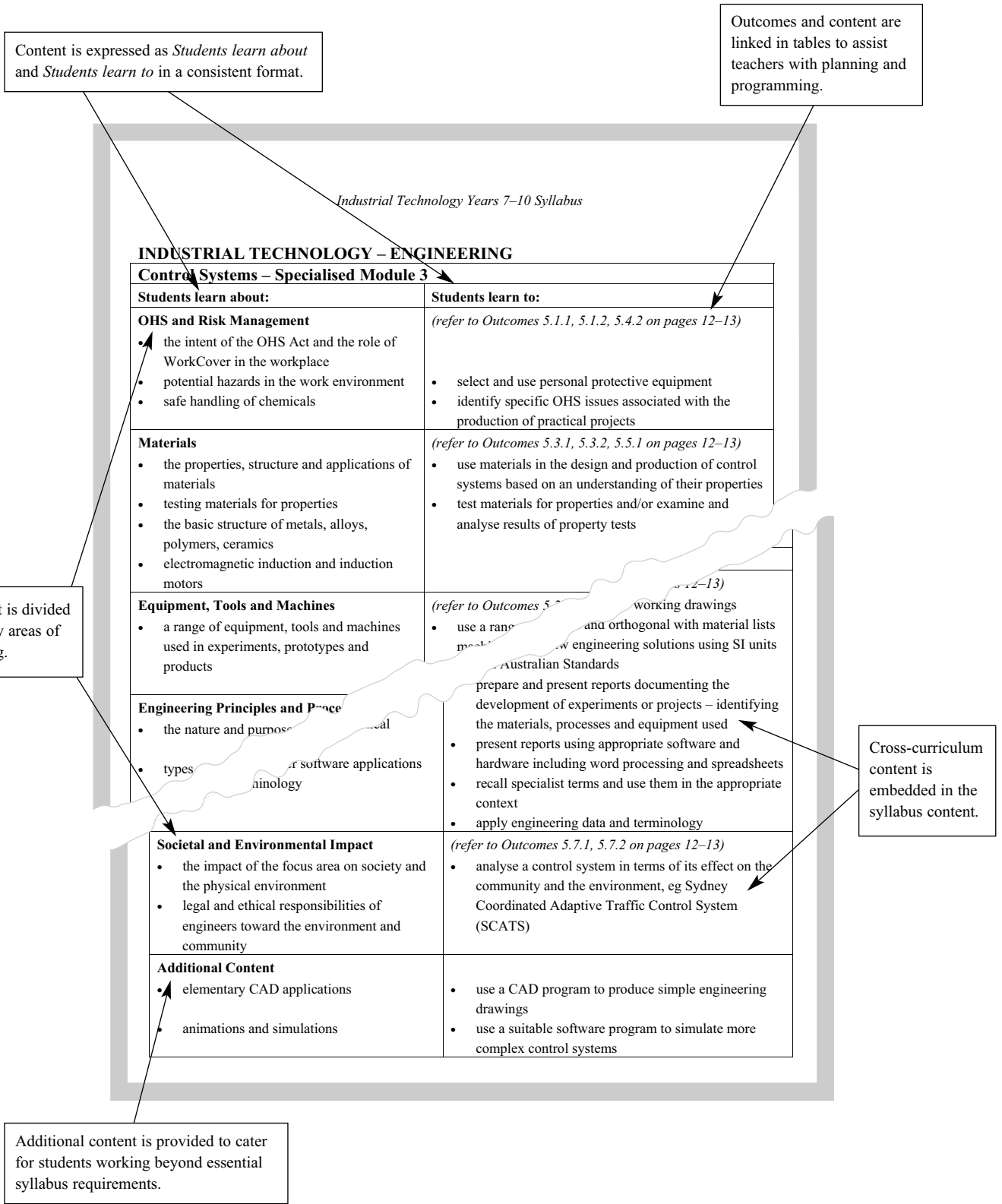
The recent experience teachers have gained in implementing the range of Stage 6 Technology syllabuses (1999) will assist in the implementation of the new *Industrial Technology Years 7–10 Syllabus*.

What is different?

The new syllabus builds on the current syllabus in directions identified through research into the teaching of Technology-related subjects in other systems nationally and internationally, and through consultation at forums, meetings and during wide circulation of the draft syllabus.

- There is a significant reduction in the number of objectives and outcomes. This will simplify the processes of programming, assessing and reporting.
- There is a greater emphasis on teaching and learning related to Occupational Health and Safety.
- There is an increased focus on the development and application of new and emerging technologies in industries related to the focus areas.
- Environmental and societal impacts of technologies are integrated into the essential syllabus content.
- A range of new areas of study encompasses contemporary technologies and provides a foundation for students moving into a variety of Stage 6 Technology-based electives.
- Stage statements from Early Stage 1 to Stage 5 describe the continuum of learning in Industrial Technology.
- Content additional to the essential syllabus content is included to help teachers address the needs and interests of students who have demonstrated Stage 5 outcomes in less than the indicative time.

The features of the content pages



- An overview statement is provided that shows how each cross-curriculum area is embedded in the essential content.
- Content relating to the use and understanding of information and communication technologies (ICT) is incorporated in the syllabus content.
- Life Skills outcomes and content have been provided for those students with special education needs, particularly those students with an intellectual disability, for whom it has been determined that the outcomes and content found in sections 6 and 7 of the syllabus are not appropriate.
- Built into the syllabus is the concept that *assessment for learning* is integral to teaching and learning in a standards-referenced framework. *Assessment for learning* involves teachers planning how and when they will gather evidence of learning at the same time as they plan the work that students will do. It recognises the importance of assessment to student motivation and self-esteem, and promotes the active involvement of students in their own learning.

How can the syllabus be used to program?

The syllabus outcomes provide the focus for teaching and learning in Industrial Technology. This syllabus encourages a model of programming that begins with outcomes, and is precise about what is being taught and what is being learnt. Developing integrated programs from the new *Industrial Technology Years 7–10 Syllabus* involves:

- identifying the outcomes to be addressed (see syllabus pp 12–13)
- identifying the required evidence of learning
- planning explicit teaching and learning experiences to address the outcomes to allow students to demonstrate evidence of learning
- identifying strategies to teach the content
- incorporating *assessment for learning* by using the assessment advice in the syllabus and in the support material that will be provided by the Board of Studies.

The advice about additional content will assist teachers to develop programs for students who are demonstrating Stage 5 outcomes prior to the completion of Year 10.

Stage statements describe a continuum of learning from Early Stage 1 to Stage 5. This enables teachers to map students' learning development, and to plan and program work to students' needs and abilities.

How does the syllabus cater for all students?

A key principle of the *K–10 Curriculum Framework*, which guides K–10 syllabus development, is that the curriculum must be inclusive of all students in New South Wales.

The rationale, aim, objectives, outcomes and content of the syllabus have been designed to accommodate teaching approaches that support the learning needs of all students.

Students with special education needs will participate fully in learning experiences and assessment activities. These students may require additional support in terms of modified tasks and varied learning approaches. There may also be occasions when different strategies need to be adopted to broaden and deepen the learning experiences of gifted and talented students.

Life Skills outcomes and content, using the rationale, aim and objectives of this syllabus have been included in section 8. They will provide the basis for a program of study for the small percentage of students with special education needs for whom the outcomes and content in sections 6 and 7 of the *Industrial Technology 7–10 Syllabus* are not appropriate.

What support is the Board providing to assist with initial implementation of the syllabus?

Following the release of the syllabus, support materials will be distributed to assist teachers in understanding the syllabus and its associated assessment requirements.

The first School Certificate credential based on the new syllabuses will be awarded in 2006. Specific advice about requirements for the School Certificate will be provided well in advance of 2006.

<p>distributed with the syllabus</p>	<p>Phase 1</p> <ul style="list-style-type: none"> ■ this guide to the new <i>Industrial Technology Years 7–10 Syllabus</i> ■ draft Descriptions of Levels of Achievement
<p>3 months after distribution of the syllabus</p>	<p>Phase 2</p> <ul style="list-style-type: none"> ■ advice on programming ■ sample units of work ■ sample assessment activities
<p>6 months after distribution of the syllabus</p>	<p>Phase 3 (incorporates Phases 1 and 2)</p> <ul style="list-style-type: none"> ■ annotated samples of student activities
<p>12 months after implementation of the syllabus</p>	<p>Phase 4</p> <ul style="list-style-type: none"> ■ final Descriptions of Levels of Achievement

The Department of Education and Training, the Catholic Education Commission, other school systems, the Association of Independent Schools and professional associations will assist and support the ongoing implementation of the syllabus.
