# Our Youth, Our Future



# **Post-Compulsory Education Review**

Summary of the directions endorsed by the Western Australian Government

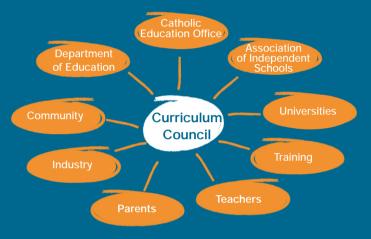


Curriculum

### **Background**

The Curriculum Council Act 1997 gives a clear mandate to the Curriculum Council to develop a Curriculum Framework that is applicable across all years of schooling in Western Australia, from kindergarten to year 12. The Council also has specific responsibilities for the accreditation of courses of study, and for the assessment and certification of student achievement in post-compulsory schooling.

The Curriculum Council is the forum for all stakeholders to come together and reach consensus on directions for K-12 education in Western Australia.



In May 1998 the Council began a Statewide review of post-compulsory education. Extensive research and consultation were undertaken to obtain the views of the community on new directions for years 11 and 12.

Included in the process was the circulation of a *Discussion Paper* that outlined a range of possible concepts for change. This was followed by the *Post-Compulsory Education Review Position Paper*, which further developed the positions that had emerged as a result of the consultation process. This paper was released in November 2000 for eight months of intensive consultation.

Some 3,500 students, teachers, parents, schools, education and training agencies, universities and industry and community organisations throughout Western Australia have contributed to the review since it began by participating in information sessions, workshops and public meetings, completing questionnaires and making written submissions.

As a result, the initial proposals in the *Position Paper* have been modified significantly in the final report, *Our Youth, Our Future.* The directions and proposed processes for change contained in the report are summarised here.

They have been endorsed by all major stakeholders and by the State Government.

# Why change the current post-compulsory arrangements?

During the review, it was acknowledged widely that the existing post-compulsory system had considerable strengths, but there was also a good deal of concern expressed – and evidence provided – that it did not cater adequately for all students eligible for participation in years 11 and 12.

Only two-thirds of all students stay on into year 12 and, for some groups, the rates are far lower: for example less than 50 percent of males in rural areas complete year 12 and for Aboriginal students the rate is lower again.

Students leaving school at the end of year 10 are at a serious disadvantage in the labour market, because they are inadequately prepared to operate in what is becoming an increasingly complex and rapidly-changing global community. This is at considerable cost to the community, as those young people who experience the poorest educational outcomes also run the greatest risk of experiencing a host of negative social consequences requiring the intervention of social services, health, policing and other community agencies.

This concern for the life prospects of young people has been central to the review.

The aim has been to construct a post-compulsory education system that: contributes to increasing retention rates to year 12; maximises educational opportunities for students in low socio-economic metropolitan, rural and remote areas; and improves educational outcomes for all students, particularly those who currently have low participation rates in years 11 and 12.

The last major review of post-compulsory education was in 1984 and many of the concerns highlighted have arisen as a result of the pressures on the current system as it has tried to adapt to change over the past decade.

### These concerns include:

- a failure to respond to the interests and aspirations of the one-third of students who leave school early and who may face bleak employment prospects without further education or training;
- an unacceptably large number of young people experiencing poor educational outcomes and therefore not being equipped with fundamental skills essential to participation in society;
- the capacity of a system designed mainly for students wanting to go to university to cope with the rapid growth of vocational learning and nationally-recognised VET in Schools:
- an inadequate emphasis on the transition from school to work or further study and the ability to undertake lifelong learning and adaptation;
- the streaming of students into narrow pathways, inhibiting their post-school options and restricting their subject choices for university entrance compared with their counterparts elsewhere in Australia;
- an absence of explicit and public educational standards against which student achievement is measured and reported; and
- an assessment and reporting methodology that allocates students' scores according to a pre-determined distribution rather than on the basis of their actual achievements.

A system for all students"

### **Principles for the new system**

Throughout the three years of the review there has been consistent support for the Council's fundamental aim for a system of curriculum, assessment and certification that:

- includes all students, by being flexible enough to accommodate their diverse learning needs, interests and post-school aspirations;
- provides for a coherent K-12 focus on the outcomes and principles of the Curriculum Framework and a seamless transition from compulsory to postcompulsory education;
- makes the outcomes of learning and the standards students are expected to achieve explicit for them, their parents, potential employers and post-secondary institutions;
- provides for the achievement of VET
   Units of Competency as an integral part of secondary certification, as required by agreements between all Australian jurisdictions;
- enables students to pursue learning outcomes in areas of study that facilitate their transition to work, vocational education and training or higher education; and
- leads to the award of a high-quality certificate that recognises and records students' achievements when they leave school while encouraging them to renew their learning throughout life.

### Adaptive development and implementation

The Council is committed to a process of adaptive implementation for the agreed reforms. The major feature of this is the empowerment of teachers through trialing, testing and evaluation before each stage begins. There will be a sufficiently long timeframe to ensure that all stakeholders are fully prepared and are able to provide input to new strategies, and to allow further modifications to be made if necessary.

# A flexible post-compulsory system for all students

The new system will have greater flexibility to meet young people's individual needs and interests and to assist them more effectively in moving from school to further education, training, employment and participation in society in general.

It will provide for all students, who, regardless of their achievement at the end of year 10 and/or their post-school intentions, will be able to progress toward higher levels of achievement and qualifications within the one structure. The wide range of options available will be specified clearly and will enable access to university, training and employment.

To ensure that students experience a seamless transition in their learning from compulsory to post-compulsory education, the new system will closely articulate with student progress in the compulsory years (K-10).

### Fifty new courses of study

Some fifty new broad courses of study will be available to students. The course of study list on page 14 is a provisional list, with working titles for each course. The list is based on extensive research and analysis of current patterns of course selection in Western Australia, and will be a starting point for developing the new courses of study. The full range of courses is intended to meet the needs of all students and enable them to learn in a range of settings, including the classroom, workplace and the community.

The courses to be developed by the Council will accommodate each of the existing Tertiary Entrance Examinations (TEE) and Wholly School Assessed (WSA) subjects as well as the most common VET Units of Competency delivered to school students. They will include workplace learning and new areas of study similar to those available to students in other Australian States.

The courses will provide further opportunities for achievement of the *Curriculum Framework* Overarching Learning Outcomes and, where applicable, Learning Area Outcomes. They will also prepare students more effectively for participation in society as responsible citizens.

The courses on the provisional list will receive official status only after consultation and accreditation through Post-compulsory Education Committee processes.

Accreditation will be subject to review every five years.

# Designing courses to cater for all students

A course of study is a defined area of study designed around learning outcomes. These outcomes can be drawn from outcomes either within or beyond the *Curriculum Framework* to encompass the interests and post-school aspirations of all post-compulsory students.

In addition to discipline-specific outcomes, each course will, where appropriate, include outcomes that provide opportunities for students to:

- learn how to use the language and specialised vocabularies of particular disciplines, their typical text types and conventions:
- explore and develop the core shared values of the *Curriculum Framework*;
- demonstrate VET competencies; and
- participate in workplace learning.

Each course will have a manageable number of learning outcomes, essential content and optional contexts for learning structured into semesterised units to provide maximum flexibility for students.

Within each course there will be at least three sets of two-unit combinations. Those enrolled in a course of study for one year will study two semester-long units. Students will be able to select a two-unit combination from a course in their first year of post-compulsory

study followed by another two-unit combination from the same course in their second year. Alternatively, they will be able to select a two-unit combination in their first year and then change to a different course of study in their second year.

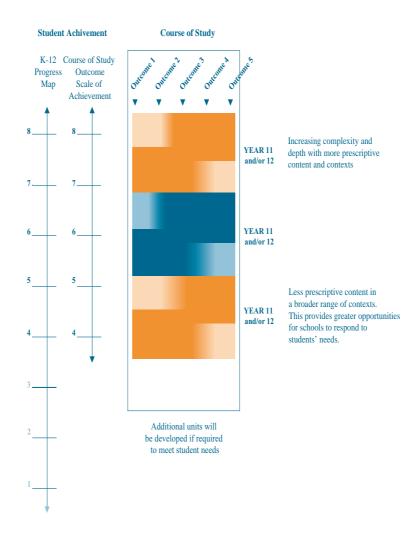
For the purposes of certification a full-time study load will be 20 course units over two years.

The complexity and demand of the content and context will vary between each set of two-unit combinations. The less-demanding units will provide opportunities for access to content in more flexible ways, possibly through a wider range of contexts using more practical learning experiences. Students seeking tertiary entrance will be able to select units for which the scope of the content will be similar to that of TEE subjects.

A range of units in selected courses will be designed for students with disabilities or learning difficulties.

This arrangement will provide support to schools, as they will be able to offer course units with a degree of difficulty that best suits their students (see Figure 1).

Figure 1: Course of Study



### Notes:

### **VET Courses of Study**

VET Units of Competency would be integrated into a course where appropriate. VET as a course of study would also be developed. VET units of competency not related to a course would be available in stand alone VET.

# Providing for Vocational Education and Training in Schools

The Curriculum Council wants to build on the successes of Vocational Education and Training in Schools by expanding the range of options available.

VET Units of Competency will be accessible through integration into a more general course of study or as complementary courses with VET competencies only. VET will also be available in a stand-alone mode unrelated to a course of study, provided that the Units of Competency are from an endorsed Training Package.

All of the requirements for achievement of Units of Competency – including the elements, performance criteria, range of variables and underlying knowledge and skills in evidence guides – will be built into courses during the development process where applicable.

The standards and assessment processes for all three options will be developed in accordance with the National Training Standards Framework for competency-based assessment and quality assurance.

Structured workplace learning will be an essential feature.

The course arrangements will have the flexibility to accommodate students in programs such as school-based traineeships, Fast Track and education support.

### English language competence

A new standard for English language competence will be developed. A minimum of four units of English will be compulsory for all students, regardless of whether they are able to demonstrate the standard prior to entering year 11.

It should be noted that this is a change to the proposition in the full report.

### **Breadth of study**

To ensure breadth of study, a student's overall program will include courses of study that encompass all of the *Curriculum Framework's* Overarching Learning Outcomes, as these address the key competencies and literacy, numeracy and information technology skills, and reflect contemporary thinking about what students need to learn in order to lead successful and rewarding lives.

### Making standards explicit

Standards will be made explicit by describing and illustrating five levels of student performance at increasing levels of difficulty on scales of achievement for each course outcome (see Figure 1).

These standards will be consistent with the proposed progress maps for the *Curriculum Framework* outcomes and competency standards of the National Training Framework.

VET qualifications may be aligned in terms of their difficulty, as appropriate and supported by evidence, to levels on the scale of achievement. The aim is for a given level on a scale of achievement will be comparable in difficulty to a similar level on all other scales of achievement within and across courses of study.

Post-school destinations will be able to specify the standards of achievement they require for entry.

The Council will ensure that students, parents, potential employers and other post-school destinations have clear information about the learning standards achieved by students, irrespective of the context in which they are achieved.

# Assessing and moderating to ensure comparability

The Council will provide a structure for assessment and moderation that meets all national and State legistative requirements. Assessment will reflect the principles of the *Curriculum Framework*, with strong links between school-managed and external assessment.

The scales of achievement will be used to measure progress in relation to the achievement of each course outcome for both schoolmanaged and external assessment, and the levels achieved in both settings will be recorded separately on students' records of achievement.

In response to concerns that reporting on levels that have comparable difficulty could affect the motivation and esteem of lower-achieving students, grades such as 'A', 'B' or 'C' (or some other agreed terminology) will be awarded by schools for each course unit.

Students' achievement of VET competencies will be measured in accordance with Australian Qualifications Framework (AQF) requirements through holistic assessment of performance in the workplace or under simulated workplace conditions.

Competency-based assessment requirements identified in Training Packages and the Australian Quality Training Framework will be implemented. These will complement the Council's own moderation processes.

There will be assessment and moderation panels for each course with responsibility for managing external and school assessment requirements and ensuring that comparability of judgements about achievement in both contexts are comparable.

There will be statistical monitoring of schoolbased and external assessment of student achievement with the retention of a form of statistical moderation, until such time that there is agreement that alternative quality assurance processes indicate that outcomes-focused standards are being applied consistently.



opportunities within and beyond ,
the school environment

# Certification and post-school destinations

Certification will be more flexible than at present. There will be enhanced provision within the statutory obligations of the Curriculum Council for schools to access additional programs (unit equivalents) from other providers, offshore and/or on line (including colleges of TAFE and universities, subject to the policies of these institutions).

For certification, these units will have to be endorsed by the Curriculum Council, and although the Council would prefer them to be outcomes based, they need not be linked to courses of study outcomes.

To receive a Western Australian Certificate of Education (WACE), students will have to achieve the outcomes to some extent from at least five courses of study.

At the same time, they will be required to meet all assessment requirements of 20 course units (including at least three two-unit combinations), of which 16 must have been developed by the Curriculum Council. The remaining four may be unit equivalents developed by schools in partnership with other providers, as indicated above.

VET Units of Competency will be reported according to the requirements of the National Training Framework. Students will be able to continue to add to their Folios of Achievement until they meet the requirements of the WACE (see Figure 2).

### Flexibility to achieve outcomes

Typically, a student wishing to study four units from the one course of study will do so over a two-year period. A full-time load for the purposes of certification is twenty course units over two years. The notional hours for each unit are only intended to be 55 hours, which is the same as in the current system where a full-year subject is 110 hours.

Currently, students typically study six subjects each year. This means that in the new system, students will have up to an additional 220 hours (over two years) to tailor their program to meet individual needs. Specifically, students in this time may undertake or participate in:

- achievement of outcomes to a desired level in shorter or longer periods of time and the recording of that achievement at the end of a semester, a year or two years;
- additional workplace learning as required by a traineeship;
- additional Council-endorsed units that will provide learning opportunities within and beyond the school environment and which respond to local contexts;
- additional Council-developed course of study units;
- part-time study; and
- school clubs and performances.

While it is acknowledged that in most cases schools are the most appropriate providers for the majority of years 11 and 12 students, there is a need for alternative approaches, including the encouragement of innovative ideas for learning and provisions for matureaged students undertaking post-compulsory school programs.

Students will be able to arrange their learning programs so that options for further studies, training, work and/or community living remain open to them when they leave school.



"Additional workplace learning will "be available"

### **Post-school transition**

The Curriculum Council will negotiate with universities, the Department of Training and VET training organisations to:

- ensure that the courses and levels on the scales of achievement are recognised for selection into post-school destinations;
   and
- determine the levels of achievement and associated admission procedures required for entrance to a university or to act as prerequisites for vocational education and training.

For selection purposes, the universities, through the Tertiary Institutions Service Centre (TISC), will be provided with finergrained information about students' levels of achievement of the course of study outcomes. Trialing will be undertaken to test, negotiate and evaluate criteria for admission to post-school destinations.

Figure 2: Overview of systems requirements

### **Approximately 50 courses of study**

### Each course will:

- · include outcomes, content and contexts; and
- provide a choice of at least six semesterised units.

One year of a course is equivalent to two units.

All students undertaking Curriculum Council courses will be provided with a Record of Achievement.

Students who meet the eligibility requirements will also be awarded the Western Australian Certificate of Education (WACE). To be eligible students must have:

- achieved to a designated level on outcomes from at least five courses:
- met all assessment requirements of 20 course units (including at least three two-unit combinations) while being awarded a grade in at least 16 developed by the Council;
- met the requirements for English language competence to a designated level on selected English outcomes;
- · completed at least four units in English; and
- included all 13 Overarching Learning Outcomes in their course selections.

At least 16 of the 20 units selected by students must be from Curriculum Council-developed courses of study.

There will be versions of selected Curriculum Council- developed courses with both VET integrated and VET as a course of study. Workplace learning is included in both versions. Four of the units selected by students may be Council-endorsed and not necessarily linked to a course of study.

Council-endorsed units can be university studies, VET Training Packages, workplace learning or community-developed packages.

### Implementing the changes

The Council favours an adaptive process in which new features are phased in gradually through trialing and testing processes in parallel with the existing system.

This has worked very effectively in other places, ensuring a smooth transition from the old system to the new with minimal disruption to students, teachers and schools.

The rate of change will depend on the readiness and expertise of teachers and other stakeholders, and the availability of resources.

It is envisaged that the first stage of trialing will begin in 2003-04, with all courses of study being converted to the outcomesfocused assessment structure by at least 2009.

Classroom teachers will be involved in the design and development of courses and the trialing, testing and evaluation processes, together with the universities, TAFE colleges and the wider community. This is the approach followed by the present syllabus committees.

There will be continuous consultation during the process.

Arrangements will be made with the training sector and the universities to ensure that students from trial schools are not advantaged or disadvantaged in terms of their eligibility for entrance to post-school courses and work opportunities.

### **Timeline for Trialing**

Trialing	2002	2003
Phase 1  10 courses of study  6 schools	Progress maps completed Course of Study outcomes developed  Course of Study • Scales • Content  Map subjects as unit packages	Consult on course statements  Refine and develop new units
Phase 2 20 courses of study 6 schools	July 2002 Curriculum Council- Endorsed Progress Maps available for course development purposes	Course of Study    Outcomes    Scales    Content  Map subjects as unit packages
Phase 3 20 courses of study 6 schools	As above	Course of Study • Outcomes

2004	2005	2006	2007	2008	2009
Trialing Yr 11 course units and assessment  Negotiate special arrangements with post-school destinations for trial schools	Evaluate, refine and modify Yr 11 course units  Trial Yr 12 course units  Negotiate eligibility levels on scales with post school destinations	All schools introduce 10 courses of study for Yr 11 students  Evaluate, refine and modify Yr 12 course units	All schools introduce 10 courses of study for Yr 12 students		
Consult on statements  Refine or develop units	Trialing Yr 11 course units and assessment  Special arrangements with post-school destinations	Evaluate, refine and modify Yr 11  Trial Yr 12  Negotiate eligibility levels on scales with post-school destinations	All schools introduce 20 courses of study for Yr 11 Evaluate, refine and modify Yr 12	All schools introduce 20 courses of study for Yr 12	
Course of Study  Scales Content  Map subjects as unit packages	Consult on statements  Refine or develop units	Trialing Yr 11 course units and assessment  Special arrangements with post-school destinations	Evaluate, refine and modify Yr 11  Trial Yr 12  Negotiate eligibility levels on scales with post-school destinations	All schools introduce 20 courses of study for Yr 11 Evaluate, refine and modify year 12	All schools introduce 20 courses of study for Yr 12 All 50 courses of study trialed, evaluated and modified

### What will change

# **CURRENT SYSTEM PROPOSED SYSTEM**

### **Curriculum**

Three separate types of curriculum: Tertiary Entrance Examination (TEE) subjects based around content objectives: Wholly School Assessed (WSA) subjects largely outcomes focused; and Vocational Education and Training (VET) programs competency-based.

415 Year 11 and Year 12 subjects.

Only 33 TEE subjects (11 of which are LOTE) count for university entrance.

Year 11 subjects are designed to be delivered in 120 hours and year 12 in 110 hours.

110 hours of VET equates to one year long subject.

Flexibility achieved primarily through the introduction of new subjects, which can be a complex process and in the case of TEE subjects can take many years.

New content or fields of study require syllabus changes or introduction of new subjects. Two and a half years' notice required to inform schools of major change or the introduction of new subjects.

Numerous minor syllabus changes required each year to accommodate changing knowledge and skill requirements.

Curriculum connection with the compulsory years of school not explicit.

### **Standards**

Standards differ for TEE, WSA subjects and VET. Marks and grades are not comparable across subjects within each of these types.

Standards in TEE subjects stem from ranking student performance and are comparable through a scaling process, which is applied after assessment processes have concluded

Limited connection with standards in the compulsory years.

### **Assessment and Moderation**

Assessment structures differ for each type of curriculum. External assessment only available for TEE subjects.

Achievement of VET competencies measured in accordance with AQTF requirements.

### Curriculum

Curriculum structure combines TEE, WSA and VET and focuses on the outcomes that students are expected to achieve to some extent.

VET Units of Competency available through integration into a more general course, as a complementary course with VET competencies only, or as stand-alone VET that is unrelated to a course of study.

Approximately 50 courses of study, which are structured into semester-long units.

All courses of study count towards university and TAFE entrance.

Each semester unit will be equivalent to 55 nominal hours; however, outcomes can be achieved over a longer or shorter period of time. Nominal full time load is 20 units over two years.

Flexibility through choice of at least three sets of two-unit combinations per course. Each pair designed at different levels of difficulty and complexity. Units in some courses designed with students with disabilities and learning difficulties in mind.

Changes in knowledge, skills or technology and the emergence of new fields of study accommodated in most instances without the need to change course of study outcomes.

Courses of study reviewed every five years.

Curriculum connection with the compulsory years explicit through the *Curriculum Framework*.

### **Standards**

Standards made explicit at five levels of difficulty on scales of achievement for each course outcome. The aim is for the levels to be comparable within and across all courses.

Students know standards expected before enrolling in a course.

Standards are not based on the ranking of student performance, however, once standards are established there will be ranking within levels for tertiary selection purposes.

Standards to be consistent with the proposed progress maps for the Curriculum Framework outcomes and competency standards of the National Training Framework.

### Assessment and moderation

One assessment structure for all courses of study. School managed and external assessment available for all students in all courses.

Achievement of VET competencies measured in accordance with Australian Quality Training Framework (AQTF) requirements.

# **CURRENT SYSTEM PROPOSED SYSTEM**

TEE external assessment, mainly pen and paper examinations with some interview processes and performance examinations.

Grades or marks obtained during the year averaged to provide students' final marks or grades.

Separate processes for managing and moderating school and external assessment.

Consensus moderation processes. Curriculum Council and school-based moderators involved in school-visits.

Statistical moderation of school-based assessment used for TEE subjects.

District seminars provide information about syllabus changes and new initiatives.

### Breadth and depth

Students required to undertake 10 Curriculum Council subjects and meet the English language competence requirement.

TEE students must study at least four TEE subjects, of which at least one is a quantitative subject and at least one other is a humanities subject. English is an unlisted subject.

### Certification

All students receive a statement of results and are eligible for the (WACE) if they:

- complete at least 10 full-year Council subjects. Nonembedded National Training Modules/Units of Competency can meet up to 40 percent of this;
- obtain an average grade of C or better in at least eight of the 10 subjects selected, including at least four Year 12 subjects; and
- achieve English language competence. This is a grade of C or better in any one of the Year 12 Curriculum Council English subjects. Alternatively, eligible students may sit the Curriculum Council English Language Competence Test.

Universities require at least one of the four TEE subjects to be quantitative and one other to be a humanities subject. English is an unlisted subject.

Results can be accumulated for up to six years but are typically achieved over a two-year period.

Increased use of alternative strategies for external assessment: eg use of laptops, open book, practical and performance assessment, portfolio, and in the longer term on-line examinations on demand.

Student achievement of outcomes not averaged over the duration of the course. Their highest level on the scale of achievement is reported as well as a grade or equivalent awarded for each unit completed.

Assessment and moderation panels established for each course with responsibility for managing external and school assessment requirements to ensure that judgements about levels of achievement of outcomes are being made in the same way.

Consensus moderation processes strengthened and teacher assessment seminars introduced. AQTF quality assurance processes will complement the Council's moderation processes.

A modified form of statistical moderation retained until there is agreement that standards are being applied consistently.

District seminars replaced with assessment seminars to assist teachers requiring extra guidance to apply standards consistently.

### Breadth and depth

The eligibility requirements for a WACE listed below provide the details for breadth and depth.

There will be a requirement to meet an English language competence standard, to study at least four units of English and for all thirteen Overarching Learning Outcomes in the Curriculum Framework to be included in each student's overall program.

### Certification

All students entitled to receive a Folio of Achievement and will be eligible for the Western Australian Certificate of Education (WACE) if they:

- achieve to a designated level on all of the outcomes from at least five courses;
- meet all assessment requirements of twenty course units (including at least three two-unit combinations) while being awarded a grade in at least sixteen developed by the Council;
- meet the requirements for English language competency;
- · complete at least four units in English; and
- include all thirteen Overarching Learning Outcomes in their course selections.

Four of the twenty units required may be Council-endorsed units that meet designated criteria and are not necessarily aligned to course of study outcomes. These could include stand-alone VET, structured workplace learning, university study and community-based study.

Students able to continue to add to a portfolio of achievement throughout their lifetime until they meet the requirements for a WACE.

### **Provisional Course of Study list**

This is a provisional list, with working course of study titles, which will be adapted, if necessary, during the development process. It may be that more than one course is needed in some areas or that some can be merged.

The list indicates courses for which VET competencies will be available in both an integrated mode and as a course of study. These courses, identified by an asterisk (\*), have strong connections with training packages from which qualifications and competencies have already been negotiated for inclusion in school programs.

Other training packages that may be negotiated in the future are listed in brackets and will be used to inform the development of the courses with which they have been linked. Workplace learning will be included in courses and students will also be able to study VET stand-alone Units of Competency that are not included in this list.

Opportunities may be identified, during the development process, for students to achieve relevant Units of Competency in other courses that are less strongly connected with training packages, such as Electrotechnology with Physics.

Units for selected courses will be developed for students with disabilities or learning difficulties.

Title	Course Overview
Aboriginal and Intercultural Studies	Students explore and are engaged in cross-cultural communication. They develop respect for and empathy with the socio-cultural diversity of Aboriginal peoples and that of other cultures - past, present and future. Students investigate disadvantage and discriminatory practices and participate in their communities to redress issues arising from these practices.
Accounting and Finance* Business Services BSB0 (Financial Services FNB99) Includes workplace learning.	Students understand the principles and practices of accounting and finance, from simple to more complex systems. Through the investigation of realistic financial situations, they appreciate the importance of financial information for decision making in personal, professional and business contexts.
Aeronautics (Aero Skills MEA97 including workplace learning)	Students investigate the theory, environmental impacts and historical and future trends of aviation in a broad range of contexts. They develop theoretical and practical skills to interpret and understand aircraft performance and operations, aeronautics, meteorology, navigation, communication and avionic systems. They analyse the application of aviation law and policies and have the knowledge and understanding to make informed decisions about aviation and its impact on people and places.
Agriculture*	Students learn about and develop skills in sustainable and enterprising use of natural resources, and the development, implementation and management of production and marketing systems across a range of primary industries. They consider the requirements for their local communities when developing strategies appropriate to a range of situations, including commercial and personal enterprises.

### **Course Overview**

### **Applied Information**

Agriculture RUA98, Horticulture RUH98 (Metalliferous Mining MNM99, Forest and Forest Products Industry FPI99)

Includes workplace learning.

Students acquire and develop knowledge and skills related to the creation, manipulation, storage, retrieval and communication of information using a range of industry-level software and hardware. They learn to work in the climate of rapid change associated with information technology and appreciate its impact on individuals and social systems.

### **Automotive Engineering** Technology \*

Information Technology ICA99

Includes workplace learning.

Students use the principles of mechanisms, automotive systems and transportation to analyse the need for transportation in society, the limitations related to current automotive systems, and the impact they have on the environment. They apply technologies to practical situations in a range of contexts such as automotive design and assembly, maintenance and support services, as they use, adapt, maintain or create solutions.

### **Biological Sciences** and Technology

Automotive, Industry Retail, Services and Repair AUR99

Includes workplace learning.

Students assess the impact of biology and its related technologies. Through selecting and applying appropriate scientific methodologies, they investigate biological structures and functions. They use their understanding of relevant concepts to make informed decisions about biological developments and practices.

General Construction BCG98

Includes workplace learning.

Building and Construction\*Students analyse the values and needs of local communities when investigating, planning, designing and constructing built environments. They apply the principles of built environments when considering the impact that building and construction decisions have on industrial, commercial, domestic and community environments.

### **Business Management** and Enterprise\*

Business Services BSB01

Includes workplace learning.

Students study business organisations and how they manage resources to achieve their objectives. They understand business concepts, decision making, planning and day-to-day operations. There is an emphasis on management in relation to styles, communication, marketing, human resources, innovation, change and resources. The ethics and values underlying business management practice and theory are integral to students' learning.

### **Career and Enterprise** Pathways\*

Retail WRR97, Tourism THT98, Hospitality Industry THH97

Includes workplace learning.

Students develop a repertoire of knowledge, skills and attributes related to the world of work. They develop and demonstrate generic and specific industry competencies that equip them to identify, initiate, successfully manage and create personal, community and business work opportunities, including self employment.

### Chemistry

(Laboratory Operations PML99 including workplace learning)

Students analyse and explain chemical phenomena and propose solutions to related problems using their understanding of chemical concepts. By selecting and applying a range of practical and analytical skills, they investigate the structure and functions of materials that make up their surroundings. Students consider the impact of chemistry and its related technologies on society and make informed decisions on appropriate and safe use of chemicals.

### Children, Family and the Community\*

Community Services CHC99 (Health HTP01)

Includes workplace learning.

Students understand ways in which the personal and social futures of children are shaped within families and communities. They investigate models of human development and apply their understandings in a range of contexts including interactions with children, parents, families and other community settings. They understand the role of policy and service provision and develop advocacy skills through active involvement in community and volunteer services.

### **Course Overview**

### **Dance**

Students create, perform, analyse and evaluate dance in a range of historical and cultural contexts using artistic creativity and aesthetic sensibility. They develop spatial awareness, coordination, flexibility, self esteem, confidence, concentration, social awareness, and communication and management skills, through the exploration and integration of technical and aesthetic elements to extend the potential of dance.

### Drama

(Entertainment Industry CUE98 including workplace learning.)

Students create, perform, analyse and evaluate forms and styles of drama in a range of historical and cultural contexts using skills in interpretation of text and individual expression. Through drama, they reflect, explore, shape and symbolically represent ideas, emotions, experiences and consequences in order to define their identity in the context of their immediate surroundings and the broader community.

## **Earth and Environmental Science**

Students investigate geological, biological and ecological aspects of the Earth to assess society's impact on the environment and its resources. They use their understanding of relevant concepts to select and apply appropriate scientific methods and make informed decisions about ecological sustainability.

### **Economics**

(Financial Services FNB99 including workplace learning.)

Students analyse and evaluate a range of contemporary understandings in economics. Within the context of global and local economic systems, they recognise that people have to make choices in their use of limited resources, price, demand, production, equilibrium, international trade, growth, sustainability, equitable distribution, employment and inflation. Students explore and critique the roles of market forces and government policies and develop innovative management and enterprise practices.

### Engineering Studies\*

Metals and Engineering MEM98

Includes workplace learning.

Students investigate, through the principles of engineering, contexts and related industries such as civil, electrical, electronic, mechanical and marine. They consider a range of historical and contemporary issues related to local and global contexts when applying their understanding of materials, systems and the environment to design and develop solutions for a technology-based society.

### English/ESL

(The number of courses will be decided during the development phase)

Students read, view, listen to, speak, design and write a range of print, electronic and visual texts required in their personal and public lives and post-school destinations. Using their analytical and creative skills and knowledge of the conventions of the English language and the ways in which meaning is made, they develop an understanding of the relationship between culture, values, identity and texts

# Food Science and Technology\*

Hospitality Industry THH 97 (Food Processing Industry FDF98)

Includes workplace learning.

Students understand the scientific principles, cultural influences and entrepreneurial opportunities in the Australian food industry. They investigate the influence of cultural diversity on the food, health and lifestyle of Australians and other factors impacting on food selection and consumption. They design, produce and market food products appropriate for a healthy lifestyle in a range of contexts.

### Geography

Students investigate and develop knowledge and understandings about the range of processes that have developed natural and cultural landscapes over time. They understand how the interdependence of people and places is influenced by the interaction of people and the environment and examine ecologically sustainable practices that enhance the relationship of people within the environment.

### **Course Overview**

### **Health Studies** \*

Community Services CHC99 (Health HTP01)

Includes workplace learning.

Students investigate and evaluate the influence of socio-cultural, environmental, political and economic factors on the health of individuals and communities. They apply knowledge, attitudes, values and skills to take effective personal and social action in the promotion of equitable health outcomes. They understand and critique the social view of health in contemporary society.

# **History: Ancient and Modern**

Students develop understandings, and interpret the influence, of significant people, events and ideas from the past. They develop and apply their critical analytical skills to interpret the social, technological, economic, political and moral transformations that have occurred throughout history. They establish connections between past and present events and consider future trends.

### **Human Biological Science**

Students develop knowledge, understandings and skills relating to biological and social aspects of being 'human'. By selecting and applying a range of methodologies, they investigate human structure and function and the evolution of humans and their culture. They make informed decisions about biological and related ethical issues.

### **Integrated Science**

Students develop knowledge, understandings and skills relating to a range of scientific principles and theories through investigation in interdisciplinary contexts such as forensics, optics and consumer science. They select and apply practical and analytical skills to address scientific issues in a range of contexts, solve related problems and make informed decisions that take into account the impact of science and related technologies on society.

### **Languages LOTE**

(The number of courses will be decided during the development phase.)

- Australian Indigenous Languages (national framework)
- First Language: Chinese; Indonesian; Japanese (NSW); Malay
- Second Language: Chinese (interstate); French; German; Indonesian; Italian; Japanese
- Small Candidature
   Languages, eg Modern
   Greek, Spanish

### First Language

Students, having built on their significant cultural and linguistic background in the Target Language, engage with a wide variety of spoken and written texts (including literary texts) that use language in a sophisticated manner and deal with a range of traditional and contemporary socio-cultural issues. Students communicate effectively and appropriately by expressing and substantiating ideas and opinions and through well-structured argument and debate. They move effectively, where appropriate, between the Target Language and Standard Australian English.

### Second Language

Students use the Target Language to communicate with others on topics related to their personal world, the Target Language speaking communities and some common, significant social issues. They communicate effectively and appropriately in both spoken and written form by exchanging information, ideas and experiences. They comprehend and process information from a range of authentic spoken and written texts dealing with these topics. Students understand significant cultural aspects of the Target Language speaking communities and demonstrate this through effective communication in the Target Language.

### **Marine and Maritime Technology** \*

National Outdoor Recreation SR099

Includes workplace learning.

Students analyse factors related to contemporary marine environments and evaluate the impact that humans place on this natural resource. This will facilitate their need to understand, synthesise and apply principles of navigation, meteorology, marine technology and communications to develop practical seamanship, and an appreciation of the related industries' marine environments. They explore opportunities of employment in recreational and commercial boating, and are provided with opportunities to apply practical skills within a wide range of related industrial contexts.

### **Course Overview**

# Materials, Design and Technology \*

Metal and Engineering MEM98 (Light Manufacturing and Furnishing)

Includes workplace learning.

Students design, modify and make products to meet required specifications and needs using their understanding of the nature and function of materials. Through investigation of the properties of natural and man made materials, they select and use these appropriately in a variety of contexts including wood, metals, plastics and fabrics. Students consider the environmental, sociological and technological impacts and constraints of product development.

### **Mathematics**

(The number of courses and units will be decided during the development phase)

Students learn about mathematics, what it is and how it is used in solving problems, recognising that their future personal and occupational needs for the use of mathematics will vary, as will the demands of the time. They learn to deal readily and efficiently with commonly occurring situations that can benefit from the use of mathematics. Their effective and appropriate use of technology supports the learning of mathematics and its application.

Students apply investigative, modelling and problem-solving approaches to their mathematical work, which is underpinned by the study of patterns. Mathematical processes include investigating, generalising, reasoning, explaining, justifying and communicating.

Content areas include number and patterns, variation, functions and graphs, equations and inequalities, direct and indirect measurement, data handling, chance processes and two and three dimensional space.

# **Media Production and Analysis**

(Film, TV, Radio and Multimedia CUFO including workplace learning.) Students design, produce and critically analyse a range of media works from a variety of contexts. Using their analytical and creative skills, and the skills of media literacy, they develop understandings of how media works contribute significantly to the central and dynamic role of media in the creation of personal, social, cultural and national identity, and an understanding of how aesthetic values are constructed.

### Music

(Music CUSO1 including workplace learning.)

Students create, perform, analyse and evaluate music in a range of historical and cultural contexts using available technologies. They explore the fundamentals of performance, composition, listening, Western and non-Western musical tradition in both art and popular forms, and choose from a diversity of ideas to create music works that integrate technical and aesthetic elements.

### Philosophy and Ethics

Students develop understandings of the significant local and global philosophical and ethical positions that influence contemporary society. They apply independent, responsible and critical thinking when developing understandings of factors in personal, local, national and global situations.

# Physical Education Studies \*

National Outdoor Recreation SR099 National Sport Industry SRS99

Includes workplace learning.

Students acquire skills and understandings and critically analyse strategies in human movement contexts. They develop and evaluate plans to optimise physical performance through investigating psychological, biomedical, physiological, cultural and social factors which influence sport and physical activity in local, national and international settings. The personal development of a repertoire of physical skills reflects the value of a healthy, active lifestyle.

### **Course Overview**

### **Physics**

Students analyse and explain physical phenomena and propose solutions to related problems using their understanding of relevant concepts. By selecting and applying practical and analytical skills, they investigate physical phenomena and properties of matter. They make informed decisions on the impact of physics and its related technologies on society.

### **Politics and Law**

Students investigate and, where appropriate, participate in political and legal systems to understand the characteristics of these systems. They demonstrate how people are affected by, and influence, political and legal systems at the local, national, regional and global levels, in terms of democratic process and social justice. Students hypothesise about future directions in political and legal systems.

### **Psychology**

(Health HTP01 including workplace learning.)

Students understand the distinct features of the psychological approach to understanding and accounting for human behaviour. They investigate the relationship between psychology and contemporary issues, and apply analytical, interpretive and critical skills to events likely to be encountered in everyday life. They understand the social, cultural and ethical applications of psychology.

### Recreational and Environmental Studies \*

National Outdoor Recreation Industry SRO99 National Sport Industry SRS99

Includes workplace learning

Students analyse contemporary environmental issues, study the impact of human activity on ecosystems and critique environmental values. They apply their understandings to develop planning, logistical, leadership and interpersonal skills in a variety of environmental contexts such as eco-tourism, conservation and land management, and expedition leadership. They are able to participate within their environment in ways that are safe, ethical and ecologically sustainable.

### **Religion and Life**

Students gain an understanding of spiritual and religious experience and the way this can give people meaning and purpose in their lives. They understand the different visions of life found in the culture in which they live, in order to critically evaluate the opportunities and challenges associated with living in modern society at both the local and global level.

### **Systems Technology**

(Electrotechnology Industry UTE99 including workplace learning.)

Students investigate, create, modify and use systems to meet specific individual, community or client needs in contexts such as electronic, information or mechanical systems. They understand and apply the principles related to the structure, organisation, management, control and assessment of these systems. They analyse the impact of systems on the nature of work and on communities and environments.

### Visual Arts \*

Printing and Graphic Arts ICP99 (Film, TV, Radio and multimedia CUF01)

Includes workplace learning.

Students design, create, produce, analyse and interpret arts works in a range of forms, which integrate technical and aesthetic elements and which reflect a range of historical and cultural contexts. Selecting and using available technologies, they manipulate and extend the potential of works to communicate effectively with specific audiences and for specific purposes.

### **Visual Communications\***

Printing and Graphic Arts ICP99 (Film, TV, Radio and Multimedia CUF01)

Includes workplace learning.

Students know, understand and apply, in an enterprising way, visual communication techniques relating to texts, images, media and multi-media for design layouts in a range of contexts. They understand the principles of graphical communication and develop the skills required to solve technical problems related to achievement of optimum form and impact.



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