

# The Masters of Sustainable Practice: A Review of a Program for Working Professionals

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## Abstract

This study sought to distil recommendations and curriculum design principles that could underpin the re-imagining of the RMIT University coursework Masters of Sustainable Practice (MSP). The aim of the study was to redesign the program to better meet the expectations of contemporary working professionals. Four data sources were used to develop 12 program recommendations: postgraduate sustainability education literature, postgraduate coursework literature, publicly available information for contemporary coursework Masters sustainability programs both in Australia and overseas, and interview data from current and graduate students from the RMIT University Masters of Sustainable Practice. The study proposes a novel curriculum (re)design model comprised of six curriculum design principles that the authors argue are essential for the development of curricula for contemporary working professionals. Sustainable practice coursework Masters programs need to: offer choice, flexibility and authentic work-based assessment opportunities; provide significant guidance to achieve individual aspirations and to customise the program for each student; recognise learning through current workplace roles and through continuing professional development opportunities; use integrative assessments to achieve the Australian Qualification Framework knowledge and skills application requirements; incorporate short credit-bearing courses, in particular for the development of employability skills; and support students to transition to professional practice.

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## *The Contemporary Masters Student*

*Adam is a working environmental professional who is looking to pursue a coursework Masters program. He has engaged with continuing professional development (CPD) activities over the past few years and undertakes significant projects in his workplace. Adam's Masters study will be supported by*

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*his employer, with the expectation that he develops certain skills and be up to date with current sustainability issues. Adam expects that the Masters program will: recognise current learning through his work-based projects, recognise prior learning for the CPD activities that he has undertaken, offer flexible learning modes to fit with his professional and personal commitments, and provide significant choice in the program.*

In the above example, Adam is representative of many current coursework Masters students across the world. Adam is a contemporary, full-time professional practitioner who is keen to undertake a Masters program part time in order to deepen his understanding of sustainable practice for his current professional role. Adam is looking for a just-for-me, just-in-time coursework Masters program that will fit with his busy work and personal commitments.

Universities throughout the world are moving to better meet the needs of students like Adam. Through a case study of the RMIT University coursework Master of Sustainable Practice (MSP), this article proposes six curriculum (re)design principles to underpin contemporary sustainability coursework Masters programs.

### *Master of Sustainable Practice*

The Master of Sustainable Practice at RMIT University enrolled its first students in 2006, at the height of the climate change debate in Australia. To complete the program, students are required to enrol in eight core courses<sup>1</sup> and four electives.

The MSP brings together people from disparate professions but with similar questions so that they can work together to explore issues of sustainability. Problems are defined as projects. By working together on similar projects (e.g., water usage, food sustainability, liveable cities, waste management), students explore the complexities of sustainability problems with people who have similar interests but come from a range of backgrounds. The program provides opportunities for action learning at work or other individual contexts. The program structure is composed of a Graduate Certificate, a Graduate Diploma and a Masters. The Graduate Certificate is comprised of two core courses, 'Sustainability Body of Practice 1' and 'Sustainability Project 1', and two elective courses. The Graduate Diploma is comprised of the core courses, 'Sustainability Body of Practice 2' and 'Sustainability Project 2', and two elective courses. The Masters program is completed with the core courses 'Sustainability Body of Practice 3', 'Sustainability Project 3' and 'Sustainability Project 4' and the 'Exegesis', totalling 144 credit points.

The MSP was one of three programs that participated in a significant university-funded project in 2011 to reimagine the design of coursework Masters programs to better meet the needs of contemporary students, specifically those who work full time while studying part time. The Program Director was prompted to use the opportunity to review the program, given 5 years of operation without significant review, and he felt that a reinvigoration of the program would be beneficial. The research question for the project was: If RMIT University Masters coursework programs are to be student centred and attractive to students in full-time work, how might the programs be designed?

## **Background**

### *Sustainable Practice: Terminology and a Higher Education Definition*

The terms 'sustainable development' and 'sustainability' are contested in the literature and sometimes appear to be used interchangeably (Gadotti, 2010; Hart & Kood, 1999; Sibbel, 2009). The World Commission on Environment and Development (1991) defines sustainable development as 'development that meets the needs of the present without

compromising the ability of future generations to meet their own needs' (p. 87). Gadotti (2010) argues that the concept of sustainability is complex and it goes far beyond sustainable development. Gadotti defines sustainable development as:

*opposed to everything that suggests unbalance, competition, conflict, greed, individualism, domination, destruction, expropriation and undue and unbalanced material acquisition, regarding change and social transformation of society or environment. So in the most generous and widest way, sustainability means a new egalitarian way, a free, fair, inclusive, and solidarity way to get people together in order to build their social living world at the same time that they handle, manage or transform the natural sustainable environments where they live and on which they depend to live and be together. (Brandão, 2008, p. 136, as cited in Gadotti, 2010, p. 204)*

Sibbel (2009) and Meadows (1989) argue that higher education is the perfect place for professionals to learn about the implementation of sustainability in their professional fields, providing a '... preparation of people for their lives as members of the biosphere. It is learning to understand, appreciate, work with, and sustain environmental systems in their totality' (Meadows, 1989, p. 5, as cited in Hart & Kood, 1999, p. 109).

The definition of sustainable practice that we used in this research is 'practice that meets the needs of the present without compromising the ability of future generations to meet their own needs' (World Commission on Environment and Development, 1987).

### *Sustainable Practice in Higher Education*

UNESCO promotes education as a vehicle for sustainable practice through its program 'United Nations Decade of Education for Sustainable Development' (UN DESD). Two of the four major thrusts of this program are educational: 'Reorient the curricula' and 'Train the workforce'. Australia's participation in the program is through the National Action Plan (NAP) for Education for Sustainability. NAP works towards both improving the sustainability of university campuses and incorporating the study of sustainable practice as part of university programs (Department of the Environment, Water Heritage and the Arts, 2009). In higher education, the terms 'sustainable practice' and 'environmental education' are also commonly used. In this article we will use the term 'sustainable practice'.

### **Methodology**

The research associated with the MSP looked at four data sources: the discipline literature, the postgraduate program literature, similar contemporary programs at other universities and interviews with students in the program under consideration. Program recommendations were derived from each data source and each source is discussed below. In brief, the research included a combination of qualitative and quantitative methods. The authors used a thematic analysis in the review of the literature, locating common themes across publications while also highlighting uncommon course elements in the review of contemporary programs. The student interview surveys necessarily allowed us to determine themes common in student interviews, and a frequency analysis assisted us to develop recommendations based on student comments.

### *The Discipline Literature*

We used the following search terms — 'postgraduate', 'sustainability', 'environmental', 'tertiary', 'coursework', 'higher education', 'Masters' — and combinations of those terms to locate articles that specifically discussed Masters coursework programs. We located 10 journals dedicated to 'sustainability education', two devoted to primary and

secondary education, one to tertiary education, six to environmental education (for all education levels) and one to sustainability (again for all education levels). Twenty-one relevant articles relating to Masters coursework programs and sustainability were reviewed.

A thematic analysis of the articles assisted us to identify ways in which sustainability has been incorporated into higher education programs internationally. The resulting five themes that were identified, in combination with the analysis of the data sources, allowed us to derive program design recommendations, which are made at the end of this article.

### *The Postgraduate Programs Literature*

The literature reviewed related to the development of innovative Masters coursework programs, including adult learning, bite-sized learning, work-based learning and work-integrated learning. The project also reviewed all Australian university websites that claimed to provide innovative Masters by coursework programs. Again, a thematic analysis was used.

### *Similar Contemporary Programs at Other Universities*

A review of similar programs identified seven other 'sustainability'/environmental education' coursework Masters programs taught in Australia at the time of the study. Also, nine well-known international programs were identified and reviewed. Publicly accessible data for all programs were reviewed to determine: the department offering the program; the program duration, structure and learning outcomes; and any innovations or points of difference from the MSP.

### *Student Interviews*

As a part-time program that had started 5 years earlier, only three students had graduated at the time of this research. The three graduates of the program and all 21 students enrolled in the program in 2011 were invited to take part in a 1-hour structured interview. A total of 10 interviews were conducted (two graduates and eight enrolled students), with two females, both of whom were enrolled students, and eight males. Four of the interviewees were under 30 and six were over 30. Those interviewed came from a range of employment situations. One interviewee was retired, one had his own business, one was a full-time student, and of the remaining seven interviewees, three did not work in sustainability-related roles. Interviews were conducted face to face or via the phone or Skype, and were recorded and transcribed. The interview consisted of 19 questions, as well as demographic questions, including a table ranking 22 employability skills that the students completed and sent to the interviewer. One interview recording was inaudible, resulting in nine responses to the questions answered verbally. Themes were captured for each question and dissenting views to the themes were noted.

## **Findings**

### *The Discipline Literature*

Themes in the higher education literature

A review of the education literature on the teaching of sustainable practice in higher education identified five different ways in which sustainability is embedded, with some approaches being more holistic and comprehensive than others.

1. Embedding sustainable practice subjects within disciplinary programs (Tilbury & Wortman, 2004; Amran, Nabiha, Khalid, Razak, & Haron, 2010; Fenner, Ainger, Cruickshank, & Guthrie, 2005; Stubs & Schapper, 2011);

2. Embedding sustainability through projects assessed in program units (duPreez & Möhr-Swart, 2004; Ketlhoilwe & Maila, 2008; Savanick, Strong, & Manning, 2008);
3. Embedding sustainability through a whole-of-university approach to the student experience; for example, embedding environmental literacy requirements (Moody, Alkaff, Garrison, & Golley, 2005; Stewart, 2010);
4. Embedding sustainability through a national approach that influences the institutionalisation of environmental education courses (Lupele, 2008);
5. Embedding sustainability through the use of targeted student outcomes (Bootsma & Vermeulen, 2011).

Themes 2 and 5 are relevant to the redesign of the MSP and will be further explored in this section.

### Embedding sustainability through projects assessed in program units

Several studies recommended particular types of approaches/activities for engaging and educating students when developing curriculum for sustainable practice programs, including:

- campus-based projects (Savanick et al., 2008);
- multidisciplinary and interdisciplinary teamwork (Meehan & Thomas, 2006; Kearins & Springett, 2003);
- industry and research-based projects that promote regional and international collaboration (duPreez & Möhr-Swart, 2004; Ketlhoilwe & Maila, 2008);
- student community services projects (duPreez & Möhr-Swart, 2004);
- international liaisons (duPreez & Möhr-Swart, 2004).

### Embedding sustainability through the use of targeted student outcomes

Bootsma and Vermeulen (2011) compared the core competencies that employers valued with those valued by their Masters of Sustainable Development graduates. They found that both groups valued generic academic skills such as intellectual qualities and communication skills, as well as discipline specific competencies such as practical skills as important competencies for the work of environmental scientists. They differed in their valuing of professional knowledge and self-management skills. Professional knowledge was valued more by employers than by graduates, whereas graduates considered self-management skills of greater importance for their professional life than employers did.

Kearins and Springett (2003) support the argument to include teamwork in sustainable education. They argue that social action/engagement in critical theory is an essential skill for sustainable education: 'A key part of working out new possibilities for organising and acting to be able to resolve tensions between collectivity and the individual in ways that support both' (Kearins & Springett, 2003, p. 194).

Tilbury and Watman (2004) report that critical thinking and reflection are key components of environmental education. They also argue that critical thinking enables students to examine root causes of sustainability challenges and their links to social, ecological and social issues.

### *The Postgraduate Program Literature*

#### Australian Masters coursework issues and concerns

As is the case in many countries, postgraduate Masters coursework programs form a significant part of postgraduate education in Australia. Between 1993 and 2003, following major policy shifts, commencing enrolments rose by 119%, and in 2010 there were 184,226 students enrolled in Masters coursework programs, representing almost

a quarter of all higher education students in Australia and generating significant fee income for universities (Edwards, 2011).

The fast growth of a highly diverse range of programs, underpinned by poorly articulated standards, unclear purpose, mixed strategic goals and varying educational approaches raised a number of issues related to quality (Forsyth, Laxton, Moran, van der werf, & Banks, 2009). Concern was raised about the dilution of the qualification 'currency' through the high number of degrees, lack of attention to quality control, program cost and structure, and questionable or compromised educational standards (Forsyth et al., 2009).

Partially in response to these concerns, the Australian Qualifications Framework (AQF) was introduced in 1995 to underpin the national system of qualifications from each education and training sector into a single comprehensive tertiary, national qualifications framework. The AQF is designed to bring consistency to tertiary qualifications across the nation, defining the relative complexity and depth of achievement and the autonomy required of graduates to demonstrate that achievement. In the AQF there are 10 levels, with level 1 having the lowest complexity and AQF level 10 the highest complexity (AQF, 2011).

The 2011 revision of the AQF requires significant consistency of coursework Masters programs across Australia to be in place by 2015. No longer will programs vary in length, with the framework specifying the volume of learning for cognate and non-cognate students. The framework also describes graduate outcomes in terms of knowledge, skills, application of skills and knowledge, and generic learning outcomes or graduate attributes. The study reported here took into consideration the AQF requirements by incorporating into the proposed curriculum structure the knowledge, skills and application of knowledge and skills requirements of the AQF.

### Bite-sized learning

The original MSP consisted of 12 or 24 credit point subjects. The study considered the opportunities that 'bite-sized' learning might provide for the program. Bite-sized learning appears to have first been used in corporate training in the 1990s in the United Kingdom (Armstrong & Sadler-Smith, 2008; Gordon, 1997; Klein & Ware, 2003). Corporate professional development modules were designed in bite-sized, reusable chunks so as to be timely, embedded in the context of the employee, and brief. Gordon (1997) reports that using this approach enabled employees to access '... just the data they need, just when they need it' (p. 27).

Subsequently, the bite-sized approach has been used in the UK business, government and education sectors (Morrison, 2005). A bite-sized approach to learning in higher education appears to have developed only in the United Kingdom. A website search reveals that bite-sized modules are currently used for: accreditation of prior learning (University of Teeside); professional development of academics (University of Northampton); university provision for corporate training (Universities of Northampton, Western England and Wolverhampton); skill-focused programs (University of Teeside); and degree provision (the University of Derby offers a joint honours program using bite-sized modules of study while the University of Western England offers post-graduate certificate, diploma and Masters qualifications through the study of bite-sized modules). A private provider, Medicles, provides bite-sized, self-assessment opportunities for medical students.

### *Sustainable Practice Masters Programs at Other Universities*

Websites and publicly available documents of the seven Australian programs that were taught at the time of the research and the nine well-known international programs

from the USA, Europe and Asia were reviewed, highlighting seven points of difference between these programs and the MSP. Other programs provided:

- opportunities for students to complete a minor thesis, including courses on research methods (Monash University, Middlesex University, Universiti Sains Malaysia, University of Pittsburgh, University of Colorado Boulder, Arizona State University and Villanova University);
- opportunities for students to complete a specialisation (University of Melbourne);
- an approach that heavily utilised field classes and virtual field classes (University of Exeter);
- Select Committee cross-examinations of underlying issues of policies (University of Cambridge);
- a Practitioner Viewpoint Series (University of Cambridge);
- compulsory courses within electives: the program structure is composed of core, option and elective courses (Sydney University) and inner core, outer core, electives (University of Cambridge), where core courses are introduced within a specialisation stream;
- workplace research projects: one program offered minor workplace research projects/internships to qualified students (Monash University), while two universities offered workplace or independent study electives (Middlesex University) and Work-based Learning (Exeter University).

### *Student Interviews*

Student interview data was categorised into five program themes related to the further development of the MSP: choice/work-based projects; program guidance; hot topics, recognition of current skills, knowledge and related CPD activities; and employability skills. Each is discussed in turn below.

#### 1. Choice/work-based projects

Seven of the eight core courses of the current program required students to complete project assessment tasks. Students were given a great deal of choice in the project, including the sustainability issue explored and the format of the project (e.g., research based, journal article development, case study). All students chose to do projects based either on their work commitments or their particular interests (areas in which they wanted to specialise or learn more).

Nine of the ten students interviewed reported that they had completed one or more of the seven projects required in the program. Most students chose to do projects based on their work commitments and therefore found them to be particularly valuable on both the work and study fronts. A few students chose projects related to their interests or future aspirations.

Students highly valued the choice that the program provided, which in effect allowed them to customise their program to meet their individual work needs, career aspirations and passionate interests.

The following is a representative student quote from the interviews.

*Well the project management course you could pick your own project, so I picked one that we're sort of doing at work. For energy efficiency it was dictated what we were supposed to do, but likewise I could always relate it back to understandings or learnings that I got out of work. So I find it quite easy to do them mainly because it's very relevant to what I do at work.*

## 2. Program guidance

While all students highly valued the flexibility that their choice of projects allowed them, three students felt they needed more guidance early on in the program to help them make those choices (the interview schedule did not have a direct question on this aspect so the number of students who believed that this was an issue may well have been higher). The high degree of program choice meant that some students needed assistance to determine what they wanted to achieve, in order to customise the program to best meet their needs and aspirations. Students also reported that they would value more advice and guidance around expectations of the program, project criteria and standards, their career aspirations and elective choice.

The following are representative student quotes from the interviews:

*'My opinion about that would simply be that it is very useful for students to know whether they actually have ... especially when you start, of knowing exactly where you hit' and 'I'm not particularly aware of the difference between the first semester and the second semester'.*

## 3. Hot topics

Every student was able to name one or more current 'hot' topics (which enables them to be up to date with current sustainability issues) that they thought could usefully be taught in the program. The topics included: meteorology and the weather, innovation to respond to change, green star fit-out, permaculture/urban agriculture, a critical approach to current affairs, water management and water problems, climate science, carbon markets and carbon accounting, smart grids and the interactions between information technology and power management, and behavioural economics.

The following are representative student quotes from the interviews:

*'It would be great to be able to take off bite-size pieces as you mentioned, as sort of mini modules. Covered as part of the course' and 'From this kit bag of skills that are relevant to sustainability, we expect throughout the course that you explore half a dozen or so, and build a certain level of expertise in those. That would be useful.'*

## 4. Recognition of current skills, knowledge and relevant CPD activities

Currently, RMIT University recognises prior student learning rather than concurrent student learning. Giving credit for concurrent learning recognises that while studying, some postgraduate students in particular also engage in work and continuing professional development that is closely related to their program of study.

Seven of the ten students interviewed valued the recognition of concurrent workplace learning, while two students were concerned that this learning would not necessarily be of a Masters level, and a third student wanted to learn new things, and not get credit for what he already knew.

The following is a representative student quote from the interviews:

*'It would be good ... to have some of those transferable, important professional skills acknowledged.'*

## 5. Employability skills

Interviewed students were asked to rank 'employability' skills in terms of whether they perceived that it was essential, desirable or not necessary for the skill to be taught in their program and the median scores were used for analysis.



Students perceived that all but one employability skill (teamwork) needed to be taught in this program. In particular, environmental responsibility, critical thinking, critical reflection, cultural awareness, creativity, innovation, problem solving and setting, global thinking and environmental responsibility are employability skills that students perceived needed to be taught in their program.

## Discussion

From the literature and the student interviews, the authors derived 12 recommendations for the MSP curriculum design. Often, a combination of data sources has informed each recommendation. While trying not to repeat earlier sections of the article, this section will briefly point to the data sources that support each recommendation. This section is followed by a proposed program model (Figure 1).

**Program recommendation 1:** Interdisciplinary, authentic industry or community-based projects in the student's area of professional practice need to be a significant component of the MSP. The sustainable practice higher education literature on curriculum development suggests that authentic projects are an essential element in sustainable practice programs (duPreez & Möhr-Swart, 2004; Kethhoilwe & Maila, 2008). The student data also strongly valued authentic work-based projects in their coursework Masters program. Similar programs offered nationally and internationally include workplace research projects such as an internship (Monash University), study elective (Middlesex University), or work-based learning (University of Exeter).

**Program recommendation 2:** Graduate employability skills such as communication and teamwork need to be taught and assessed within the MSP. The sustainable practice education literature (Bootsma & Vermeulen, 2011) identified the need for programs to explicitly teach employability skills. These competencies included both professional knowledge and employability skills. They found that graduates perceived that intellectual skills such as critical thinking, critical reflection, information literacy,<sup>2</sup> self-management, communication and practical skills (such as project management), were particularly important for graduates' first jobs postgraduation.

While our student interviews and the Bootsma and Vermeulen (2011) study did not ask the same questions or use the same categories of skills, in both studies students and graduates valued similar skills. Bootsma and Vermeulen (2011) also interviewed academics and employers and found that those groups considered that intellectual qualities and communicative skills were the most important skills that needed to be taught.

**Program recommendation 3:** AQF skills, knowledge and application of skills and knowledge, plus the appropriate volume or learning need to be incorporated into the MSP by 2015. This is a requirement of the Australian Higher Education regulator.

**Program recommendation 4:** Integrative assessments, which require students to apply the knowledge and skills learnt across the program, need to be incorporated into the program, so meeting AQF application of knowledge and skills requirements. This is one possible approach to both complying with the AQF requirements and providing students with opportunities to integrate their knowledge and skills across the units within the MSP.

**Program recommendation 5:** Short, credit-bearing courses incorporated into the program would assist students to develop specific skills and knowledge, such as hot topics, AQF skills, employability skills and technical skills. The AQF requires all programs to demonstrate the development of knowledge, skills and the application of knowledge

Coursework Masters of Sustainable Practice Model

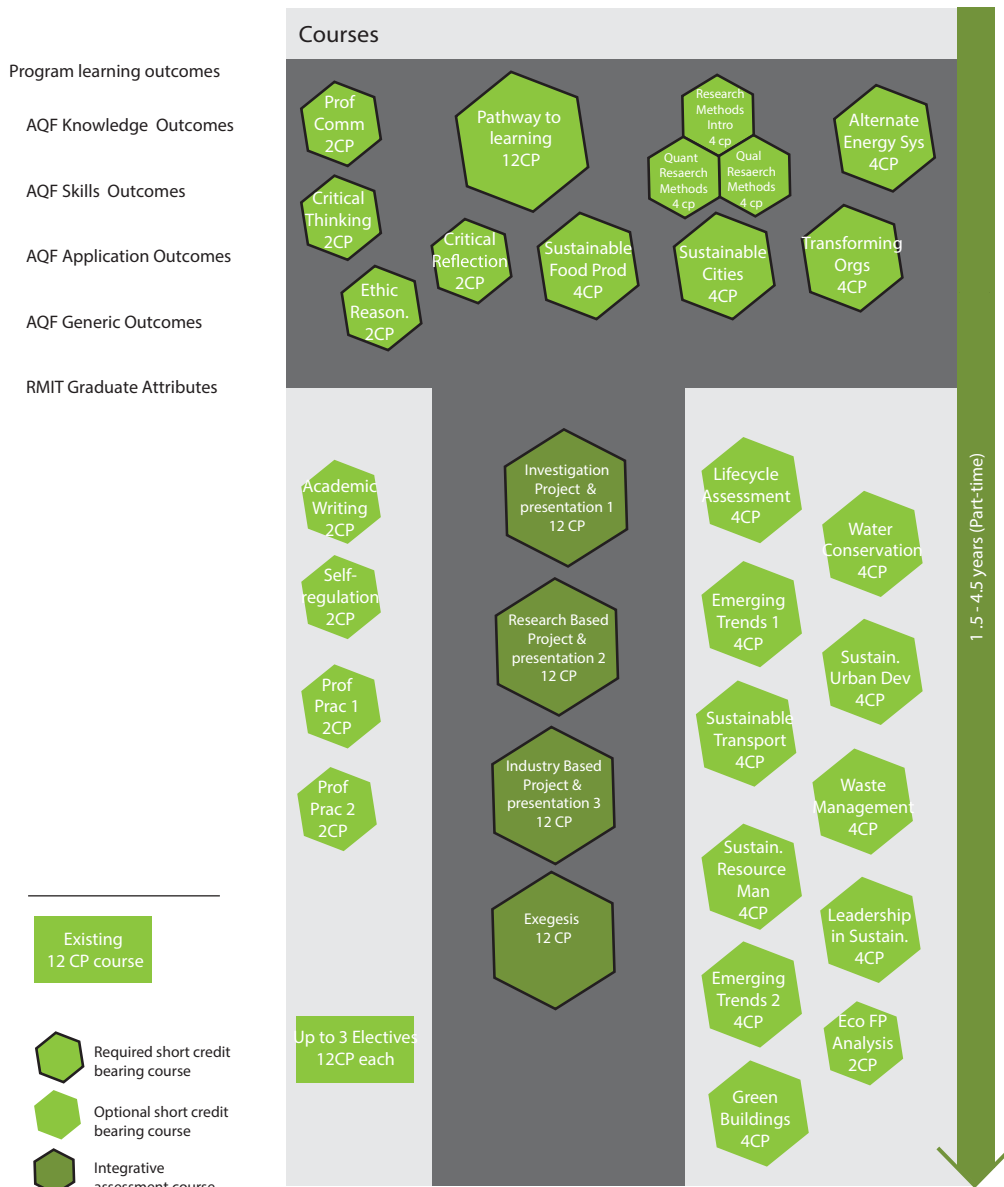


FIGURE 1: (Colour online) The proposed coursework Masters of Sustainable Practice model

and skills. As suggested by the literature, judicious use of bite-sized learning appears to offer many opportunities to meet the needs of contemporary, time-poor students, while fulfilling the national regulator’s requirements (Armstrong & Sadler-Smith, 2008; Gordon, 1997; Klein & Ware, 2003). The students also reported valuing access to short sessions on hot topics, employability skills and technical skills.

**Program recommendation 6:** Opportunities for students to further specialise, including the opportunity to conduct research (minor thesis) could usefully be incorporated into the program.

**Program recommendation 7:** Opportunities for students to engage with practitioner contexts and perspectives (e.g., real or simulated field trips, authentic projects and policy development with practitioner clients) would assist students to develop professionally. The review of similar sustainable practice-related coursework Masters programs suggests that further specialisation be provided for students who want to conduct research. The MSP provides students with the opportunity to explore sustainability issues through research-based projects. This approach could be usefully supported by offering a research methodology course and minor thesis such as those offered in similar programs in other universities (Monash University, Middlesex University, Universiti Sains Malaysia, University of Pittsburg, University of Colorado Boulder, Arizona State University and Villanova University). Also, other programs include professional development elements that the MSP might usefully include, such as the select committee cross-examination of underlying issues of policies (University of Cambridge) or practitioner viewpoint series (University of Cambridge).

**Program recommendation 8:** Significant choice through the program allows students to customise the program to meet their individual needs (Student interview data).

**Program recommendation 9:** Early in their program, students value advice and guidance to customise the program to meet their particular aspirations (Student interview data).

**Program recommendation 10:** To remain relevant and up to date, the program needs to provide students with timely information on the latest trends and issues. The analysis of our student interview data suggests enriching the program with significant student choice so that the program can be customised to student learning needs. Students also highly valued early guidance to customise the program to best meet their needs and aspirations. Students also reported wanting the program to provide them with up-to-date information on the latest trends and issues.

**Program recommendation 11:** Concurrent, relevant workplace learning/CPD needs to be recognised by the MSP. Students also reported wanting their concurrent professional development recognised through the program. Examples of concurrent learning that could be recognised included professional development workshops (negotiation, writing contracts, project management, stakeholder engagement/management); projects done to reduce their organisation's resource consumption; and expertise in the use of specific tools (carbon footprint, energy assessment, waste management).

**Program recommendation 12:** The development and assessment of employability skills needs to be part of MSP. Finally, students reported valuing the opportunity to develop employability skills through their Masters program.

### *Curriculum Design and Program Model*

The 12 program recommendations can be implemented through six proposed curriculum design components, each of which is discussed below and illustrated in the model (Figure 1) of a proposed MSP.

### 1. *Program Learning Outcomes (Recommendations 2, 3)*

The AQF specification for the Masters coursework degree requires knowledge (2), skills (5) and application of knowledge and skills (3) program learning outcomes. To comply with the AQF requirements by 2015, the MSP will include these learning outcomes at the program level.

### 2. *Work-Based Projects, Choice and Integrative Assessments (1, 4, 6, 7, 8)*

A cornerstone of the proposed MSP curriculum is the ‘integrative assessment’ projects in every year of the program (Figure 1 depicts a 3-year part time program). Students are given a great deal of choice in designing the scope and setting of the project. For example, a student may choose to locate all of her projects in a particular sustainable practice field (e.g., waste management, green buildings) or in a particular ‘area’ (e.g., construction or local councils), or across different fields or areas. Through this choice, students are able to specialise in an area, if they so wish. Students may also choose to specialise by completing a minor research thesis through one or more of the integrative assessment courses.

As students are often working full time while studying part time, where appropriate, students can choose to complete projects related to the work that they are doing. Each student must agree their project and its scope with the academic in charge of the particular course.

The projects are expected to be integrative in nature, such that they are designed to help students see the connections between the knowledge, skills and graduate attributes that they study across the program. These courses do not introduce new ‘content’ and they meet the AQF application of knowledge and skills requirements, cumulatively addressing all program learning outcomes.

Three different types of integrative assessment projects have been chosen for this program, all of which provide maximum choice for the student to customise his/her study to suit their career aspirations and interests:

- the case study, called an investigative project, is conducted in the first year of the program, allowing students to study in depth a particular sustainability problem in a particular organisation;
- a research-based project where students systematically document and review literature, observations, experiences and reflections in an activity (Sharp, 2007);
- an industry/community-based project through which students apply their knowledge and skills in the area in which they anticipate working in the future.

### 3. *Career Advice (9)*

The proposed program model begins with a course called ‘Pathways to Learning’, which supports the student to think about what s/he wants to achieve through completing the Masters program, what their academic and professional strengths and weaknesses are, and the focus of each individual student’s study. Example ideas include a learning contract (which may be revisited throughout the program), a gap analysis, and a starting CV (which can be revisited throughout the program).

### 4. *Short Credit-Bearing Courses (Bite-Sized Learning) (2, 5, 10, 11, 12)*

RMIT courses typically carry 12 points of credit towards the program, or multiples of 12 credit points. A 12-credit point course suggests approximately 140 hours of student engagement in the course. Short credit-bearing courses can be as small as 2 credit points (20 hours of student engagement). Short courses can cover a myriad of things, such as employability skills, hot topics, substantive disciplinary knowledge. Providing short

credit-bearing courses online allows time-poor students the opportunity to work at a time and place of their choosing. As students balance study, work and personal commitments, the ability to complete short courses from a distance and in a short period of time is expected to be very appealing, as well as allowing students to have their concurrent workplace learning, which is of an appropriate level and relevance to the program, recognised. [Figure 1](#) illustrates that 'Professional Practice' short courses that can be used for this purpose.

### 5. *Professional Practice Contexts (9)*

The proposed MSP model incorporates intensive study periods when students come together to learn. These intensive study periods provide students with the opportunity to learn with their peers and sustainability experts both in the classroom and in the field.

### 6. *Exegesis (3)*

The proposed program finishes with a written exegesis that provides students with the opportunity to reflect upon and critically analyse his/her journey through the program. Through this work, the student meaningfully examines their progress over the period of their study in terms of ideas, technologies, decisions, theories and practices that have informed, influenced and facilitated the student's current thinking about, and philosophical views of, sustainable practice. Through this work, the student also will reflect upon their future professional work and associated learning requirements.

We expect that many, if not all, of the six curriculum design components can be applied to other Masters programs for working professionals, and future research with other discipline programs would be needed to confirm that assumption.

## Conclusions

The research commenced with the question: If RMIT University Masters coursework programs are to be student centred and attractive to students in full-time work, how might the programs be designed?

We conclude that contemporary coursework Masters programs that seek to attract working professionals to part-time study need to be designed to meet the needs of time-poor individuals as they balance work, study and social commitments. It is not enough that programs are relevant and up to date. They need to: be flexible in providing student choice, be accessible through the provision of opportunities to study at least some of the program from a distance, recognise relevant concurrent work-based learning/continuing professional development, provide the opportunity to specialise, provide significant guidance on customising the program to meet student aspirations, and provide authentic work-based and integrative assessment opportunities. The RMIT University MSP will be revised with all of these elements in mind and in line with the new Australian Qualification Framework requirements, which come into effect in 2015.

## Endnotes

<sup>1</sup> An RMIT University course is the equivalent of a subject or a unit in other universities.

<sup>2</sup> Information literacy in this study refers to a student's ability to locate, organise, analyse synthesise and evaluate information.

*Keywords:* sustainable practice, environmental education, part-time students, masters, coursework, program renewal/redesign

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