

Centre for University
Pathways and
Partnerships

The path less travelled: VET articulation in Tasmania *Final Report*



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Glossary of terms

AQF	Australian Qualifications Framework. This national policy document incorporates qualifications from the school, vocational education and training, and higher education sectors into a comprehensive framework.
Credit	This refers to articulation pathways from vocational education and training (VET) to University, and is measured in terms of credit granted towards a University of Tasmania course of study.
Higher education	For the purposes of this study, higher education refers to University study.
Study area	For the purposes of data collection at UTAS, study areas are defined according to the ASCED classifications used by the Australian Bureau of Statistics. While the names of these study areas are similar to most degree programs offered at UTAS, they do not match exactly these programs or the learning areas in the Polytechnic and Skills Institute. Where there is likely to be confusion, further details will be provided in the report.
TAFE	The major public provider of vocational education and training in Australia. (See 'VET students' for further information regarding TAFE in Tasmania.)
TASACT	The Tasmanian Articulation and Credit Transfer Committee (TASACT) provides high level institutional and sectoral leadership in seeking to maximise credit transfer and articulation arrangements between the Tasmanian Academy, Tasmanian Polytechnic, the Tasmanian Skills Institute and the University of Tasmania (UTAS)
The Tasmanian Polytechnic	In 2009, following a restructure of the post compulsory education sector in Tasmania, two organisations with a vocational education and training focus were created to replace TAFE: the Tasmanian Polytechnic and the Tasmanian Skills Institute. The Tasmanian Polytechnic offers practical hands-on courses with vocational outcomes for those starting a career, changing career or upgrading skills.

The Tasmanian Skills Institute	See 'Tasmanian Polytechnic' above. The Tasmanian Skills Institute focuses on workforce skills development, identifying and providing training for complete qualifications and customised skills sets, based on demand. The Tasmanian Skills Institute has direct contact with industry to ensure that training products and services are aligned to industry needs. training
UniStart	UniStart is a one week program offered prior to the beginning of the semester, designed to help students develop the essential skills required for independent learning and success at University. It guides students through the skills and processes involved in preparing a university-level assignment, the requirements for studying at a tertiary level, effective library use, online learning, presentation and oral communication skills.
UPP	University Preparation Program is an alternative entry pathway into the University of Tasmania. It is an intensive program designed to provide additional skills, confidence and knowledge about university study before commencing a course, and is primarily for mature age students, those who did not complete year 11 and 12, those enrolling in an Associate Degree and those enrolled in a degree who are struggling. A range of units is offered in communications, technology and mathematics.
UTAS	University of Tasmania
VET	Vocational education and training is formal, accredited post compulsory education designed to develop knowledge, skills and attributes of a vocational nature. Training is provided by registered training organisations. Vocational education and training covers levels 1 to 6 of the Australian Qualifications Framework and qualifications are based on national training packages which detail the competencies to be achieved for each qualification.
VET students	This generic term will be used to refer to all students who have completed study in the vocational education and training (VET) sector. For Tasmanian students, this study may have been

completed at TAFE prior to 2009, or at the Tasmanian Polytechnic or Tasmanian Skills Institute from 2009 onwards. For interstate students, this study is likely to have been completed at TAFE. For some students, VET may also have been completed with a private registered training organisation.

Executive summary

The literature shows that rural and regional students are less likely to move to higher education directly from school, and more likely to articulate to University from a Vocational Education and Training (VET) course. This is the case in Tasmania, which led all other States/Territories in 2010 with the greatest increase in the percentage of students undertaking VET. Higher level VET qualifications ensure articulation to University. The literature highlights a range of articulation pathways, including linear pathways based around credit transfer, and dual concurrent pathways resulting in both VET and higher education qualifications. There appears to be little consistency amongst institutions in awarding credit for the same awards, and rates of credit differ considerably. Research shows that the level of intersectoral collaboration between VET and higher education staff, and the level of student awareness of available pathways, can either facilitate or hinder pathway effectiveness.

This study reports on the pathways of students admitted to the University of Tasmania (UTAS) on the basis of previous VET, over a period of 7.5 years, from 2004 to semester one 2011. The study used a mixed methods approach, combining statistics collected from admission and enrolment data from UTAS and completion data from the VET sector (Tasmanian TAFE and subsequently the Tasmanian Polytechnic and Tasmanian Skills Institute) from 2003–2010, with qualitative data from a sample of current UTAS and current Tasmanian Polytechnic/Tasmanian Skills Institute students. Sources of qualitative data were focus group and individual interviews with a sample of current UTAS students (HREC, approval no. H11280) and open-ended questionnaires completed by a sample of current Tasmanian Polytechnic/Tasmanian Skills Institute students.

Since 2004 there has been a gradual increase in the number of students admitted to UTAS on the basis of a VET background, from within and outside Tasmania. Currently these students represent around 11% of total undergraduate student enrolments at UTAS.

Although these students share a number of characteristics with mature aged students, they also bring knowledge, skills and experience gained from formal education and training in the VET sector. Students admitted to UTAS on the basis of previous VET were older than all other student population groups (mean age 34), more likely to be female, more likely to complete their study in the same award and same study area in which they initially enrolled; and likely to complete their course of study as well if not better than other student populations.

Students admitted to UTAS on the basis of previous VET were more likely to enrol in courses in Education, Management and Commerce, Society and Culture, and Health, reflective of the gender bias of students studying in these areas. They are more likely to be granted credit if they are a Tasmanian VET graduate, and Tasmanian VET graduates were granted more credit than interstate VET graduates. Students admitted to UTAS on the basis of previous VET were more likely to be granted credit in Management and Commerce and Education, and more likely to complete their study in Management and Commerce, than in any other study area. They were less likely to be granted credit in Health (Nursing).

They were not a homogenous group. Some had completed their VET study many years ago whilst others had more recent VET experience; some were following a direct pathway from VET to higher education while others were pursuing a career change through higher education, meaning that previous VET was in an unrelated area. Not surprisingly, those following an indirect pathway were less likely to be granted credit than those following a direct pathway. This helps to explain why only 33% of VET students admitted to UTAS on the basis of previous VET from 2004–semester one 2011 were granted credit. There has been a gradual decrease in the proportion of students granted credit since 2004.

A particular gap was identified in relation to the Associate Degree program, which had the second highest enrolment numbers of VET students, yet few students were granted credit for study at this level. This gap was particularly evident in the most popular study areas of Natural and Physical Sciences and Society and Culture. By comparison, just over one third of VET students enrolled in a Bachelor Degree were granted credit. Additionally, the Associate Degree program had the highest proportion of students not completing their study, when compared with other awards. Around half of the students who enrolled in an Associate Degree program (from both VET and other student populations), were no longer enrolled in the program.

When compared with all other student populations, of the students who completed their education, VET students had the shortest average duration of education. Not unexpectedly, VET students who had completed their UTAS education and were granted credit upon commencement of their degree completed their study sooner than VET students who were not granted credit. The same is not true of VET students still enrolled at UTAS, where those who were granted credit had been at University longer than those who were not awarded credit.

The study concluded that delivering the desired outcomes of greater and more successful participation in Tasmania will require concerted effort. It is recommended that funding be sought for a minimum three year partnership project. This project would include but not be restricted to:

1. A review of the Double Advantage program to:
 - wherever possible apply credit consistently and in compliance with the AQF;
 - include pathways to VET (Tasmanian Polytechnic and Tasmanian Skills Institute/complementary awards; and
 - clarify consistent block credit provided into current courses approved for general entry consistent with the AQF.
2. Development of a collaborative marketing program that promotes higher level education and increased participation.
3. Development of a UTAS enabling program that can be delivered by distance or collaboratively with VET teachers which will provide a bridge to University.
4. Development of joint and dual awards in skills priority areas within the context of a clear pilot and implementation strategy.

Introduction

The November 2009 meeting of the Tasmanian Articulation and Credit Transfer Committee (TASACT) accepted a proposal that 'TASACT consider a strategic approach to building an integrated and multidimensional Diversity Fund project which will deliver on pathway and participation targets.' Funding was then provided by UTAS to undertake a research project examining articulation and participation of VET students.

Underpinning the proposal were:

- the Articulation Framework developed by collaboratively between the Tasmanian Polytechnic the Tasmanian Skills Institute and the University and reported to TASACT in August 2009;
- the participation targets set by the federal Government against current Tasmanian participation, and
- a scan of partnership initiatives nationally.

Subsequently, the University of Tasmania has been able to see the emerging outcomes from Diversity and Structural Adjustment Fund grants particularly on the North West Coast and for the Creative Arts area, both of which have contributed to the further development of this concept. However initiatives remain fragmented and progress with mapping slow.

The recently released Pathways Policy in the revised Australian Qualifications Framework (2011) places a responsibility on all issuing organisations to 'have clear, accessible and transparent policies and processes to provide qualifications pathways and credit arrangements for students' (p. 76) and to 'maintain publicly available registers of their credit transfer agreements linked to the AQF Qualifications Register' (p. 78). Implementation of the revised AQF commenced on 1 July 2011 and all requirements must be met by institutions by 1 January 2015.

This report provides important baseline data in relation to mapping articulation pathways and performance of VET students at the University of Tasmania. Knowledge gained from this report will assist the University of Tasmania to streamline articulation processes between the VET and higher education sectors, and better integrate initiatives designed to facilitate articulation and performance of VET students at the University of Tasmania.

Objectives of the study

This report is part of an overarching study with five objectives:

1. Guided by the articulation framework principles, to map pathways from Certificate 11 to PhD using the model established in the Creative Arts including:
 - Agriculture
 - Business
 - Community Services/Social Work
 - Education
 - Engineering
 - Environmental Studies, Built Environment, Sustainability
 - Health Science/Health and Wellbeing
 - Information Technology
2. To analyse the articulation and performance of VET articulants over the past 5 years based on UTAS admissions and enrolment data.
3. To undertake an initial investigation of enabling and inhibiting factors associated with VET pathways to University based on student experience.
4. To investigate the need for possible content of a VET bridging unit/program.
5. To develop a UTAS HEPPP grant proposal in collaboration with the Tasmanian Polytechnic and the Tasmanian Skills Institute.

This report focuses on items 1 to 4, and will provide baseline data to inform item 5.

Context of the study

Overview of the literature

Increased participation in tertiary education is a key contributor to regional development, both economically and socially. The development of effective education and training pathways is critical for workforce development and retention in skill areas of identified need. Yet participation in tertiary education by those in regional areas is below metropolitan participation rates. Those living in regional Australia in general have lower socioeconomic status than those living in metropolitan areas, compounding the disadvantage (Cram, 2010). The Department of Education, Employment and Workplace Relations research (Department of Education Employment and Workplace Relations, 2009) indicates that in relative

terms higher education participation in non-metropolitan Australia has fallen further below that for metropolitan Australia. This research follows earlier work by Department of Education Science and Training (Cumpston, et al., 2001; Sandy Stevenson, Evans, Maclachlan, Karmel, & Blakers, 2001; S. Stevenson, Maclachlan, & Karmel, 1999) that highlighted the growing disparity in higher education participation between metropolitan and non-metropolitan Australia. These findings have been reinforced by a number of reports and studies nationally. For example, the Outer Urban Higher Education Working Party established by the Victorian Government in 2003 found that this disparity was also found in outer urban areas. In 2001 the ratio of equivalent full time student university places to population in inner Melbourne areas was between two and seven times greater than the ratio in outer metropolitan areas (Langworthy, 2004) and the On Track Project longitudinal research into the destinations of schools leavers consistently demonstrates lower levels of post-secondary educational engagement in outer urban and regional areas (Teese, Nicholas, Polesel, & Mason, 2007).

Garlick, Taylor and Plummer (2007) and Taylor et al (2008) argue that access to human capital is the most significant driver of regional economic development in Australia and it is the growing unequal access to this human capital that mostly contributes to the growing economic disparity between high growth major metropolitan regions and the remainder of the nation. This research called for a greater focus on 'enterprising' human capital initiatives by universities for regional development. It also called the leadership role of universities to be strengthened, in partnership with other education providers and regional communities to ensure there is a strategic approach to building broader human capability outcomes in the region and reducing leakage through 'brain drain' and underemployment. It is important that this development should be in situ in the region and not rely on a hubs and spokes model which encourages internal colonialism and a dependence on metropolitan universities (Garlick & Van Ernst, 2010).

This study is set within context of Australian strategies and research to address disadvantage in access to tertiary education by target groups such as rural and remote, Indigenous and low SES students (Bradley, Noonan, Nugent, & Scales, 2008; Cram, 2010; Moodie, 2010). Central to these solutions is improved articulation from VET to higher education.

It is known that rural and regional students are less likely to move directly to higher education straight from school (PhillipsKPA Pty Ltd, 2006). The 5.1% participation rate in higher education in Tasmania is lower than the national average of 5.4%, due to a range of factors including low school retention rates and no family history of

further education (University of Tasmania, 2011). Students enrolling at UTAS share characteristics of students at other regional higher education institutions in that they are likely to come from a regional location, enrol as a mature age student or articulate from a VET course rather than enter higher education directly as a school leaver, and remain in regional areas for work or further study (Richardson & Friedman, 2011).

Despite lower levels of higher education participation, Tasmania led all other States/Territories in 2010 in the greatest increase in the number of students (in percentage terms) undertaking VET study (NCVER, 2010). This supports other research that found VET qualifications as opposed to higher education qualifications are particularly attractive to those in regional and remote areas of Australia (Byrnes, et al., 2010; NCVER, 2010) and supports arguments for better articulation between VET and University, particularly for those in rural and regional areas. However, across disciplines and across institutions, there are variations in the number of students admitted to higher education institutions on the basis of a VET qualification (Moodie, 2010). For example, a higher percentage of students was admitted to Management and Commerce courses on the basis of a VET qualification, compared with Natural and Physical Sciences, and Architecture and Building students (Moodie, 2010). Victorian research in the agricultural sector found very little articulation from VET to higher education and a lack of definition of career and educational pathways within the sector (Primary Skills Victoria, 2005).

However, the level of VET study impacts on articulation, and there has been some concern in Tasmania at a reduction in the number of students with higher level VET qualifications. This occurred at the same time that the *Tasmania Tomorrow* initiative focused strongly on post school outcomes for 15–19 year olds and therefore on lower level VET qualifications. To redress this, as of 2011 the Tasmanian Polytechnic and Tasmanian Skills Institute took steps to promote higher level VET qualifications alongside entry level qualifications. This is important for articulation to higher education, given that the most frequently accessed pathways to higher education are linked to higher level VET qualifications (Diploma and above).

Pathways are formally acknowledged links between AQF qualifications gained across the VET and higher education sectors. Although many of the pathways documented over the past decade or so are linear and based around the credit transfer and recognition of prior learning, the literature suggests the need to broaden the concept of pathways. More recent research into pathways for Construction (McLaughlin & Mills, 2011) and Information Technology (Noonan & Allen Consulting Group, 2010) describes a dual concurrent pathway to meet changing

industry needs, where students graduate with a dual VET and higher education qualification which delivers the benefits of both a practical and theoretical qualification.

One aspect of pathways that has received a good deal of attention is the process of credit transfer and recognition of prior learning. For the purposes of the current study, this review will focus on credit transfer which refers specifically to the granting of exemption, status or advanced standing in a course on the basis of relevant previous or concurrent formal studies (Guthrie, Stanwick, & Karmel, 2011). As a result of the different factors that impact on credit transfer practices and processes, Guthrie, Stanwick and Karmel (2011) note that the amount of credit granted for the same award may vary across institutions. While credit is usually only formally granted after admission, they suggest it may be in the best interests of individuals to compare credit transfer arrangements across institutions before enrolling. Credit transfer processes are generally acknowledged as being time consuming, and existing data suggest that many credit transfer determinations are individual and subjective (Walls & Pardy, 2010).

Rates of credit transfer granted vary considerably across institutions. Reporting on post-secondary schooling across Queensland, Noonan and Allen Consulting Group (2010) note that despite the availability of articulation pathways, uptake is low and only a small number of VET students gain credit for higher-level qualifications. At an institutional level, research by PhillipsKPA (2006) reported anecdotal evidence of 'a significant number' of VET students having been granted credit for study at Edith Cowan University Faculty of Business Studies and Law, during the period 2000–2005. Other case study data reported in PhillipsKPA suggested that some 43% to 46% of VET students received some credit towards their higher education degree at Swinburne Institute of Technology over the period 2003–2005, mainly in relation to study in Business/Commerce.

Effective pathways are identified as those where staff from each sector work collaboratively to create a closer fit between courses (Milne, Keating, & Holden, 2006), jointly contributing towards the transition process (PhillipsKPA Pty Ltd, 2006).

Factors that contribute to effective pathways include:

- intersectoral collaboration between VET and higher education staff to create a closer fit between courses (Milne, et al., 2006), jointly contributing towards the transition process (PhillipsKPA Pty Ltd, 2006);
- a high level of student awareness of pathways linked to four main information sources: teachers or lecturers, career guidance

officers/counsellors, friends and other students, while the internet and other media, along with advertising, were less frequently used (Byrnes, et al., 2010); and

- personal factors such as motivation and self esteem.

Barriers to effective pathways include:

- lack of awareness of pathways due to factors such as lack of adequate promotion and explanation of the process by VET teachers, and poorly developed relationships and communication between VET and higher education staff. VET staff are unwilling to promote pathways when they perceive a lack of consistency and transparency in higher education criteria for selection, and do not receive feedback on the outcomes of their students who have articulated to higher education (Milne, et al., 2006). Student difficulties in accessing reliable information about articulation pathways and processes are also reported in the literature (Milne, et al., 2006);
- sectoral differences between the VET and higher education sectors in terms of educational purpose, governance, knowledge and skill, expectations and modes of assessment, level of personal agency required of students, class sizes and student-staff relationships, along with institutional arrangements (Milne, et al., 2006; Walls & Pardy, 2010). Regarding credit transfer, students entering higher education at the second year level have reported insufficient time to adjust to a new teaching and learning context compared with other students (Milne, et al., 2006);
- lack of embeddedness of articulation where pathways are dependent on the co-operation of individuals or groups who may change.

The differences between VET and higher education highlight issues of transition and academic and social integration. A number of the same issues are identified as barriers by other commencing students, not just those articulating from VET (Milne, et al., 2006).

The recent introduction of the revised Australian Qualifications Framework (2011) and its Pathways Policy, provides the impetus for VET and higher education institutions to review their current processes and practices to 'maximise the credit that students can gain for learning already undertaken' (AQF, 2011, p. 75). This will require greater clarity, transparency and accessibility of equitable and evidence-based credit transfer processes and practices, and an approach which is both

systemic and systematic. In particular, the Pathways Policy provides clear criteria for negotiations between issuing organisations in terms of learning outcomes, volume of learning, program of study and learning and assessment approaches, as well as providing guidelines for determining the amount of credit that Diploma, Advanced Diploma and Associate Degree study should attract for study at a Bachelor level (AQF, 2011).

The Economic Development Plan for Tasmania (Tasmanian Government, 2011) highlights the importance of skills and innovation for the future of the State. It identifies 17 sectors and sub-sectors as priorities. These include food and agriculture and key sub-sectors, tourism, marine manufacturing, specialist manufacturing, renewable energy, mining and mineral processing, forestry and related industries, building and construction, science and research, Antarctic and Southern Ocean, and ICT.

A challenge remains for Tasmania like other Australian regions to educate and retain people whose skills and capacity to innovate can drive the economic future of the State especially when as has been observed, regional students are not undertaking the areas of study that match regional need (Richardson and Friedman, 2011).

VET student participation and articulation in Tasmania

The Tasmanian Polytechnic and Tasmanian Skills Institute

Participation in the higher VET qualifications is a priority for the Tasmanian VET sector as is providing pathways to university.

One of the difficulties in assessing articulation pathways relates to the differing classifications of education and training used by the VET and higher education sectors. While some broad study areas may have similar names, it is not possible to compare these directly in terms of credit transfer, because the content differs. For example, the VET area Primary Industries and Infrastructure also includes Engineering, whereas the Australian Bureau of Statistics ASCED classification used by higher education would include Engineering in the study area of Engineering and Related Technologies. Similarly, content of the VET study area of Technology and Trades would align more closely with the ASCED study area Architecture and Building.

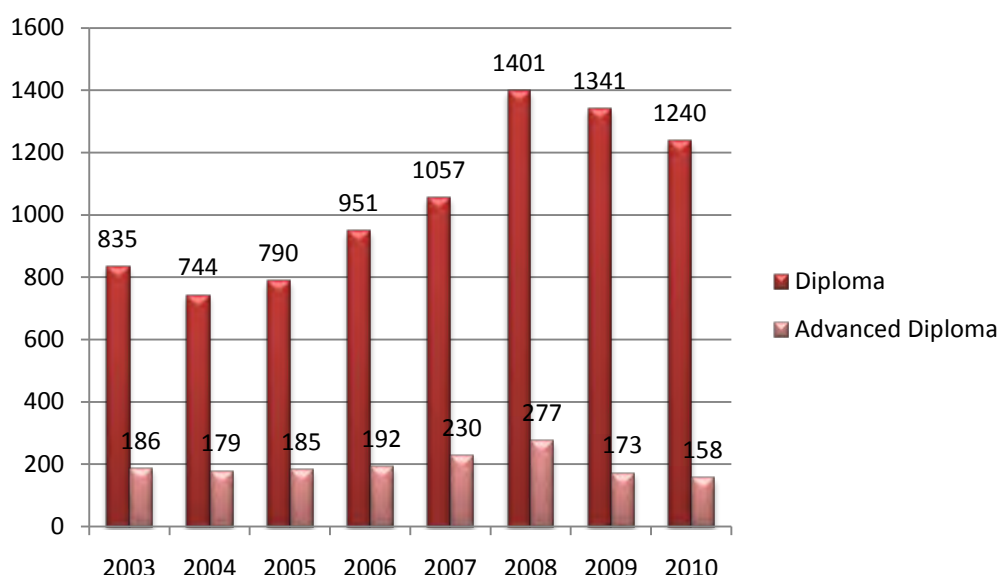


Figure 1: Total Diploma and Advanced Diploma graduates 2003–2010

Data provided by the Tasmanian Polytechnic in relation to Diploma and Advanced Diploma students (see also Figure 15 through to Figure 21 in Appendix 1), show that for the years 2003–2010 there was a far greater proportion of students enrolled in Diploma courses compared with Advanced Diploma courses, with a peak of 1401 Diploma graduates in 2008 (see Figure 1). In all areas other than Tourism and Hospitality, many more students undertook study at Diploma rather than Advanced Diploma level. Most of the higher qualification graduates study Business and ICT (833 Diploma and 112 Advanced Diploma graduates in 2010), where a number of pathways exist for articulation to higher education.

Other areas of study had far fewer students:

- Community Services (a high of 214 Diploma graduates in 2009 and identified as a growth area);
- Health and Wellbeing (a high of 105 Diploma graduates in 2010 – noting that the Diploma of Nursing which has necessarily limited places had its first graduates in 2009, and there have been no offering of the Advanced Diploma. This area is identified as an area for future growth);
- Tourism and Hospitality, the one area where Advanced Diplomas have predominated, demonstrates a steady decline from 2003 (19 Diploma and 15 Advanced Diploma graduates in 2010);
- Primary Industries and Infrastructure (which includes all Engineering) demonstrates a steady decline (46 Diploma and 9 Advanced Diploma graduates in 2010); and

- Technology and Trades demonstrates low but relative steady numbers (16 Diploma and 5 Advanced Diploma graduates.

University of Tasmania

The UTAS student admissions website ‘recognises successful TAFE/VET studies as an important entry pathway to higher education study’ and advises that ‘[i]n a number of cases you may be eligible for credit’.

Figures prepared for a recent Australian Universities Quality Agency (AUQA) Audit show VET students as a percentage of all undergraduate enrolments at the University of Tasmania for the years 2006–2010, indicating a marked decrease in 2009. The reason for this decrease is unknown, although it may be due to the fact that data are self-reported by enrolling students, or to administrative error.

Table 1: The proportion of VET students at UTAS as a proportion of all undergraduate enrolments

% of total in	Secondary school	Mature age special entry	Professional qualification	TAFE award	Previous higher education	Other	Total
2006	25.1%	7.5%	0.0%	8.6%	25.8%	33.1%	100.0%
2007	27.4%	6.7%	0.1%	9.9%	22.7%	33.3%	100.0%
2008	24.6%	5.7%	0.1%	11.1%	21.8%	36.8%	100.0%
2009	26.5%	4.8%	0.2%	2.7%	23.8%	41.9%	100.0%
2010	24.4%	4.3%	0.3%	10.9%	22.9%	37.3%	100.0%

Source: Table 3.5 Basis of Admission for Commencing Undergraduate Students, 2006–2010, in *Performance Portfolio Australian Universities Quality Agency*, Chapter 3 Learning Outcomes, University of Tasmania, 2011.

It should be noted that all students seeking admission to UTAS on the basis of VET (TAFE) study are included in the above table, regardless of their VET award. This differs slightly from the target group for this report on articulation and performance of VET students at the University of Tasmania, which only examines VET students articulating to UTAS with an award of Diploma or higher.

The University of Tasmania works in partnership with the Tasmanian Polytechnic and the Tasmanian Skills Institute to offer a double advantage program ‘to enable students to move from one institution to another with ease’

(<http://www.futurestudents.utas.edu.au/VET-polytech/doubleadvantage>).

The program offers students a number of benefits:

- Increased career opportunities
- Reduced university course costs
- Practical and theoretical skills.

The double advantage program is available to holders of qualifications from all VET providers both within and outside Tasmania (i.e. Tasmanian Polytechnic, Tasmanian

Skills Institute, VETs from all states throughout Australia including Tasmania prior to 2009, and other RTOs).

Depending on the study area, the program offers articulation through credit transfer, or concurrent study (see Appendix 2 for details). Credit transfer is available for students with relevant completed VET qualifications to study the following at University: Agriculture, Architecture and Built Environment, Business and Economics, Community Services/Social Work, Creative Arts, Education, Engineering, Environmental Studies, Health Science, Information Technology, Science, Seafarer Education and Tourism. In addition, any VET qualification at Diploma or Advanced Diploma level will attract 25% credit transfer towards Year 1 of a Bachelor of Arts degree.

A concurrent study program is offered in Information Technology computing and information systems, whereby students complete four years' study at both the Tasmanian Polytechnic and the University of Tasmania, although this pathway is not well utilised by students. In some study areas (for example, Business and Economics, Science), credit arrangements are currently under review.

In most cases, credit transfer arrangements relate to completed VET qualifications at Diploma and Advanced Diploma level, although Certificate III and IV qualifications are included for credit transfer in Bachelor of Education programs. Nearly all credit transfer arrangements relate to UTAS study at Bachelor level.

The amount of credit granted differs across disciplines, ranging from 12.5% (1 unit) for students with Certificate III entering Education programs, through to 1.75 years' credit for VET Advanced Diploma hospitality and tourism students who enrol in the BBA (Hospitality Management) or BBA (Tourism Management) respectively.

Existing pathways for the eight study areas featured in this study, are presented in Appendix 3. The areas are: Agriculture; Business; Community Services/Social Work; Education; Engineering; Environmental Studies, Built Environment and Sustainability; Health Science/Health and Wellbeing, and Information Technology.

In terms of extended pathways within Tasmania, a creative arts model has been developed incorporating study at the secondary, senior secondary and tertiary level, mapping pathways of study from Year 10 through to PhD level, across a number of different creative arts streams such as music, drama and visual arts (also see Appendix 3).

Methodology

The study used a mixed methods approach, combining statistics collected from admission and enrolment data from the University of Tasmania from 2004–semester one 2011 and completion data from TAFE, the Tasmanian Polytechnic and Tasmanian Skills Institute from 2003–2010, with qualitative data from samples of current UTAS students admitted on the basis of previous vocational education and training (VET), and current Tasmanian Polytechnic/Tasmanian Skills Institute students.

Quantitative data

Statistical data were compiled on 19 584 enrolling students based on admission and enrolment data from 2004 up to and including semester one 2011. The sample comprised 1902 students who were admitted to UTAS on the basis of previous VET, and a random sample of other student populations admitted on the following basis: Mature Age/Other (4381); Previous Higher Education (5146), Tasmanian Year 12 (7434) and Interstate Year 12 (721). Due to the random selection of other student populations, the considered sample should be reflective of the entire student population. Statistical data were analysed with the aid of SPSS computer software, first for descriptive data in relation to the sample, and then for relational data regarding the influence of a range of variables such as study area, credit transfer and grade point average.

Qualitative data

Qualitative data were collected from two groups of students: current UTAS students who were admitted on the basis of a VET qualification, and current Tasmanian Polytechnic/Tasmanian Skills Institute students. Focus groups were conducted by the researchers with UTAS students (HREC, approval no. H11280). Restrictions in relation to time and access required an expansion of the methodology, to also include individual interviews and online surveys (UTAS students), and written questionnaires administered by Skills Institute and Polytechnic staff.

UTAS students admitted on the basis of a VET qualification were selected randomly by computer, then approached by phone to participate. A total of 49 people was approached (22 in Hobart, 24 in Launceston, 3 in Cradle Coast), with approximately half agreeing to participate. Participation details are provided in Table 2.

Table 2: UTAS interview and survey participants

	Focus Group	Individual interview	Online survey	Total
Launceston	7	3	6	16
Hobart	2	2	2	6
Cradle Coast	-	2	-	2
Total	9	7	8	24

There were 13 females and 11 males. Those who participated represented a range of ages and study areas. Ages ranged from 20–67, with an average age of 38 years. Most were studying for a Bachelor degree, with a very small number completing Associate Degrees. The following broad study areas were represented: Agriculture, Environmental and Related Studies; Creative Arts; Education; Engineering and Related Technologies; Health; Management & Commerce; Natural and Physical Sciences, and Society and Culture. Despite the efforts of the researchers, there were no participants from the Information Technology and Architecture and Building study areas. UTAS data collection was conducted with approval from the Human Research Ethics Committee (Tas) Network, approval number H11280.

Tasmanian Polytechnic/Tasmanian Skills Institute students from the North West and North of the state, representing six teaching areas, were selected by staff from each institution and invited to complete a written questionnaire during class time. There were 70 participants from across the following areas: Diploma of Community Services/Diploma of Community Development; Diploma of Enrolled Nursing; Certificate III Education Support, Certificate III Electro Technology, Certificate III Commercial Cookery and Certificate III Hospitality. Questionnaires were issued and collected by Tasmanian Polytechnic/Tasmanian Skills Institute staff.

Participation details are provided in Table 3.

Table 3: Tasmanian Polytechnic/Tasmanian Skills Institute participants

Course	Female	Male	Not stated	Total Number
Diploma of Community Services/ Community Development	5	2	0	7
Diploma of Enrolled Nursing	27	4	4	35
Certificate III Education Support	14	0	0	14
Certificate III ElectroTechnology	0	5	0	5
Certificate III Hospitality	3	2	0	5
Certificate III Commercial Cookery	1	3	0	4
Total	50	16	4	70

Tasmanian Polytechnic/Tasmanian Skills Institute participants were mainly female, reflective of the study areas selected for participation. Their ages were not sought.

Regardless of method of participation or participant group, all participants were asked to provide brief demographic details regarding their study: course, location and mode. Interviews and online surveys with UTAS students related to three main topics: information about previous VET course/s including information on pathways; their overall experience in transitioning to study at UTAS, including credit transfer arrangements, and advice and recommendations for other students moving from the Tasmanian Polytechnic/Tasmanian Skills Institute to University. Interviews used open-ended questions; the online survey utilised a mix of multiple choice and Likert scale responses as well as a small number of open-ended questions. Written questionnaires for Tasmanian Polytechnic/Tasmanian Skills Institute students contained open-ended questions on four main topics: overall experience of their current VET course; further study plans and awareness of credit transfer; factors that would encourage and discourage further study, and advice and recommendations for other students moving from the Tasmanian Polytechnic/Tasmanian Skills Institute to University.

Qualitative data collected from all sources were analysed manually according to participant group, by identifying themes and sub-themes in relation to topic areas. Themes were triangulated against the literature, as well as from discussions with senior staff from relevant University, Tasmanian Polytechnic and Tasmanian Skills Institute departments.

Limitations of the study

Statistical information derived from admission and enrolment data, rather than collected for the specific purpose of a research study, pose a number of limitations. The data contain self-reported information from students regarding their VET background and it is not possible to verify the accuracy of this information when it was not used as the basis of admission. The researchers are also unable to verify the accuracy of the data in terms of data entry procedures. Additionally, it is not possible to extract from the data the necessary level of detail to enable rigorous analysis of all variables likely to impact on VET student articulation and performance at UTAS, such as the nature and timing of previous VET study. The admission and enrolment data therefore provide a general overview rather than allowing for a detailed analysis of the factors influencing the articulation and performance of VET students. Although qualitative data have been used to flesh out statistical data, it is noted that these data were collected from only a small number of participants, so the range of information collected is necessarily limited.

Findings

VET student enrolments at UTAS

Overall, the number of students admitted to UTAS on the basis of previous VET showed a gradual increase (Figure 2).

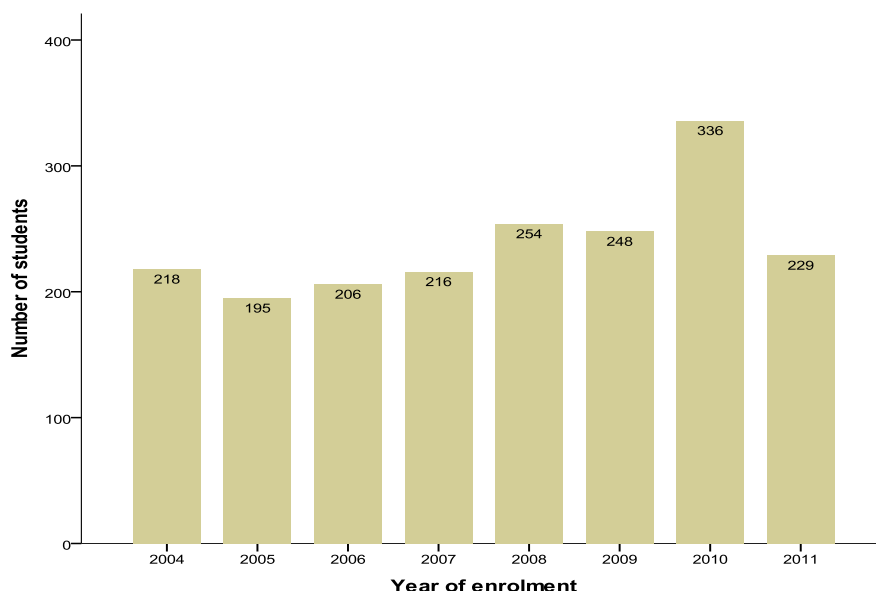


Figure 2: Number of VET students enrolled at UTAS 2004 to semester one 2011

Between 2004–2009, Tasmanian VET student enrolment at the University of Tasmania decreased, while interstate VET enrolment numbers increased (Figure 3). In 2010 Tasmanian VET enrolment numbers increased markedly and there also has been a marked increase in interstate VET enrolments since 2008. As enrolment cut-off dates for semester two 2011 had not been reached at the time of data extraction, we are unable to ascertain if the relatively strong increase in enrolments in 2010 is an unusual occurrence, or if it is the beginning of an upward trend. Care also needs to be taken in interpreting raw figures, because these do not necessarily indicate an increase in the proportion of students admitted to UTAS on the basis of previous VET as a percentage of total student enrolments (University of Tasmania, 2011).

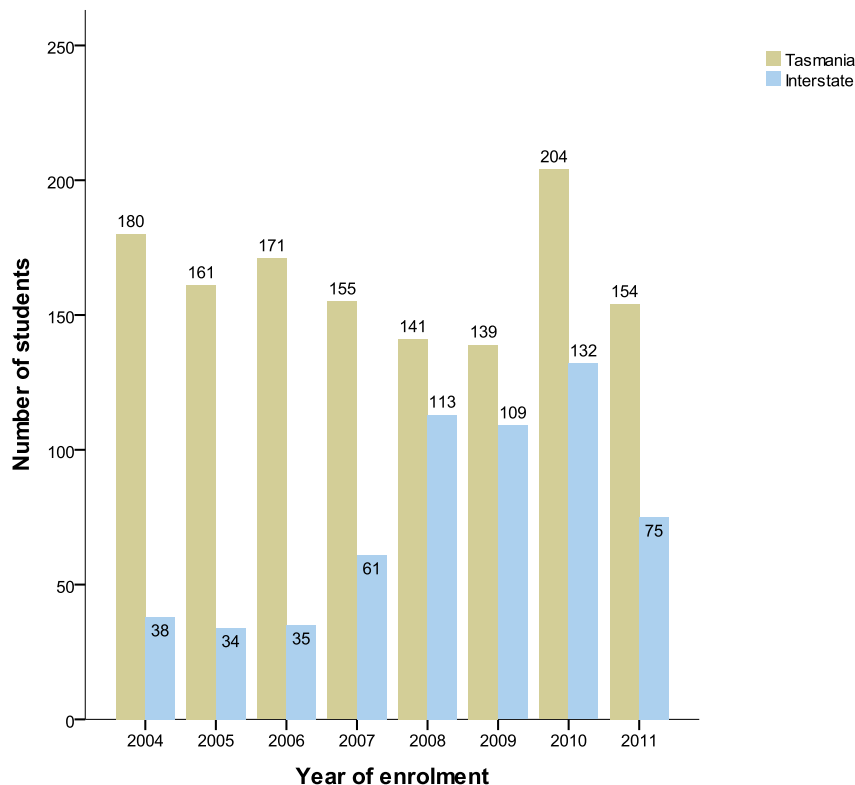


Figure 3: VET student enrolments at UTAS by location of VET study

VET student profile

Students with a VET background enrolling at UTAS 2004-2011 were:

- not a homogenous group (some had completed their study many years ago whilst others had more recent experience; some were following a direct pathway from VET to higher education while others were pursuing a career change thorough higher education);
- older than all other student population groups (mean age 34);
- more likely to be female;
- more likely to enrol in Education, Management and Commerce, Society and Culture, and Health;
- less likely to enrol in Agriculture, Environmental and Related Studies, and Architecture and Building;
- more likely to be granted credit in Management and Commerce and Education;
- less likely to be granted credit in Health Science;
- more likely to be granted credit if they were a Tasmanian VET graduate;
- less likely to be granted credit if they were studying an Associate Degree;

- more likely to complete their study in the same award and same study area in which they initially enrolled;
- more likely to complete their study in Management and Commerce;
- less likely to complete their study in Natural and Physical Sciences and Society and Culture; and
- as likely to complete their course of study as well if not better than other student populations.

Gender, age and study area characteristics of students admitted to UTAS on the basis of previous VET study are similar those of regional higher education students in general (Richardson & Friedman, 2011).

Age

Statistical analysis showed that students admitted to UTAS on the basis of previous VET had a mean age of 34 years on enrolment, the highest mean age of any student population observed (Figure 4). Students who participated in interviews and the online survey were similarly aged. This finding is similar to the reported ages of students with a VET background who were the subject of earlier UTAS research (Abbott-Chapman, 2006). Statistical testing showed significant age differences between all student groups except for Tasmanian and interstate Year 12 students (see Table 14 in Appendix 4 for statistical output). Students admitted to UTAS on the basis of previous VET were between 0.8 and 2.4 years older than those with a previous higher education background, between 6 and 7.6 years older than mature age/other students, and between 13 and 14.5 years older than both Tasmanian and interstate Year 12 students.

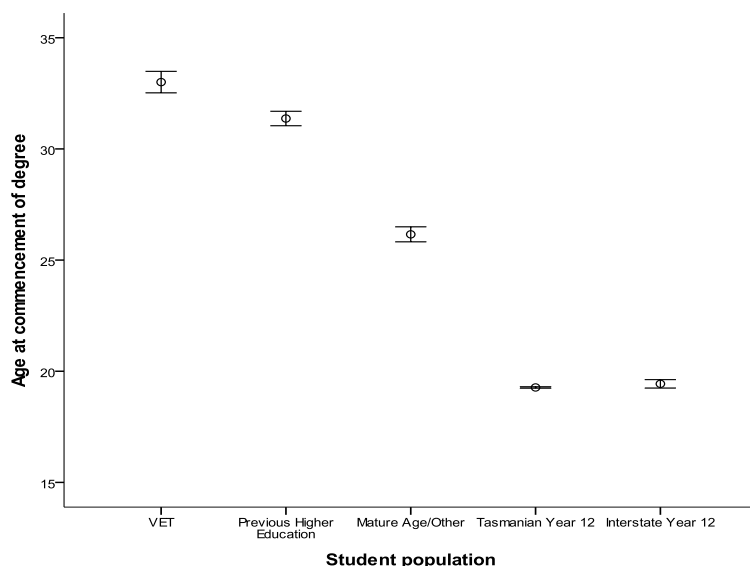


Figure 4: Age at commencement of degree by student population

Location of previous VET study

On enrolment at UTAS, statistical analysis shows that substantially more students identified a Tasmanian VET background (69%) than an interstate VET background (31%) (see Table 4). Interview and online survey participants reflected a similar Tasmanian bias.

Table 4: Number of VET student enrolments Tasmania and interstate

Tasmanian	1305
Interstate	597
Total	1902

Regardless of where they completed VET (Tasmania or interstate), statistical analysis shows that more females (61%) than males (39%) sought University entry on the basis of previous VET (Figure 5). However, there was less of a gender imbalance amongst interstate students with a VET background (54% female, 46% male). Interview and online survey participants were also more evenly balanced in terms of gender.

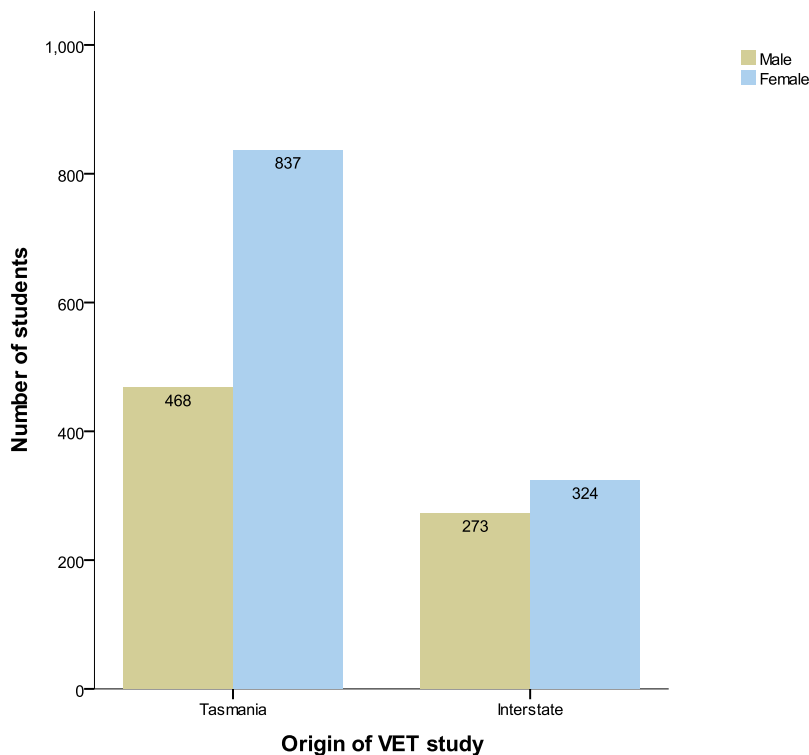


Figure 5: VET student enrolment at UTAS by location of VET study and gender

Enrolment study area

For students admitted to UTAS on the basis of previous VET, statistical analysis shows the highest enrolment numbers were in the study areas of Education, Management and Commerce, Society and Culture, and Health. Areas with the lowest enrolment numbers were Agriculture, Environmental and Related Studies, Architecture and Building, Information Technology, Natural and Physical Sciences, and Engineering and Related Technologies (Table 5).

Table 5: Number of VET student enrolments by study area and credit granted

Enrolment study area	Credit granted		Total
	No (%)	Yes (%)	
Education	237 (59%)	168 (41%)	405 (100%)
Management and Commerce	126 (34%)	240 (66%)	366 (100%)
Society and Culture	266 (79%)	71 (21%)	337 (100%)
Health	257 (99%)	3 (1%)	260 (100%)
Creative Arts	110 (71%)	45 (29%)	155 (100%)
Engineering and Related Technologies	106 (76%)	33 (24%)	139 (100%)
Natural and Physical Sciences	90 (98%)	2 (2%)	92 (100%)
Information Technology	42 (48%)	46 (52%)	88 (100%)
Agriculture, Environmental and Related Studies	28 (88%)	4 (12%)	32 (100%)
Architecture and Building	25 (89%)	3 (11%)	28 (100%)
Total	1287	615	1902

All other student populations reflect a similar trend in relation to enrolment study areas (University of Tasmania, 2011), in particular, a relatively high number of applications in Health and a relatively low number in Science, Engineering and Technology.

Credit granted

One third of all students admitted to UTAS on the basis of previous VET between 2004 and semester one 2011 were granted credit upon commencement of their degree (Table 6). This finding is similar to that of earlier UTAS research (Abbott-Chapman, 2006), which reported a slightly higher credit rate of 37.2%. By comparison, nearly half of the students who participated in the interview or online survey indicated they had been granted credit.

Table 6: Percentage of VET students granted credit on enrolment at UTAS

Total number VET students	1902
Total number granted credit	615
% granted credit	33%

Since 2004 there has been a decrease in the number of VET students granted credit on enrolment at UTAS, and an increase from 2007–2010 in particular, in the number of VET students not granted credit¹ (see Figure 6). In 2010 only 25% of VET students were granted credit, compared with around 31% in 2007 and 50% of VET students in 2005.

Interviews and online surveys suggested there were a number of reasons why credit had not been granted, including failure to claim credit due to lack of awareness or the complexity of the credit transfer process, advice by their VET teacher or University staff not to apply for credit, completion of VET in an unrelated area (wool classing to nursing, for example); and completion of lower level VET study (below Diploma level). Some said they decided not to apply for credit even when they were advised they were entitled, for fear of missing foundational information and concepts if they did not complete the whole course.

¹ References to the number of students not granted credit include those who may have applied but were rejected, as well as those who did not apply at all. This is because separate data are not kept at UTAS in relation to the number of students who apply for credit but have their application rejected.

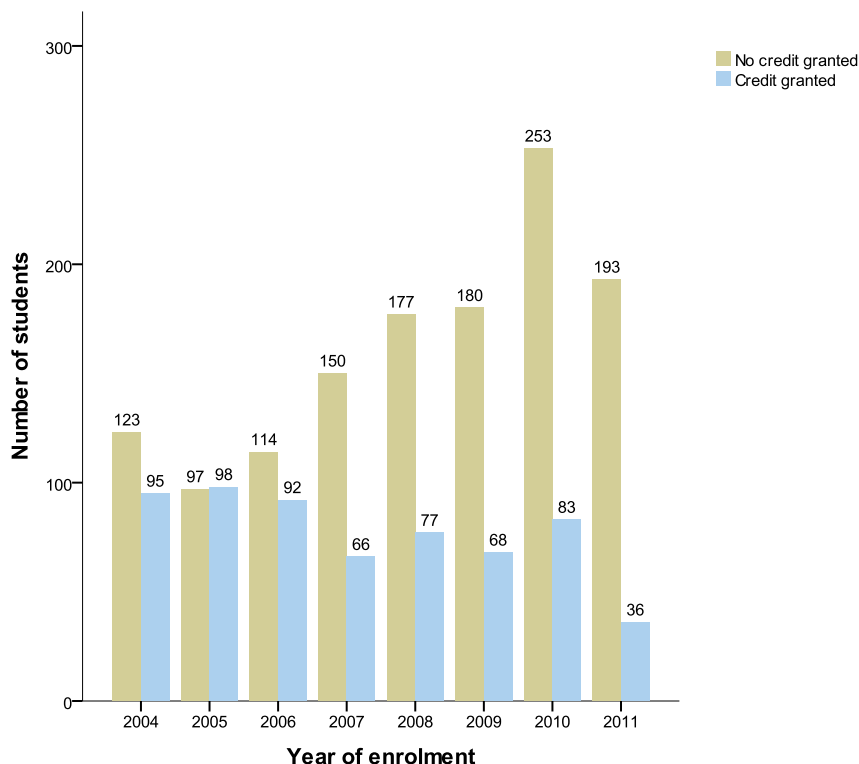


Figure 6: Number of VET students who were granted/not granted credit on enrolment at UTAS

Credit and location of VET

Even though more Tasmanian than interstate VET students enrolled at UTAS from 2004 to semester one 2011, it is clear that Tasmanian students are more likely to be granted credit than their interstate counterparts (see Table 7).

Table 7: Percentage of VET students granted credit by location of VET study

	Total number enrolled at UTAS	Total number granted credit	% granted credit
Tasmanian VET students	1305	518	40%
Interstate VET students	597	97	16%

Credit is measured in terms of the number of units for which advanced standing is given, and calculated in Figure 7 as a proportion of the Equivalent Full Time Study Load (EFTSL) for one year of study. As Figure 7 shows, Tasmanian VET students were granted more credit on enrolment, in terms of EFTSL per one year of study, than their interstate counterparts. Statistical testing showed this to be a significant difference (see Table 15 in Appendix 4 for statistical output).

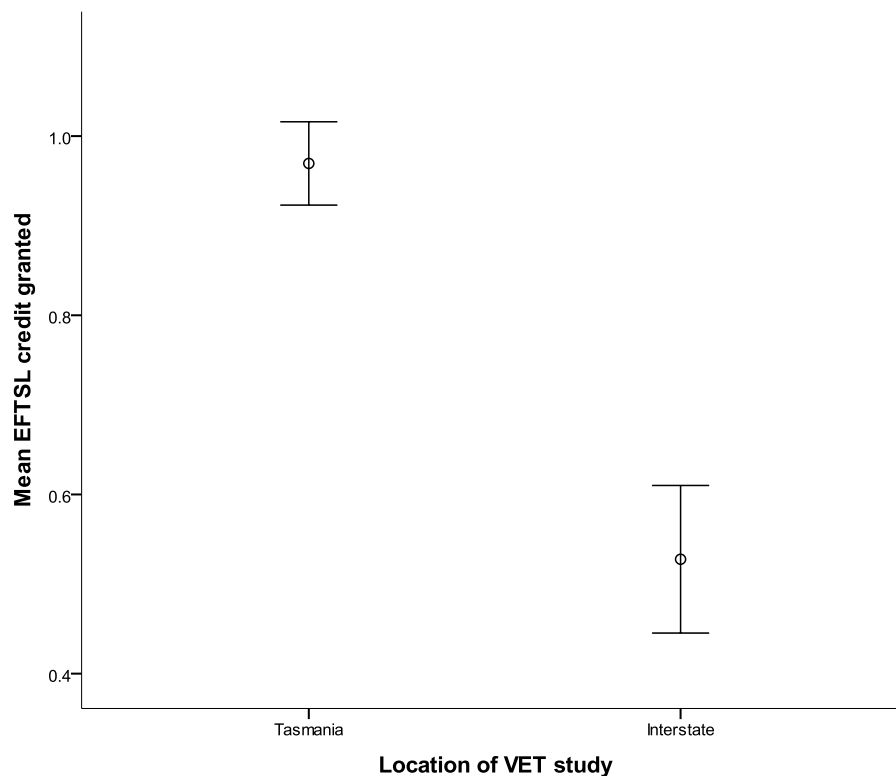


Figure 7: EFTSL credit granted to VET students by location of VET study

Credit, study area and gender

The majority of students admitted to UTAS on the basis of previous VET and enrolled in Management and Commerce and Information Technology were granted credit (see Table 5 presented earlier). For all other study areas, the proportion of students not granted credit was greater than the proportion granted credit. Several study areas show particularly low rates of credit granted: Health, Natural and Physical Sciences, Agriculture, Environmental and Related Studies, and Architecture and Building.

In terms of the relationship between gender and credit, the largest number of male and female students admitted to UTAS on the basis of previous VET and granted credit, were enrolled in Management and Commerce (Table 8). This reflects the high enrolment numbers for this study area (N=366) but also shows that the majority of students enrolled in this study area were granted credit. The high proportion of females granted credit in Education, Management and Commerce, and Society and Culture most likely reflects the predominance of females in these study areas, and the predominance of males granted credit in Information Technology and Engineering and Related Technologies may also reflect the gender bias in these study areas. However, statistics on the gender breakdown for each study area were not available.

Table 8: Number of VET students granted credit by enrolment study area and gender

Enrolment study area	Gender		Total
	Male	Female	
Management and Commerce	69	171	240
Education	10	158	168
Society and Culture	14	57	71
Information Technology	42	4	46
Creative Arts	16	29	45
Engineering and Related Technologies	33	0	33
Agriculture, Environmental and Related Studies	4	0	4
Architecture and Building	3	0	3
Health	2	1	3
Natural and Physical Sciences	1	1	2
Total	194	421	615

Credit and type of pathway

Data from the interviews and online surveys indicated that granting of credit is related to the type of pathway followed: direct or indirect. Some students had a clear aim of where they wanted to go and progressed from VET to University on a discipline path for which they received credit (for example, Diploma of Fine Arts to Bachelor of Contemporary Arts; Diploma of Property to Bachelor of Business; Diploma of Children's Services to Bachelor of Education; Diploma of Electrical Engineering to Bachelor of Engineering). These study areas represented clear pathways. Most students who followed these pathways indicated they were aware of or were advised that they would qualify for credit, although interview data indicate that not all chose to apply for credit.

Questionnaires completed by current VET students at the Tasmanian Polytechnic/Tasmanian Skills Institute also indicated a fairly high level of awareness of credit transfer in the areas where there were established and direct pathways to further study (Diploma of Enrolled Nursing, Diploma of Community Services/Community Development, Certificate III Education Support). Those in areas where there were no established pathways (Certificate III Commercial Cookery, Certificate III Electro Technology) had little awareness of credit transfer.

Some students seeking University admission on the basis of previous VET were doing so as part of a career change, so their previous VET was in an unrelated area where credit was not appropriate (for example, Diploma of Hospitality Management to Associate Degree in Science; Advanced Diploma of Graphic Design to Bachelor of Behavioural Science). These students said they had not claimed and had not expected to receive credit for their VET studies.

Interview and online survey data indicated that students admitted to UTAS on the basis of previous VET are not a homogenous group, although it was not possible to analyse these differences using the admissions and enrolment data provided.

Qualitative data show that some completed their study many years ago (over 20 years for one student interviewed) whilst others have more recent experience; some completed VET in a related area, and others in an unrelated area. Most are likely to have a gap between completing their VET and coming to University. In general, qualitative data suggest that the longer the gap between VET and higher education, the lower the likelihood of being offered credit.

Credit and enrolment award

Statistical analysis shows that most students admitted to UTAS on the basis of previous VET who were granted credit, were enrolled in a Bachelor degree. The proportion of VET students enrolled in an Associate Degree who were granted credit was significantly small (Table 9).

Table 9: Number of VET student enrolments by award and credit granted

Award	Credit granted		Total
	No	Yes	
Bachelor	1068	595	1663
Associate Degree	123	2	125
Advanced Diploma	62	13	75
Diploma	34	5	39
Total	1287	615	1902

The highest proportions of Bachelor students granted credit were in Management and Commerce and Information Technology (see Table 16 in Appendix 4). These findings are consistent with Table 5 (presented earlier) which identified these two study areas as offering credit to a greater proportion of enrolling students than any other study areas.

Other benefits of VET

Interview and online survey data report that the granting of credit was only one of a number of factors that influenced the decision to continue with higher education. For some students, receiving credit was seen as a bonus. Similarly, very few of the current VET students enrolled at the Tasmanian Polytechnic/Tasmanian Skills Institute identified the availability of credit transfer as a factor that would encourage them to continue to higher education.

Aside from the issue of credit transfer, a number of students reported that previous VET study offered a range of benefits in the transition to University, even if VET was in an unrelated area or if it was undertaken some years ago. Benefits were identified as increased confidence in their ability to undertake post compulsory study, skills to cope with and adapt to University study, specific study skills (for example, public speaking, advanced writing skills), and a more general sense of giving students a head start at University. These benefits were particularly important for more than half the students interviewed, who had no family history of higher education:

I wouldn't have gone to University without it ... because I'd been out of schooling for a long time ... I didn't have anybody as a mentor ... which was what I was provided with through TAFE ... [TAFE] gave me confidence, and also learning time management and what was going to be required (female Bachelor of Arts student)

The following comments outline the range of other benefits derived from VET, which assisted students in the transition to University:

I think my vocational education and training made a difference, just making sense of things and questions (male Bachelor of Maritime Technology Management student)

having done some of the TAFE courses my writing skills were better than what they would have been if I hadn't done the courses (male Bachelor of Social Work student)

[VET] gives people an opportunity that without it I'd say there'd be a lot of people that would miss out; I guess it's sort of that leg up to get to that point (male Associate Degree in Science student)

Most current VET students enrolled at the Tasmanian Polytechnic/Tasmanian Skills Institute agreed that participation in VET had changed their attitudes to further study in a positive way, although only around one third thought they would continue with higher level VET and one third with University study². In particular, they noted that '[study is] not as scary as I first thought' (female Certificate III Education Support student) and '[VET] made it clearer how the pathway to University studies was laid out' (male Diploma of Enrolled Nursing student).

Student completion

It should be noted that the following findings include all students who enrolled from 2004 to semester one 2011. Statistical analysis shows that 29% of students admitted to UTAS on the basis of previous VET had completed their University education, 37%

² Care needs to be taken in interpreting these percentages, as some students were included in both categories, while other students were not included in either category.

were currently enrolled in 2011³ and 34% were no longer enrolled (Figure 8). Completion rates for VET students are similar to those across all other student populations.

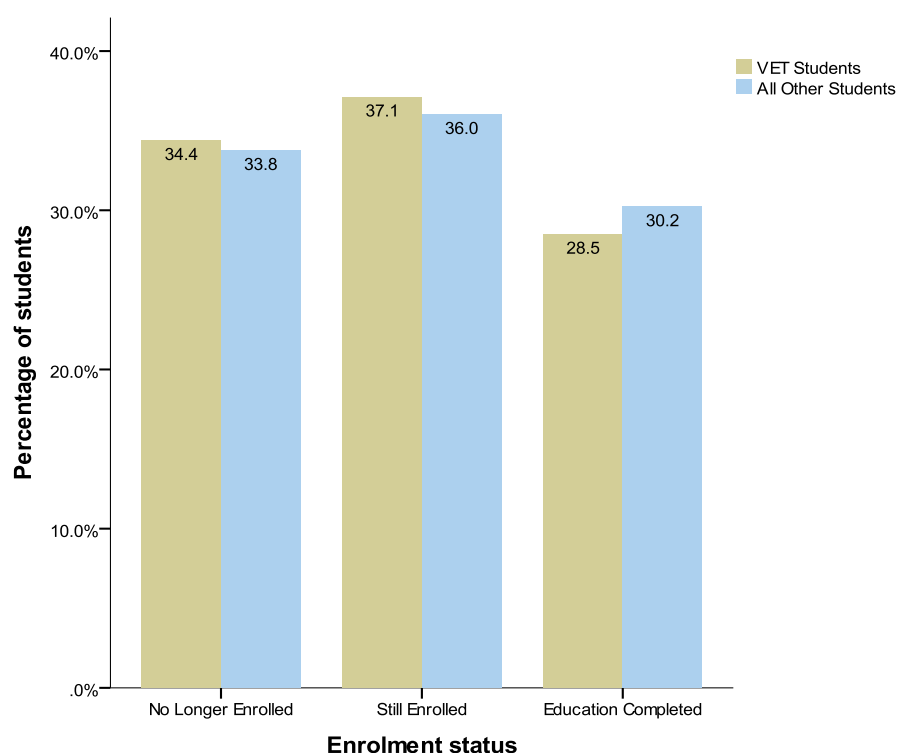


Figure 8: Overall completion rates for VET versus all other student populations

Table 10 provides a breakdown by study area of completion rates for students admitted to UTAS on the basis of previous VET. A similar table is available for all other student populations (see Table 17 in Appendix 4).

Table 10: Completion rates for VET students by study area

Study area	No longer enrolled No (%)	Still enrolled No (%)	Education completed No (%)
Society and Culture	160 (47%)	134 (40%)	43 (13%)
Natural and Physical Sciences	37 (40%)	46 (50%)	9 (10%)
Engineering and Related Technologies	51 (36%)	44 (32%)	44 (32%)
Education	148 (36%)	177 (44%)	80 (20%)
Information Technology	31 (35%)	27 (31%)	30 (34%)
Agriculture, Environmental and Related Studies	11 (34%)	11 (35%)	10 (31%)
Management and Commerce	113 (31%)	81 (22%)	172 (47%)
Creative Arts	46 (30%)	50 (32%)	59 (38%)
Architecture and Building	8 (29%)	14 (50%)	6 (21%)
Health	49 (19%)	122 (47%)	89 (34%)
Total	654 (34%)	706 (37%)	542 (29%)

³ . For the purposes of this report, any student listed as enrolling for any semester in 2011 (including summer, winter and spring) has been counted as currently enrolled.

A greater percentage of students admitted to UTAS on the basis of previous VET and enrolled in Management and Commerce (47%) have completed their education compared with other study areas. Completion rates in Management and Commerce may be due to a number of reasons, including relatively higher levels of credit granted to VET students enrolling in this study area, although there are no qualitative data to support this claim. Qualitative data do suggest that a number of students enrolled in Management and Commerce are also working, either full time or part time, some with the support of their employers, and it may be that successful completion of their course is linked to a sense of obligation to their employer or to ongoing employment.

Table 10 also shows that students admitted to UTAS on the basis of previous VET were less likely to complete study in Society and Culture (47% no longer enrolled) and Natural and Physical Sciences (40% no longer enrolled). The relatively low percentage of students (19%) no longer enrolled in Health shows a good retention rate for this area compared with other study areas.

Area of completion

Statistical analysis shows that students admitted to UTAS on the basis of previous VET tended to complete their education in the same study area in which they enrolled, in much the same way as all other student populations (see Table 18 and Table 19 in Appendix 4). The only exception was Society and Culture, where just over one quarter of students admitted to UTAS on the basis of previous VET completed their education in a different study area. This is perhaps not unexpected, given that study in this area is sometimes seen as a foundation to other courses (for example, Bachelor of Social Work students must first complete two years of a Bachelor of Arts course).

Award on completion

Considering only those students admitted to UTAS on the basis of previous VET and who had completed their education, 52 students (or 11% of those who originally enrolled in a Bachelor degree) completed their education at a higher level than their initial award course on enrolment (see Table 20 in Appendix 4). This shows that students admitted to UTAS on the basis of previous VET tend to complete their education in the same award in which they enrolled. By comparison, across all other student populations, of those students who completed their education, 1189 students (24%) who enrolled in a Bachelor degree completed with a higher award, while 134 students (65%) who enrolled in an Associate Degree and 29 students (37%) who enrolled in an Advanced Diploma completed with a higher award than they enrolled in (see Table 21 in Appendix 4).

Duration of education

Duration of education is measured in years from the start of the year of first enrolment through to either the end of the year of completion or, for non-completed students, the end of the last known semester of enrolment. It should be noted that Summer, Winter and Spring School have been counted as equivalent to 0.1 years of study while semesters one and two count as 0.5 years of study each. Again, any student who has enrolled at any time in 2011 has been counted as currently enrolled.

Statistics on the duration of education were analysed by student population, and by enrolment status and credit granted. Of all students who completed their education, students admitted to UTAS on the basis of previous VET had the shortest average duration of education at 2.9 years (Figure 9). This was, on average 0.3–0.6 years shorter than previous higher education students, 0.3–0.8 years shorter than mature age/other students, 1.2–1.5 years shorter than Tasmanian Year 12 students and 0.9–1.5 years shorter than interstate Year 12 students.

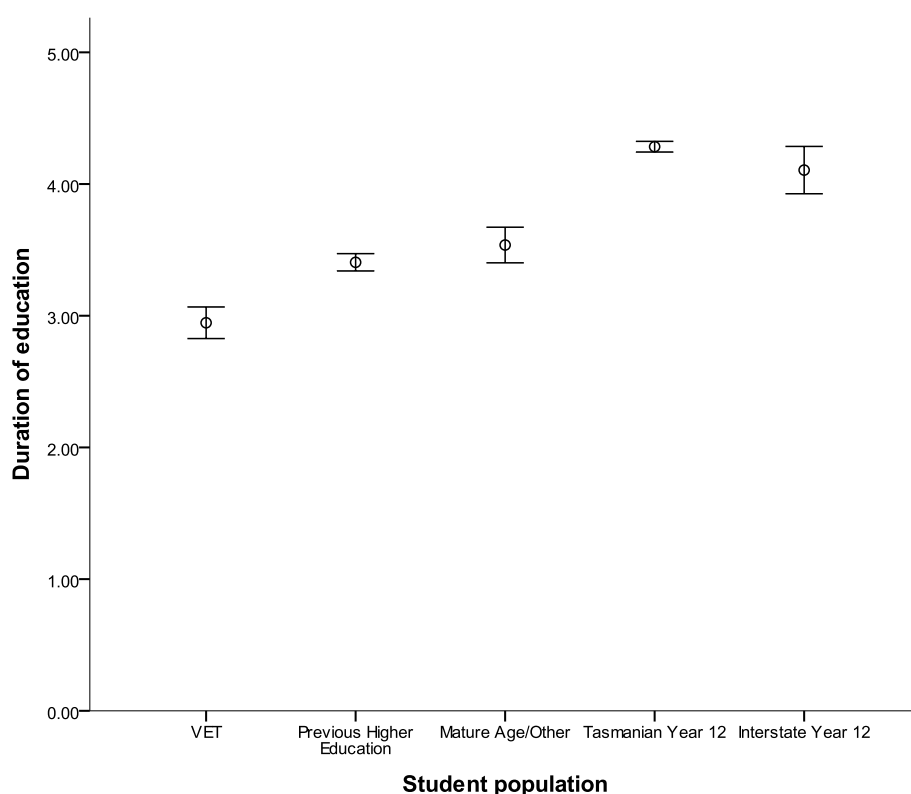


Figure 9: Duration of completed education by student population

There was no difference observed in duration of completed education between previous higher education students and those listed as mature age/other, or between Tasmanian and interstate Year 12 students (see Table 22 in Appendix 4 for statistical output).

There were some differences in duration of education for students admitted to UTAS on the basis of previous VET, according to enrolment status and credit granted (Figure 10). For students who had completed their education, those granted credit spent between 0.2 and 0.6 years less at University than those who were not granted credit, indicating that credit did make a difference for this group in terms of reducing duration of study. However, for students who are still enrolled, those who were granted credit have been at University 0.3 – 0.8 years longer than those who were not granted credit. For those who are no longer enrolled, there was no significant difference in duration of education, regardless of whether they were granted credit or not (see Table 23 in Appendix 4 for statistical output regarding duration, enrolment status and credit received).

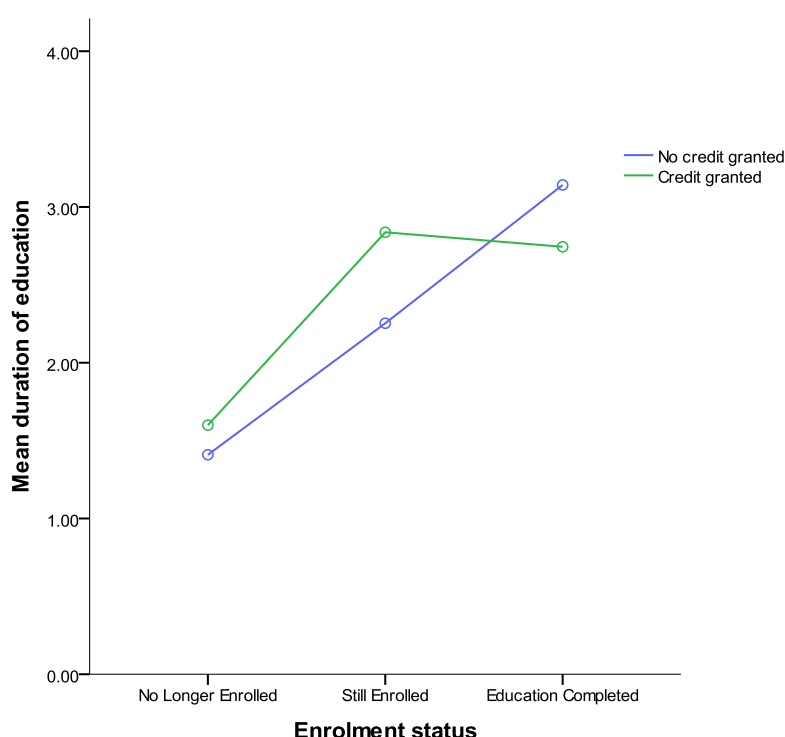


Figure 10: Duration of education for VET students by credit granted and enrolment status

Apart from the fact that students may be studying part time, it is unclear why there is a difference in duration between completed and still enrolled students, as quantitative data did not contain information on the nature and amount of credit granted. Several of the currently enrolled students who participated in interview confirmed that being granted credit did not necessarily reduce course duration. An Engineering student said that if he had managed his enrolment better he may have completed his course sooner, but he didn't feel as though he had the necessary knowledge and information at the time to do this. He described the amount of time and persistence needed to negotiate credit for his previous VET study in a similar field:

One thing that didn't impress me was how the transition from TAFE to Uni was handled ... I really didn't know the process and what was supposed to happen and no-one else seemed to either ... They us seemed to me like they [the University] had advertised you can come from TAFE and get all this credit ... and I turned up and ... it's as though they hadn't dealt with it before ... I didn't really push the point or ask enough questions ... which in hindsight was probably a bit silly ... I just seemed like this boy in the side that didn't quite fit into ... what every other [Year 12 school leaver] student was doing... (male Bachelor of Engineering student).

Several other students also commented on credit and course workload. They said they didn't necessarily think their course would take less time to complete because they had been granted credit, but that it would be more manageable, in that they could spread the workload (for example, complete three units per semester rather than four). For these students, who were trying to balance family/work/study commitments, a more manageable workload, rather than shorter course duration, was particularly valued.

Student performance

Students admitted to UTAS on the basis of previous VET performed as well if not better than the student population on average. This supports findings from earlier UTAS research (Abbott-Chapman, 2006). Statistical analysis shows that on completion of their degree, there was little to no difference in GPA between these students, Tasmanian Year 12 and mature age/other students, and that these students received a Grade Point Average (GPA) that was between 0.3 and 0.5 higher than previous higher education students and between 0.2 and 0.6 higher than interstate Year 12 students (see Figure 11 on the following page and Table 24 in Appendix 4).

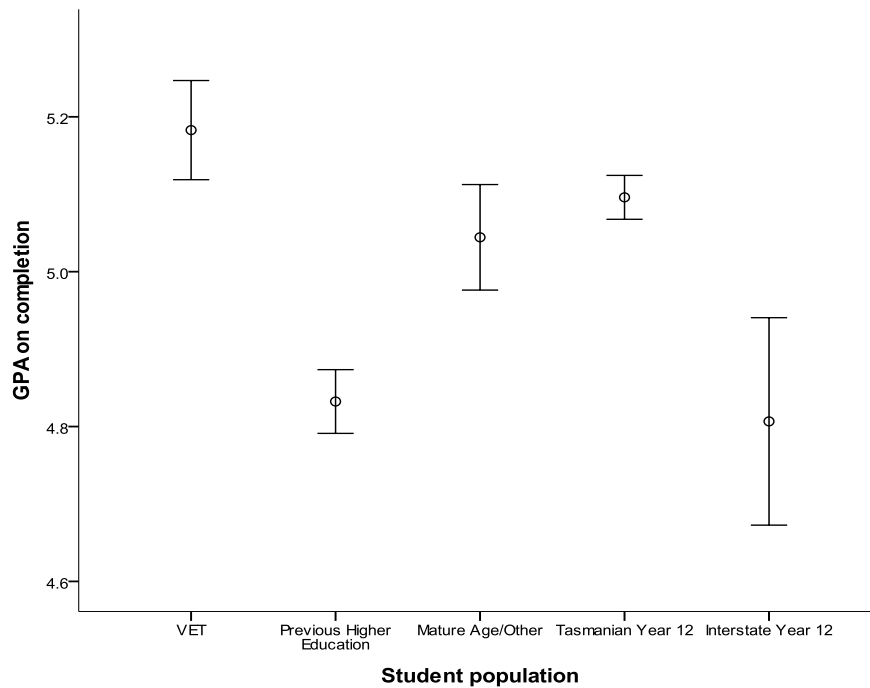


Figure 11: GPA on course completion by student population

There was no difference in GPA for students admitted to UTAS on the basis of previous VET who were granted credit, compared with those who were not granted credit (see Table 11 below, and also Table 25 in Appendix 4).

Table 11: GPA for VET students by credit claimed

Credit Awarded	Average GPA
No	5.3
Yes	5.1

Similarly, there was no observable relationship between the amount of credit granted on commencement (measured by number of units that contribute to EFTSL per year) and the GPA upon completion (Figure 12).

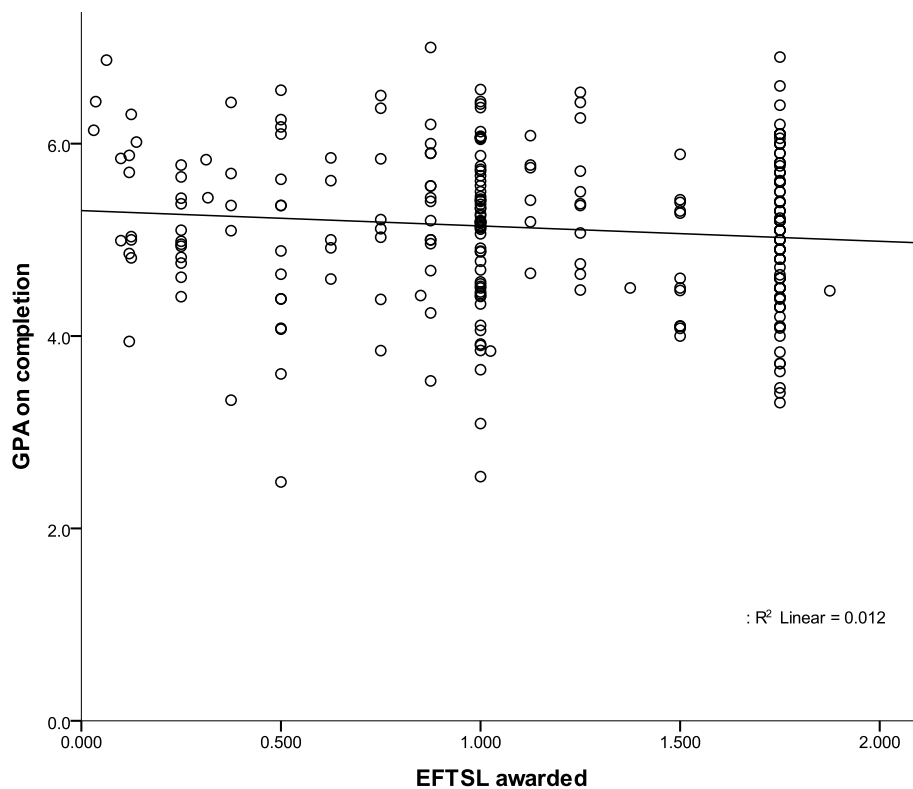


Figure 12: EFTSL on commencement vs GPA on completion for VET students

There was also no observable difference in GPA across different study areas, for completing students admitted to UTAS on the basis of previous VET (Figure 13).

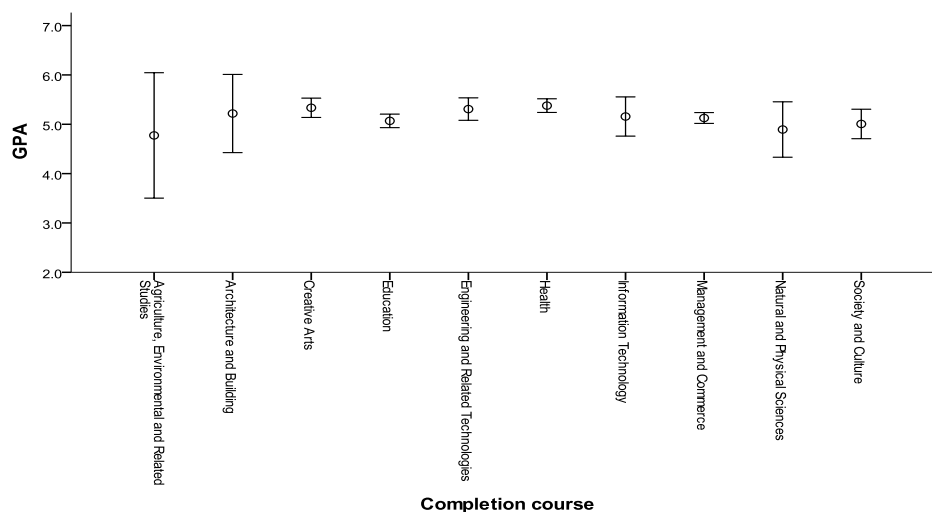


Figure 13: GPA for completing VET students by area of completion

These findings are supported by comments from students in interview, who indicated a strong desire and the capacity to do well in their study, regardless of

whether or not they had been granted credit, and regardless of study area. Some were motivated to do well to 'prove that I could do it'; some were changing careers to move into a field they had wanted to enter for some time and were determined to make the most of the opportunity; yet others were motivated to do well because of the high cost of a University education. Some had a history of continuous learning (informal and formal):

...so the whole time I was upskilling, always (female Bachelor of Business student).

Several students who did not have a family background of further education were keenly aware that they were role models for future generations:

...so I would be the first one ... hey that's another reason to graduate isn't it (female Bachelor of Business student).

Student satisfaction and performance

Interview and online survey data indicated that in general, most students admitted to University on the basis of previous VET were satisfied with their University experience, had high expectations of themselves and wanted to do well:

I think because of what I've done in the past I should be doing well (female Bachelor of Nursing student).

They reported that satisfaction with their study motivated them to do well. Satisfaction was linked to different factors for different students, including effective transition strategies and supports; the ability to maintain work/life/study balance; having a supportive family or workplace; the culture and practices of the particular School in which they were enrolled; adequacy and timeliness of information, instruction and feedback received, and length of time they had been at University. Most acknowledged that things become easier the longer they spent at University and that getting over the first few months was the most difficult thing.

Dissatisfaction affected performance negatively, with one student noting that he was 'just getting by' because of a range of course design and delivery factors that had impacted negatively on his study experience (Bachelor of Paramedic Studies student).

Student satisfaction was linked to the transition process, and to building confidence and overcoming the fear factor. Those who participated in interview and the online survey mentioned the importance of a range of strategies such as effective orientation processes, participation in bridging/enabling courses and individual support (from University staff, from a student mentor).

I enrolled in UPP [University Preparation Program] and did six months. It was excellent, particularly the maths course, and I got distinctions, and it prepared me well for University study ... I am nearly finished my Nursing degree now, and have been getting good marks. University was not as hard as I thought (male Bachelor of Nursing student).

Students from backgrounds without a history of post compulsory study indicated that the University needed to get across the message

that it [higher education] isn't just for really brainy people. They need to build people's confidence (male Bachelor of Nursing student).

Lack of confidence breeds anxiety and fear, which impacts on student transition:

...they probably mentioned UniStart and UPP but I didn't take it in [at the time] because I was full of anxiety and fear (male Bachelor of Social Work student).

The student experience

The following vignettes represent the stories of three students admitted to UTAS on the basis of previous VET. They are not the stories of actual students, but are composite representations of the experiences of a number of students. These vignettes are intended to give an indication of the range of different student backgrounds and experiences, and illustrate different approaches to pathways from VET to University.

Vignette 1: Ben

Ben is in his late 20s, and is single. Several members of his extended family had gone to University, and his father had started University but dropped out at the end of first year to get a job. In the back of his mind Ben thought he would probably go to university at some stage, but his Year 12 results were not high enough. He opted to complete a Diploma of Civil Engineering at TAFE, worked in industry for several years and undertook several modules from an Advanced Diploma, noting that 'I wasn't using VET as a long term plan; it just happened'. Seeking a greater challenge, he was persuaded by friends to enrol full time in Engineering at university. Ben knew that he would qualify for credit because of previously completed VET, so applied. He thought he should have received more credit than he did, but didn't press the matter, instead thinking that his time would be better spent on study rather than collecting further evidence to argue his case. Because Ben had completed VET fairly recently he decided he wouldn't need to do an orientation or bridging program before starting University, preferring to work things out for himself. He admitted that the transition to University was more challenging than expected, and 'struggled for the first few weeks ... but as soon as I got the first assignment back for

which I got a good mark, I thought yes, I can do this now'. He sees his degree as a pathway to a career in project management, most likely interstate, once he graduates from University.

Vignette 2: Grace

Grace is a middle-aged mother with adult children; she and her husband moved to Tasmania from interstate five years ago. No one in her immediate family had gone to University because 'in those days it was expected that you would leave school in Grade 10 and do a secretarial course'. After leaving school Grace worked in a variety of secretarial and administrative positions, and during that time completed several short courses at TAFE. On her arrival in Tasmania she found work in an accounting firm and with the support of her employer, completed Certificate IV in Business Administration and began a Diploma in Business Administration. She found that she enjoyed studying and with the encouragement and support of her employer, decided to enrol in a Bachelor of Business part time, while continuing to work full time. She was advised that she was eligible to apply for credit but decided not to do this, because of lack of confidence and in case she missed important foundational material. Grace did Unistart online, and also participated in the University Preparation Program (UPP), which was prerequisite for mature aged students in Bachelor of Business. She said UPP it was excellent preparation for University study and that 'if I hadn't done UPP I wouldn't have done as well'. She thought all mature aged students should do Unistart and UPP. It will take Grace several more years to finish her degree but she is not in a hurry. Completion of her degree is more for personal reasons than for career development, and is part of her five year plan: 'I had all these things that I'd done but they weren't sitting anywhere ... I suppose that's what University does, it actually puts it all together'.

Vignette 3: Karen

Karen is in her mid 30s, and is married with two young children. She originally came from a small Tasmanian rural community where students from the local high school were not expected to continue beyond Year 10. No one in her immediate or extended family had completed Year 10, so she had little encouragement, even though she enjoyed studying and wanted to become a nurse. She was one of only three students from her community who moved to a regional centre to complete Years 11 and 12. Unfortunately Karen didn't receive sufficient support and advice on subject choices and pathways, so did not qualify for admission to University. Suffering from low self esteem, Karen did 'nothing much' for nearly a year, then spent the next few years working in a range of retail and hospitality jobs that she didn't really enjoy. With the encouragement of a good friend who later became her husband, she started

a TAFE course in multimedia because she had been good at this when she was in senior secondary college, and thought it would lead to a career. Although she was doing well, Karen dropped out before finishing the course because it wasn't what she really wanted to do. Following the birth of her second child she decided that she still wanted to do nursing, although was anxious about the thought of University study. A friend who taught at TAFE recommended that she take Foundation courses in Maths and English courses to help prepare her for University and, to her surprise, she did well in both subjects. Karen then enrolled at University and did UPP which she found invaluable. Although she didn't qualify for credit because her previous VET study was in an unrelated area, Karen acknowledged that studying at TAFE had been important in restoring her self confidence and giving her a sense of discipline and that 'I wouldn't have gone to university without it'. Karen is now in her final year of a Bachelor of Nursing and looking forward to getting a job in either aged care or mental health.

Strengthening pathways from VET to University

Data from questionnaires completed by current VET students at the Tasmanian Polytechnic/Tasmanian Skills Institute suggests the need for transition processes to begin well before University entry, and to be offered collaboratively by the Tasmanian Polytechnic/Tasmanian Skills Institute and the University. They suggest this might include collaborative information sessions, taster classes and summer schools. Most of the current VET students and most of the students admitted to UTAS on the basis of previous VET agreed that a program of University study skills and particularly academic writing skills, was vital in preparing students for the move from VET to University.

Current VET students enrolled at the Tasmanian Polytechnic/Tasmanian Skills Institute and thinking of continuing with tertiary education (either higher level VET or University) are most likely to be motivated by three factors: course availability and accessibility, flexible course delivery, and career enhancement. Factors discouraging this group from continuing with further study are cost and time commitment, particularly in relation to study at University.

Students admitted to UTAS on the basis of previous VET suggested that even where well defined pathways from VET to University existed, students needed to be encouraged and supported to follow pathways, suggesting a role for VET and University staff, along with family and friends. In particular, qualitative data suggest that students need to be encouraged to make the most of the range of orientation, bridging/enabling and support programs offered; and to take control of their own

study (eg. start part time then increase load; don't leave too big a gap between VET and University study).

Discussion

UTAS pathways and AQF compliance

The recently introduced Pathways Policy (AQF, 2011) clearly states that organisational policies and processes should

- ensure that pathways into and between qualifications are available to all students for all relevant qualifications
- be made publicly available, widely promoted and easily accessible to all prospective and existing students ...
- be regularly reviewed to maximise applicability to new and updated qualifications and to student and industry needs (AQF 2011, p 76).

Findings from the current review of articulation and performance of VET students at the University of Tasmania suggest that UTAS is able to demonstrate some measure of compliance with AQF pathways policy in terms of availability, promotion and accessibility of pathways into and between qualifications. However, there are indications that processes and practices differ amongst Schools/Faculties, and that more work will be needed to ensure University-wide compliance with AQF Pathways Policy.

In terms of criteria for negotiating arrangements between issuing organisations for credit towards higher level AQF qualifications in the same or a related discipline, the Pathways Policy (AQF, 2011, p. 77) recommends taking into account comparability and equivalence of learning outcomes, volume of learning, program of study and learning and assessment approaches. In addition, the following guidelines are provided:

- 50% credit for an Advanced Diploma or Associate Degree linked to a 3 year Bachelor degree
- 37.5% credit for an Advanced Diploma or Associate Degree linked to a 4 year Bachelor degree
- 33% credit for a Diploma linked to a 3 year Bachelor degree
- 25% credit for a Diploma linked to a 4 year Bachelor degree

The Pathways Policy also states that 'issuing organisations will maintain publicly available registers of their credit transfer agreements linked to the AQF Register' (AQF, 2011, p. 78).

How well are Tasmanian pathways working?

Number of VET articulants

UTAS figures indicate that while the number of students admitted to UTAS on the basis of previous VET has increased in recent years (10.9% of all undergraduate enrolments in 2010), the trajectory in terms of VET students as a proportion of the total commencing undergraduate enrolment was interrupted in 2009 with a drop to only 2.7% (University of Tasmania, 2011). While some individual institutions such as Swinburne University of Technology report higher levels (29%) of students admitted on the basis of previous VET (Swinburne University of Technology, 2010), Overall, UTAS compares favourably with the national figure of around 10–11% of undergraduate University student admissions on the basis of previous VET, variously reported elsewhere (Guthrie, et al., 2011; Noonan & Allen Consulting Group, 2010; PhillipsKPA Pty Ltd, 2006). However, there is room for growth, and as has been seen at Charles Sturt University (Chambers, 2011), it seems likely that this will see increased numbers of students admitted to UTAS on the basis of previous VET enrolling to study by distance (online) rather than face to face.

Number granted credit and reasons for this

In comparison with other Universities, UTAS has a strong track record in access by equity groups and is ranked four out of five stars in relation to the proportion of students given credit for VET studies (Good Universities Guide 2011, at <http://www.gooduniguide.com.au/ratings/perrating?ratingType=creditVETUG&type=UG&actionSearch=Compare>). Over the period 2004–semester one 2011, around one third of VET students were granted credit for study at UTAS, most of those Tasmanian VET students. It is difficult to find publicly available statistics from other institutions regarding credit, although other research (PhillipsKPA Pty Ltd, 2006) indicates that 43% to 46% of VET students were reported to have been granted credit at Swinburne Institute of Technology over the period 2003–2005). However, these statistics are not directly comparable given the smaller time period covered by the Swinburne statistics.

There should be some concern at the decrease in the proportion of VET students granted credit at UTAS, from around 50% of VET students in 2005 down to 25% in 2010. This is concerning in terms of student mobility and in terms of reduced time and cost efficiencies for students, institutions, and government, areas identified as key drivers of credit transfer (Walls & Pardy, 2010).

From the qualitative data collected for the current study, it is now known that there are many reasons why a relatively high proportion of students admitted to UTAS on

the basis of previous VET were not granted credit, relating to personal, institutional and cross-institutional factors. Although personal factors are beyond the scope of the study, more work is needed at the institutional and cross-institutional level to develop and strengthen pathways from VET to University study in Tasmania. UTAS is the only higher education institution in the State; it is therefore incumbent upon the University as a whole, to undertake a process of continuous improvement so as to maximise the credit that VET students can gain for learning already undertaken.

In particular, the study shows variations in the proportion of students granted credit according to study area, with students admitted to UTAS on the basis of previous VET most likely to be granted credit in Management and Commerce and least likely to be granted credit in Health. Higher rates of credit transfer for VET articulants enrolling in the Business and Commerce field were also reported elsewhere in the research (PhillipsKPA Pty Ltd, 2006). When examining articulation pathways to Management and Commerce, VET students are offered a clearly defined pathway, so that those with a completed Diploma are granted up to 6 units of credit, and those with an Advanced Diploma up to 10 units of credit, depending on the relevance of the VET qualification to the Bachelor of Business. By comparison, in the Health field, higher level VET qualifications in enrolled nursing (Diploma, Advanced Diploma) that would provide a pathway from VET to University have only been offered in Tasmania since 2009, which helps to explain relatively low levels of credit in that area.

Effectiveness of current pathways

Well-developed education, training and employment pathways are a key strategy to address future skill needs within Australia, in terms of recruiting and retaining workers in skill priority areas. Nationally, skill priority areas in terms of job growth are Engineering, Construction and Health professionals, along with skilled trades (Skills Australia, 2011).

At a State level, industries identified as the most potentially significant for Tasmania are Agriculture, Forestry and Fishing; Manufacturing; Electricity Gas Water and Waste Services; Information Media and Telecommunications, Arts and Recreation Services, and Tourism, although it is noted that the largest employers at present are Health and Retail (Department of Education Employment and Workplace Relations, 2011). Identified training priorities within Tasmania focus on upskilling managers in a range of fields such as Agriculture, Hospitality, Retail and Service Delivery; as well as providing skilled technicians and trade workers in Engineering, Information and Communications Technology, Science, Electrotechnology and Telecommunications, Food Trades, Animal and Horticultural work (Skills Tasmania, nd). Training for

professionals, as well as technicians and trade workers, also aligns with a national focus (Department of Education Employment and Workplace Relations, 2011).

Skills Tasmania (nd) identify the existence of clear, integrated pathways across a range of areas, including the priority areas identified at a national and State level. These include Agriculture, Construction (building/environmental design), Financial and Insurance Services (accounting, business management, human resources, marketing, tourism), Information Media and Telecommunications, Professional Scientific and Technical Services (science/engineering), Public Administration and Safety (business management, human resources, marketing), Education and Training, Health Care and Social Assistance, Arts and Recreation Services and Tourism (marketing and management, hospitality).

While pathways to identified priority areas exist, the current study shows that articulation is more effective for some priority areas than others. The need for upskilling of managers in general is being addressed by effective pathways in the Management and Commerce area, although pathways for higher levels skills for managers in specific fields such as Agriculture are less effective. The need for skills training for technicians and trade workers is being addressed better in Information Technology pathways, than in other areas such as Engineering, Science, Agriculture and Horticulture. While Health is a key priority area both nationally and at a State level, articulation pathways for this field of study are not being utilised, indicating the need to examine why this is so. Like regional students nationally, Tasmanian students are less likely to study subjects of direct relevance to their regional economy like Natural and Physical Sciences, Engineering or Agriculture (Richardson & Friedman, 2011).

Whilst pathways need to be linked to identified areas of skill shortage or projected skill need, it is also clear that there is a need to increase participation levels in higher VET in order to maximise pathways from VET to University. Table 12 shows large proportions of VET students enrolled in lower-level certificates, with much smaller proportions in Diploma and Advanced Diploma courses. In particular, the table shows a decrease in the percentage of Advanced Diploma students as a proportion of the whole, from 1.5% in 2007 to less than 1% in 2010. There is a similar trend in relation to Diploma students (8% in 2007 compared with 7% in 2010).

Table 12: VET students enrolled in Tasmania

	2007	2008	2009	2010
Advanced Diploma	651	594	429	483
Diploma	3588	3913	3134	3660
Certificate IV	6378	5808	4594	6366
Certificate III	15 587	17 226	18 571	19 519
Certificate II	10 679	11 901	11 249	14 215
Certificate I	3066	3146	2758	2585
Other non-award courses	2915	3035	2083	2253
Statement of Attainment not identifiable by level	876	608	400	291
Bridging and Enabling courses not identifiable by level	137	9	2	0
Education not elsewhere classified	21	8	20	187
Total	43 898	46 248	43 240	49 559

Source: Prepared by Skills Tasmania 2011

The number of VET enrolments is considerably less than the number of VET graduates. As Figure 14 in Appendix 1 shows, when examining higher level VET graduates (Diploma, Advanced Diploma) from the Tasmanian Polytechnic and Skills Institute, the proportion of Advanced Diploma graduates has decreased in recent years from 18% in 2003 to 11% in 2010.

Pathway effectiveness is also influenced by moves in recent years towards selective, supermarket-style VET, where students complete selected modules rather than graduate from a course. In general, module completers were more likely than graduates to be employed at the time of study and to have completed a previous VET qualification (NCVER, 2011a). National and Tasmanian module completion rates from 2005 are 79.1% and 79.9% respectively (Mark & Karmel, 2010) while completion rates for VET graduates for the same period were 27.1% nationally and 19.5% in Tasmania.

Module completion rather than award completion raises some concerns regarding employment and further study outcomes, as research (NCVER, 2011b) shows that graduates are more likely to be in employment or further study after their training than module completers (87% graduates compared with 74.9% module completers).

Recent NCVER data (NCVER, 2011b) show estimated national populations of graduates and module completers, indicating that in 2011 67% were graduates and 33% were module completers, although in Tasmania in 2011 the proportion of graduates was estimated to be higher than national figures (80% graduates and 20% module completers). This trend would seem to indicate that Tasmania is in an improved situation for articulation. However, these data relate to outcomes for all graduates and module completers as reported by VET students in the Student Outcome Survey. As already highlighted, the vast proportion of VET graduates in Tasmania is in the Certificate II to IV range of qualifications rather than Diploma or

Advanced Diploma. Like the rest of Australia, there is concern regarding higher qualification participation and completion in Tasmania.

More effective pathways

More effective pathways are characterised by relatively high rates of credit and completion. They are also reflective of close working relationships between VET and higher education staff work together who seek to create a closer fit between courses which, in turn, encourages students to articulate (Milne, et al., 2006). Management and Commerce, and Information Technology pathways could be seen as effective because more than 50% of VET students were granted credit. These areas have been identified nationally as effective pathways. In addition to high rates of credit, effective pathways are characterised by high recruitment numbers (Management and Commerce) and relatively high rates of completion (Management and Commerce, Information Technology). It should be noted that the area of Community Services is growing in popularity, with more students undertaking VET in this area and indicating an intention to progress to University.

Less effective pathways

Several study areas show particularly low rates of credit granted: Health, Natural and Physical Sciences, Agriculture, Environmental and Related Studies, and Architecture and Building. Others show relatively low rates of credit granted: Society and Culture, Engineering and Related Technologies, Creative Arts and Education. Less effective pathways are characterised by relatively low rates of credit granted (less than 50% of students), and may also include one or both of the following characteristics: low recruitment numbers (Agriculture, Environmental and Related Studies, Architecture and Building), and high rates of non completers (Society and Culture, Natural and Physical Sciences, Engineering and Related Technologies, Creative Arts, Education, Agriculture, Environmental and Related Studies).

In general, less effective pathways appear to be characterised by lack of specificity regarding credit transfer arrangements (see the University double advantage website reproduced in Appendix 2). In the case of Agriculture, the decision on the amount of credit granted to those with a VET Advanced Diploma also takes into account results from another AQF level, Year 11/12 results, perhaps adding to the complexity and uncertainty of the process. In the case of Environmental Science, advertised credit arrangements create some uncertainty, stating that 'VET students may attract specified or unspecified credit' and that 'credit [is] assessed on case-by-case basis'. In Natural and Physical Sciences credit arrangements are under currently review so there is an opportunity to review the credit transfer process in this area, in order to

increase completion rates for VET students enrolled in this area. In Society and Culture, VET students with a Diploma or Advanced Diploma are offered 25% credit towards the first year of a Bachelor of Arts, considerably less credit than is offered by most other study areas. This may partly explain the relatively high rates of non completion amongst this group.

While Health (Nursing) is an area with very low rates of credit, indicating a less effective pathway, it has relatively high completion rates when compared with other study areas. This suggests that there is potential for the Health pathway to be strengthened for VET students by better identification, documentation and publicity regarding the credit transfer process.

Lessons learnt nationally

Recent years have seen an increase in research and practice in relation to VET pathways, with Simmons (2011) recently identifying 13 different pathway models within Australia. Currently Swinburne University offers both guaranteed places and standard block credit for VET Diploma articulators, with the only proviso being a compulsory bridging course designed to orient students to University study. Other universities, like Charles Sturt for example, are working proactively to increase regional participation through TAFE University collaboration including integrated pathways. Charles Sturt has leveraged their long established distance education articulation pathways in Nursing, Accounting, Social Welfare and Early Childhood to develop TAFE University study centres in a number of NSW TAFE Colleges, where co-enrolment and joint awards are offered. Similarly Deakin University through the 'Deakin at your Doorstep' project has established a joint Associate Degree with a number of TAFE Colleges in Victoria, with delivery leveraging Deakin online provision through especially established study centres.

Conclusions and recommendations

It is recognised that delivering the desired outcomes of greater and more successful participation in Tasmania will require concerted effort and thus seeking funding for a minimum three year partnership project is recommended. This project would include but not be restricted to:

1. A review of the Double Advantage program to:
 - wherever possible apply credit consistently and in compliance with the AQF;
 - include pathways to VET (Tasmanian Polytechnic and Tasmanian Skills Institute/complementary awards; and

- clarify consistent block credit provided into current courses approved for general entry consistent with the AQF.
2. Development of a collaborative marketing program that promotes higher level education and increased participation.
 3. Development of a UTAS enabling program that can be delivered by distance or collaboratively with VET teachers which will provide a bridge to University.
 4. Development of joint and dual awards in skills priority areas within the context of a clear pilot and implementation strategy.

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Appendix 1: TAFE, Tasmanian Polytechnic and Tasmanian Skills Institute data

Table 13: VET students enrolled in Tasmania

	2007	2008	2009	2010
Advanced Diploma	651	594	429	483
Diploma	3588	3913	3134	3660
Certificate IV	6378	5808	4594	6366
Certificate III	15 587	17 226	18 571	19 519
Certificate II	10 679	11 901	11 249	14 215
Certificate I	3066	3146	2758	2585
Other non-award courses	2915	3035	2083	2253
Statement of Attainment not identifiable by level	876	608	400	291
Bridging and Enabling courses not identifiable by level	137	9	2	0
Education not elsewhere classified	21	8	20	187
Total	43 898	46 248	43 240	49 559

Source: Prepared by Skills Tasmania 2011

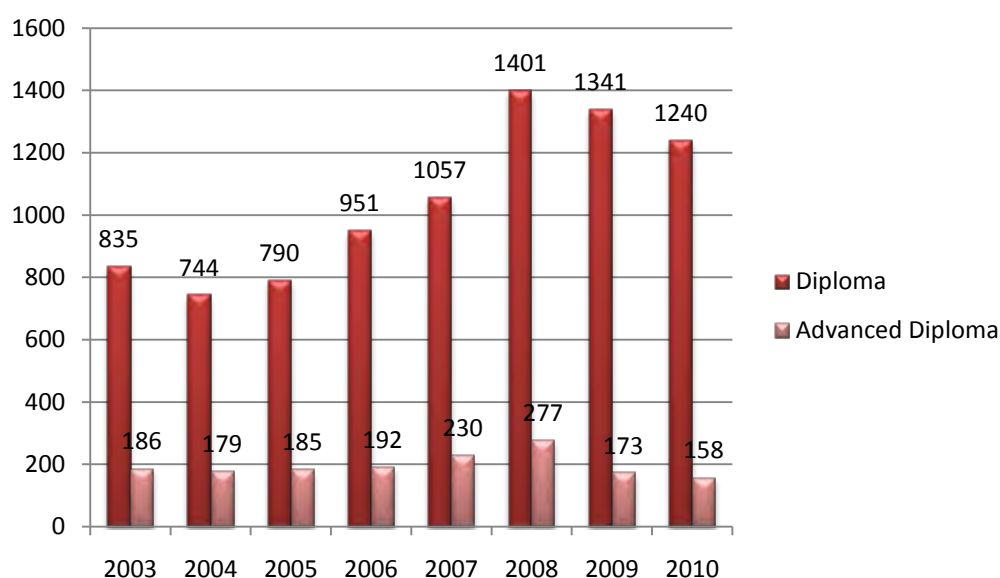


Figure 14: Total Diploma and Advanced Diploma graduates 2003–2010

Note: The table and graph above have already been presented in the body of the report. They are repeated here for ease of comparison.

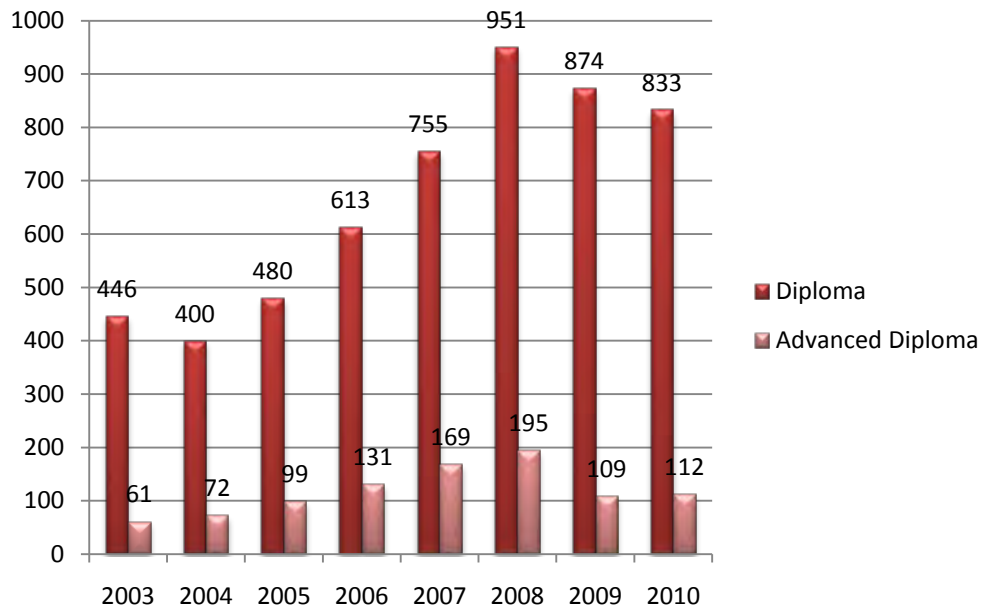


Figure 15: Business and ICT Diploma and Advanced Diploma graduates 2003–2010

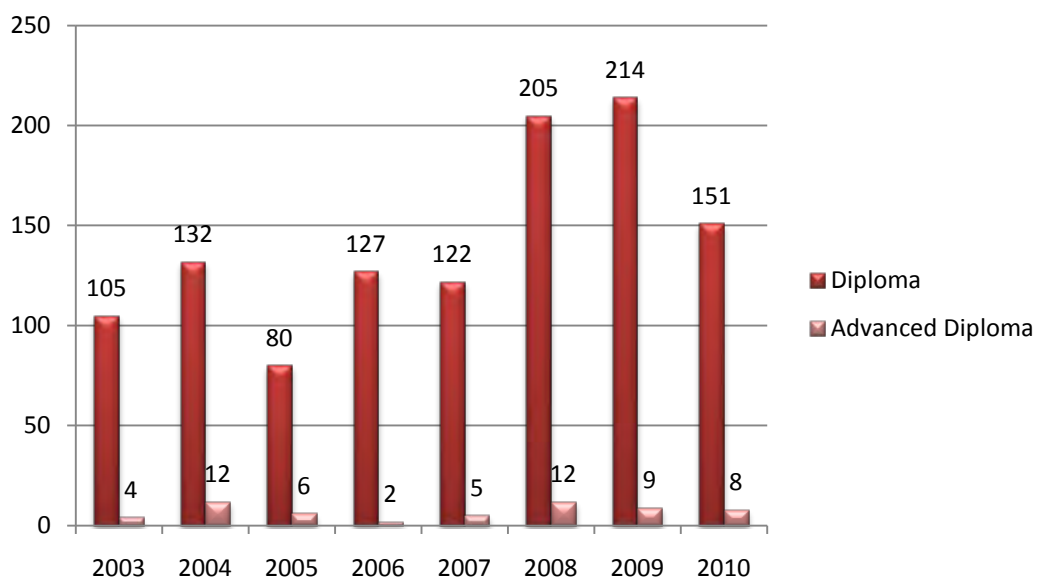


Figure 16: Community Services Diploma and Advanced Diploma graduates 2003–2010

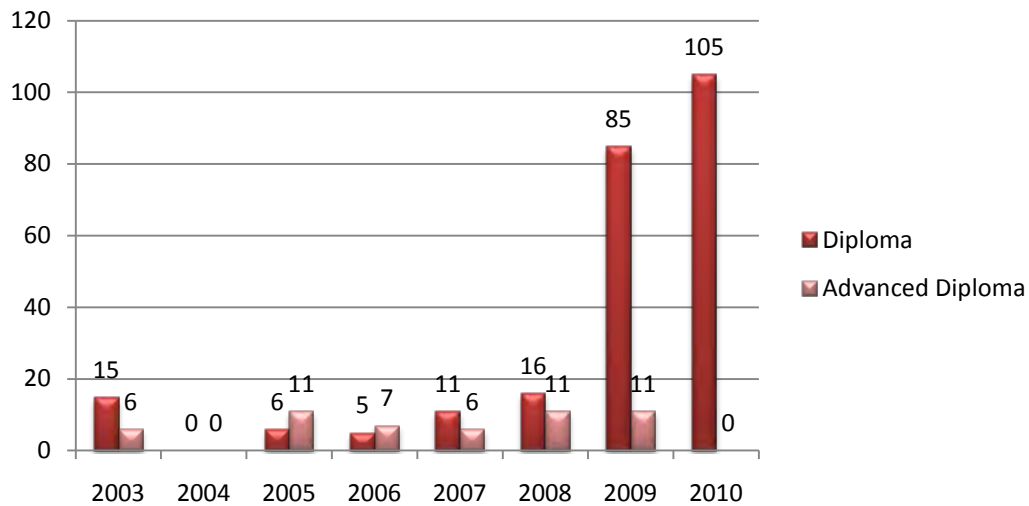


Figure 17: Health and Wellbeing Diploma and Advanced Diploma graduates 2003–2010

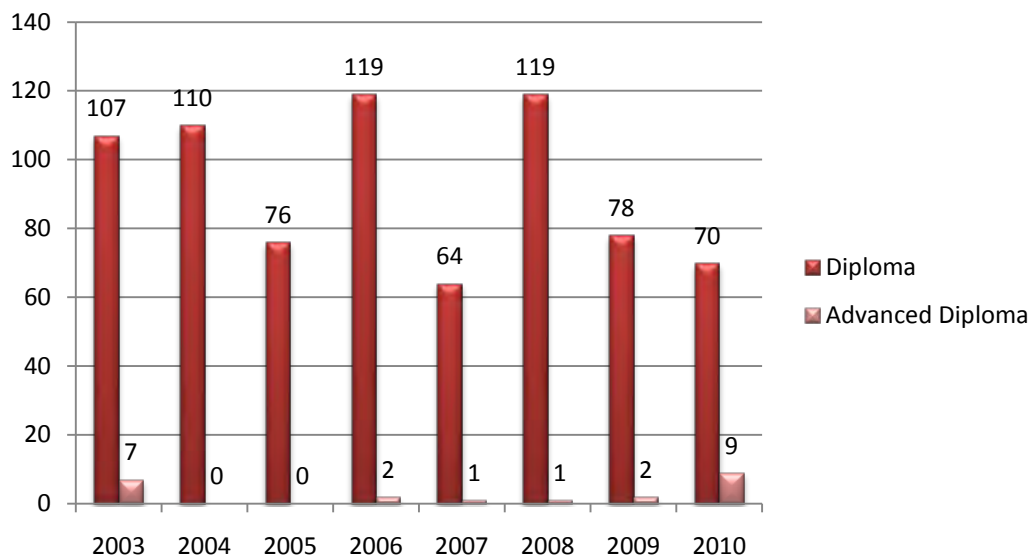


Figure 18: Creative Arts Diploma and Advanced Diploma graduates 2003–2010

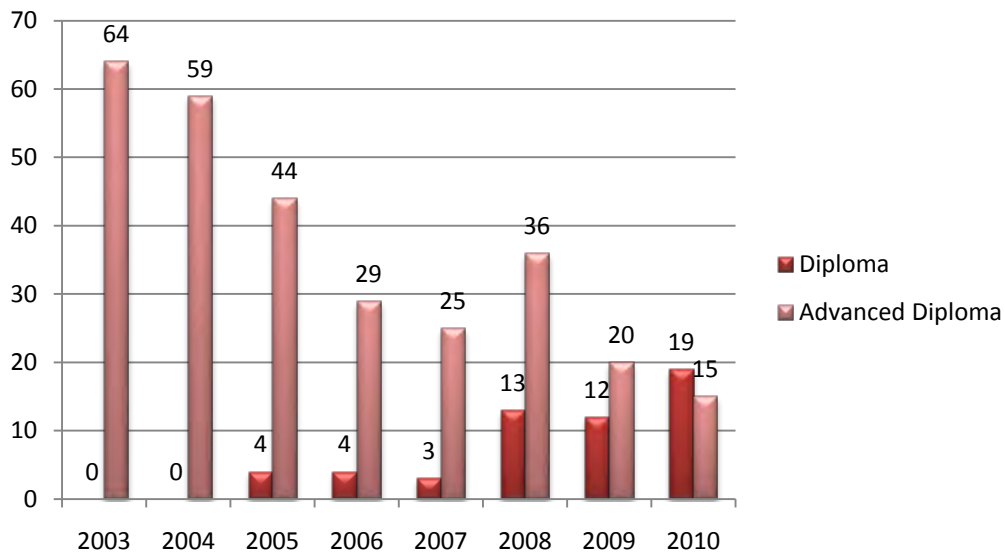


Figure 19: Tourism and Hospitality Diploma and Advanced Diploma graduates 2003–2010

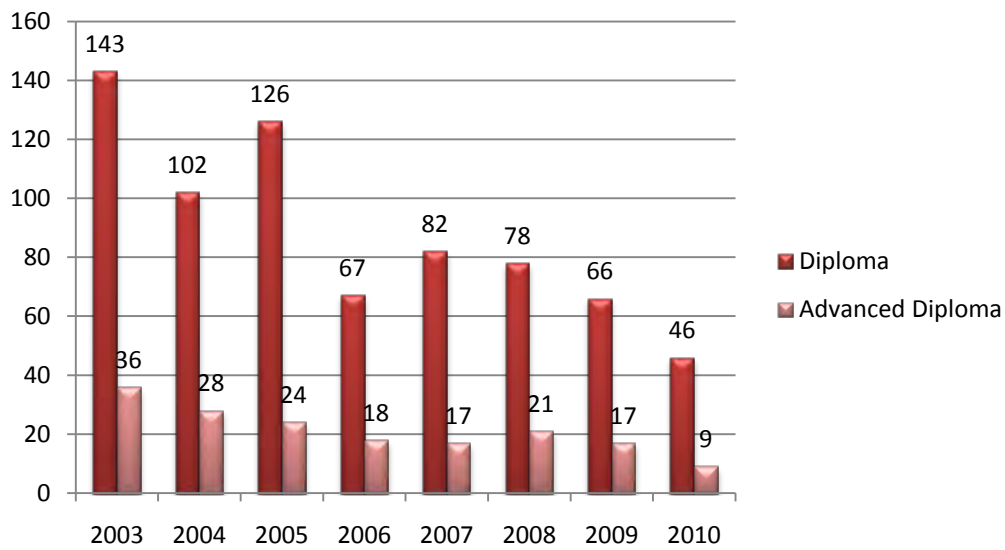


Figure 20: Primary Industries and Infrastructure Diploma and Advanced Diploma graduates 2003–2010

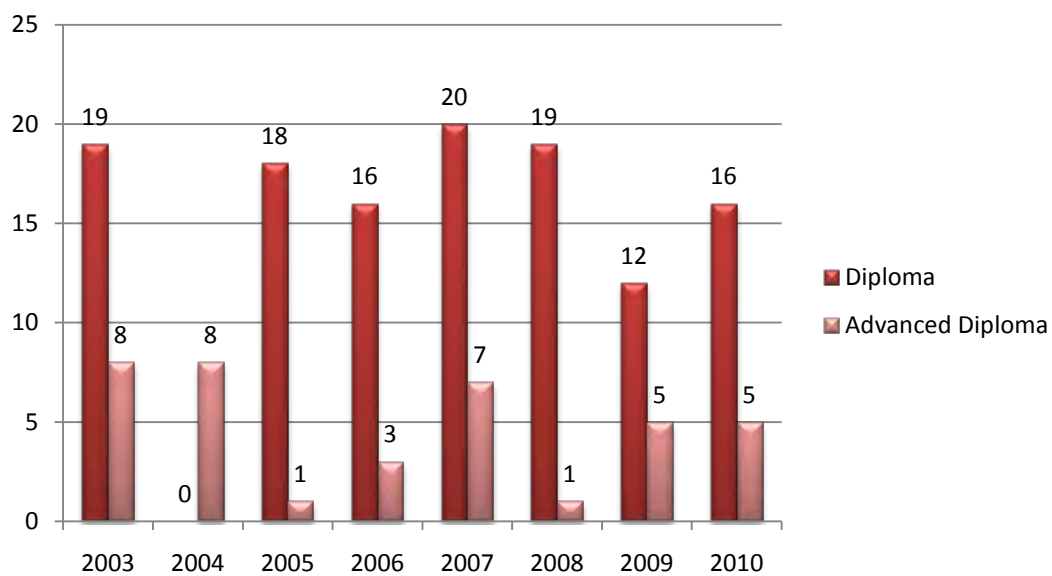


Figure 21: Technology and Trades Diploma and Advanced Diploma graduates 2003–2010

Appendix 2: UTAS arrangements for credit as at October 2011

Source <http://www.futurestudents.utas.edu.au/tafe-polytech/lists>

Completed Tasmanian Polytechnic program	UTAS course	Maximum credit granted	Notes	Potential employment opportunities	Contact person at UTAS
Any Diploma or Advanced Diploma [top]					
Credit transfer					
Any Diploma/Advanced Diploma	Bachelor of Arts	25% credit towards Year 1		Advertising, journalism, radio and television; the arts, heritage and museology; diplomacy, interpreting and tourism; politics, the public service, the police force and the armed forces; teaching, research and publishing, etc.	Kate Lee (UTAS) Kim Foss (Tasmanian Skills Institute)
Agriculture and Horticulture [top]					
Credit transfer					
Advanced Diploma of Agriculture	Bachelor of Applied Science (Agriculture) Bachelor of Agricultural Science	Up to 1 year's credit towards either UTAS degree	Credit granted on an individual basis. Year 11/12 results included in decision.	Agribusiness, production agriculture or horticulture, resource management, private sector, service consultancy or government agencies, forestry, food processing, food technology, waste management, research.	Richard Doyle (UTAS) John Palmer, Workforce Sector Leader, Primary Industries & Infrastructure (Tasmanian Polytechnic) Gayle Jeffery (Tasmanian Skills Institute)
Advanced Diploma of Horticulture	Bachelor of Applied Science (Agriculture) Bachelor of Agricultural Science	Up to 1 year's credit towards either UTAS degree	Credit granted on individual basis. Year 11/12 results included in decision.		Richard Doyle (UTAS) John Palmer, Workforce Sector Leader, Primary Industries & Infrastructure (Tasmanian Polytechnic)

Completed Tasmanian Polytechnic program	UTAS course	Maximum credit granted	Notes	Potential employment opportunities	Contact person at UTAS
					Gayle Jeffery (Tas Tasmanian Skills Institute)
Architecture and Built Environment [top]					
Credit transfer					
Diploma of Building Design & Technology Advanced Diploma of Building Design & Project Management	Bachelor of Environmental Design	Up to equivalent of 1 year's credit.	Credit may be allocated across Years 1 and 2, depending on modules completed in Tasmanian Polytechnic program		Catriona McLeod (UTAS) John Palmer, Workforce Sector Leader, Primary Industries & Infrastructure (Tas Tasmanian Polytechnic)
Business and Economics [top]					
Credit transfer: Note - all arrangements currently under review					
A completed Diploma/Advanced Diploma of Accounting	Bachelor of Business	Up to 6 units credit on basis of Diploma Up to 10 units credit on basis of Advanced Diploma	Total credit granted depends on relevance of Diploma/Advanced Diploma to proposed major in Bachelor of Business	Accounting, economics, logistics, corporate governance, entrepreneurship, finance, management, marketing, information systems, international business, human resource management and tourism.	Susan Pastre (UTAS) Peter Sawdon Workforce Sector Leaders, Business & ICT (Tas Tasmanian Polytechnic) Gayle Jeffery (Tas Tasmanian Skills Institute)
A completed Diploma/Advanced Diploma of Business Management	Bachelor of Business	Up to 6 units credit on basis of Diploma Up to 10 units credit on basis of Advanced Diploma	Total credit granted depends on relevance of Diploma/Advanced Diploma to proposed major in Bachelor of Business		Susan Pastre (UTAS) Peter Sawdon Workforce Sector Leaders, Business & ICT (Tas Tasmanian Polytechnic) Gayle Jeffery (Tas Tasmanian Skills Institute)
A completed Diploma/Advanced Diploma of Business Management	Bachelor of Business	Up to 6 units credit on basis of Diploma	Total credit granted depends		Susan Pastre

Completed Tasmanian Polytechnic program	UTAS course	Maximum credit granted	Notes	Potential employment opportunities	Contact person at UTAS
d Diploma of Business (Human Resources) Diploma/Advanced of Business (Marketing)	Business	of Diploma Up to 10 units credit on basis of Advanced Diploma	on relevance of Diploma/Advanced Diploma to proposed major in Bachelor of Business		(UTAS) Peter Sawdon Workforce Sector Leaders, Business & ICT (Tas Tasmanian Polytechnic) Gayle Jeffery (Tas Tasmanian Skills Institute)
A completed Diploma/Advanced Diploma of Hospitality Management	Bachelor of Business	Up to 6 units credit on basis of Diploma. Up to 10 units credit on basis of Advanced Diploma	Total credit granted depends on relevance of Diploma/Advanced Diploma to proposed major in Bachelor of Business Also see credit information under 'Hospitality' section below.		Susan Pastre (UTAS) Peter Sawdon Workforce Sector Leaders, Business & ICT (Tas Tasmanian Polytechnic) Gayle Jeffery (Tas Tasmanian Skills Institute)
Child Care and Community Services [top]					
Credit transfer					
Diploma of Community Services Work	Bachelor of Social Work	1.25 year's credit towards 2 years' preliminary study in Bachelor of Arts when applicant gains entry to BSW		Social workers, community workers, crisis intervention workers, counsellors, managers of human services and outreach workers.	Aemelia Hopley (UTAS) Anne Saunders Workforce Sector Leaders, Community Services (Tas Tasmanian Polytechnic) Gayle Jeffery (Tas Tasmanian Skills Institute)
Computing and Information Systems [top]					
Concurrent study programs					
Concurrent Diploma of Information Technology and Bachelor of			4 years' study full-time (400% units), comprising 100% Tasmanian Polytechnic in		Soon-ja Yeom (UTAS) Peter Sawdon Workforce Sector

Completed Tasmanian Polytechnic program	UTAS course	Maximum credit granted	Notes	Potential employment opportunities	Contact person at UTAS
Computing			Year 1, 50%/50% Tasmanian Polytechnic/UTAS in Years 2 and 3, and 100% UTAS in Year 4		Leaders, Business & ICT (Tas Tasmanian Polytechnic)
Concurrent Diploma of Information Technology and Bachelor of Information Systems			4 years' study full-time (400% units), comprising 100% Tasmanian Polytechnic in Year 1, 50%/50% Tasmanian Polytechnic/UTAS in Years 2 and 3, and 100% UTAS in Year 4		Ying Chen (BIS) (UTAS) Peter Sawdon Workforce Sector Leaders, Business & ICT (Tas Tasmanian Polytechnic)
Credit transfer					
Diploma of Information Technology (Database Design & Development), (General), (Networking), (Project Management), (Software Development), (Systems Administration)	Bachelor of Computing Bachelor of Information Systems	Up to 1 year (100%) towards either degree	See also concurrent programs above.	Website management, system administration, client support and training, program design, development and testing, mobile computing and telecommunications , graphics, internet and web engineering, artificial intelligence business. Analyst, IT project, information or telecommunications manager, database administrator, IT consultant, electronic commerce or electronic business consultant.	Soon-ja Yeom (BComp) (UTAS) Ying Chen (BIS) (UTAS) Peter Sawdon Workforce Sector Leaders, Business & ICT (Tas Tasmanian Polytechnic)
Education [top]					
Credit transfer					

Completed Tasmanian Polytechnic program	UTAS course	Maximum credit granted	Notes	Potential employment opportunities	Contact person at UTAS
Diploma/Advanced Diploma of Children's Services	Bachelor of Education (Early Childhood) Bachelor of Education (Primary)	100% credit 50% credit (4 x 12.5% electives)	<i>Also see information under 'Community Services' above</i>	Early childhood and primary teacher education.	Peter Brookes (UTAS) Anne Saunders, Workforce Sector Leaders, Community Services (Tas Tasmanian Polytechnic) Gayle Jeffery (Tas Tasmanian Skills Institute)
Certificate III – Children's Services	Bachelor of Education (Early Childhood) Bachelor of Education (Primary)	12.5% credit (1 x 12.5% elective)	<i>Also see information under 'Community Services' above</i>		Peter Brookes (UTAS) Anne Saunders, Workforce Sector Leaders, Community Services (Tas Tasmanian Polytechnic) Gayle Jeffery (Tas Skills Institute)
Certificate IV – Teacher's Aide	Bachelor of Education (Early Childhood) Bachelor of Education (Primary)	25% credit (2 x 12.5% electives)			Peter Brookes (UTAS) Anne Saunders Workforce Sector Leaders, Community Services (Tas Tasmanian Polytechnic)
Certificate III - Teacher's Aide	Bachelor of Education (Early Childhood) Bachelor of Education (Primary) Bachelor of Physical Activity Studies	12.5% credit (1 x 12.5% elective)			

Completed Tasmanian Polytechnic program	UTAS course	Maximum credit granted	Notes	Potential employment opportunities	Contact person at UTAS
Other Certificate IV	Bachelor of Education	12.5% credit (1x 12.5% elective)			Peter Brookes (UTAS)
Other Diplomas		25% credit (2 x 12.5% electives)			Anne Saunders Workforce Sector Leader, Community Services(Tas Tasmanian Polytechnic)
Completed Apprenticeship		Completed Apprenticeship : up to 25% credit (2 x 12.5% electives)			Gayle Jeffery (Tas Tasmanian Skills Institute)
Diploma/Advanced Diploma of Community Services (Disability)	Bachelor of Education (Health & Physical Education)	25% credit (2 x 12.5% units)			Peter Brookes (UTAS) Anne Saunders Workforce Sector Leaders, Community Services (Tas Tasmanian Polytechnic)
Certificate III Fitness	Bachelor of Education (Health & Physical Education)	12.5% credit (1 x 12.5% units)			Gayle Jeffery (Tas Tasmanian Skills Institute)
	Bachelor of Physical Activities Studies				
Certificate IV Fitness	Bachelor of Education (Health & Physical Education)	25% credit (2 x 12.5% units)			
	Bachelor of Physical Activities Studies				
Certificate IV Outdoor Recreation	Bachelor of Education (Health & Physical	25% credit (2 x 12.5% units)			

Completed Tasmanian Polytechnic program	UTAS course	Maximum credit granted	Notes	Potential employment opportunities	Contact person at UTAS
	Education) Bachelor of Physical Activities Studies				
Certificate III – Tourism (Guiding & Outdoor Recreation)	Bachelor of Education (Health & Physical Education) Bachelor of Physical Activities Studies	12.5% credit (1 unit)			Peter Brookes (UTAS) Mark Geeves, Workforce Sector Leaders, Tourism & Hospitality (Tas Tasmanian Polytechnic)
Diploma of Art, Craft and Design	from 2010 - Bachelor of Education (secondary)	(currently being re-evaluated)	<i>Also see information under 'Visual Arts and Design' below</i>	Teachers of: Design in Wood Design in Metal CAD Graphics Food Studies, Catering and Home Economics Textiles	Peter Brookes (UTAS) Elaine Brown, Workforce Sector Leaders, Creative Arts (Tas Tasmanian Polytechnic)
Engineering [top]					
Articulation arrangement/block credit					
Advanced Diploma of Engineering	Bachelor of Engineering Technology (in Civil, Electrical or Mechanical)	This qualification may provide up to six units of non-block credit towards the Bachelor of Engineering Technology at UTAS. Each case is treated on its merits	Credit assessed individually on entrance. All students of the Bachelor of Engineering Technology must undertake first year mathematics units	A para-professional qualification designed to satisfy the requirements of the Institution of Engineers Australia for affiliate membership.	David Lewis (UTAS) John Palmer, Workforce Sector Leaders, Primary Industries & Infrastructure (Tas Tasmanian Polytechnic)
Credit transfer					
Advanced Diploma	Bachelor of	This qualification	Credit assessed individually on	Professional engineers in	David Lewis



Completed Tasmanian Polytechnic program	UTAS course	Maximum credit granted	Notes	Potential employment opportunities	Contact person at UTAS
of Engineering	Engineering	may provide up to six units of non-block credit towards the Bachelor of Engineering at UTAS. Each case is treated on its merits	entrance. All students of the Bachelor of Engineering must undertake first year mathematics units	government, private companies, industry and consulting firms.	(UTAS) John Palmer, Workforce Sector Leaders, Primary Industries & Infrastructure (Tas Tasmanian Polytechnic)
Health [top]					
Credit transfer					
Relevant Tasmanian Polytechnic award	Bachelor of Biomedical Science Bachelor of Health Science		Credit may be granted on a case-by-case basis towards either degree		Christa Moch (UTAS) Christy-Lee Hunt Workforce Sector Leaders, Health & Wellbeing, (Tas Tasmanian Polytechnic)
Hospitality [top]					
Articulation arrangement/block credit					
A completed Advanced Diploma in Hospitality	Bachelor of Business Administration (Hospitality Management)	Credit for 1.75 years (14 units). This credit is only for articulation from the Advanced Diploma in Hospitality (Tasmanian Polytechnic) into the BBA (Hospitality Management)	Remainder of degree completed in a Spring & Summer school and one additional year	Hospitality Management	Susan Pastre (UTAS) Mark Geeves, Workforce Sector Leaders, Tourism & Hospitality (Tas Tasmanian Polytechnic) Gayle Jeffery (Tas Tasmanian Skills Institute)
Library [top]					
Credit transfer					
Diploma in Library & Information Services	Bachelor of Information Systems	Up to equivalent of 1 year's credit (100%)		See above under Information Systems, Computing.	Peter Sawdon Workforce Sector Leaders, Business & ICT (Tas Tasmanian)

Completed Tasmanian Polytechnic program	UTAS course	Maximum credit granted	Notes	Potential employment opportunities	Contact person at UTAS
					Polytechnic)
Nursing [top]					
Credit Transfer					
Diploma of Nursing/Advanced Diploma of Nursing (Enrolled/Division 2 Nursing)	Bachelor of Nursing	Up to equivalent of 1 year's credit (100%)		Nursing	Wendy Nas (UTAS) Christy-Lee Hunt, Workforce Sector Leaders, Health & Wellbeing, (Tas Tasmanian Polytechnic) Gayle Jeffery (Tas Tasmanian Skills Institute)
Science [top]					
Credit transfer					
Diploma of Laboratory Technology	Bachelor of Science	Credit arrangements are under review		Potential employment in a wide variety of fields including Biochemistry, Chemistry, Aquaculture, Computer Science, Mathematics, Geology, Physics, Plant Science, Psychology, Zoology, etc.	Fiona Taylor (UTAS) John Palmer, Workforce Sector Leaders, Primary Industries & Infrastructure (Tas Tasmanian Polytechnic)
Relevant Tasmanian Polytechnic award	Bachelor of Environmental Science Bachelor of Natural Environment & Wilderness Studies	May attract specified or unspecified credit – up to 50% for a Diploma and 75% for an Advanced Diploma.	Credit assessed on case-by-case basis		Fiona Taylor (UTAS)
Seafarer Education [top]					
Credit transfer					
AMC Seafarer Education	Advanced Diploma Nautical	AMC will recognise Diplomas in	AMC will also allow articulation from junior	Demand for qualified seafarers domestically and	Darren Legard (UTAS)

Completed Tasmanian Polytechnic program	UTAS course	Maximum credit granted	Notes	Potential employment opportunities	Contact person at UTAS
Programs	Science; Advanced Diploma Maritime Engineering	nautical Science (or equivalent) from TAFE institutions for access into Higher Education Advanced Diploma courses at AMC	professional certificates of competency into the advanced level programs.	internationally remains strong	John Lloyd (UTAS)
	Bachelor of Applied Science (Maritime Operations)	Holders of relevant Advanced Diplomas will be allowed access to the third and final 'top-up' year of the Bachelor of Applied Science.	Holders of the Chief Mate / Master or Chief Engineer professional qualifications will be allowed direct access to the final year of the Bachelor of Applied Science	Demand for employment in the ports industry and other areas of the maritime sector remain strong	Darren Legard (UTAS) John Lloyd (UTAS)
Surveying [top]					
Credit transfer					
Advanced Diploma of Spatial Information Systems	Bachelor of Surveying and Spatial Sciences	Equivalent of 2 semesters credit (100%)	Additional credit may be available for diploma graduates with relevant work experience	Spatial data management, land administration, surveying and mapping, cadastral and engineering surveying, GIS industries, and geodetic agencies.	Jon Osborne (UTAS) John Palmer, Workforce Sector Leaders, Primary Industries & Infrastructure (Tas Tasmanian Polytechnic)
Tourism [top]					
Articulation arrangement/block credit					
A completed Advanced Diploma in Tourism	Bachelor of Business Administration (Tourism Management)	Credit for 1.75 years (14 units) This credit is only for articulation from the Advanced Diploma of Tourism Management (Tasmanian	Remainder of degree completed in a Spring & Summer school and one additional year.	Tourism Management, tourism marketing; tourism and the travel industries.	Susan Pastre (UTAS) Mark Geeves, Workforce Sector Leader, Tourism & Hospitality (Tas Tasmanian Polytechnic) Gayle Jeffery (Tas

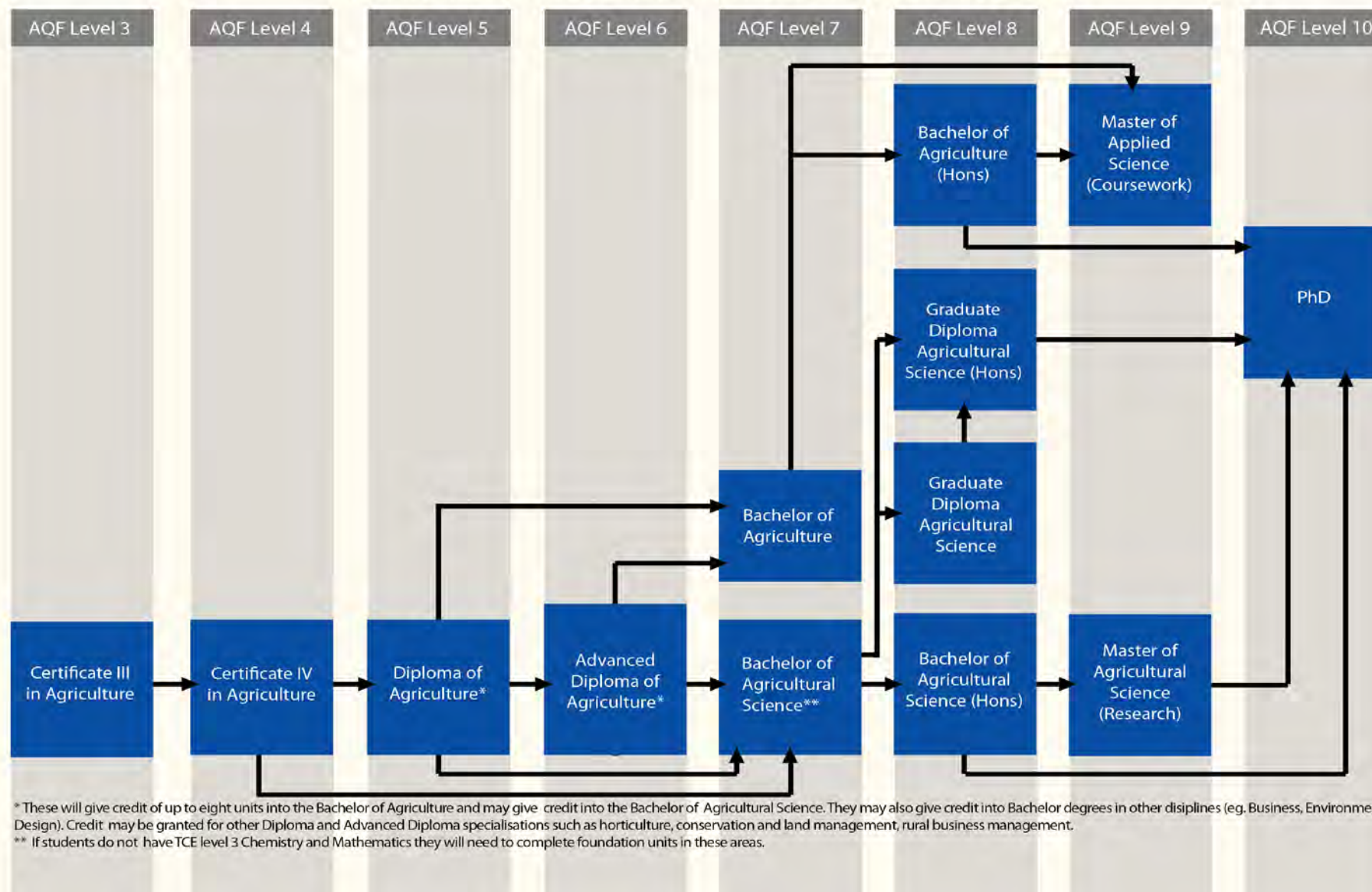
Completed Tasmanian Polytechnic program	UTAS course	Maximum credit granted	Notes	Potential employment opportunities	Contact person at UTAS
		Polytechnic) in to the BBA (Tourism Management)			Tasmanian Skills Institute)
Credit transfer - Note: all arrangements currently under review					
A completed Diploma/Advanced Diploma in a relevant area	Bachelor of Tourism	4 x 12.5% elective units		Tourism and the travel industries; heritage tourism, museums and historic sites; wilderness, antarctic and nature tourism; tourism research; tourism journalism and the media, etc	Susan Pastre (UTAS) Mark Geeves, Workforce Sector Leader, Tourism & Hospitality (Tas Tasmanian Polytechnic) Gayle Jeffery (Tas Tasmanian Skills Institute)
A completed Diploma/Advanced Diploma of Tourism	Bachelor of Business	Up to 6 units credit on basis of Diploma Up to 10 units credit on basis of Advanced Diploma	Total credit depends on relevance of Diploma/Advanced Diploma to proposed major in Bachelor of Business		Susan Pastre (UTAS) Mark Geeves, Workforce Sector Leader, Tourism & Hospitality (Tas Tasmanian Polytechnic) Gayle Jeffery (Tas Tasmanian Skills Institute)
Visual Arts and Design [top]					
Credit transfer					
Diploma of Art, Craft & Design	Bachelor of Contemporary Arts	Up to one third of the Bachelor program	Total credit depends on the relevance of Diploma to the proposed major in the Degree course.	creative arts production, arts writing, photography, arts administration, exhibition coordination, art gallery/museum operations, graphic design, multi-media/web design, fashion design, theatre and stage administration,	Marie Sierra (Contemp. Arts) (UTAS)
Diploma of Graphic Design	Bachelor of Fine Arts				Noel Frankham (Fine Arts) (UTAS)
Diploma of Photo Imaging	Bachelor of Visual Communication				Elaine Brown Workforce Sector Leaders, Creative Arts (Tas Tasmanian Polytechnic)
Diploma of Screen and Media					
Diploma of Interactive Digital					

Completed Tasmanian Polytechnic program	UTAS course	Maximum credit granted	Notes	Potential employment opportunities	Contact person at UTAS
Media Diploma of Applied Fashion Design and Technology				scriptwriting, theatre performance.	

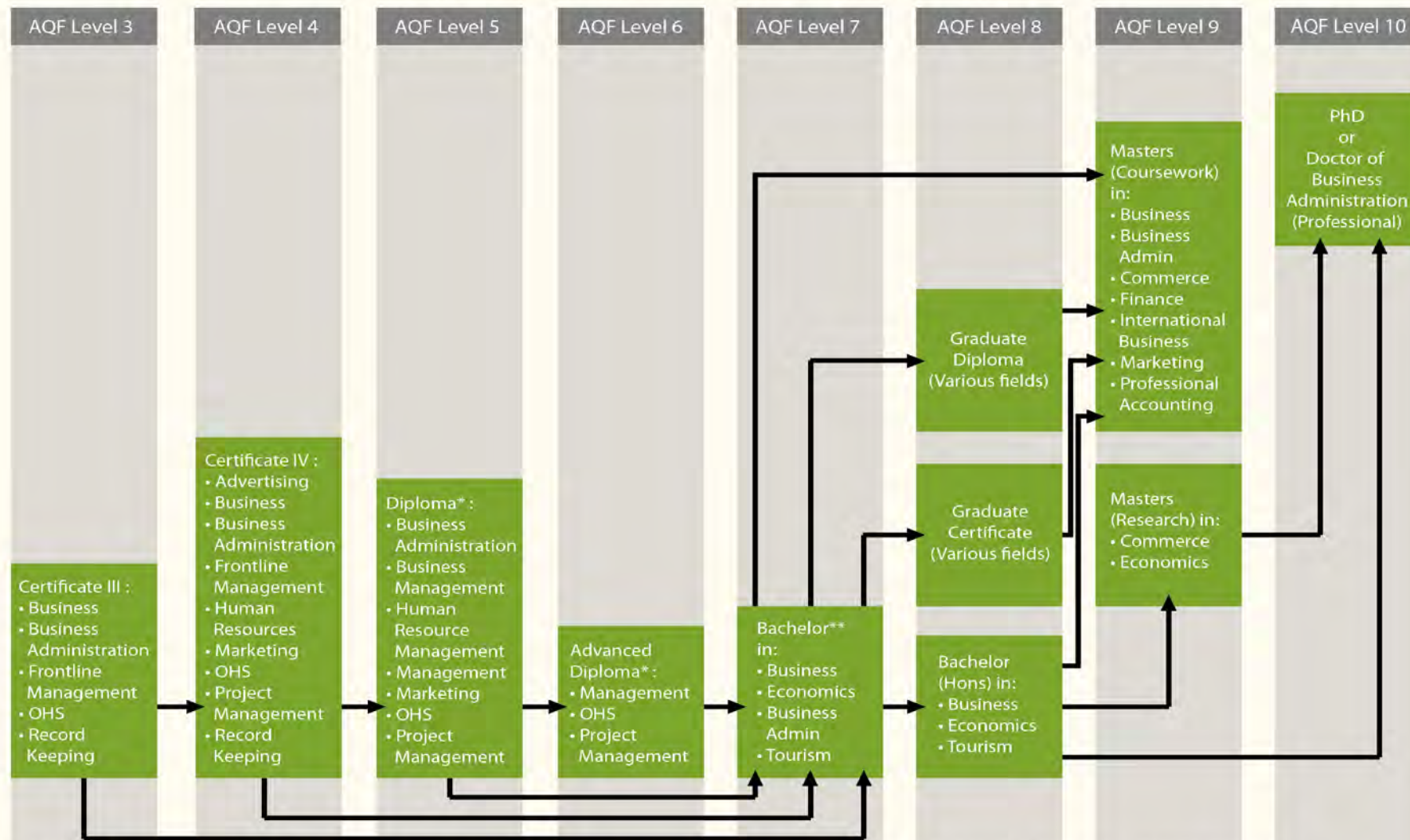
Appendix 3: Current pathway maps

1. Agriculture
2. Business
3. Community Services/Social Work
4. Education
 - Early Childhood and Primary
 - Health and Physical Education
5. Engineering
 - AMC Engineering
 - Engineering
6. Environmental Studies, Built Environment, Sustainability
 - Built Environment
 - Environmental Studies
7. Health and Wellbeing
 - Nursing
8. Information Technology
9. Creative Arts

TASMANIAN AGRICULTURE PATHWAYS FOR VET STUDENTS



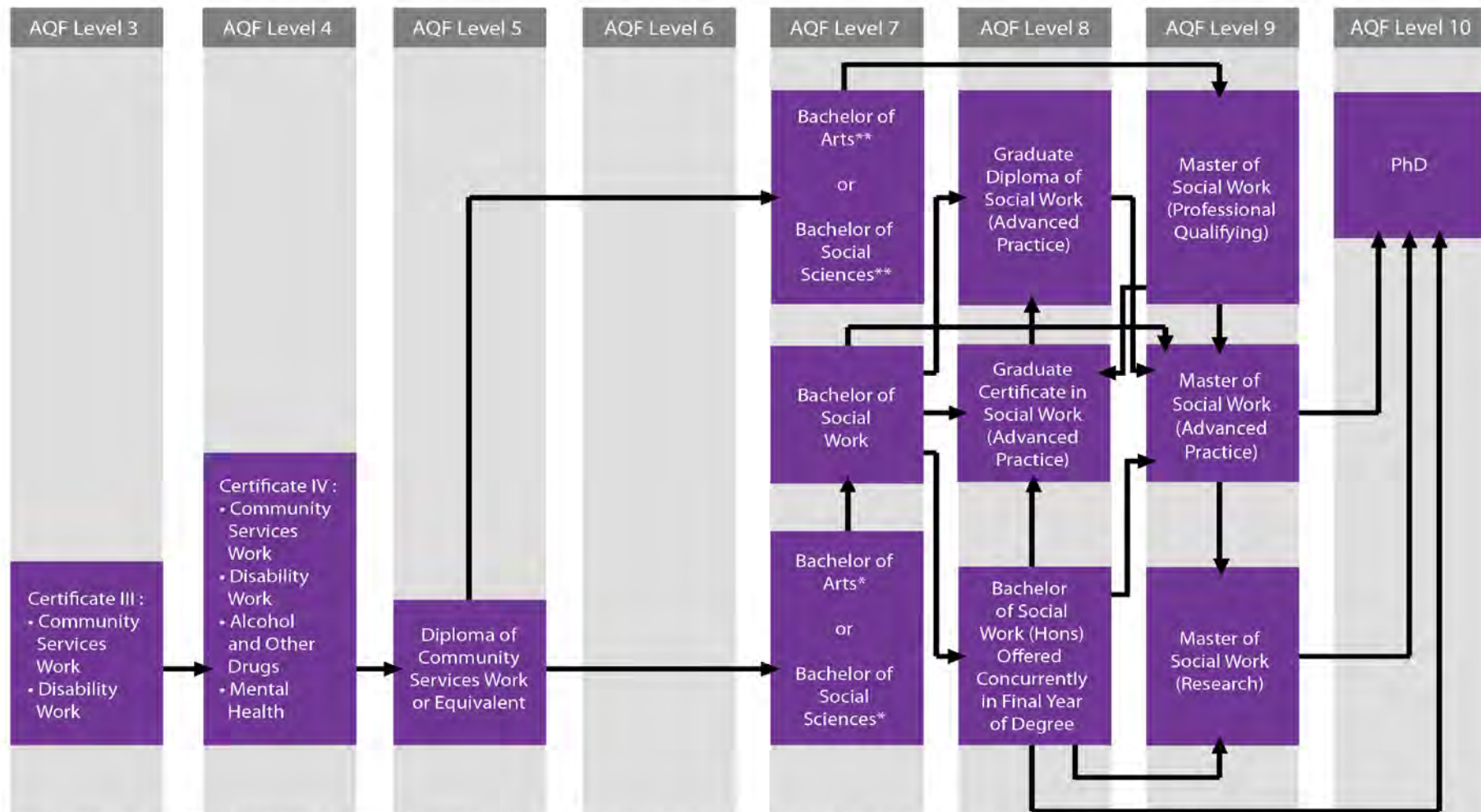
TASMANIAN BUSINESS PATHWAYS FOR VET STUDENTS



*These may give credit into Bachelor degree. Also a pathway from the Diploma and Advanced Diploma to graduate level study is available to students who have significant business management experience.

**If students do not have TCE level 3 Mathematics Applied or another approved higher level Mathematics unit they will need to complete a bridging or unit before enrolling in the compulsory core unit BEA140 Quantitive Methods

TASMANIAN COMMUNITY SERVICES/SOCIAL WORK PATHWAYS FOR VET STUDENTS

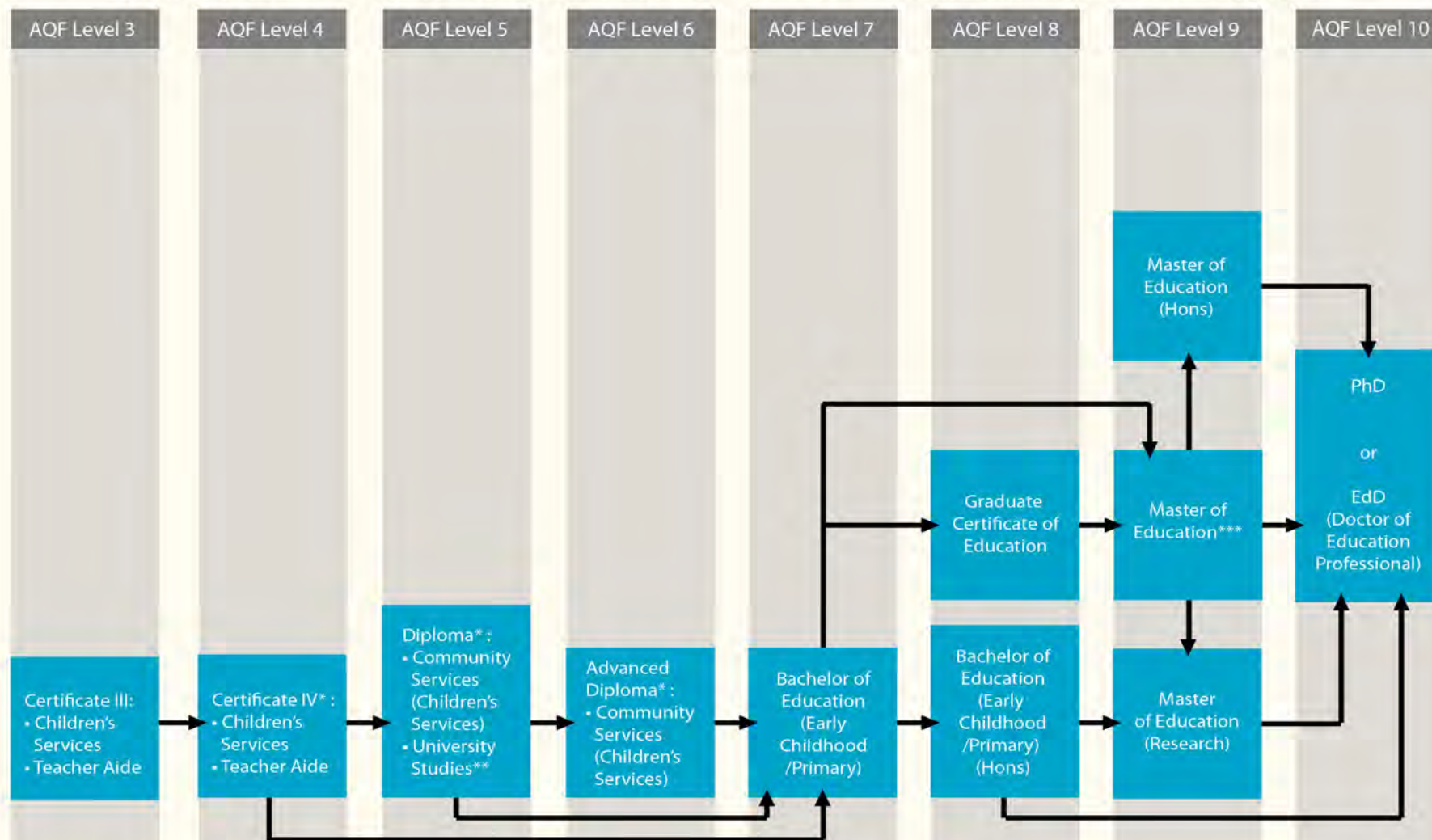


Note: Students must complete the equivalent of two years' full time study (200% or 16 standard-weighted units) in a Bachelor of Arts or Bachelor of Social Sciences before transferring to the two-year, end-on Bachelor of Social Work (pathway 1*). An alternative pathway (pathway 2**) is to complete the Bachelor of Arts or Bachelor of Social Sciences degree (equivalent of three years' full time study) and then enrol in the two-year full time (or part time equivalent) Master of Social Work (Professional Qualifying).

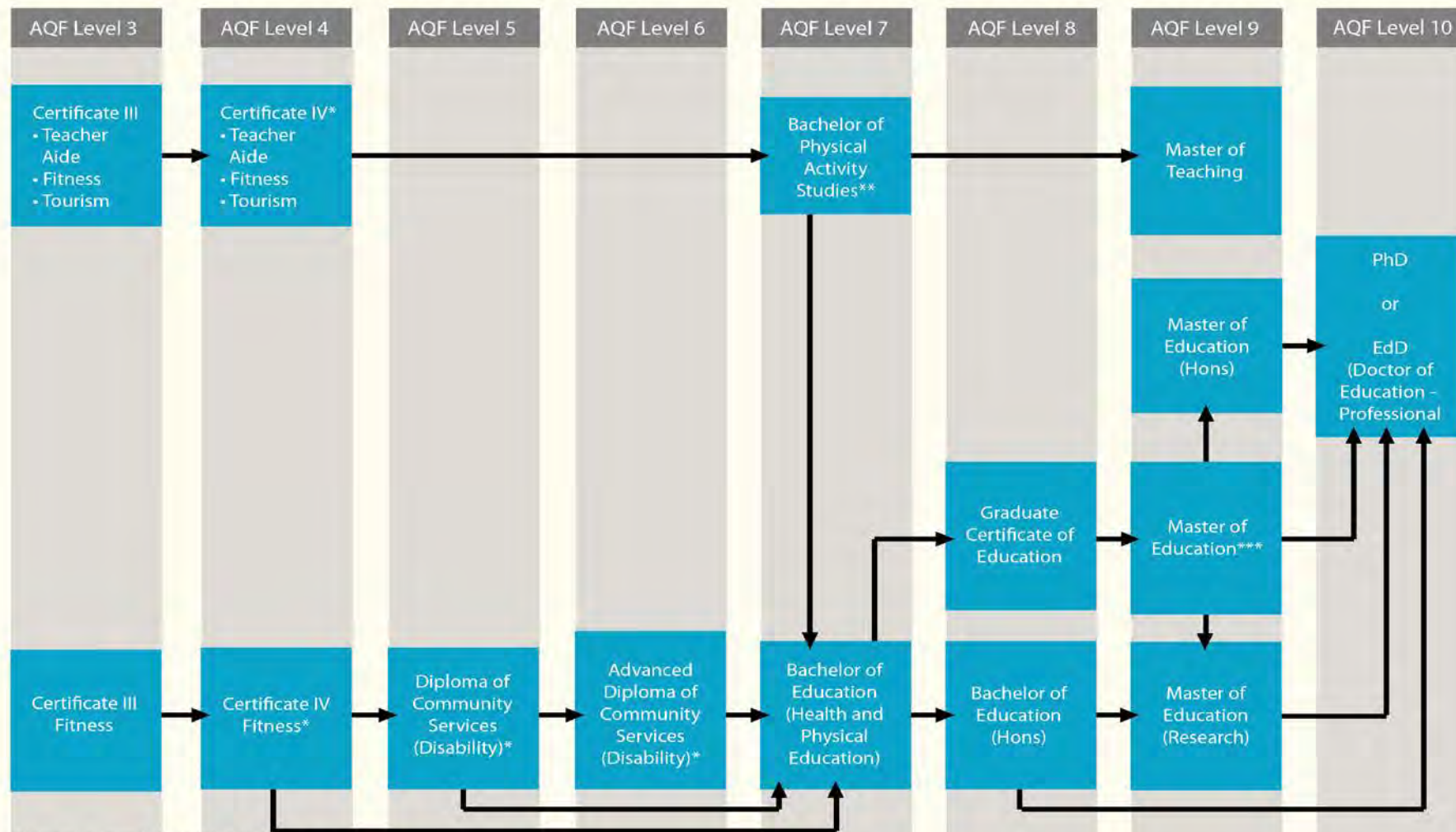
*For pathway 1, completion of the Diploma may give students exemption of 125% of the 200% required as the Bachelor of Arts or Bachelor of Social Sciences prerequisite study for entry into the Bachelor of Social Work, requiring Diploma graduates to complete only 75% (or six standard-weighted units). Prerequisite study must include at least two standard-weighted Psychology units and two standard-weighted Sociology units.

** For pathway 2, completion of the Diploma may give students exemption of 25% of the 300% required in the Bachelor of Arts or Bachelor of Social Sciences prerequisite study for entry to the Master of Social Work (Professional Qualifying). Prerequisite study must include some studies of society and some studies of the individual.

TASMANIAN EDUCATION PATHWAYS FOR VET STUDENTS - EARLY CHILDHOOD AND PRIMARY



TASMANIAN EDUCATION PATHWAYS FOR VET STUDENTS - HEALTH AND PHYSICAL EDUCATION

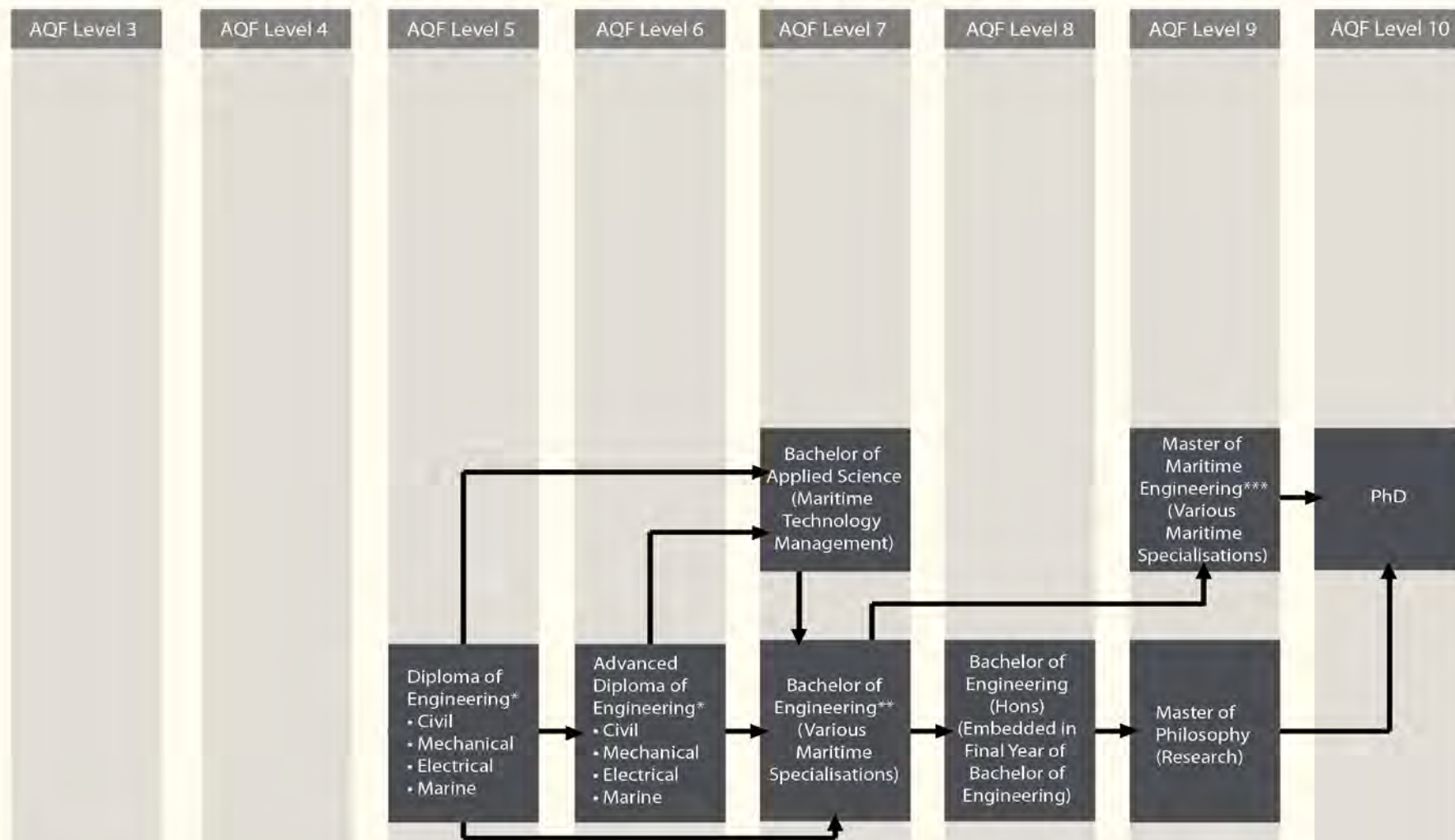


*These will give credit into the Bachelor degree.

** This will give some credit into the Bachelor of Education (Health and Physical Education).

*** Students will need to complete the research specialisation to be accepted into the PhD or EdD.

TASMANIAN AMC ENGINEERING PATHWAYS FOR VET STUDENTS

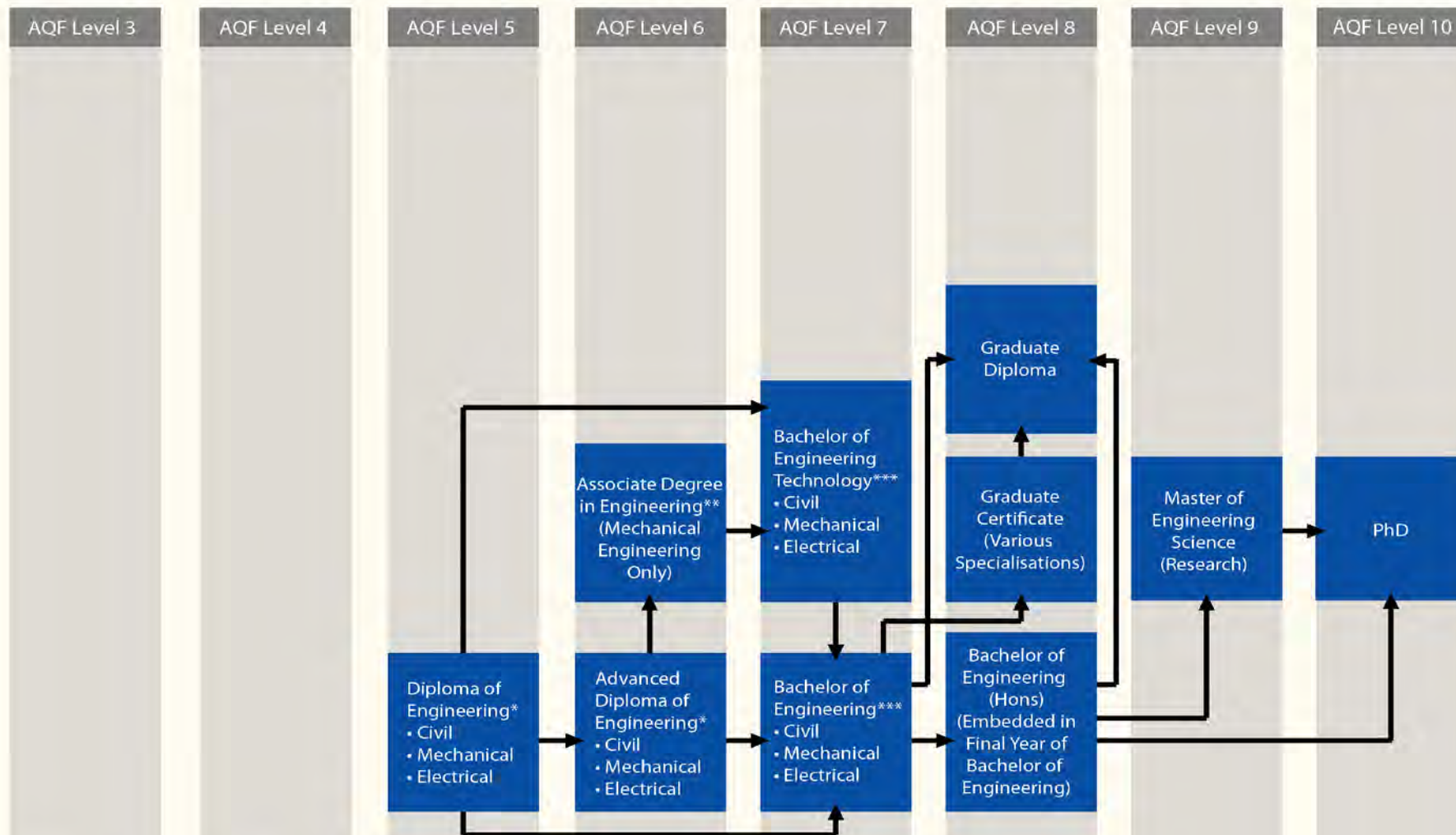


*These will give varying amounts of credit into the Bachelor degree although very limited credit available for Diploma qualification

**All students must attend two week Maths and Mechanics refresher course prior to start of semester

***Incorporates Graduate Certificate and Graduate Diploma in Maritime Engineering

TASMANIAN ENGINEERING PATHWAYS FOR VET STUDENTS

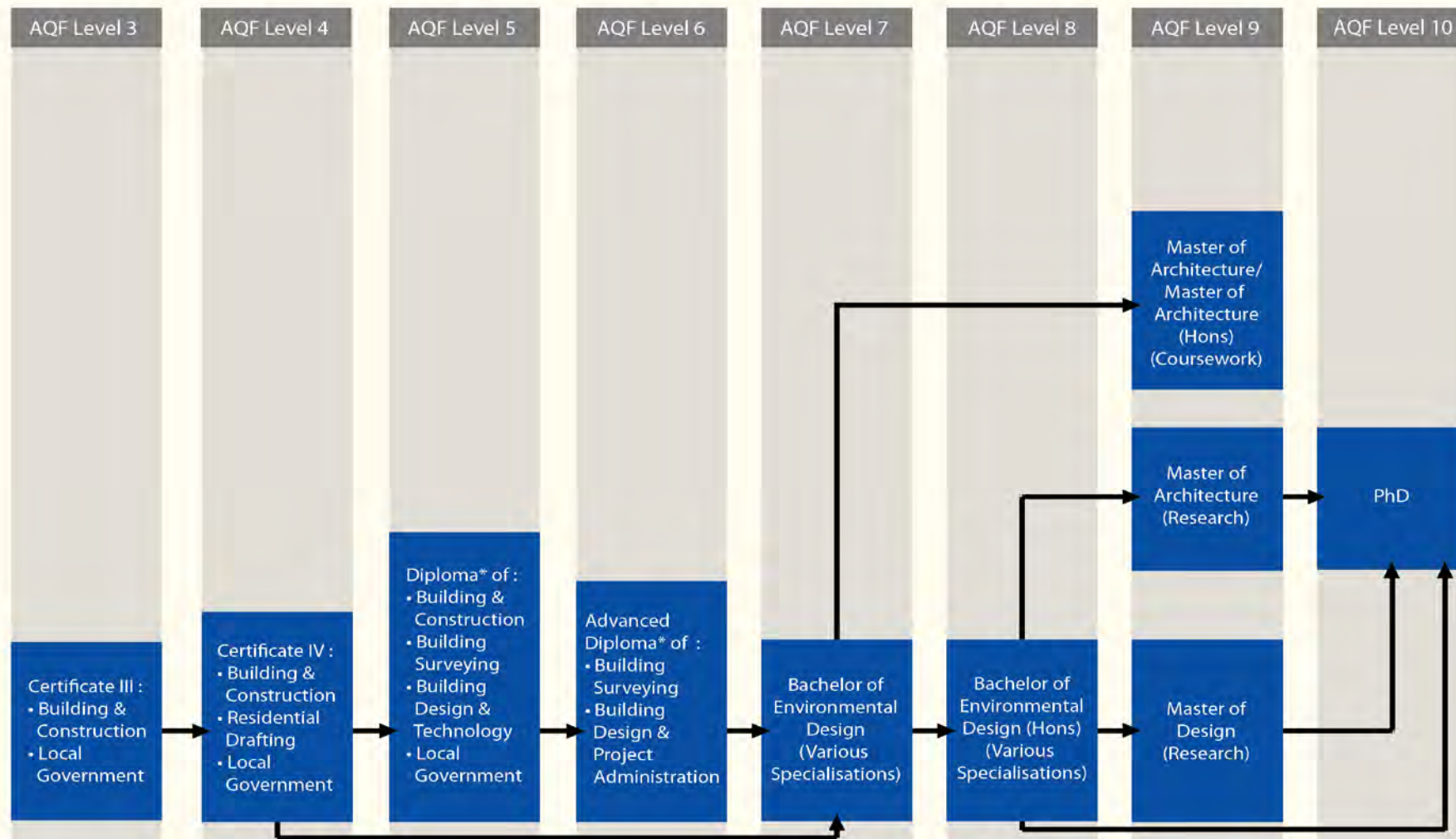


*These will give varying amounts of credit into the Bachelor degree although very limited credit available for Diploma qualification

**Tentative 2012 offering at Cradle Coast Campus

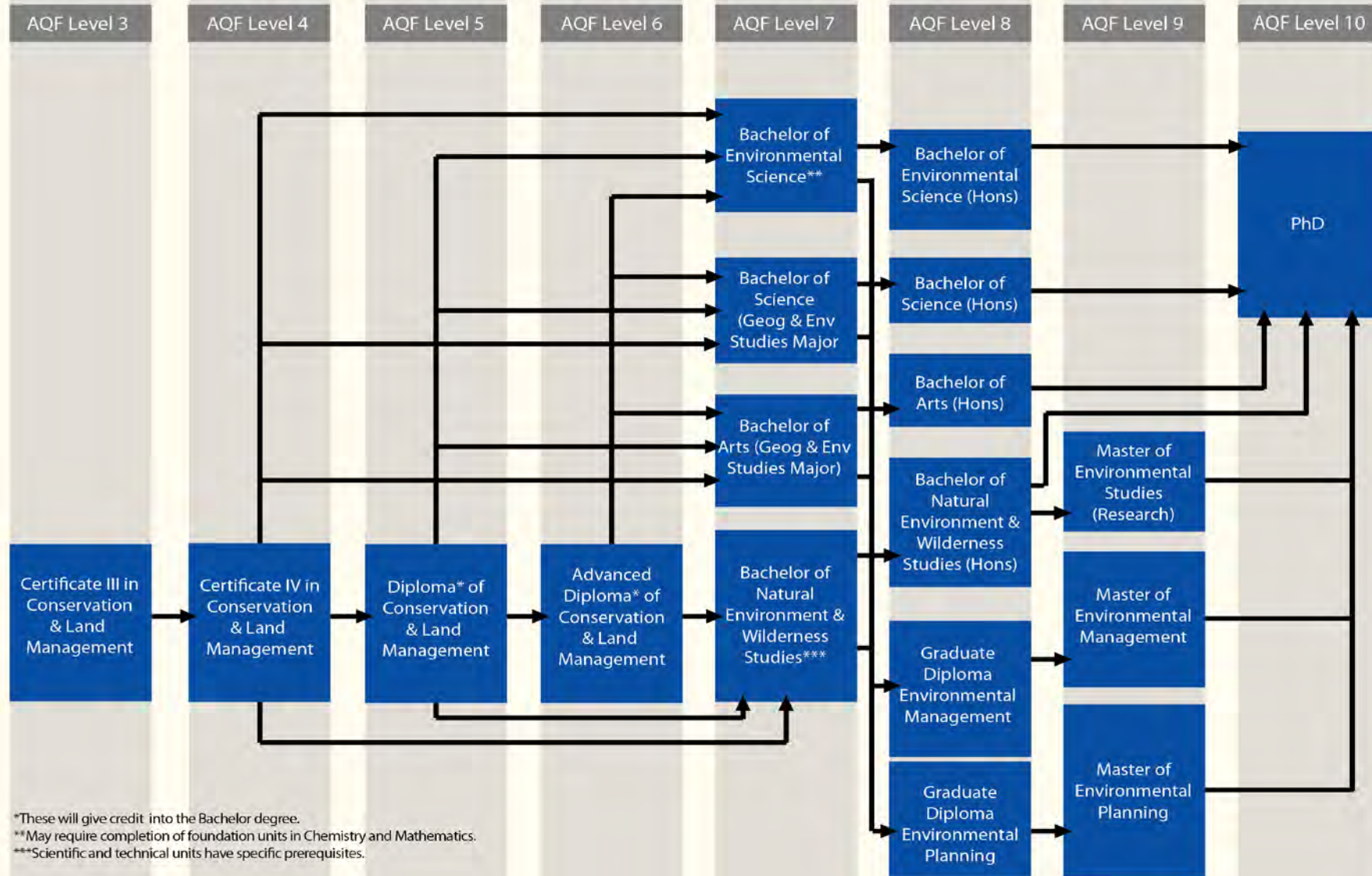
*** First Year Mathematics units are compulsory

TASMANIAN BUILT ENVIRONMENT PATHWAYS FOR VET STUDENTS

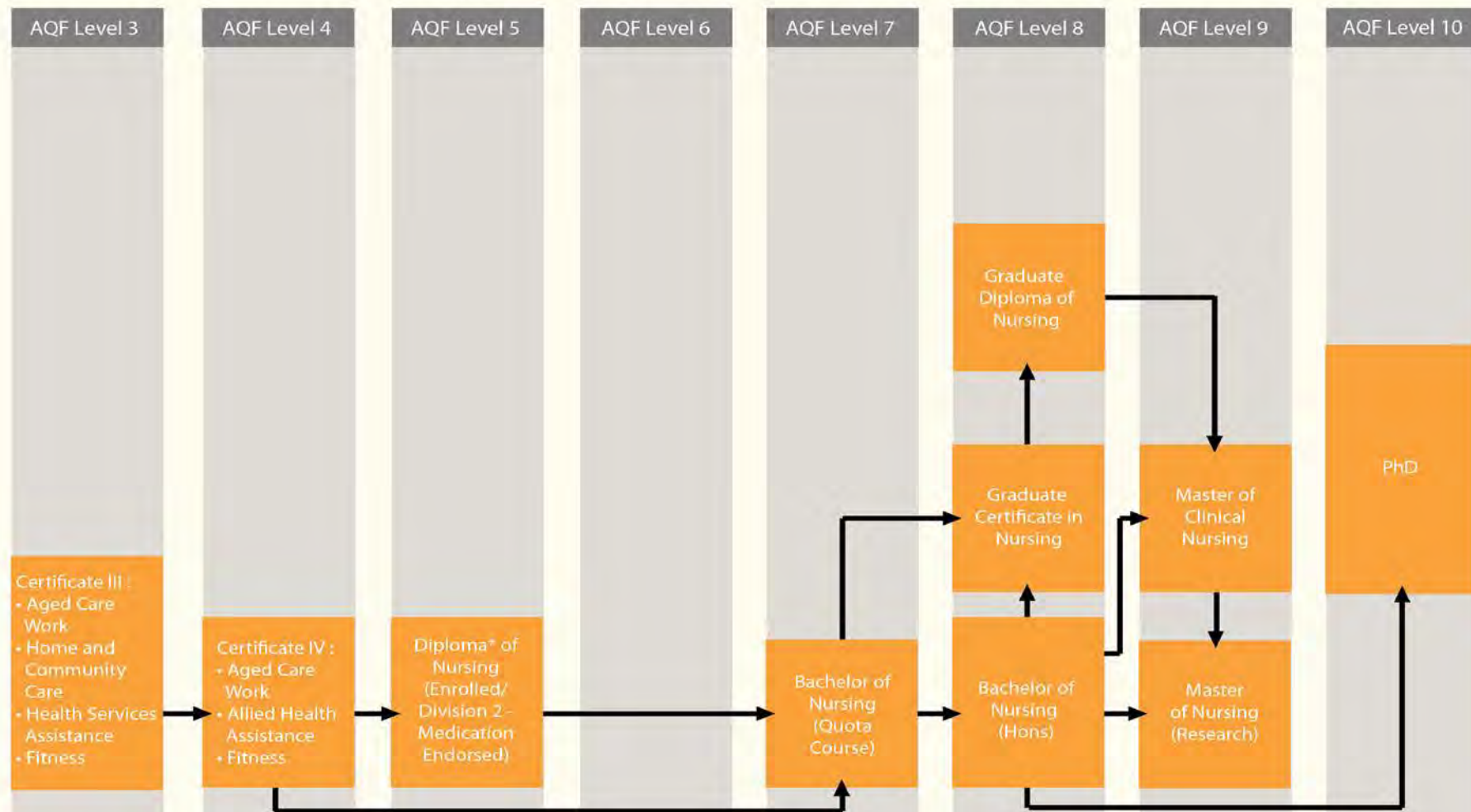


*These will give credit into the Bachelor degree.

TASMANIAN ENVIRONMENTAL STUDIES PATHWAYS FOR VET STUDENTS

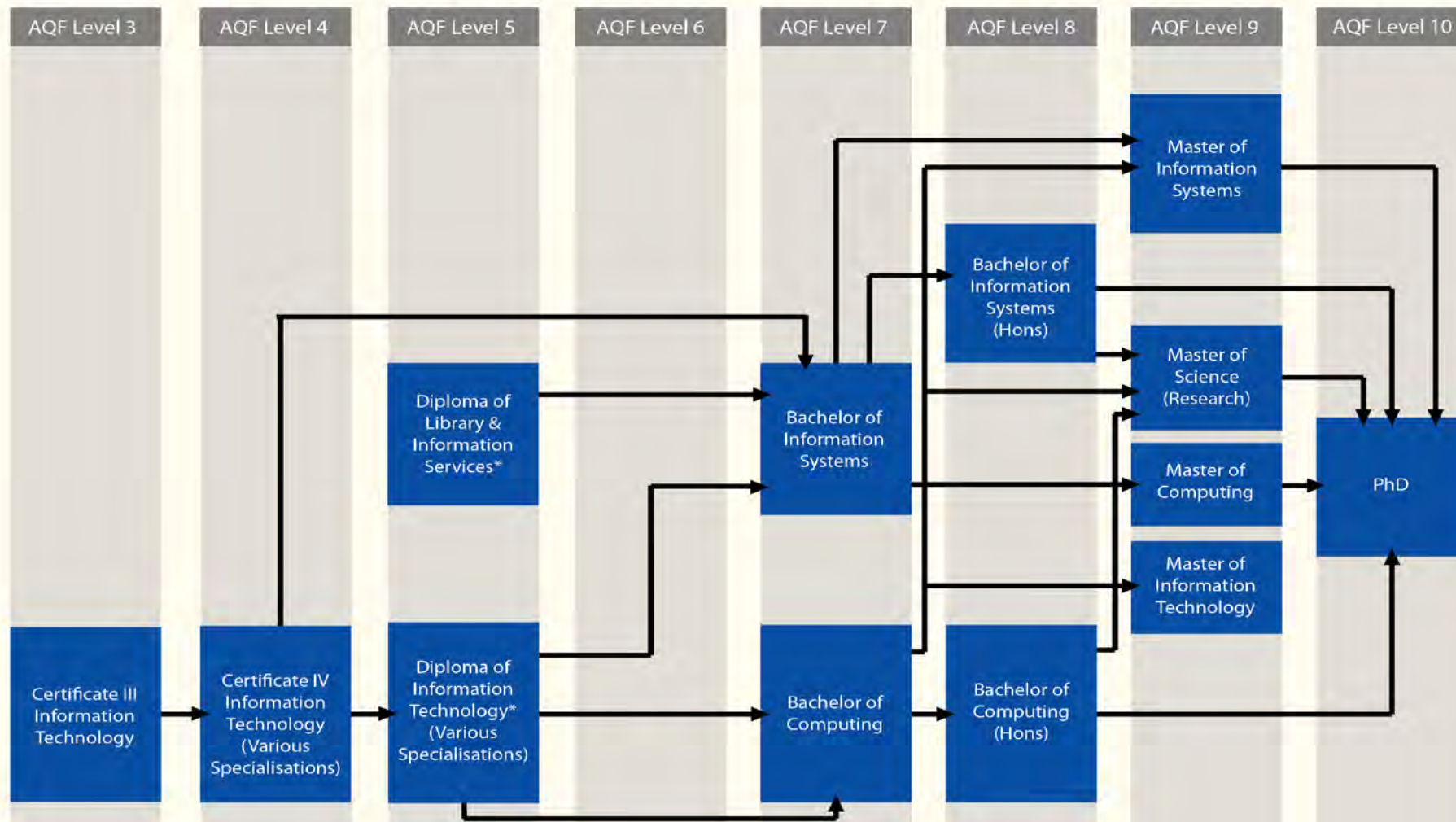


TASMANIAN NURSING PATHWAYS FOR VET STUDENTS



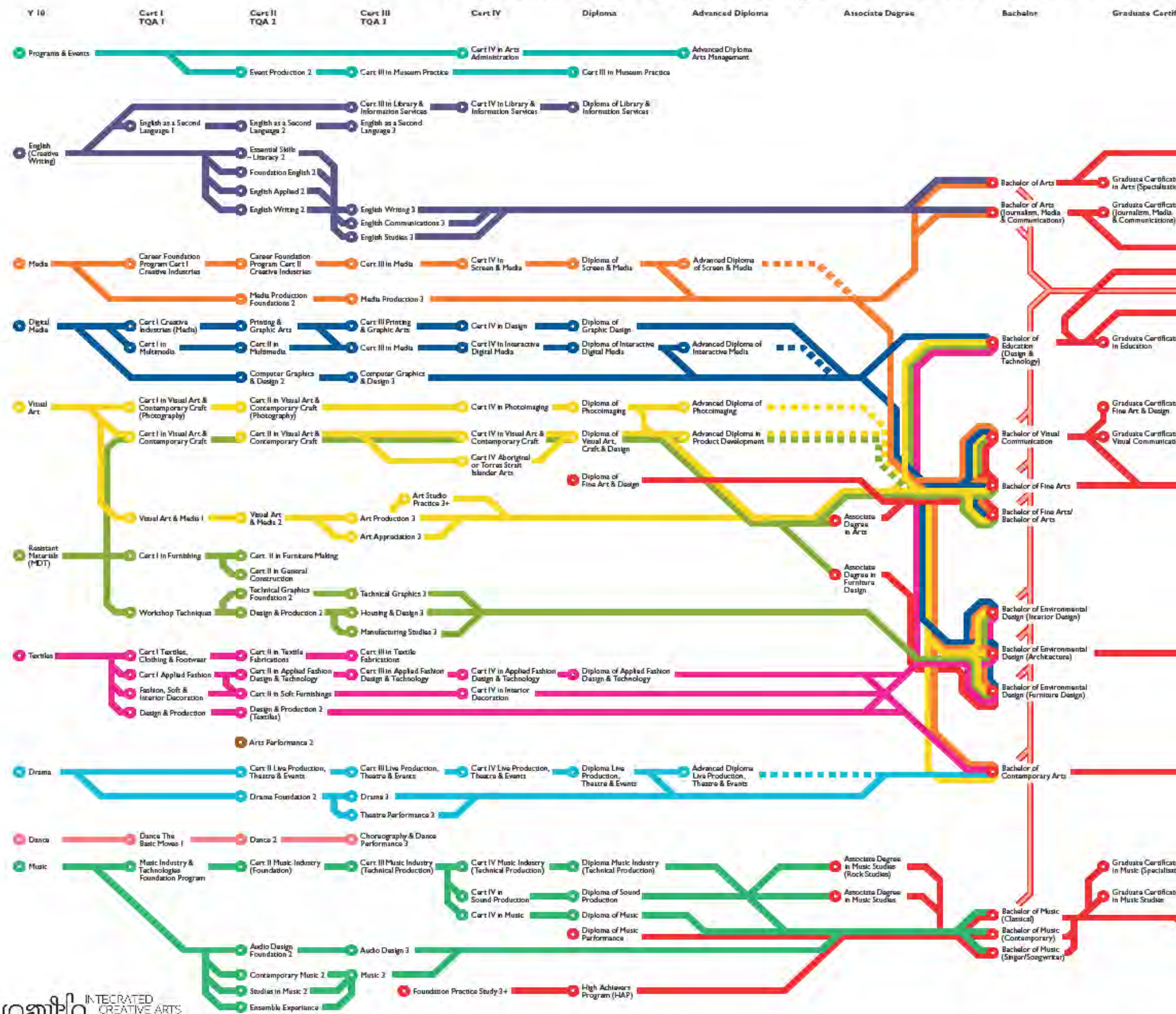
* The Diploma will give advanced standing into the Bachelor degree, provided students are registered with the Nursing and Midwifery Board of Australia and have 6 months' full time nursing experience.

TASMANIAN INFORMATION TECHNOLOGY PATHWAYS FOR VET STUDENTS



*These will give credit into the Bachelor degree.

Creative Arts Pathways in Tasmanian Education



This map has been designed to show broad course trends in Tasmanian creative arts education. Every attempt has been made to provide the latest available information. Please

Appendix 4 : UTAS data

Table 14: Age at commencement of degree by student population

Average age for each student population

	N	Mean	SD	95% Confidence Interval			
				Lower Bound	Upper Bound	Min	Max
VET	1902	34	10.8	33.5	34.5	17	71
Previous Higher Education	5146	32	11.9	32.1	32.7	17	79
Mature Age/Other	4381	27	11.4	26.8	27.5	15	79
Tasmanian Year 12	7434	20	1.3	20.2	20.3	17	56
Interstate Year 12	721	20	2.6	20.2	20.6	17	66
Total	19584	26	10.4	26.2	26.5	15	79

Levene Statistic	df1	df2	Sig.
3329.14	4	19579	.000

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between groups	601721.86	4	150430.47	1923.53	.000
Within groups	1531185.02	19579	78.21		
Total	2132906.88	19583			

Games-Howell Multiple Comparisons

(I) Student population	(J) Student population	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
VET	Previous Higher Education	1.6 [*]	.30	.000	0.8	2.4
	Mature Age/Other	6.8 [*]	.30	.000	6.0	7.6
	Tasmanian Year 12	13.7 [*]	.25	.000	13.1	14.4
	Interstate Year 12	13.6 [*]	.27	.000	12.8	14.3
Previous Higher Education	Mature Age/Other	5.2 [*]	.24	.000	4.6	5.9
	Tasmanian Year 12	12.1 [*]	.17	.000	11.7	12.6
	Interstate Year 12	11.9 [*]	.19	.000	11.4	12.5
Mature Age/Other	Tasmanian Year 12	6.9 [*]	.17	.000	6.4	7.4
	Interstate Year 12	6.7 [*]	.20	.000	6.2	7.3
Tasmanian Year 12	Interstate Year 12	-0.2	.10	.445	-0.4	0.1

*. The mean difference is significant at the 0.05 level.

Table 15: Amount of EFTSL credit granted by origin of study

	VET study group	Mean	SD	N
Credit EFTSL	Tasmania	.97	.54	518
	Interstate	.53	.41	97

	Levene's Test for Equality of Variances		t-test for Equality of Means				95% Confidence Interval	
	F	Sig.	t	df	Sig.	Mean Difference	Lower	Upper
Equal variances not assumed	12.15	.001	9.25	165.36	.000	.442	.347	.536

Table 16: Number of VET student enrolments by award and study area

Study area	Award			
	Bachelor	Associate Degree	Advanced Diploma	Diploma
Management and Commerce	338 (237)*	17 (2)*	2	9 (1)*
Education	405 (168)*	0	0	0
Society and Culture	295 (71)*	42	0	0
Information Technology	84 (46)*	3	0	1
Creative Arts	135 (45)*	15	2	3
Engineering and Related Technologies	42 (16)*	0	71 (13)*	26 (4)*
Agriculture, Environmental and Related Studies	28 (4)*	4	0	0
Architecture and Building	28 (3)*	0	0	0
Health	257 (3)*	3	0	0
Natural and Physical Sciences	51 (2)*	41	0	0
Total	1663	125	75	39

*Values in parenthesis are the number of students who were granted credit

Table 17: Percentage completion rates for all other students by study area

Study area	No longer enrolled No (%)	Still enrolled No (%)	Education completed No (%)
Information Technology	207 (47%)	130 (30%)	100 (23%)
Creative Arts	985 (44%)	769 (34%)	479 (22%)
Society and Culture	2374 (38%)	2158 (35%)	1708 (27%)
Management and Commerce	650 (36%)	562 (31%)	604 (33%)
Agriculture, Environmental and Related Studies	90 (34%)	57 (21%)	119 (45%)
Education	598 (33%)	690 (37%)	549 (30%)
Natural and Physical Sciences	397 (31%)	471 (37%)	401 (32%)
Architecture and Building	87 (23%)	144 (37%)	152 (40%)
Engineering and Related Technologies	211 (22%)	465 (49%)	270 (29%)
Health	370 (16%)	923 (41%)	962 (43%)
Total	5969 (34%)	6369 (36%)	5344 (30%)

Table 18: VET students course study area commenced versus course study area completed

(See page 85 for Key to Table)

		Completion study area											Total
		A B	C	D	E	F	G	H	I	J	NE	Current	
Commencing study area	A	5						1	4		11	11	32
	B	6									8	14	28
	C		51	5						3	46	50	155
	D		1	79							148	177	405
	E				44						51	44	139
	F					89					49	122	260
	G						29			1	31	27	88
	H	1		1		1	1	167		1	113	81	366
	I				3				6		37	46	92
	J		3	2		3		1	2	32	160	134	337
Total		6 6	55	87	47	93	30	169	12	37	654	706	1902

Table 19: All other students course study area commenced versus course study area completed

(See page 85 for Key to Table)

		Completion study area												
		A	B	C	D	E	F	G	H	I	J	NE	Current	Total
Commencing study area	A	86		1	2		2		1	26	1	90	57	266
	B	3	136	4	1		2		3	2	1	87	144	383
	C	3	2	402	27		8	3	4	6	24	985	769	2233
	D	2		6	501		9		7	2	22	598	690	1837
	E			2	1	242	1	8	5	9	2	211	465	946
	F	2		1	4		914	2	5	22	12	370	923	2255
	G				1	1		81	10	2	5	207	130	437
	H	4	1	2	7	4	8	6	487	7	78	650	562	1816
	I	10		6	14	6	20	6	10	297	32	397	471	1269
	J	8	4	48	117	2	54	15	76	39	1345	2374	2158	6240
Total		118	143	472	675	255	1018	121	608	412	1522	5969	6369	17682

Key for Table 18 and Table 19

A	Agriculture & Environment
B	Architecture & Building
C	Creative Arts
D	Education
E	Engineering
F	Health
G	Information Technology
H	Management & Commerce
I	Natural & Physical Sciences
J	Society & Culture
NE	No Longer Enrolled
Current	Still Currently Enrolled

Table 20: VET students commencing award by completion award

		Completion award										Current	NE	Total commencing	Total completing
		C	D	E	F	G	H	I	J	K	L				
Commencing award	H	4	1	2	13	32	423	6	4	3		623	552	1663	488 (29%)
	J	1					3		5			57	59	125	9 (7%)
	K					1	1			29	1	15	28	75	32 (43%)
	L										13	11	15	39	13 (33%)
Total		5	1	2	13	33	427	6	9	32	14	706	654	1902	542

Key for Table

A	PhD	I	Graduate Certificate
B	Masters by Research	J	Associate Degree
C	Masters by Coursework	K	Advanced Diploma
D	Graduate Diploma – New Area	L	Diploma
E	Graduate Diploma – Previous Area	NE	No Longer Enrolled
F	Bachelors Postgrad	Current	Currently Enrolled
G	Bachelors Honours		
H	Bachelor Degree		

Table 21: All other students commencing award by completion award

		Completion award														Total commencing	Total completing
		A	B	C	D	E	F	G	H	I	J	K	L	Current	NE		
Commencing award	F			1				1							1	3	2
	H	5	4	106	45	171	117	741	3670	88	23	8	4	4888	4083	13953	4982 (35%)
	J	7		15	8	8	7	14	61	14	71			1126	1597	2928	205 (7%)
	K	3		1		2		1	15	4	3	44	6	223	160	462	79 (17%)
	L					1			10				65	132	128	336	76 (23%)
Total		15	4	123	53	182	124	757	3756	106	97	52	75	6369	5969	17682	5344

Key for Table

A	PhD	I	Graduate Certificate
B	Masters by Research	J	Associate Degree
C	Masters by Coursework	K	Advanced Diploma
D	Graduate Diploma – New Area	L	Diploma
E	Graduate Diploma – Previous Area	NE	No Longer Enrolled
F	Bachelors Postgrad	Current	Currently Enrolled
G	Bachelors Honours		
H	Bachelor Degree		

Table 22: Duration of completing students by student population

	N	Mean	SD	95% Confidence Interval			
				Lower Bound	Upper Bound	Min	Max
VET	542	2.9	1.42	2.8	3.1	1	7
Previous Higher Education	1928	3.4	1.47	3.3	3.5	1	8
Mature Age/Other	447	3.5	1.46	3.4	3.7	1	7
Tasmanian Year 12	2799	4.3	1.09	4.2	4.3	2	7
Interstate Year 12	170	4.1	1.19	3.9	4.3	2	7
Total	5886	3.8	1.38	3.8	3.8	1	8

Levene Statistic	df1	df2	Sig.
61.32	4	5881	.000

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between groups	1395.65	4	348.91	209.59	.000
Within groups	9790.27	5881	1.67		
Total	11185.92	5885			

Games-Howell Multiple Comparisons

(I) Student population	(J) Student population	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
VET	Previous Higher Education	-0.5 [*]	.07	.000	-0.6	-0.3
	Mature Age/Other	-0.6 [*]	.09	.000	-0.8	-0.3
	Tasmanian Year 12	-1.3 [*]	.06	.000	-1.5	-1.2
	Interstate Year 12	-1.2 [*]	.11	.000	-1.5	-0.9
Previous Higher Education	Mature Age/Other	-0.1	.08	.426	-0.3	0.1
	Tasmanian Year 12	-0.9 [*]	.04	.000	-1.0	-0.8
	Interstate Year 12	-0.7 [*]	.10	.000	-1.0	-0.4
Mature Age/Other	Tasmanian Year 12	-0.7 [*]	.07	.000	-1.0	-0.6
	Interstate Year 12	-0.6 [*]	.11	.000	-0.9	-0.3
Tasmanian Year 12	Interstate Year 12	0.2	.09	.318	-0.1	0.4

*. The mean difference is significant at the 0.05 level.

Table 23: Difference in duration of education for VET students by credit granted and enrolment status

Enrolment status	VET credit	Mean	Std. Deviation	N
No longer enrolled	No	1.4	1.2	486
	Yes	1.6	1.3	168
Still enrolled	No	2.3	1.6	525
	Yes	2.8	1.6	181
Education completed	No	3.1	1.4	276
	Yes	2.7	1.4	266
Total	No	2.1	1.5	1287
	Yes	2.5	1.5	615

Tests of Between-Subjects Effects for VET Student Duration

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	8569.766	1	8569.766	4349.731	.000
Enrolment status	568.196	2	284.098	144.199	.000
Credit status	6.249	1	6.249	3.172	.075
Enrolment by credit interaction	65.819	2	32.909	16.704	.000
Error	3735.467	1896	1.970		
Total	13980.110	1902			

Pairwise Comparisons (Least Significant Difference)

Enrolment status	Credit granted - No credit	Std. Error	Sig. ^a	95% Confidence Interval	
				Lower Bound	Upper Bound
No longer enrolled	0.2	.13	.130	-0.1	0.4
Still enrolled	0.6 [*]	.12	.000	0.3	0.8
Education completed	-0.4 [*]	.12	.001	-0.6	-0.2

*. The mean difference is significant at the 0.05 level.

Table 24: GPA for completing students by student population

	N	Mean	SD	95% Confidence Interval			
				Lower Bound	Upper Bound	Min	Max
VET	542	5.2	.76	5.1	5.2	2.5	7.0
Previous Higher Education	1926	4.8	.92	4.8	4.9	1.3	7.0
Mature Age/Other	447	5.0	.72	5.0	5.1	2.5	6.9
Tasmanian Year 12	2799	5.1	.76	5.1	5.1	2.7	7.0
Interstate Year 12	170	4.8	.88	4.7	4.9	2.6	6.7
Total	5884	5.0	.83	5.0	5.0	1.3	7.0

Levene Statistic	df1	df2	Sig.
21.44	4	5879	.000

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between groups	105.13	4	26.28	39.10	.000
Within groups	3952.10	5879	.67		
Total	4057.23	5883			

Games-Howell Multiple Comparisons

(I) Student population	(J) Student population	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
VET	Previous Higher Education	.35 [*]	.04	.000	.25	.46
	Mature Age/Other	.14 [*]	.05	.030	.01	.27
	Tasmanian Year 12	.09	.04	.107	-.01	.18
	Interstate Year 12	.38 [*]	.08	.000	.17	.59
Previous Higher Education	Mature Age/Other	-.21 [*]	.04	.000	-.32	-.10
	Tasmanian Year 12	-.26 [*]	.03	.000	-.33	-.19
	Interstate Year 12	.03	.07	.996	-.17	.22
Mature Age/Other	Tasmanian Year 12	-.05	.04	.645	-.15	.05
	Interstate Year 12	.24 [*]	.08	.017	.03	.45
Tasmanian Year 12	Interstate Year 12	.29 [*]	.07	.000	.10	.48

*. The mean difference is significant at the 0.05 level.

Table 25: GPA for VET students by credit granted

Credit granted	Mean	SD	N
GPA No	5.25	.72	276
Yes	5.12	.80	266

	Levene's Test for Equality of Variances		t-test for Equality of Means				95% Confidence Interval	
	F	Sig.	t	df	Sig.	Mean Difference	Lower	Upper
Equal variances assumed	2.73	.099	1.95	540	.051	.13	-.001	.255

