Discussion Paper

ANU Master of Innovation and Professional Practice

A Proposal
to help prepare all ANU students for careers in a complex world

Version 0.7, June 2016

shayne.flint@anu.edu.au
ANU Research School of Computer Science


Photo by Stuart Hay
Executive Summary

“The Australia of the future has to be a nation that is agile, that is innovative, that is creative. We can’t be defensive, we can’t future-proof ourselves. We have to recognise that the disruption that we see driven by technology, the volatility in change is our friend if we are agile and smart enough to take advantage of it.”

Malcolm Turnbull

Increasing human longevity, technological advances and automation, globalization and the emergence of new collaborative structures driven by social technologies are changing the way we live and work.

These changes bring with them complex challenges as well as exciting opportunities for all disciplines.

In order to tackle these challenges and opportunities, university students in all disciplines will need to develop generic knowledge and skills in areas such as design thinking, new media literacy, computational thinking and multi-disciplinary teamwork, along with traditional professional knowledge and skills in areas such as critical thinking, communications and ethics. Recent reports have also highlighted the need for students to develop innovation and entrepreneurial capabilities through increased engagement with industry, government, NGOs and the broader community.

This document proposes a suite of university-wide programs that respond to these trends by preparing ANU graduates from any discipline with the knowledge and skills necessary to work effectively in our increasingly complex and exciting world.

Specifically, we propose a new Master of Innovation and Professional Practice (MIPP). This degree will be multi-disciplinary in content and teaching, and will provide students with extensive opportunities to develop and demonstrate applied research, innovation and professional skills by engaging with industry, the local innovation ecosystem, government, NGOs and the broader community.

The proposed degree will usually be taken in a Flexible Vertical Double Degree (FVDD) with an ANU Bachelor’s degree. A minor and major are also offered for students taking degrees that are not included in the FVDD structure. Students who complete the minor or major can receive credit towards the MIPP. The MIPP will also be offered as a stand-alone degree, along with Graduate Certificate and Graduate Diploma variants, for people in industry, government, NGOs and the broader community. These stand-alone programs will also be available to ANU HDR students and Early Career Researchers. With some redesign of existing degrees, aspects of the proposed programs could also be made available to Flexible Double Degree (FDD) students.

Each of the proposed programs will build upon the success of existing Vice Chancellor’s courses, the CECS TechLauncher initiative and related courses and initiatives across the university.

With appropriate support and resources, the MIPP and associated programs could start in 2017.

A Pitch for School Leavers

“ANU graduates are ready for a career and not just a job”

“At the ANU you will receive a world-class education in a discipline of your choice. At the same time, you can receive a master’s degree which will give you the practical innovation and research skills, as well as the confidence necessary to face challenges, grow, adapt and seize opportunities in our increasingly complex, exciting and rapidly changing world.”
Next Steps

This document has been produced as a basis for discussing the proposed Master of Innovation and Professional Practice (MIPP). It has been developed in consultation with many people across campus including DVC(A), Dean CECS, Director RSCS, PVC (Innovation), PVC (Student Experience), Director RSPE, Director RSBS, student services staff, existing students, potential students and representatives from industry, government and the innovation sector. All have indicated enthusiastic support.

The following is the proposed time-line for establishing the MIPP:

<table>
<thead>
<tr>
<th>When</th>
<th>Who</th>
<th>What</th>
<th>Why</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASAP + Repeat</td>
<td>ASQO</td>
<td>Updated discussion paper</td>
<td>Feedback</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ASQO paperwork in progress</td>
<td></td>
</tr>
<tr>
<td>Thu, Jun 9, 16</td>
<td>ASQO</td>
<td>Updated discussion paper</td>
<td>UEC Agenda - tabling of discussion paper for early feedback</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ASQO paperwork</td>
<td></td>
</tr>
<tr>
<td>Wed, Jun 22, 16</td>
<td>Ramesh Elizabeth</td>
<td>Updated discussion paper</td>
<td>CECS CDC agenda</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ASQO paperwork</td>
<td>CECS CEC request for member feedback</td>
</tr>
<tr>
<td>Tue, Jun 28, 16</td>
<td>Elizabeth</td>
<td>???</td>
<td>Advise to ASQO of inclusion of MIPP in FVDD</td>
</tr>
<tr>
<td>Thu, Jun 30, 16</td>
<td>CDC CEC</td>
<td>ASQO paperwork</td>
<td>CDC CEC – member feedback request</td>
</tr>
<tr>
<td>Thu, Jun 30, 16</td>
<td>ASQO</td>
<td>Updated discussion paper</td>
<td>UEC - tabling of discussion paper for early feedback</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ASQO paperwork</td>
<td></td>
</tr>
<tr>
<td>Thu, Jul 7, 16</td>
<td>Elizabeth</td>
<td>ASQO paperwork</td>
<td>CEC Agenda</td>
</tr>
<tr>
<td>Fri, Jul 22, 16</td>
<td>ASQO</td>
<td>ASQO paperwork</td>
<td>CEC</td>
</tr>
<tr>
<td>Wed, Jul 27, 16</td>
<td>ASQO</td>
<td>ASQO paperwork</td>
<td>ASQO</td>
</tr>
<tr>
<td>Thu, Aug 18, 16</td>
<td>ASQO</td>
<td>ASQO paperwork</td>
<td>UEC Agenda</td>
</tr>
<tr>
<td>Sat, Aug 27, 16</td>
<td>Marketing</td>
<td>Early marketing</td>
<td>Open Day – ANU Innovation stand in Sports Hall</td>
</tr>
<tr>
<td>Thu, Sep 8, 16</td>
<td>ASQO</td>
<td>ASQO paperwork</td>
<td>UEC</td>
</tr>
<tr>
<td>Tue, Sep 20, 16</td>
<td>ASQO</td>
<td>ASQO paperwork</td>
<td>Academic Board Agenda</td>
</tr>
<tr>
<td>Tue, Oct 4, 16</td>
<td>ASQO</td>
<td>ASQO paperwork</td>
<td>Academic Board</td>
</tr>
</tbody>
</table>
Table of Contents

1 Motivation........................................................................................................................................5
2 Master of Innovation and Professional Practice ...........................................................................6
  2.1 Objective ......................................................................................................................................6
  2.2 Graduate Outcomes .....................................................................................................................6
  2.3 Indicative Program Requirements and Recommended Study pattern........................................7
3 Other Programs, Minor and Major .................................................................................................7
  3.1 Minor in Innovation and Professional Practice ..........................................................................7
  3.2 Major in Innovation and Professional Practice ..........................................................................7
  3.3 Graduate Certificate and Diploma of Innovation and Professional Practice ............................7
4 Study Arrangements.........................................................................................................................7
  4.1 The MIPP in a Flexible Vertical Double Degree ........................................................................7
  4.2 The MIPP with other ANU degrees ............................................................................................8
5 Support for HDR Students and Early Career Researchers ..............................................................8

List of Figures

Figure 1. Variants of Innovation and Professional Practice are available across programs ..............10
Figure 2. A future context in which the proposed MIPP could operate ...........................................12
Figure 3. The MIPP within the context of the broader community .................................................13
Figure 4. Indicative MIPP courses and recommended study pattern. ........................................14
Figure 5. Proposed Minor and Major in Innovation and Professional Practice ...............................15
Figure 6. Dependencies between MIPP courses .............................................................................16
Figure 7. Proposed Graduate Certificate and Graduate Diploma of Applied Innovation Research ....17
1 Motivation

Universities must ensure that students graduate with a mix of skills that will equip them for their professions, not just as they are now, but as they will be in ten or twenty years’ time. As the nature of employment changes, the ability to be flexible, adaptive, and proactively seek out problems and design solutions for them will become ever more important. Developing programs that encourage interdisciplinary, solutions-based learning for students, support enterprise and independence, and reward an entrepreneurial mindset is one of our top educational priorities.

Professor Margaret Gardner AO
President and Vice-Chancellor, Monash University
[1, p4]

Our environment, along with the way we live and work is rapidly changing. The drivers of this change include increasing human longevity, the emergence of smart machines and systems, increased global connectivity, the pervasiveness of new media and the emergence of new collaborative structures driven by social technologies [1][3][5][6].

This emerging future presents great challenges as well as exciting opportunities. The ANU needs to prepare graduates who are capable of facing these challenges and seizing the associated opportunities with an entrepreneurial mindset, innovative ideas and modern professional practices. This will, in part, involve preparing graduates with knowledge and skills in areas such as those identified in Future Work Skills 2020 [2]:

- Sense making
- Novel and Adaptive Thinking (agility)
- Social Intelligence
- Design mindset
- New Media Literacy
- Trans-Disciplinarity
- Computational Thinking
- Cognitive Load Management
- Cross cultural competency
- Virtual collaboration

Recent reports have also highlighted the need for graduates with innovation and entrepreneurial capabilities developed through increased engagement with industry, government, NGOs and the broader community [1][2].

The ANU already runs initiatives such as the Vice Chancellor’s courses [7] and TechLauncher [8] that are helping produce graduates with much of this knowledge and many of these skills. While some of these initiatives already reflect best practice as outlined in Table 1 (derived from [1, p51]), they are not well integrated and, more importantly, are not readily available to all ANU students.

This document outlines a proposal that integrates existing initiatives and courses with a set of new courses to form a Master of Innovation and Professional Practice (MIPP). This new program will be multi-disciplinary in enrolments, content and teaching, and positioned as part of a broader ecosystem of ANU initiatives aimed at providing all ANU students with a variety of learning opportunities deeply engaged with industry, government and society more generally. This broader engaged learning environment will produce ‘career ready’ graduates capable of effectively tackling the most complex challenges and opportunities facing our nation and the world.

Figure 2 depicts the relationship between the MIPP and existing or proposed ANU initiatives aimed at providing students with an engaged learning environment. Figure 3 depicts the relationship between the MIPP and the broader community within which ANU operates.
2 Master of Innovation and Professional Practice

Entrepreneurial skills are not just for startups. Employees with entrepreneurial skills are also extremely sought-after in large organisations, such as Google. We find that such employees can identify opportunities, and use their initiative and drive to find solutions that are not apparent to others.

The common trait, whether the founder of a startup, or an “intrapreneur” working within a multinational, is the single-minded passion to be an agent for change and to make it happen.

Alan Noble
Engineering Director, Google Australia
[1, p8]

Entrepreneurship programs should engage students from a wide range of disciplines to ensure that the program does not become siloed within any faculty or school, and to allow the students to benefit from diverse inputs and skill sets.

[1, p43]

Progress will always require the spark of individual genius, but it also benefits from an environment that nurtures ideas, fosters collaboration and develops the complex mix of skills to make something of raw potential.

Ian Chubb
Chief Scientist of Australia
[4]

2.1 Objective
The objective of the MIPP is to prepare graduates from any discipline with the generic knowledge, skills, expertise and entrepreneurial mindset necessary to apply their disciplinary expertise in diverse teams to tackle society’s most complex challenges and opportunities.

2.2 Graduate Outcomes
On completion of the MIPP, graduates will be able to demonstrate:

1) an advanced understanding of the systems context in which complex challenges and opportunities emerge including environmental, economic, political, social, safety, historical, sustainability and ethical aspects;

2) the ability to apply appropriate research methods and exercise critical thinking and professional judgement to select, adapt and apply appropriate knowledge, practices and tools to make sense of, and address complex problems and opportunities in a broad range of contexts;

3) an advanced understanding and practical experience of operating within the innovation ecosystem;

4) the ability to learn quickly, adapt and innovate in new and complex environments;

5) the ability to lead and work effectively in multi-disciplinary, multi-cultural and distributed teams;

6) the ability to communicate complex concepts effectively with diverse audiences using a range of modalities;

7) the ability to conduct themselves in a professional and ethical manner; and

8) a capacity for lifelong learning.
2.3 Indicative Program Requirements and Recommended Study pattern
Figure 4 identifies and describes the courses that comprise the proposed MIPP. The figure also depicts an associated recommended study pattern. Figure 6 depicts the pre-requisite and co-requisite dependencies between MIPP courses. This figure also depicts how professional practice is developed as a thread throughout the degree. We propose that a ‘Profession Practice Convenor’ will take responsibility for ensuring that professional competencies are developed throughout the program.

3 Other Programs, Minor and Major

In order to meet the needs of all ANU students, including HDR students, the content and structure of the MIPP has been designed to support a broad range of awards as depicted in Figure 1.

3.1 Minor in Innovation and Professional Practice
Figure 5 depicts the structure of a Minor in Innovation and Professional Practice. Note that the minor comprises undergraduate versions of the four mandatory MIPP courses.

Note that this minor provides a pathway to the Master of Innovation and Professional Practice. Students who have completed 48 units with a GPA of 5.5 before starting this minor will be permitted to take the 6000-level versions of each course in this minor. Students who complete these 6000-level courses will be given 24 units credit for the corresponding courses in the MIPP.

3.2 Major in Innovation and Professional Practice
Figure 5 depicts the structure of a Major in Innovation and Professional Practice. The major comprises the courses included in the minor described above plus four preparatory and broadening courses.

Note that this major provides a pathway to the Master of Innovation and Professional Practice. Students who have completed 48 units with a GPA of 5.5 before starting this major will be permitted to take the 6000-level versions of courses in this major. Students who complete these 6000-level courses will be given 24 units credit for the corresponding courses in the MIPP. In addition, students who complete this major will be given 24 units credit for the four university electives in the MIPP because their bachelor’s degree will be considered cognate with the MIPP.

3.3 Graduate Certificate and Diploma of Innovation and Professional Practice
An indicative structure for the Graduate Certificate and Graduate Diploma of Innovation and Professional Practice is depicted in Figure 7.

4 Study Arrangements

4.1 The MIPP in a Flexible Vertical Double Degree

The MIPP will be often taken in a Flexible Vertical Double Degree with an ANU bachelor’s degree.

The objective of the Bachelor/MIPP flexible vertical double degree is to produce graduates with deep understanding and expertise in a specific discipline along with a broad range of discipline independent knowledge and skills that enable them to work in diverse teams capable of tackling society’s most complex challenges and opportunities.

1 The FVDD rules identify a number of groups in which identified master and bachelor degrees can be combined to form FVDDs. It is proposed that the MIPP be included in all groups.
4.2 The MIPP with other ANU degrees

Students studying a bachelor's degree, that is not included in a FVDD group\(^2\), can take the MIPP after completing their bachelor degree.

Students in 3 or 4 year degrees who have completed 48 units of their degree and have achieved a GPA of 5, will be permitted to complete the Minor in Innovation and Professional Practice by taking the postgraduate versions of each of the required courses. Students who complete this minor and their undergraduate degree will be given 24 units status for the corresponding courses in the MIPP.

If a student builds on the above minor to complete the Major in Innovation and Professional Practice, their bachelor’s degree will be considered cognate with the MIPP. As such they will be given a further 24 units credit into the MIPP (taking the four year 1 MIPP elective slots).

In effect, this means that any ANU student who completes a bachelor's degree with a Major in Innovation and Professional Practice, will be able to complete the MIPP by adding one year to their program.

5 Support for HDR Students and Early Career Researchers

*Every Australian vice-chancellor should ask: “Are there students at my university who are working on what could become the next Atlassian (or Radiata or Cochlear or ResMed), and what are we doing to help them?”*

[1, p17]

The proposed MIPP and associated Graduate Certificate and Diploma would be available to HDR students and Early Career researchers (ECR). By working towards these awards, HDR students and ECRs could develop the innovation and professional skills necessary to pursue a career outside of the academic domain.

---

\(^2\) Not all degrees are included in FVDD groups. In particular, all 4 year degrees including engineering and law are excluded.
References


Figure 1. Variants of Innovation and Professional Practice are available across programs.
Table 1
Entrepreneurship education in universities – Contrasting best practice with poor practice and existing ANU initiatives (Derived from [1, p51])

<table>
<thead>
<tr>
<th>Attributes of poor practice</th>
<th>Attributes of best practice</th>
<th>Best practices reflected in existing ANU VC Courses and TechLauncher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single program</td>
<td>Multiple opportunities for engagement</td>
<td>ANU students have opportunities for engagement via the VC courses, Internships and TechLauncher. However, due to degree program restrictions, numbers in these courses from diverse disciplines is limited.</td>
</tr>
<tr>
<td>Theoretical, classroom-based</td>
<td>Experiential, strong emphasis on learning by doing</td>
<td>TechLauncher students spend 25% of their total study load over 1 or 2 years working on real-world problems with partners in industry, government and NGOs. The focus is on “Learning by Doing”</td>
</tr>
<tr>
<td>Encourages passive learning</td>
<td>Encourages concrete action to pursue ideas</td>
<td>TechLauncher students deliver outcomes of real value to external clients or put their startup ideas into practice.</td>
</tr>
<tr>
<td>Based on out-of-date concepts (eg. writing business plans)</td>
<td>Based on modern startup methods (eg. Lean Startup)</td>
<td>TechLauncher students are introduced to these practices. In some cases, industry mentors help them implement these practices in their group projects.</td>
</tr>
<tr>
<td>Available only to a narrow group of students (eg. in business school)</td>
<td>Encourages multi-disciplinary collaboration</td>
<td>The ANU VC courses are multi-disciplinary in design and participation. TechLauncher is also open to all disciplines, however uptake by non-computing disciplines has been limited so far.</td>
</tr>
<tr>
<td>Courses taught by academics with no first-hand experience in entrepreneurship</td>
<td>Engages successful entrepreneur alumni as guest lecturers/mentors/teachers</td>
<td>Successful entrepreneurs and investors give regular lectures to TechLauncher students. They also mentor TechLauncher project teams.</td>
</tr>
<tr>
<td>Isolated from external startup ecosystem</td>
<td>Connects with outside startup ecosystem</td>
<td>TechLauncher students work with clients and mentors from the outside innovation ecosystem. They also engage with external programs such as InnovationACT, Hackathons, and other innovation events.</td>
</tr>
<tr>
<td>Taught at a set point in curriculum (eg. 1st/2nd year)</td>
<td>Available to students when they are ready</td>
<td>We have not reached this point, but it would be possible and of value to students.</td>
</tr>
<tr>
<td>Mandatory &quot;ENT-101&quot; course</td>
<td>Students self-select into programs based on interest</td>
<td>While TechLauncher is mandatory for many students, they all have a choice between undertaking a traditional client project or working towards their own student-run startup. This choice improves student engagement and learning outcomes.</td>
</tr>
<tr>
<td>Focus on the idea</td>
<td>Focus on growing the individual rather than their idea</td>
<td>The TechLauncher initiative is developing a culture of learning from failure.</td>
</tr>
</tbody>
</table>
Prepare for a ‘career’ rather than just a ‘job’, with a Master of Innovation & Professional Practice

The Master of Innovation and Professional Practice (MIPP) builds upon a Bachelor’s degree to develop the generic knowledge and skills necessary to tackle complex problems and opportunities. This includes the ability to work effectively in multi-disciplinary, multi-cultural and geographically distributed teams, as well as a solid grounding in skills such as entrepreneurship, systems thinking, design thinking, sense-making, agility, new media literacy and cognitive load management. Teaching will involve people from a broad range of disciplines and extensive engagement with industry, government, NGOs and the broader community.

Graduates of the ANU MIPP will not be prepared for a ‘job’; instead, they will be prepared for a ‘career’ and to make a very real and positive difference to the world around them.

The MIPP can be combined in a variety of ways with any ANU Bachelor’s degree and will usually add one year to a student’s studies.

Learning in the Public Sector

The Australian National Internships Program (ANIP) gives undergraduate and postgraduate students an opportunity to work at the heart of Australian policy and politics.

This elite program arranges research-oriented internships at the Australian Federal Parliament, the Australian Capital Territory Legislative Assembly, in the public service or non-government organisations.

Learning through Co-Curricular Activities

The ANU formally recognises the contribution, learning and skills developed by students through co-curricular, leadership, community service and voluntary roles.

Starting with a world-class Bachelor’s degree

ANU offers a range of world-class undergraduate degrees in disciplines such as the arts, science, engineering, computing, commerce, business and law. These degrees provide the graduate with deep knowledge and skills in a specific discipline. Students can build upon this deep discipline-based foundation by combining their Bachelor’s degree with the Master of Innovation & Professional Practice (MIPP) and/or by participating in other opportunities described on this page.
Figure 3. The MIPP within the context of the broader community

The ANU

Business, Startups, Government Agencies, NGOs

Lecturers

Guest Speakers

Tutors

Master of Innovation and Professional Practice

Any Bachelor Degree

Year 1

Year 2

Year 3*

Year 4

Professional Bodies

Group Projects

Case Studies

Internships

Work Experience

Scholarships

Prizes

Clients

Mentors

Supervisors

Sponsors

Complex Real-World Challenges and Opportunities

* The MIPP will work with any 3 or 4 year bachelor degree
Figure 4. Indicative MIPP courses and recommended study pattern.
Figure 5. Proposed Minor and Major in Innovation and Professional Practice

Minor Structure
The proposed minor comprises undergraduate versions of four courses from the first year of the masters degree. Student who meet a specified hurdle (48 units and GPA of 5) will be able to take the masters versions of these courses and then count them as credit into the masters degree.

Major Structure
The proposed major comprises the minor plus four introductory courses that provide a broader foundation in applied innovation and research.

VCUG3001/VCPG6001 Unravelling Complexity
3000/4000 level Research Methods (from a list)
VCUG3004/VCPG6004 Creating Impact

Leadership Elective
Students will take either:
VCUG2002/6002 Leadership & Influence. In this course students will develop their leadership & influence capabilities. They will have the opportunity to directly ask questions of people who have created and provided real leadership in major changes in their own fields. Guest lecturers include prominent leaders in the military, law, business, education, Indigenous justice, science and social movements. Students will have opportunities to develop their own abilities to lead and influence, focusing on areas like working with and through conflict, collaboration and coalition-building; thinking strategically; and staying purpose-driven through complex issues.

MGMT2008 Personal Leadership. The overarching goal of this course is to help students understand their own potential to become the leader they would like to be and their own responsibilities in achieving this goal. The course emphasises personal development with the development of leadership capabilities as the vehicle to do so.

Disciplinary Introduction Elective (existing)
Students will have the opportunity to take two introductory courses in disciplines other than those covered by their bachelor degree. These course will include COMP1030, COMP1040, ENGN1211, PHYS1501, ARTV1021, MATH1042, PSYC1003 and others.

Working Together (new)
In this courses students from all disciplines will start to work together in a problem-based hands-on environment. They will be introduced to ideas, methods and tools for working in multidisciplinary teams including systems thinking, learning by doing and reflection; learning from failure; academic and professional integrity; multi-disciplinary, multi-cultural and distributed collaboration; and workshop practice and making.
Figure 6. Dependencies between MIPP courses
This set of courses would be a viable and useful GradCert for industry as well as HDR students and ECRs.

Graduate Certificate of Applied Innovation and Research

Innovation Elective

VCPG6004 Creating Impact

Innovation Elective

Depending on the student’s background and interests, they can choose to take any MIPP specific course they have not already taken.

Graduate Diploma of Applied Innovation and Research

This set of courses would be a viable and useful GradDip for industry as well as HDR students and ECRs.

VCPG8100 Group Research, Innovation and Practice (GRIP)

VCPG6001 Creating Impact

VCPG8001 Wicked Problems

MGMT7161 Entrepreneurship and New Venture Planning

MGMT6xxx Entrepreneurship and Innovation

Figure 7. Proposed Graduate Certificate and Graduate Diploma of Innovation and Professional Practice
Subject Area
VCPG
Catalog Number
6004
Request Type
New Course
Rational
This course is one of four new Vice Chancellor’s courses that have been developed as part of the proposed Master of Innovation and Professional Practice (MIPP).

Long Course Title
Creating Impact
Short Course Title
Creating Impact

To take effect from
Semester 1, 2017
Course Minimum Unit Value
6
Course Maximum Unit Value
6
Does this course have an UG / PG Equivalent?
VCUG2004 Creating Impact

Proposer Name
Dr Shayne Flint
Primary Convenor’s Email
shayne.flint@anu.edu.au
Primary Convenor’s Name
Dr Shayne Flint

Course Description
This course will introduce students to methods and tools that underpin innovation across disciplines. Students will learn to use systems thinking; design thinking; kanban; relative estimation; and rapid validation to identify opportunities and develop approaches to delivering impact.

By learning how to apply these methods and tools, students will develop the confidence and skills they need to begin tackling complex problems and to have a real impact on the world around them.

Course Structure and Content
Team project based, engagement with the innovation ecosystem

Learning Outcomes
Workload
Prescribed Texts
Preliminary Reading
Indicative Reading List
Assumed Knowledge, Required Skills and Recommended Courses (not prerequisites)
Requisite Statement for Course
Indicative Assessment
Assessment Rationale
Additional Assessment — Learning Outcomes
Mode of Delivery
Quality Assurance Arrangements
Transitional Arrangements (if applicable)
Relevant ANU internal and external consultation
Intended Market and work undertaken to evaluate the market
Estimated Enrolment Numbers and rationale
Areas of Interest
Is this required on a Sub-Plan?
Subject Area
VCPG
Catalog Number
8002
Request Type
New Course
Rational
This course is one of four new Vice Chancalor’s courses that have been developed as part of the proposed Master of Innovation and Professional Practice (MIPP).
Long Course Title
Ignorance!
Short Course Title
Ignorance!

To take effect from
Semester 2, 2018
Course Minimum Unit Value
6
Course Maximum Unit Value
6
Does this course have an UG / PG Equivalent ?
None
Proposer Name
Dr Shayne Flint
Primary Convenor’s Email
michael.smithson@anu.edu.au
Primary Convenor’s Name
Prof Mike Smithson
Course Description
Ignorance is a neglected topic, and yet it is central to the human condition. This course presents a comprehensive framework for understanding, coping with, and making decisions in the face of ignorance. Course participants learn that ignorance is not always negative, but has uses and benefits in domains from everyday life to the farthest reaches of science where ignorance is simultaneously destroyed and new ignorance created. They discover the roles ignorance plays in human relationships, culture, and how it underpins important kinds of social capital. There is no other course like this in the world. And ignorance is everyones business.
Course Structure and Content
The first eight weeks of the course will comprise the ANU Ignorance! MOOC (https://www.edx.org/course/ignorance-anux-ign0101x). After completion of this MOOC, students will attend four weekly panels and student-facilitated tutorials which explore ignorance from different disciplinary perspectives.
Learning Outcomes
Upon completion of this course, students will be able to demonstrate:

1. Understanding of:
   (a) Different kinds of ignorance
   (b) Various sources of ignorance
   (c) Different uses for ignorance
   (d) Social roles of ignorance
   (e) Benefits and costs of ignorance

2. Ability to harness ignorance for learning, discovery and creativity

3. Ability to facilitate a tutorial.

Workload
10 hours per week: During first eight weeks, 3-5 hours on MOOC, 5-7 hours of independent study. During last four weeks, 2 hour panel, 2 hour tutorial, and 6 hours of independent study.

Prescribed Texts
None

Preliminary Reading
Ignorance! Course Guide

Indicative Reading List
None

Assumed Knowledge, Required Skills and Recommended Courses (not prerequisites)
None

Requisite Statement for Course
Enrollment in the Master of Innovation and Professional Practice or approval from course convenor.

Indicative Assessment
- 50% MOOC Quizes [LO1]
- 10% MOOC Forum Participation [LO1,2]
- 20% Disciplinary specific tutorial preparation and facilitation [LO1,3]
- 20% Reflection [LO1,2,3]

Assessment Rationale
The first part of the course (MOOC) will be assessed as per the design of the MOOC. Assessment tasks associated with the second part of the course (workshops) are aimed at encouraging students to make connections between Ignorance, their own discipline and projects they are working on (eg. VCUG8100).

Additional Assessment — Learning Outcomes
None

Mode of Delivery
In Person

Quality Assurance Arrangements
SELTs, mid-course and end-of-course focus groups.

Transitional Arrangements (if applicable)
N/A

Relevant ANU internal and external consultation
- Mike Smithson
• Gabriele Bammer

Intended Market and work undertaken to evaluate the market
Students enrolled in the Master of Innovation and Professional Practice

Estimated Enrollment Numbers and rationale

Areas of Interest

Is this required on a Sub-Plan?
No
Academic Course Form

shayne.flint@anu.edu.au

Subject Area
VCPG

Catalog Number
8001

Request Type
New Course

Rational
This course is one of four new Vice Chancellor’s courses that have been developed as part of the proposed Master of Innovation and Professional Practice (MIPP).

Long Course Title
Wicked Problems

Short Course Title
Wicked Problems

To take effect from
Semester 1, 2018

Course Minimum Unit Value
6

Course Maximum Unit Value
6

Does this course have an UG / PG Equivalent?
None

Proposer Name
Dr Shayne Flint

Primary Convenor’s Email
Gabriele.Bammer@anu.edu.au

Primary Convenor’s Name
Prof Gabriele Bammer

Course Description
Wicked Problems are problems that have many interacting causes and are difficult to clearly define. They often involve stakeholders with differing and conflicting views, objectives and value systems that can vary over time. Wicked problems are difficult, and often impossible, to solve. In many cases, the best we can do is develop interventions that improve the situation for a particular sub-set of stakeholders or from a specific sub-set of perspectives, often at a given point in time. Such interventions often result in unforeseen consequences that change the nature of the wicked problem over time and space.

Examples of wicked problems include climate change, drug trafficking, terrorism, population health and poverty.

Students will develop an understanding of wicked problems from the four perspectives of systems, value, context and unknowns. Imperfection will also be considered as an issue that cuts across each of these four perspectives. Students will then learn to use a range of strategies to address wicked problems.
Course Structure and Content

Learning Outcomes

Workload

Prescribed Texts

Preliminary Reading


Indicative Reading List

Assumed Knowledge, Required Skills and Recommended Courses (not prerequisites)

Requisite Statement for Course

Indicative Assessment

Assessment Rationale

Additional Assessment — Learning Outcomes

Mode of Delivery

Quality Assurance Arrangements

Transitional Arrangements (if applicable)

Relevant ANU internal and external consultation

Intended Market and work undertaken to evaluate the market

Estimated Enrolment Numbers and rationale

Areas of Interest

Is this required on a Sub-Plan?
Rational

This course is a new Vice Chancellor’s courses that has been developed as part of the proposed Major in Innovation and Professional Practice.

Long Course Title
Working Together

Short Course Title
Working Together

ACADEMIC USE

To take effect from
Semester 2, 2017

Course Minimum Unit Value
6

Course Maximum Unit Value
6

Does this course have an UG / PG Equivalent?
None

Proposer Name
Dr Shayne Flint

Primary Convenor’s Email
shayne.flint@anu.edu.au

Primary Convenor’s Name
Dr Shayne Flint

Course Description
In this courses students from all disciplines will start to work together in a problem-based hands-on environment. They will be introduced to ideas, methods and tools for working in multidisciplinary teams including systems thinking; learning by doing and reflection; learning from failure; academic and professional integrity; multi-disciplinary, multi-cultural and distributed collaboration; and workshop practice and making.

Course Structure and Content

Learning Outcomes

Workload

Prescribed Texts
Preliminary Reading
Indicative Reading List
Assumed Knowledge, Required Skills and Recommended Courses (not prerequisites)
Requisite Statement for Course
Indicative Assessment
Assessment Rationale
Additional Assessment — Learning Outcomes
Mode of Delivery
Quality Assurance Arrangements
Transitional Arrangements (if applicable)
Relevant ANU internal and external consultation
Intended Market and work undertaken to evaluate the market
Estimated Enrolment Numbers and rationale
Areas of Interest
Is this required on a Sub-Plan?