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THE AUSTRALIAN QUALIFICATIONS FRAMEWORK FOR BACHELOR DEGREE IN PROPERTY ECONOMICS

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ABSTRACT

The Australian Qualifications Framework (AQF) requires every course in Australia to be reviewed and compliant by 2015. This paper compares the difference between AQF level 7 and level 8 and outlines the paradigm shift in course development, improvement and quality assurance. The AQF requires an outcome oriented process which influences the development, monitoring and implementation of AQF courses. Firstly the graduate profile is defined to underscore the direction of the property course development. Required graduate attributes are then defined, together with course learning outcomes. Each unit/subject assessment is then designed to reflect the desired learning outcomes, and then finally the unit/subject content is backfilled.

This reverse engineered process will ensure that all students have been taught and assessed on the graduate attributes which will form the graduate profile. Therefore, monitoring the inclusion of learning outcomes on unit/subject level during course restructure and development is crucial to achieve the course learning outcomes. This paper recommends that further evaluation needs to be conducted in the course development phases by involving professional accreditation bodies, industry representatives, students and recent graduates in this course development process. It also discusses challenges for developing an undergraduate property course.

Keywords: Australian Qualifications Framework, outcome oriented, professional accreditation, course development.

1. INTRODUCTION

The Review of Australian Higher Education (Bradley Review) suggested a national approach to regulate all types of tertiary education. The national approach is considered more effective, streamlined and integrated to achieve a sustainable and responsible higher education system in large, diverse and demand-driven environments. The review also recommended an independent national regulatory body, which was formed in 2011. The Tertiary Education Quality and Standards Agency (TEQSA) not only regulates but also conducts quality assurance. TEQSA authorised the accreditation of tertiary courses of Australian universities that meet the requirements under subsection 45(1) of the Tertiary Education Quality and Standards Agency Act 2011 (TEQSA Act) to self-accredit their award degree courses (TEQSA, 2013).

Each course needs to comply the Australian Qualification Framework (AQF) by 2015. Hence, , every course is being reviewed to meet the current research, technology, industry standard and practice, government law and regulation. The review can be triggered by external bodies, such as professional accrediting bodies, internally by the University or by the Australian government. The course review process, regardless of how it is triggered will involve all stakeholders, i.e. faculty executive and administration staff, students, lecturers, graduates and employers.

This paper will focus on the AQF requirements for reviewing every property course in Australia, keeping in mind by 2015, every course has to comply with AQF. This paper discusses the gap in literature relating to the course review process and the AQF compliance process for Australian bachelor degree courses. The paper compares the difference between AQF level 7 and level 8 and the paradigm shift on course development, improvement and quality assurance. It also discusses implementation challenges relating to the AQF based course review process for developing an undergraduate property course.

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2. AUSTRALIAN PROPERTY EDUCATION RESEARCH

Newell and Acheampong (2002) stated that the initial focus of property education research was only on valuation education topics, but extended property education areas have been introduced by many property academics. More recent property education research includes the following topics:

- Teaching strategies: Cornish et al. (2009), Born (2003), Ford and Elkes (2008), Miles and Trefzger (2006), Wolverton and Wolverton (2003), Yiu (2008); Yam and Rossini (2011; 2013), Boyd ...
- Assessment: Manning (2002); Susilawati and Peach (2012)
- Property student focus: Allen and Carter (2007).
- Property academics: Boyd (2010), Newell (2007)
- Property graduates: Newell, Susilawati and Yam (2010); Blake and Susilawati (2009), Everist et al. (2005), Page (2008)
- Property industry requirements: Callanan and McCarthy (2003), McCarthy (2009)
- Course curriculum developments: Susilawati and Armitage (2011); Baxter (2007), Black and Rabianski (2003), Weeks and Finch (2003) – include interdisciplinary approach
- Stakeholder impact and quality of property education : including stakeholder impact... ; Hefferan (2010; 2011).

Newell (2007) noted the changes to more a generic first year in many universities were driven more by financial reasons than by educational reasons. Thus, early in many degree programs students will not have had a strong property context. In addition, as universities seek to establish larger schools, property departments have suffered a loss of identity or “badging” for property in the school title (Newell, 2007, p. 138). International and Australian property education uses an interdisciplinary approach. Schulte (2001) stated that real estate education consists of interdisciplinary units, i.e. economics, law, spatial planning, architecture, engineering and business administration. Moreover, the school has a strong influence on the diversity of core property units and also non-core property units (Susilawati and Armitage, 2011).

Given this focus on improving the quality of the teaching and learning experience in Australian universities and the increased focus by governments on students acquiring skills needed by industry (Thomas and Busby, 2003), the various universities offering property programs have responded positively in this debate to improve the quality and relevance of the property education experience in Australia in recent years. Often this has been in a context of students having poor university preparation, low university admission scores, university pressures to meet enrolment quotas and retention targets, and universities implementing more generic degree structures. Similarly, it has seen an ageing property academic staff profile, with an academic career not being seen as attractive to many younger academics due to lack of job security, higher workloads and non-competitive salaries with property industry colleagues (Newell, 2007).

However, there has been limited research on the course review process or even course structure. This paper will discuss the traditional course review process, and compare it with the new approach required to comply with AQF.

3. AUSTRALIAN QUALIFICATIONS FRAMEWORK (AQF)

The Australian Qualifications Framework (AQF) is the national policy for regulated qualifications in Australian education and training. It incorporates the qualifications from each education and training sector into a single comprehensive national qualifications framework (AQF Council, 2013, p.9). “The objectives of the AQF are to provide a contemporary and flexible framework that:

- accommodates the diversity of purposes of Australian education and training now and into the future
- contributes to national economic performance by supporting contemporary, relevant and nationally consistent qualification outcomes which build confidence in qualifications
- supports the development and maintenance of pathways which provide access to qualifications and assist people to move easily and readily between different education and training sectors and between those sectors and the labour market
- supports individuals’ lifelong learning goals by providing the basis for individuals to progress through education and training and gain recognition for their prior learning and experiences
- underpins national regulatory and quality assurance arrangements for education and training
- supports and enhances the national and international mobility of graduates and workers through increased recognition of the value and comparability of Australian qualifications
- enables the alignment of the AQF with international qualifications frameworks.” AQF Council (2013, p.9).

AQF levels are specific to the degree qualification. The AQF level informs course and unit learning outcomes, assessment and criteria. Institutions are responsible for ensuring that students have assessment evidence of completing their programs at the required level. Table 1 shows ten AQF levels and the qualification awards.

Table 1: Australian Qualification Framework (AQF) Level

AQF level	Qualification
Level 1	Certificate I
Level 2	Certificate II
Level 3	Certificate III
Level 4	Certificate IV
Level 5	Diploma
Level 6	Advanced Diploma, Associate Degree
Level 7	Bachelor Degree
Level 8	Bachelor Honours Degree, Graduate Certificate, Graduate Diploma
Level 9	Master Degree
Level 10	Doctoral Degree

Source: AQF (2013a)

The learning outcomes are constructed as a taxonomy of what graduates are expected to know, understand and be able to do as a result of learning. They are expressed in terms of the dimensions of knowledge, skills and the application of knowledge and skills:

“Knowledge is what a graduate knows and understands. It is described in terms of depth, breadth, kinds of knowledge and complexity, as follows:

- depth of knowledge can be general or specialised
- breadth of knowledge can range from a single topic to multi-disciplinary area of knowledge
- kinds of knowledge range from concrete to abstract, from segmented to cumulative
- complexity of knowledge refers to the combination of kinds, depth and breadth of knowledge.

Skills are what a graduate can do. Skills are described in terms of the kinds and complexity of skills and include:

- cognitive and creative skills involving the use of intuitive, logical and critical thinking
- technical skills involving dexterity and the use of methods, materials, tools and instruments
- communication skills involving written, oral, literacy and numeracy skills
- interpersonal skills and generic skills.

Application of knowledge and skills is the context in which a graduate applies knowledge and skills. Specifically:

- application is expressed in terms of autonomy, responsibility and accountability
- the context may range from the predictable to the unpredictable, and the known to the unknown, while tasks may range from routine to non routine.” (AQF Council 2013, p.11).

Each Australian university that meets the requirements under subsection 45(1) of the Tertiary Education Quality and Standards Agency Act 2011 (TEQSA Act) is authorised to self-accredit each course of study that leads to a higher education award that the provider offers or confers. The TEQSA Act established the agency and the new national regulatory and quality assurance environment for Australian higher education. This accreditation is not a replacement of the professional body accreditation (such as API and RICS) for property courses.

There are two levels of bachelor degree shows in Table 1: the AQF level 7 for the bachelor degree and level 8 for the bachelor honours degree. The AQF no longer allows courses to be offered ‘with honours’ awarded on the basis of a GPA and has replaced this with a bachelor honours degree which can either be a one year ‘end on’ degree, or embedded within a four year degree. There are differences between the expected outcomes of both degrees, which are classified into knowledge, skills and application. The difference between AQF level 7 and level 8 create the paradigm shift required in course development, improvement and quality assurance (see Table 2). The main difference is the AQF level 7 course requires the graduate to have **broad and coherent knowledge and skills**. However, the graduate of a AQF level 8 course (Honours) will have **advanced knowledge and skills**. One of the very important skills that developed in the honours degree is capability to conduct research. Hence, the AQF 8 bachelor honours degree is a pathway to further research degrees.

Table 2. Comparative expected outcomes of Bachelor degree AQF level 7 and level 8

	Bachelor Degree AQF Level 7	Bachelor of Honours Degree AQF Level 8
Purpose	The Bachelor Degree qualifies individuals who apply a broad and coherent body of knowledge in a range of contexts to undertake professional work and as a pathway for further learning	The Bachelor Honours Degree qualifies individuals who apply a body of knowledge in a specific context to undertake professional work and as a pathway for research and further learning
Knowledge	Graduates at this level will have broad and coherent body of knowledge, with depth in the underlying principles and concepts in one or more disciplines as a basis for independent lifelong learning	Graduates at this level will have coherent and advanced knowledge of the underlying principles and concepts in one or more disciplines and knowledge of research principles and methods
Skills	<p>Graduates at this level will have:</p> <ul style="list-style-type: none"> • cognitive skills to review critically, analyse, consolidate and synthesise knowledge • cognitive and technical skills to demonstrate a broad understanding of knowledge with depth in some areas • cognitive and creative skills to exercise critical thinking and judgement in identifying and solving problems with intellectual independence • communication skills to present a clear, coherent and independent exposition of knowledge and ideas 	<p>Graduates at this level will have:</p> <ul style="list-style-type: none"> • cognitive skills to review, analyse, consolidate and synthesise knowledge to identify and provide solutions to complex problems with intellectual independence • cognitive and technical skills to demonstrate a broad understanding of a body of knowledge and theoretical concepts with advanced understanding in some areas • cognitive skills to exercise critical thinking and judgement in developing new understanding • technical skills to design and use research in a project • communication skills to present a clear and coherent exposition of knowledge and ideas to a variety of audiences
Application	<p>Graduates of a this level will demonstrate the application of knowledge and skills:</p> <ul style="list-style-type: none"> • with initiative and judgement in planning, problem solving and decision making in professional practice and/or scholarship • to adapt knowledge and skills in diverse contexts • with responsibility and accountability for own learning and professional practice and in collaboration with others within broad parameters 	<p>Graduates of a this level will demonstrate the application of knowledge and skills:</p> <ul style="list-style-type: none"> • with initiative and judgement in professional practice and/or scholarship • to adapt knowledge and skills in diverse contexts • with responsibility and accountability for own learning and practice and in collaboration with others within broad parameters • to plan and execute project work and/or a piece of research and scholarship with some independence

Source: AQF council (2013, p. 16)

4. TRADITIONAL COURSE REVIEW PROCESS

Regular quality assurance is common practice to achieve continuous improvement on any course. One of the methods indicated by Persky, Joyner and Cox (2012) is by using six sigma which basically uses the facts on the current quality status of the program. The orientation of using the existing course, finding problems and improving upon it as a baseline is very common in any quality assurance process. In addition, it is important to include all stakeholders on reviewing the quality of property education (Hefferan, 2010, 2011).

The university may provide protocols on the administration process of reviewing courses and the process for submitting major changes or new courses for approval on their website. The traditional review process is divided into an annual

course review and a comprehensive course review in every five year cycle (Curtin University, 2013). The annual course review is based on student feedback and quality of teaching and learning. The unit level review is conducted based on student satisfaction data; whilst the overall course is reviewed based on data gathered from recent graduates. The focus of this latter review is to analyse the course performance and identify strengths and areas for improvement.

This paper is focus on the comprehensive course review process, which is conducted every five years in most universities in Australia. Curtin University (2013) mentions the focus of a comprehensive course review is to review the course curriculum map to show “how the learning outcomes and assessments contribute to the achievement of course learning outcomes”. The students’ perception is a very important input in the course review process. The currency and relevance of the curriculum is also measured by inviting employer, property professionals and professional organisations to review the entire academic program.

Figure 1 is the traditional framework for reviewing a course on the basis of the existing units or course. The review process consists of internal and external sources. The internal review includes student evaluation, academic review and faculty/ school changes. The external review includes employers, graduates and professional accreditation bodies. The recent graduates provide a formal input through the graduate destination survey (GDS) and the Course Experience Questionnaire survey (CEQ). The employer is involved in providing input through industry advisory groups, professional accreditation panels or other employer and/or university forums. The professional organisations conduct external examination visits, which consist of academics from other universities and industry representatives.

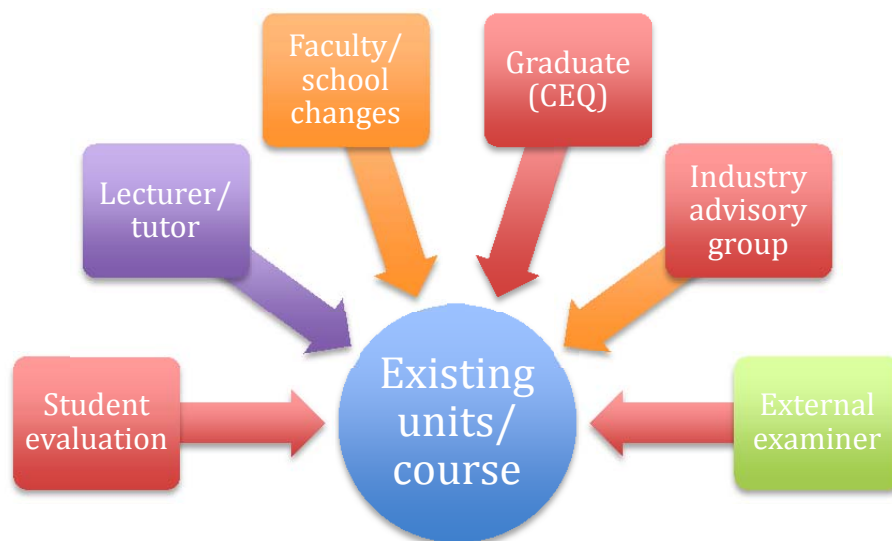


Figure 1: The traditional framework of reviewing a course on the basis of the existing units or course

The changes resulting from the traditional annual review or comprehensive course review could be in the form of minor changes, major changes or the whole of course changes (see Figure 2).

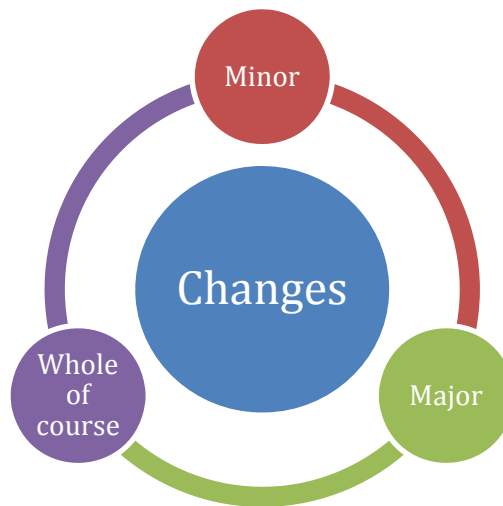


Figure 2: Traditional Course Changes Cycle

The traditional course review process is one of continuous improvement based on the existing course, ensuring at all times that the units align to course learning outcomes. On the other hand, the focus of the AQF as shown in Table 2 is on the graduate capabilities. Therefore the AQF review process must focus on graduate capabilities rather than focus on the existing units. This new focus necessitates a reverse engineered course review process that is discussed in the next section.

5. THE AQF COURSE REVIEW PROCESS

The AQF requires an outcome oriented process which influences the development, monitoring and implementation of the AQF courses (see Figure 3). Firstly, the graduate profile is defined to underscore the direction of the property course development. Required graduate attributes are then defined, together with course learning outcomes. Course learning outcomes are formulated on the basis of the accreditation requirements (AQF, professional accreditation, discipline standards and industry). Each unit/subject assessment is then designed to reflect the desired learning outcomes, and then finally the unit/subject content is backfilled. This paper recommends that further evaluation needs to be conducted in the initial course development phase by involving professional accreditation bodies, industry representatives, students and recent graduates in this course development process.

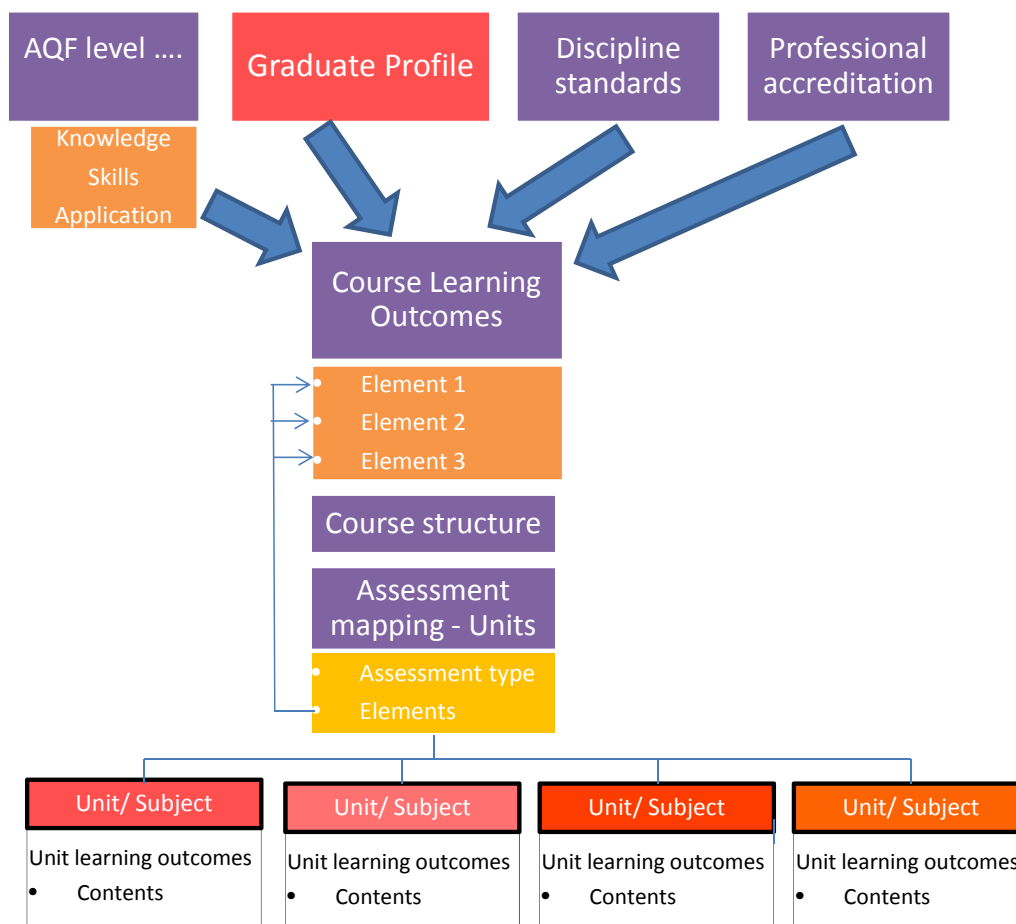


Figure 3: AQF course review process

This reverse engineered process will ensure that all students have been taught and assessed on the graduate attributes which will form the graduate profile. In order to monitor that the course is designed to meet the graduate profile based on the AQF level requirement, each components of curriculum need to links to the course learning outcomes.

Figure 4 shows the course learning outcomes as the focus of the review. The graduate elements are the knowledge, skills and applications that are required for a specific course which reflect the discipline standards and professional accreditation requirements. The course structure will cover all the units that have the required elements. With the AQF focus on output therefore, it is important to ensure that the assessment of each unit will test the appropriate elements of the stated graduate capabilities. Each unit's learning outcomes will have to be aligned with course learning outcomes. In addition, the assessment of each unit will be required to support the unit learning outcomes and therefore achieve the course learning outcomes.

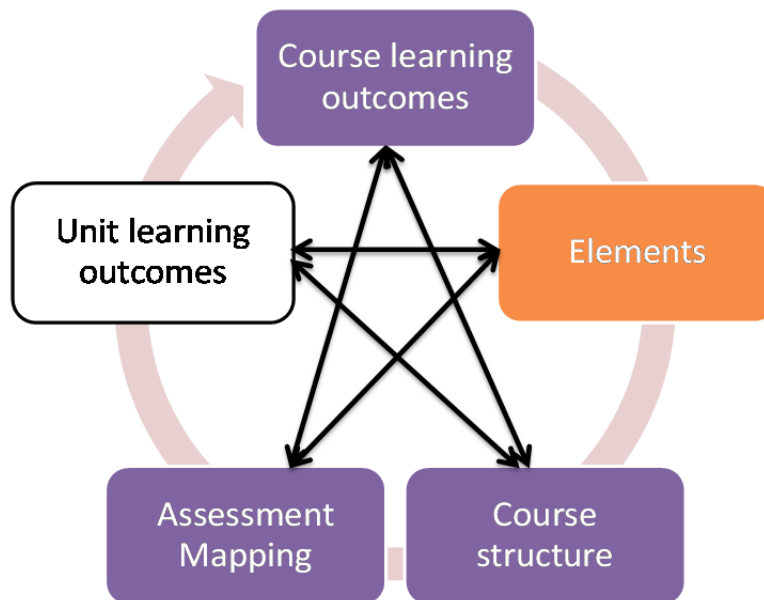


Figure 4: Course learning outcomes focus

The course level review process is an important element that should be undertaken prior to the development of each unit. The unit is not the starting point in the course review process but rather the final stage in the course review and development process. In essence the final units to be offered in the redeveloped property program are the by-product of the redesign process. Figure 5 illustrates the components of unit outline that directly link to the course learning outcomes and graduate elements. In Figure 4, it is clear that both unit learning outcomes and the assessment for each unit are inseparably linked to the course learning outcomes. In addition, the inclusion of the graduate elements in the learning content and approach to teaching and learning needs to be evident. Constant monitoring to ensure inclusion of learning outcomes on unit/subject level during the course redesign process is crucial to achieve the course learning outcomes.

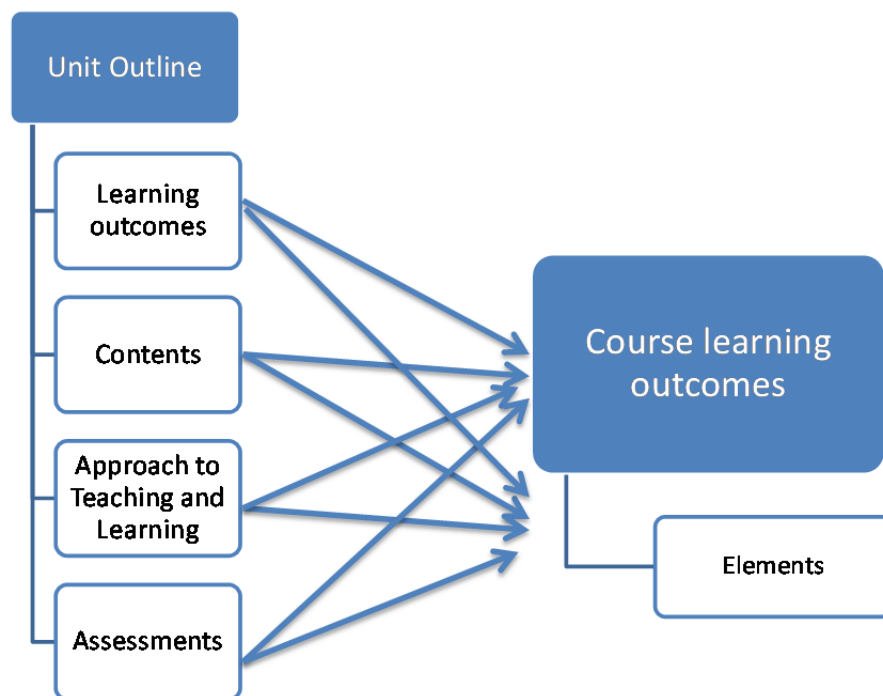


Figure 5 Unit outline development process

6. PROPERTY ECONOMIC COURSE

This section illustrates the property economics design process to ensure compliance with the AQF requirements. Generally university courses are tailored to a specific discipline and may be easier to compare between alternate courses

offerings and benchmark against professional/ discipline standards. Property economics is a multi disciplinary course, which is generally offered by either a Built Environment Faculty or Business Faculty.

There has been some attention by academic writers on the topic of property education. Page (2000) discussed the graduate outcomes approach to property education. Property graduate qualities are very important indicators of the quality of a property program. However, Page did not discuss how graduate quality outcomes would influence the design of property course. Blake and Susilawati (2009) discussed the importance of property education in preparing a property graduate for the professional world.

Universities seek to improve teaching standards and the student learning experience by evaluating and benchmarking performance, and monitoring changes in the student education experience. This has seen increased university funding in Australia partly linked to improved quality of university education (403).

Almost all undergraduate property degrees in Australia are offered in a three year program. Therefore, the course will meet bachelor degree, AQF level 7 requirements. As an AQF level 7 degree, the requirement is based on broad knowledge and skills. There is no requirement to have research training, which is an honours degree (AQF level 8).

Property economics degrees are a multi disciplinary degree offered by a Built Environment Faculty or a Faculty of Business. However, the property discipline does not fit perfectly with a building discipline and does not meet accounting discipline standard either.

The property course does not have a discipline standard, thus it is necessary to use the professional accreditation requirements. Most property degrees in Australia are accredited by Australian Property Institute (API) and/or Royal Institution of Chartered Surveyors (RICS). These bodies prescribe knowledge, skills and application requirements to ensure these are covered in the course learning outcomes and their elements. These elements are very similar to graduate capabilities which have both technical and generic skills.

Table 3 illustrates how the Australian Property Institute (API) knowledge fields can be covered in the property units. The knowledge fields can be taught in core units and discipline units. The complementary studies are optional for students who want to achieve CPV qualification. Many property courses offer the students the opportunity to choose a specialisation such as investment, development or valuation.

Table 3 Australian Property Institute (API) knowledge fields

	API Knowledge Fields
CORE UNITS (Common Business or Built Environment units)	Commercial Law Property Economics
DISCIPLINE UNITS (Property Economic Major)	Building Construction Finance and Accounting Land Use, Planning and Development Property Law Property Investment Property Management Property Market Analysis Property Valuation Fundamentals
COMPLEMENTARY STUDIES	Valuation Applications Statutory Valuations

Source: Adopted from API (2013)

RICS recommend competency requirements on Assessment of Professional Competency (APC) when undertaking a valuation pathway. The Valuation APC pathway covers property valuation, residential survey and valuation and machinery and business assets (RICS, 2013). These competency requirements are classified into mandatory, core and optional competencies. (refer to Table 4).

Table 4. Pathway requirements

Mandatory competencies	Core competencies	Optional competencies: Choose three to Level 3 and one to Level 2 or two to level 3 and three to level 2.
Conduct rules, ethics & Professional practice, (Level 3) Client care, Communication and negotiation, Health and Safety (Level 2), Accounting principles & procedures, Business Planning, Conflict avoidance, management and dispute resolution procedures, Data Management, Sustainability, Teamworking (Level 1)	Inspection, Valuation (level 3) Measurement of land property (level 2)	Access & rights over land, auctioneering, building pathology, capital taxation, compulsory purchase & compensation, contaminated land, corporate real estate management, corporate recovery and insolvency, development appraisals, indirect investment vehicles, insurance, investment management (including fund and portfolio management), landlord and tenant (including rent reviews and lease renewals), leasing/letting, local taxation/assessment, planning, property finance and funding, property management, property management accounting, property records/information systems, purchase and sale, strategic real estate consultancy, valuation of businesses and intangible assets, accounting principles and procedures or conflict avoidance.

Source: Adopted from RICS (2013)

As mentioned in the previous section, the course learning outcomes are reinforced by unit learning outcomes. Design of the units is also reverse engineered from the final semester units. These units are capstone units, which will provide integrated skills to apply and reinforce the knowledge and skills learnt in the earlier years. These capstone units are designed so that the property graduates' profile can be achieved. The design of earlier units allows the scaffolding of students' skills developed and finally introduced in the earlier years. The main measures of this process are explored through assessment mapping. The assessment mapping not only shows the diversity of the assessment items but also the students' learning progression, designed to achieve the course learning outcomes.



Figure 6 The process of unit design start from the final semester

Unit design starts with the determination of unit learning outcomes and assessment items. The unit learning outcomes and assessment items will be the main input for further development of lecture content.

Each assessment item will assess one or more unit learning outcomes and these learning outcomes have been checked against course learning outcomes (see Table 5). This process ensures that the course learning outcomes are achieved.

Table 5. The cross check of course learning outcomes inclusion in the element of units

Unit names	Assessment types	Unit Learning outcomes	Course learning outcomes
Unit A	Assessment A	Unit A ULOs no. 1, 3, 4	CLOs no. 1,2,3,4,5,6
Unit A	Assessment B	Unit A ULOs no. 1, 2, 3, 4, 5	CLOs no. 1,2,3,4,5,6

This paper exhibits the implementation of two elements within Property economics course development. The first element is property knowledge. The course is designed so that the students will learn the majority of property knowledge in their early semesters and at the end of the course they will be prepared to undertake units that provide a capstone experience. Capstone experiences support students to reflect on the whole-of-course experience, explore links between the students' experiences in their course and transition into the professional world. This provides students with opportunities to integrate and synthesise knowledge and skills developed throughout the course (QUT, 2013).

Teamwork and leadership are essential interpersonal skills for a student to develop during their property economics course. As an element of the property course learning outcomes (CLOs), these skills need to be developed during the three year degree course. In the first year, the students will not just be asked to do a group work but also introduce how

to work in a team. In the final semester, the students will be mainly assessed individually. Although not directly assessed, the students will apply their team work skills during work experience.

To achieve some of these CLOs such as team/group work, it is necessary to integrate the required knowledge and skills across a number of units and to also incorporate this requirement into the assessment and approaches to teaching and learning. An example is provided below.

The introduction of team work and leadership in the first year units are integrated by not just one unit but across a range of units. There is a specific unit that actually teaches group work skills. Table 6 illustrate the component of unit outline.

Table 6 Unit outline development inclusion of team work skill

Unit name	Understanding built environment
Approach to teaching and learning	develop core academic skills such as critical thinking, research and writing, presentation and group work skills
Content	Working in groups and peer review from both an academic and industry perspective
Assessment	group presentation is the evaluation on teamwork skills, also oral presentation skills. Other type of assessment within first year units that require team presentation is workbook and essay. The test of team work can be directly, but mainly in-directly as the marks based on products such as written essay or oral presentation. In final year, capstone unit where the students have to write their work experience reflection report can reflect their experience working as a member of team in the work place.

Zhou, Darvish and Kim (2006) discussed the problems and benefits of group assignment in postgraduate property economics course. Group assignments assist students to develop generic skills such as: cooperation skills, communication skills, interpersonal skills, negotiation skills, delegation skills, social interaction, time management skills, organisation skills, conflict management skills, leadership skills, collaboration and support. During the group assignment process students may experience difficulties such as different expectations, low quality work by some group members, not learning all materials, free riders, unfair assessment, difficulties in arranging time for group meetings, having non-competent students, risk to get good marks, one member domination, dispute on assignment related issues, in equitable allocation work, confrontation, and members not wanting to share ideas. Despite the possible difficulties with group assignments, the professional skills the students achieve through the process contribute significantly in achieving a desired graduate profile upon completion of their property degree.

7. CONCLUSION

The redesign of the QUT property economics degree has been undertaken through a reverse engineered process in first identifying the graduate learning attributes as described under AQF and professional accreditation requirements. The graduate learning outcomes have then been integrated and reinforced in the development of each unit. This reverse engineered process will ensure that all students have been taught and assessed to achieve the graduate attributes which will form the graduate profile. Therefore, monitoring the inclusion of learning outcomes on unit/subject level during course restructure and development is crucial to achieve the overall course learning outcomes. From the completion of this paper it was identified that the course redesign process is worthy of further evaluation through the course development and implementation phases through collecting the perspectives of stakeholders such as professional accreditation bodies, industry representatives, students and recent graduates.

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