

# Contextualising Professional Knowledge and Skills: integrating the postgraduate accounting curriculum

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## Abstract

*Accounting curriculum must be more integrated and interactive in order to respond to the changing requirements of industry and professional bodies as well as student demand for greater flexibility. Curriculum developers have responded to this need for change by adopting teaching approaches such as work-integrated, work-based or experience-based learning that provide enhanced accounting education and job-ready students. This paper considers the Graduate Diploma in Professional Accounting at Victoria University (VU). This qualification is the first CPA Australia-accredited 8 unit conversion course in Australia. The new program replaces a 12-unit program that featured a more stand-alone and discipline self-sufficient approach to the curriculum requirements of the professional bodies. The new Graduate Diploma program, however, adopts a multi-disciplinary approach to accounting knowledge and skills with a focus on work-integration.*

*An examination of one of the Graduate Diploma units that integrates different knowledge sets and skills and, more particularly, different subject knowledge will be considered in this paper. Professional Auditing provides students with knowledge and appreciation of an audit including the whole audit process. Using an integrated approach, this unit combines Information Systems, Statistics and Accounting knowledge to provide a contextualised and interdisciplinary learning experience.*

**Keywords** – accounting conversion courses, curriculum integration, professional accreditation, employability skills

## Introduction

This paper will examine the professional and educational benefits of a new Certified Practising Accountant (CPA) Australia-accredited, eight-unit postgraduate conversion course. Conversion courses have been recommended in Australian accounting for some time (Mathews, 2002) but universities have been slow to shift from or add to either the traditional undergraduate pathway to the accounting profession or the Masters programs that have been in place in Australia since the 1980s. Victoria University now offers both undergraduate Accounting qualifications and the new Graduate Diploma in Professional Accounting conversion program. Given the appeal of the new, shorter conversion program for local and international students, this paper will consider how the program's integrated approach to curriculum and the explicit focus on the development of graduates' employability skills will benefit all students. While the professional accounting bodies have traditionally accredited a twelve-unit Masters degree catering to students with an existing undergraduate degree who want to join the accounting profession, this new Graduate Diploma in Professional Accounting has successfully rationalised and merged pre-existing Accounting units and developed an innovative and competitive qualification structure that is informed by constructivist learning theories. The purpose of this paper is to provide a reflection and analysis of the curriculum changes

undertaken to develop the new qualification and to anticipate some of the benefits of the program which is currently being delivered at Victoria University, Melbourne. A unit of study from the new course will be used to showcase the innovative integrated approach in respect to Information Systems and Accounting in particular.

## **Motivation**

In a recent speech, the Deputy Prime Minister, Julia Gillard made the following remark regarding the higher education sector.

Australia needs a highly regarded, high quality and internationally relevant education and training system, one which provides students, both Australian and international, with the skills and knowledge they need to participate fully in our globally engaged economy and society (Gillard, 2009).

Schools of Accounting play a substantial role in preparing local and international students for a career in the accounting profession by providing globally recognised qualifications. Accounting, then, contributes significantly to the international education sector's role in export income to the Australian economy which has exceeded \$10 billion each year for several years now (AEI, 2008). Australian universities have a financial dependence on revenue from international students; a fact that is widely regarded as a legacy of years of under funding by the Federal Government. This dependence is highlighted by Gillard:

International education has made a significant contribution to Australia. It has grown to now be our third largest source of overseas earnings, generating \$15.5 billion in 2008 and supporting more than 125,000 jobs. In 2008, nearly half a million students came to Australia. It is the lead sector in terms of export earnings in Victoria and the second largest in New South Wales (Gillard, 2009).

The contribution of Schools of Accounting to the earning capacity of universities is well known with many bovine (cash cow) references acknowledged. Schools of Accounting, then, perform a leading role in not only educating substantial numbers of local and international students but also in contributing significant financial resources to many cash-strapped universities. Any major curriculum change to a heavily regulated and lucrative qualification like Accounting will necessarily involve substantial debate. For years, there have been calls for accounting curriculum to attend to students' communication skills, to be more integrated and interactive in order to respond to the changing requirements of industry and professional bodies as well as student demand for greater flexibility. There have also been calls for a move away from a broad undergraduate Accounting program to a graduate-entry conversion course (Mathews, 2002). Curriculum developers in the School of Accounting at Victoria University (VU) have responded to these calls for change by developing the first CPA Australia-accredited 8 unit conversion course in Australia and by adopting teaching approaches such as work-integrated, work-based or experience-based learning that provide enhanced accounting education and job-ready students<sup>1</sup>. Significantly, the reduced time-line of this program has also

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<sup>1</sup>A recent desktop audit of Australian university websites found over 20 terms and approaches to what the ABDC (**Australian Business Deans Council**) through its Associate Deans Teaching and Learning Network is calling Professionally Relevant Learning. Work integrated learning does have currency but is used to mean a range of approaches Other terms include: workplace learning, work-based learning, work placement, industry-based project,

necessitated what has long been educationally desirable; namely, an integrated approach to the subject areas that have traditionally been taught “separately” from Accounting – such as IS and Statistics. Interestingly, when Mathews (2002) writes about “the interdependence of situation and cognition” (p. 23), he refers to contextualising learning in the workplace – but this interdependence is also worth thinking about in respect to discipline areas which must be integrated if learners are to be presented with real life, meaningful complex problems from and through which to learn.

An examination of one of the Graduate Diploma units that integrates different knowledge sets and skills and, more particularly, different subject knowledge will be considered in this paper. Professional Auditing provides students with knowledge and appreciation of an audit including the whole audit process. Using an integrated approach, this unit combines Information Systems, Statistics and Accounting knowledge to provide a contextualised and interdisciplinary learning experience.

### **Background**

In 2007 the School of Accounting at VU was confronted with rapidly changing circumstances on a number of fronts. The professional bodies and employers, students, the Department of Immigration and Citizenship (DIAC), and the desire by VU to distinguish itself from other universities presented the School with significant issues concerning its postgraduate course offerings. From the outset, it was evident that VU’s postgraduate program as it stood did not meet the needs of stakeholders and that significant changes were inevitable.

CPA and the ICAA are members of the International Federation of Accountants (IFAC) and are consequently obliged to follow the policies and standards of IFAC. IFAC, through the core education attributes standard (IES 2), specifies an accredited accounting course along with a professional program and a minimum of three years supervised accounting work experience is required before a student / trainee would be considered a qualified accountant and able to join a member accounting body. IES 2 allows considerable diversity in how an accredited accounting course and the professional program satisfy the overall curriculum requirements. CPA and the ICAA have diverging curriculum requirements that complicate course offerings by universities.

CPA conducted employer focus group meetings to ascertain the currency of the existing 12-unit conversion courses offered by universities. The primary outcome of the focus groups was that employers were keen to see the conversion courses shortened to 8 units which would fast track graduates in to the profession, provide a

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industry-based learning, industry placement, project-based learning, cooperative education, practicum, professional practice, professional learning, real-world learning, learning in the workplace, enterprise education or learning, practice-oriented education, service learning, experiential learning, internships and career development learning.

more cost effective option for students and which would reduce the duplication of content that existed between 12-unit conversion courses and the CPA Program which needs to be completed before graduates join.

The world-wide shortage of accountants has been exacerbated in Australia by overlapping curriculum between accounting courses offered by universities and the professional bodies. Accounting conversion courses are offered to graduates of any Australian degree and have in the past taken the form of a 12-unit Master of Professional Accounting (MPA). As the MPA is a full-fee paying course, it had become increasingly difficult to attract local students. The cost of the MPA and time involved (18 months full-time or 3 years part-time) were also discouraging people from entering the profession. The shorter time-frame and substantial fee reduction brought about by the 8 unit Graduate Diploma combined with the financial crisis should provide a substantial incentive for budding local accountants.

### **Context**

This integrated approach to accounting curriculum development will be considered in the context of a University keen to embed Graduate Capabilities into all curriculum to produce career-ready professionals. The curriculum integration that has taken place will be investigated in the light of the University's commitment to enhancing the employability of its students and developing their effectiveness as lifelong learners while simultaneously meeting the discipline-specific professional requirements of CPA Australia. Furthermore, the aim of the post-graduate conversion course is to create an integrated curriculum that provides students with a more complex, more multidisciplinary and more authentic learning experience in a course that is underpinned by a constructivist approach to teaching. While holistic approaches to curriculum may be commonplace in primary schools, at university level, the disciplinary silos and the institutional organisation of Schools within Faculties makes meaningful integration of discipline areas vital to Accounting such as Information Systems (IS), Statistics and Accounting both a conceptual and political difficulty.

Many Schools of Accounting are examining their responses to changing social, economic and educational circumstances, new qualification options and the broader international educational context. As such, this paper's consideration of the model offered by the Graduate Diploma in Professional Accounting at VU is a timely contribution to the debate about the future direction of accounting education. VU's qualification is the first CPA Australia (CPA)-accredited 8 unit conversion course in Australia. Conversion courses allow graduates of a range of Bachelors degrees to enter the accounting profession and many commentators see conversion courses as having a professional advantage over the more traditional undergraduate accounting qualification in that students "approach their studies in accounting with greater maturity and experience, and from the perspective of the long-term future of the profession...[and] should bring a broader knowledge and world-view to bear on accounting and reporting issues"(Mathews, 2002: 383).

The new program replaces a 12-unit program that featured a more stand-alone and discipline self-sufficient approach to the curriculum requirements of the professional bodies. The new Graduate Diploma program, however, adopts a multi-disciplinary approach to accounting knowledge and skills with a focus on work and learning to learn. As Giddens and Stasz (1999) commented ten years ago, accountants must “draw information from a range of academic disciplines”; in the workplace, the range of disciplines is not clearly delineated and so a multidisciplinary, integrated approach best emulates the real world problems accountants are likely to encounter.

### **Responding to International Students**

Whilst local students, employers and the profession are demanding a shorter conversion course, international students are more interested in undertaking courses that provide the maximum number of career opportunities for either when they return to their countries of origin or when they stay in Australia and seek permanent resident status. Recent DIAC changes (as of September 1, 2007) require international students who want permanent resident (PR) status to have the following:

- 2 years full-time study in Australia (compulsory)
- Exit International English Language Test Score (IELTS) of 7.0 (for post-graduate study)
- 12 months work experience (earns extra modal points)
- Undertake a ‘Professional Year’ (earns extra modal points)

Satisfying the needs and expectations of all stakeholders in the rapidly changing internal and external environment is a significant challenge. To provide an educational program that is appealing and flexible to both local and international students, to maintain the School’s competitiveness and enable continued contribution to VU’s revenue and growth substantial changes needed to be undertaken. The postgraduate offerings of the Faculty and particularly the School of Accounting went through extensive change which included the professional accreditation with CPA of the Graduate Diploma of Professional Accounting, the first 8 unit conversion course approved by CPA. This achievement belies the difficulties encountered in managing the change process to fruition, not least of which was the integration of curriculum to maximise the benefits of a shorter course offering to students.

### **Curriculum changes to meet stakeholder expectations**

In addition to a new approach whereby Information Systems and Statistics are framed in the discipline-specific context of the Accounting units rather than in a discipline-free vacuum, it is a further aim that all units explicitly include ethics topics and identify the generic skills or graduate capabilities intended to be developed both in each unit and in the course overall. The curriculum integration requirements for each of the Unit of Study outlines indicating topics to be blended into the curriculum are described in Table 1.

**Table 1 Units of Study and integrated curriculum changes**

<b>Unit of Study</b>	<b>Curriculum changes</b>
Accounting Systems and Processes	Includes topics related to this subject, assignment and examination questions on electronic information systems design and development
Financial and Corporate Accounting	Includes topics related to this subject, assignment and examination question on electronic information systems design and development, and ethics
Managerial Accounting	Includes topics related to management accounting, assignment and examination question on descriptive statistics, frequency and probability distributions & hypothesis testing, and ethics and governance issues
Issues in Contemporary Accounting	Includes topics on advanced financial accounting issues and theory, and corporate social responsibility and ethics
Business Finance	Includes topics related to finance, assignment and examination question on descriptive statistics, frequency and probability distributions & hypothesis testing.
Business Economics	Combination of macro and micro economic topics
Business and Company Law	Combination of business and company law topics
Professional Auditing	Includes topics related to auditing, assignment and examination question on electronic information systems design and development, descriptive statistics, frequency, and ethics and governance issues

The curriculum changes briefly described in Table 1 were accredited by VU in June, 2008 and by CPA in December, 2008. Student enrolment in both undergraduate and postgraduate accounting programs at VU have increased with some suggestions that it is because of not in spite of the Global Economic Crisis; in fact, it is too early to determine the reason for the increase. Similarly, it is too early to ascertain student satisfaction with the curriculum changes.

### **Justification for integrating the curriculum**

Many commentators have summarised general and global concerns that accounting curriculum be reorientated, more integrated and more interactive. Educators have suggested teaching approaches that are likely to enhance and achieve innovative accounting education – from PBL (Heagy and Lehmann, 2006) to work-integrated, work-based or experience-based learning (Abeysekera, 2006). The Accounting Education Change Commission (AECC, 1990) emphasises the need for accountants to have lifelong learning skills and generic skills as well as professional expertise. Generic skills for the purposes of accounting education must be regarded not as a decontextualised, general skills set but rather must be seen “in terms of a relationship between an individual and his/her work context” (Lankard Brown, 2002); that is, generic skills need to be contextualised within the accounting discipline and referenced to that profession.

The umbrella notion of an integrated curriculum needs to be unpacked to identify the elements of curriculum that are being integrated. Many accounting educators are familiar with work-integrated learning and most Australian universities stress the need to integrate various graduate attributes in all curriculum – accounting included. The CPA specifically requires the integration of professional attributes in accounting curriculum and monitors compliance through the accreditation process.

IFAC's distinction of capability and competence is useful in thinking about embedding employability skills in curriculum. Capability refers to the professional knowledge, skills, values, ethics and attitudes required to demonstrate professional competence: capability is what you need to have in order to perform a work role (IFAC, IES2). Professional accountants need a range of capabilities – technical know-how, discipline knowledge, organisational and management skills, interpersonal skills; really, a variety of critical thinking skills that will allow them to make judgements and justify those judgements in a professional setting. In a most pertinent comment on the importance of accounting education, the IFAC's *Introduction to International Educational Standards* emphasises the need for accountants to be responsive to change and to be “technical experts with excellent communication skills [who] need to be able to meet the reporting and information needs of the new knowledge economy”. Beyond discipline expertise, then, accountants need to become, “when appropriate, business advisors; financial analysts; excellent communicators; capable negotiators; and first-class managers” (IFAC: IES2). Being an accounting professional does require the broader skills mentioned by Mathews (2002) and which having an undergraduate qualification in an area other than accounting fosters.

The Graduate Diploma in Professional Accounting qualification has moved from the earlier conversion course of 12 units of study at VU (with an additional 6 units delivered and assessed by CPA, and 3 years of work experience) that tended to be disciplinarily self-sufficient to a more multi-disciplinary approach with a reduced 8 units of study. These 8 units integrate different knowledge sets and skills and, more particularly, different subject knowledge that have often been taught separately – like AIS, statistics, ICTs and ethics. The IFAC guidelines provide educators with two general options particularly with units like AIS – that it be taught as a standalone unit, or that it be integrated with other accounting units. At VU, it is considered that the adoption of an integrated approach will provide a richer and more authentic educational experience. A consideration of IS will demonstrate some of the institutional and conceptual difficulties of developing a multidisciplinary unit.

### **Information Systems in Australian universities**

Drawing on Gable's work (2006) that asks the question, “To what extent is Information Systems a distinct and mature discipline in Australia?”, it is significant to consider the integration of IS expertise within Accounting units in the wider context of IS teaching. IS, as Gable suggests, is an academic discipline that is relatively young and is still evolving a sense of its disciplinary and professional identity. IS sits variously in Science or Business faculties. Certainly, there is evidence that IS is sometimes overlooked as a separate field of study as it is so bound up with other discipline areas. IS units in Accounting at VU have traditionally been taught by non accountants from the School of Information Systems – and the same is true of Statistics which has been traditionally taught by staff from the School of Economics. IS has long been regarded as existing “between technical and business disciplines, encompassing a range of applied and instrumentalist topics, and interacting closely with many other disciplines” (Clark, 2006, cited in Gable, 2006).

While some academics argue that IS, for example, is a distinct discipline with a “foundational core” (Weber, 1999), this distinctive segregation is not useful for developing accounting professionals with a practical and theoretical understanding of IS relevant to their work. For students, the need to embed IS capability into every discipline area is a “no brainer” – for academics and institutions, this integrated approach might be more difficult to achieve due to historical, administrative and political reasons and because of the professional identities and territories involved. Heagy and Lehmann (2005) note that accounting students do not necessarily have to specialise in IS “but many will be auditors who evaluate accounting systems or may be part of a user group or consulting team convened to design and implement a system for their employer or a client” (p. 229). The need to have a firm, professionally relevant grasp on IS is clear and a PBL approach is one way to achieve it (Heagy and Lehmann 2005: 229). While VU’s program is not PBL, it does use scenarios and case studies to encourage students’ learning to learn capacity, their communication skills and their problem solving abilities in complex, real world problems that require a mix of discipline knowledge – including IS.

Like IS, Statistics is a discipline in its own right – and it, too, is administratively located variously in business, maths, science or computer science areas of universities. Statistical literacy is, arguably, a skill required by all professions and it can be taught in an abstract way. Boud and Walker’s comment (1998) highlights that “the context in which we operate...has a profound influence over...what we regard as legitimate knowledge” (5). An integrated curriculum that references the Accounting professional provides the required legitimacy and relevance for statistics.

The IFAC provides general comments about accounting education that are of relevance in the case of VU’s Graduate Diploma of Professional Accounting. Although the Committee is in no way overly prescriptive about what or how accounting knowledge is taught, it is nevertheless noted that educators need to have a repertoire of “learner-centred teaching methods” (43). The new Graduate Diploma of Professional Accounting has a number of learner-centred methods that facilitate an integrated curriculum approach – from team-based projects to case studies and business scenarios that explicitly require students to apply Information Systems, Management and Accounting knowledge. An integrated approach to curriculum and skill development allows students to extend responses to and knowledge of “the many-sided and complex situations typical of professional demands”, in a “safe, academic environment” (Billett, 2009). The teaching approach aims to address a world-wide criticism of accounting education that the pedagogy employed “is lecture and textbook based with too much attention given to memorisation and preparation for tests and examinations” (Mathews, 2002). It is difficult to imagine how some of the key graduate descriptors common to many professional societies, including the CPA, such as creative problem solving and critical thinking skills and ability to work well in a team (Frawley and Litchfield, 2009), could be met by such approaches.

### **Professional Auditing: An example of integrated curriculum**

Beyond language, academic literacy and employability skills, the “content” of accounting also needs to accommodate specific skills from standalone curriculum areas such as statistics, information systems and ethics. The unit Professional Auditing (see Appendix 1 for an abridged version of the Unit of Study outline) provides students with knowledge and appreciation of the objectives and limitations of an audit, including an understanding of key auditing principles, concepts and practices that comprise the audit process. Using a multidisciplinary integrated approach, this unit combines relevant information systems, statistics, ethics and auditing knowledge to provide a contextualised and interdisciplinary learning experience. Previously, the auditing unit did not explicitly include IS and statistics: these skills might be considered generic for the accounting profession and, like any generic skill, they must be “contextualised to [the specific] profession...to maximise student relevance” (Nettleton, 2008).

The Professional Auditing unit aims to familiarise the student with key tools used by auditors for collecting and evaluating evidence in both manual and computerised accounting information systems, so as to enable students to express an opinion on the fair presentation of financial reports. The unit also aims to provide students with an insight into the current environment in which auditors operate, including legal liability, ethical and other professional aspects such as the “audit expectation gap” – so there is a much broader context in which students need to function. The unit, then, provides both a conceptual and practical approach to auditing in a range of contexts. Furthermore, the unit aims to enhance students’ generic skills through both highly constructivist and interactive teaching and learning activities done in class time as well as collaborative, work-referenced assessment tasks.

The unit has adopted teaching approaches that use case studies, scenarios and real life problems to encourage interaction between students and an active approach to learning rather than a narrow focus on discipline expertise. The development of students’ critical thinking skills, communication skills and information literacy skills is achieved in a way that optimises graduates’ ability to adapt to constant change. Importantly, underpinning this development of a professional auditor is a working knowledge of how information systems, and technology more broadly, improves internal control and what risks are presented through IT-based systems. The unit consolidates the students’ knowledge of generalised audit software. In addition to integrating accounting-specific Information systems activities, the student will also be able to demonstrate an understanding of statistics for auditing purposes. Through a number of assessment tasks students need to:

- use statistical techniques and computer software for analytical procedures
- describe how information technology effects and improves internal control
- explain how information technology affects audit testing
- identify risks that arise from using an IT-based accounting system
- explain how specific types of general controls and application controls reduce risks associated with using IT-based accounting systems

- use generalised audit software, test data and embedded modules to audit with use of the computer
- describe ways to use a microcomputer as an auditing tool
- identify issues for e-commerce systems and other specialised IT environments

This is just a sample of some of the learning activities and outcomes for various weeks of the unit: but it is clear that knowledge of IS and IT and an ability to apply this knowledge in an auditing role are crucial skills for students to have in a consolidated way.

### **Concluding comments**

The newly developed Graduate Diploma in Professional Accounting demonstrates that integration of curriculum through contextualising the learning of generic skills delivers 'high quality and internationally relevant education' (Gillard 2009) and a globally recognised accounting qualification. The course development process emphasises that information systems, technology and statistics must be grounded in the complexity of real world problems and projects and they are meaningfully taught only when contextualised within and referenced to the accounting profession.

Whilst initial positive responses to the new postgraduate conversion course to VU and the profession are reassuring, further research needs to be undertaken with various student cohorts, employers and the profession to ensure that diverse expectations are being met. Significant professional development of teaching academics is also required to emphasise that accounting education is not just about the delivery of technical knowledge but includes the equally important generic skill development and this can best be done through interactive, student-centred teaching which assesses students through real life problems and a demonstrated capacity to problem solve for the profession.

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## **Appendix 1 Professional Auditing – Adapted Unit of Study Outline**

### **Rationale:**

This unit of study will provide students with knowledge and appreciation of the objectives and limitations of an audit, including an understanding of key auditing principles, concepts and practices that comprise the audit process. Using an integrated multidisciplinary approach, this unit combines relevant Information Systems, Statistics and Accounting and Auditing knowledge to provide a contextualised and interdisciplinary learning experience.

### **Brief Description of Content:**

The subject aims to familiarise the student to some of the key tools used by auditors for collecting and evaluating evidence, in both manual and computerised accounting information systems, so as to enable them to express an opinion on the fair presentation of financial reports. The subject also aims to provide students with an insight into the current environment in which auditors operate, including legal liability, ethical and other professional aspects such as the “audit expectation gap”. As such, the subject provides both a conceptual and practical approach to external, as well as internal and public sector auditing, enabling students to gain a complete picture of the audit process in light of contemporary audit issues. In addition, the subject aims to enhance a number of generic skills through both the formal components of assessment and the student’s class participation. These include: research, problem solving, and analytical skills; written and presentation skills; and within/between group interaction skills. Importantly, underpinning this development of a professional auditor is a working knowledge of how information systems and technology more broadly improves internal control and what risks are presented through IT-based systems. The subject will consolidate the students’ knowledge of generalised audit softwares. In addition to integrating accounting-specific Information Systems activities, the student will also be able to develop an understanding of various statistical and non-statistical methods used in the selection of sample for audit testing purposes.

### **Learning Outcomes:**

On completion of this subject students should be able to:

- demonstrate an appreciation of the reasons for the existence of a societal demand for audits, in light of both the benefits and limitations of an audit;
- demonstrate an understanding of the key auditing principles, concepts and practices used by auditors to gather evidence and make judgments in order to form an audit opinion on the fair presentation of financial reports, in both computer and non-computer environments;
- understand the current environment in which auditors operate, including legal, ethical and professional aspects;
- be aware of the different types of services and reports provided by auditors and how they are communicated to financial report users; and
- be familiar with contemporary audit related issues, such as the audit expectation gap
- develop an understanding of MYOB accounting software
- demonstrate an appreciation of the use of generalised audit software such as ACL in an audit
- demonstrate an understanding and appreciation of the use of statistical and non-statistical methods in the selection of sample for audit testing.

### **Learning Methods:**

The subject is taught using a seminar format that employs a range of teaching strategies including interactive lecture, small group discussion, mock audits using appropriate software, case studies, student presentation as well as a range of formative and summative assessment tasks. This teaching approach aims to both integrate theory and its practical application through active learning techniques, current “real life” ethical and audit issues and prompt lecturer feedback. The teaching approach is further supported by Blackboard activities and other computer aided learning activities (eg. online quizzes and self paced exercises). This active approach to teaching the unit aims to ensure that students’ critical thinking, communication and information literacy skills are developed concurrently with their discipline expertise.

### **Integrating Information System:**

Students are provided with information as follows:

- (a) Accounting system. Students are provided with an overview of various accounting systems currently in use by organisations. These systems range from relatively inexpensive ones such as MYOB to more robust ones such as ORACLE and SAP. An understanding of accounting systems used by an organisation is required in order for auditors to assess the audit risk and ultimately the type and level of testing required.
- (b) Auditing software. This is software used by auditors in conducting audit engagements.
  - Generalised auditing software (GAS). Softwares such as that offered by ACL are specifically referred to as off-the-shelf packages. They are relatively inexpensive and easy to use. These software packages allow auditors to be more efficient in the conduct of an audit.

- Specialised auditing software (SAS). Specialised auditing software packages are normally developed by accounting firms. They are expensive to develop and are highly technical. They are commonly used to systematically record audit working papers.

### **Integrating Statistics:**

Victorian Auditor-General's Report: Results of Audits for Entities with other than 30 June 2008 Balance Dates (Universities, TAFEs, Alpine Resorts and other entities). Key points identified:

- This report deals with the audit of public sector entities with financial statement balance dates other than 30 June 2008. This includes 123 entities from the Higher Education, Vocational Training, Alpine Resorts, Health, and Community Development sectors. The majority are from the Higher Education and Vocational Training sectors, which accounts for 113 entities. There are also 11 entities included, whose financial statements were submitted for audit after our close off for reporting on entities with 30 June balance dates. 115 of the 123 financial statements had been finalised (94 per cent) by the cut-off date of 15 April 2009, 111 with clear opinions and four that were qualified.
- **Deakin University** and **The University of Melbourne** have again had their financial statements qualified. Their accounting policies for recording non-reciprocal research grants do not accord with current Australian accounting standards. The Australian Accounting Standards Board (AASB) has not issued any amendments to the applicable accounting standards, so the qualification remains.
- The type of qualification issued to the **Anti-Cancer Council of Victoria** is one generally attached to the financial statements for entities that have significant 'public appeal' based fundraising activities, where it is particularly difficult to meet the evidentiary standards for revenue verification.
- The current global financial crisis has significantly reduced the values of equities traded on share markets during 2008. In total, \$371 million of impairment losses were expensed by the higher education and vocational training sector. Consistent with accounting standards, these losses have been recognised as expenses in their income statements, and severely affected their operating results.

ASIC's audit inspection program public report for 2006–07 (June 2008). Key points noted:

- Australia significantly enhanced its regulatory requirements for auditors on 1 July 2004 with the enactment of the Corporate Law Economic Reform Program (Audit Reform and Corporate Disclosure) Act 2004 (CLERP 9). This report on audit inspection program since the enactment of CLERP 9. This report summarises the results of our audit regulation activities during the period from 1 July 2006 to 31 December 2007 (Year 3), which includes audit inspections and other projects. This report includes observations and findings from the inspections of 19 audit firms (Firms) across the profession conducted in Year 3. Of these Firms:
  - 9 were inspected for the first time (Group A)
  - 6 have been inspected twice (Group B)
  - 4 have been inspected three times (Group C).
- Australia has a skilled audit profession committed to independence and audit quality. Firms generally have robust systems and processes in place that are designed to ensure compliance with auditor independence requirements and the conduct of quality audits. Our inspections in Year 3 observed that the quality of auditing in Australia is fundamentally sound.
- The engagements we reviewed ranged from years ended 30 June 2007 back to periods ended 31 December 2005. The downturn in market conditions experienced since late 2007 has introduced challenges for auditors that were not necessarily present during our Year 3 inspections. It is not possible to extrapolate our findings, particularly the observations about the quality of audits, across other engagements conducted by the same Firms, or across other firms in the profession.
- The Firms have responded positively to the Australian legislative requirements for auditor independence and audit quality. Many Firms have committed, and continue to commit, dedicated technical resources and, where required, have developed or further enhanced existing policies and systems to assist them in complying with legislative requirements.

ASIC's preliminary results of 2004-05 financial reporting surveillance project. Key points:

- Following a review of 400 financial reports, ASIC has sought information and explanations in relation to the accounting treatments adopted by 32 listed entities.
- ASIC examined the disclosures of more than 1,100 listed entities with 30 June 2004 balance dates concerning their progress towards adoption of IFRS and its impact on those entities.
- Qualified audit reports. 'Qualified financial reports alone are of limited use to investors and others for making important investment decisions because the audit qualification is an indication that the financial report is unreliable', ASIC's Chief Accountant, Mr Greg Pound said.

- Twenty-eight of the financial reports of listed entities with 31 March to 30 June 2004 year-ends were subject to qualified audit opinions. ASIC is considering 16 qualified opinions that indicate non-compliance with accounting standards to determine whether further action is warranted.
- ASIC is concerned that some of these entities have previously received qualified audit reports which, prima facie, suggests a culture of non-compliance. When determining whether further action is warranted, we will consider the company's financial reporting history', Mr Pound said.
- In addition, the financial reports of over 120 companies had audit reports containing a qualification or emphasis of matter paragraph involving going concern issues. ASIC is reviewing these companies to determine whether ASIC's National Insolvency Co-ordination Unit should take further action.

## Information Systems in Australian universities

Drawing on Gable's work (2006) that asks the question, "To what extent is Information Systems a distinct and mature discipline in Australia?" (Gable, 2006), it is significant to consider the integration of IS expertise within Accounting units in the wider context of IS teaching. IS, as Gable suggests, is an academic discipline that is relatively young and is still evolving a sense of its disciplinary and professional identity. It sits variously in Science or Business faculties. IS is sometimes overlooked as a separate field of study as it is so bound up with other discipline areas. IS units in Accounting at VU have traditionally been taught by non accountants from the School of Information Systems – and the same is true of statistics which has been traditionally taught by staff from the School of Economists. IS has long been regarded as existing "between technical and business disciplines, encompassing a range of applied and instrumentalist topics, and interacting closely with many other disciplines" (Clark, 2006, cited in Gable, 2006).

Statistics, similarly, is a discipline in its own right – and it, too, is administratively located variously in business, maths, science or computer science areas of universities. Statistical literacy is, arguably, a skill required by all professions and it can be taught in an abstract way. Boud and Walker's comment (1998) highlights that "the context in which we operate...has a profound influence over...what we regard as legitimate knowledge" (5). An integrated curriculum that references the Accounting professional provides the required legitimacy and relevance for statistics.

While some academics argue that IS, for example, is a distinct discipline with a "foundational core" (Weber, 1999), this distinctive segregation is not useful for developing accounting professionals with a practical and theoretical understanding of IS relevant to their work. For students, the need to embed IS capability into every discipline area is a "no brainer" – for academics and institutions, this integrated approach might be more difficult to achieve due to historical, administrative and political reasons and because of the professional identities and territories involved.