



Graduate Studies Committee Agenda

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Supplementary Agenda for the meeting to be held at **2.00pm** on **Wednesday, 17 June 2009** in the **Western Tower Room**.

Pages

1. Apologies

Apologies have been received from: Professor D Armstrong, Associate Professor B Buckley and Drs D Field and K Nelson.

4. Report of the Chair

4.1 Framework for Doctoral Study and Graduate Entry Professional Programs

pages 3-7

Recommendation

That the Graduate Studies Committee note the Chair's report on coursework doctorates.

6. Proposals for new and amended postgraduate courses

pages 8-12

6.6 Faculty of Medicine

(1) Master of Brain and Mind Sciences, Master of Brain and Mind Sciences in Psychiatry, Graduate Diploma in Brain and Mind Sciences and Graduate Certificate in Brain and Mind Sciences

pages 8-9

Recommendation

That the Graduate Studies Committee recommend that the Academic Board

(1) approve the proposal from the Faculty of Medicine to introduce the Master of Brain and Mind Sciences, Master of Brain and Mind Sciences in Psychiatry, Graduate Diploma in Brain and Mind Sciences and Graduate Certificate in Brain and Mind Sciences;

(2) recommend that Senate:

(a) endorse the Academic Board's approval of the proposal;

(b) approve the amendment of the Resolutions of Senate related to the Degrees, Diplomas and Certificates in the Faculty of Medicine; and

(c) approve the introduction of the Resolutions of Senate related to the courses;

(3) approve the introduction of the Faculty Resolutions relating to the courses;

with effect from 1 January 2010, as set out in the reports presented.

6.7 Faculty of Science: Master of Sustainability, Graduate Diploma in Sustainability and Graduate Certificate in Sustainability *pages 8 and 10-12*

Recommendation

That the Graduate Studies Committee recommend that the Academic Board

- (1) approve the proposal from the Faculty of Science to introduce the Master of Sustainability, the Graduate Diploma in Sustainability and the Graduate Certificate in Sustainability;*
- (2) recommend that Senate:*
 - (a) endorse the Academic Board's approval of the proposal;*
 - (b) approve the amendment of the Resolutions of Senate related to the Degrees, Diplomas and Certificates in the Faculty of Science; and*
 - (c) approve the introduction of the Resolutions of Senate related to the courses;*
- (3) approve the introduction of the Faculty Resolutions relating to the courses;*

with effect from 1 January 2010, as set out in the reports presented.

Agenda Item 4 Report of the Chair

4.1 Framework for Doctoral Study and Graduate Entry Professional Programs *pages 4-7* Attached is a discussion paper developed by the Chair on this issue.

In connection with this issue Jasonne Grabher, from the Go8 office, has drawn attention to similar discussion of this issue at the Council of Graduate Schools in the US. A taskforce on professional doctorates for The Council of Graduate Schools has recently issued a report and a copy has been ordered the University of Sydney Graduate Studies Office. The following links also may be of interest:

http://www.cgsnet.org/portals/0/pdf/mtg_sm08Rawitch.pdf

http://www.cgsnet.org/portals/0/pdf/mtg_sm08Gibeling.pdf

Recommendation

That the Graduate Studies Committee note the Chair's report on coursework doctorates.

The Framework for Doctoral study and graduate entry professional programs

Initiatives by professional faculties to create graduate entry programs in response to educational change in their discipline make it an opportune time for the University to review the framework for doctoral programs and graduate entry programs of more than 2 years. The immediate issue relates to graduate entry programs that are the first professional qualification in a discipline such as the Juris Doctor (JD), which, although they may carry the word “doctor” in their title, are not research degrees. The University of Sydney does not currently offer any such programs. The University does, however, offer professional and coursework doctorates (i.e., second cycle degrees) that build on prior study in the discipline, normally requiring honours 1 or 2 entry or equivalent. Two alternatives are canvassed. The first a “purist” model restricting the word “doctor” to genuine, Bologna third cycle programs. The second recognizes greater proliferation of the word “doctor” in titles. Coursework doctorates based on prior learning would be aligned with Bologna second cycle programs, and JD-style first professional graduate qualifications would be aligned with Bologna first cycle programs. In discussing this matter, the following aims have been kept in mind:

- protecting the status of the PhD as the University’s flagship research degree and the link between doctoral study and research;
- responding to national and global changes in the higher education framework, and to changed funding regimes, particularly in graduate entry professional programs;
- constructing a coherent framework which allows faculties to be innovative and responsive, without creating confusion on the nature of doctoral study in the minds of potential employers and the public.

The current situation

Leaving aside honorary awards, the University of Sydney currently has four types of awards using the term doctor in their title which can be grouped as below. The PhD is by far the dominant award accounting for 95% (2278) of graduations in the last five years. The Higher doctorates stand apart from the immediate issue under discussion, although, given the numbers, a review of their current use and effectiveness may be appropriate. To provide a context for this framework, the appendixes give graduation numbers in each of the categories for the last 5 years (2004-2008).

Doctorates by publication

1. Higher doctorates (14 programs with 19 graduations in total in the last 5 years accounting for 1% of graduations). Enrolment restricted to graduates and staff members. Many new faculties (Health Sciences, Pharmacy, SCA) not represented. Graduation numbers very low (19 graduations over 14 programs in the last 5 years: many programs have zero graduations in that period). Historically the programs have either catered for an earlier period when many staff did not have doctorates or bestowed prestige on eminent researchers.

Doctorates by research (i.e. at least 2/3 research as required by the Research Training Scheme)

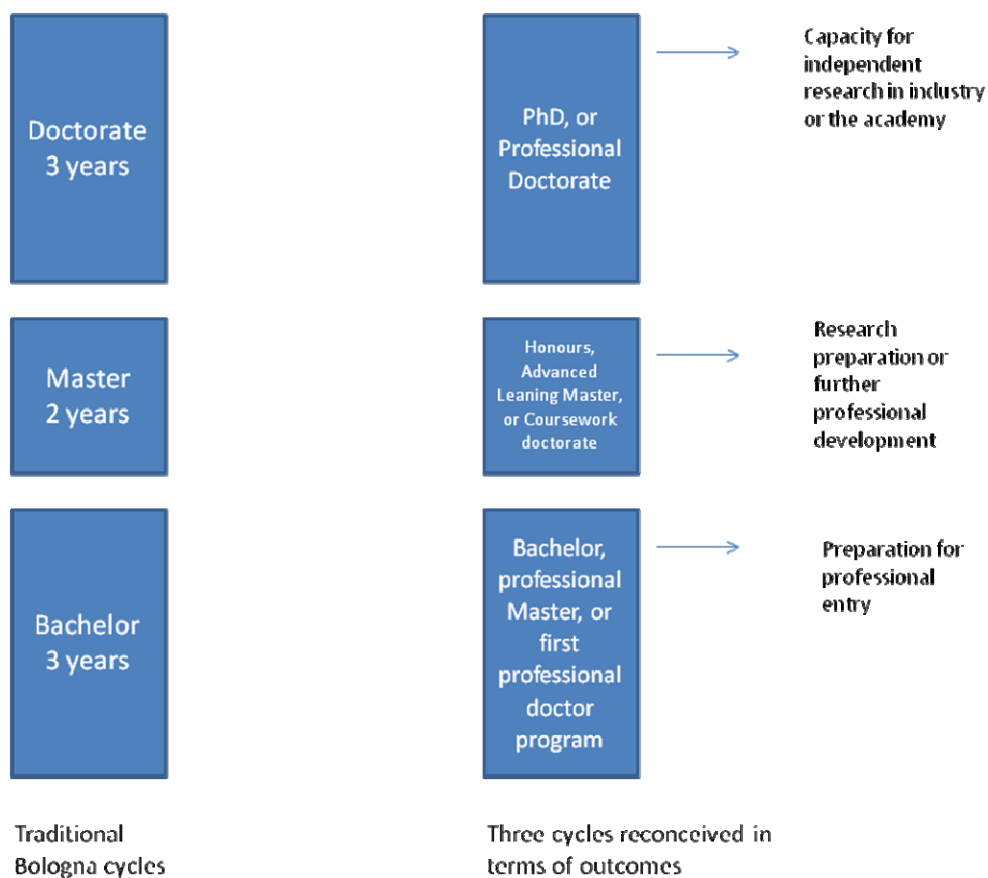
2. The PhD. 95% of all doctoral completions in the last 5 years.
3. Professional Doctorates (currently 11 on offer: see appendix). Constructed to be eligible for RTS funding (2/3 research and 1/3 coursework).

Graduate entry programs by coursework with “doctor” in the title

4. Coursework Doctorates. 3 existing (Doctor of Clinical Dentistry, Doctor of Clinical Psychology, Doctor of Clinical Neuropsychology) and 1 proposed (Doctor of Clinical Surgery) involving a mixture of clinical work, coursework and research. In the DCP and DCN the research is taken in a mandatory partner research degree, i.e., MPhil, MSc, or PhD.

The pure Bologna framework aligns three stages or cycles with the traditional titles of bachelor, master and doctor. Such easy alignment does not account for the variety of current usage in different disciplines, nor does it take account of how governments fund each level. Governments usually subsidise the first cycle to ensure educational equity, and fund the third cycle to stimulate research and innovation, while allowing the middle cycle to be funded

according to market pricing and demand. An alternative approach is to rethink this model in terms of outcomes for research training and professional preparation.



Future framework

1. The University of Sydney could continue to hold the line that the title “doctor” is only used in genuine third cycle programs, using the word “master” (or graduate diploma or certificate) for the second cycle, and “bachelor” for the first, even when taken after a prior generalist degree. This, in effect, is the current situation in Law and Medicine, in which the graduate entry MB/BS and LLB programs still retain the title “bachelor”. To do this, it would be desirable to avoid any further growth of the use of the term “doctor” in the 2nd cycle, and keep the existing ones as anomalies.
2. Alternatively, the University of Sydney could embrace the wider (and more chaotic) reality that sees the use of the doctoral name across the three cycles, but if adopting this path it should make a rigorous distinction between the different types, as follows.
 - A. *The third cycle* (PhD and Professional Doctorate – but see below) is the only cycle recognized as doctoral study, and the only qualification which bestows on graduates the right to use the honorific “Dr”. Minimum 2/3 research with the outcome being a thesis of substantially publishable quality making an original contribution to the discipline as assessed by peers.
 - B. *The second cycle* becomes the space for coursework and clinical doctorates, advanced learning masters programs, graduate diplomas and graduate certificates. Programs are predicated on prior tertiary study in the discipline. In clinical and professional disciplines where the length of training (i.e., 3 years or more) precludes use of the title Master, the word “doctor” may be used in the name of the program, but the University does not thereby bestow the right to use the honorific “Dr” (some professional colleges may independently bestow this right). Any program using the word “doctor” in the title at this stage must contain a research component of approximate 1/3 research (or be linked to a research program, as in the DCP/MPhil or DCP/PhD).
 - C. *The first cycle* is the first degree in the discipline and prepares for professional entry. If no prior tertiary study is required the title is Bachelor. Programs requiring prior

tertiary study (graduate entry programs) may use the terms Master (for 2 year professional Masters programs, e.g. Master of Pharmacy) or Doctor (for 3-4 years, e.g. JD-style programs). In the latter, the program does not bestow the right to use the honorific “Dr”. Programs at this level should allow students an optional research track.

Professional Doctorate or combined Master/PhD?

As noted in the Appendixes, professional doctorates account for only 2% of doctoral graduations in the last 5 years at the University of Sydney. Only in the Doctor of Education (accounting for about half the professional doctoral graduations in the last 5 years) does the candidature appear of significant size. In many cases the difference in expectation between a thesis in a professional doctorate and a PhD thesis is ill-defined and it may be that many students actually deserve a PhD award, or would be capable of one, and also deserve recognition for coursework achievements. Several emerging disciplines have adopted a model of a combined Coursework Master/PhD in order to strengthen the PhD training without diluting the research time. Such programs are particularly valuable in emerging disciplines where undergraduate foundational programs are not yet established (e.g., IT (through NICTA), and (in some universities) media studies: brain and mind science is developing a model along this line). It is recommended that faculties offering professional doctorates consider whether the research thesis would not be strengthened by adopting a 4 – 5 year Coursework Masters/PhD program instead.

Appendix 1. Graduations in the four different categories in the last five years at the University of Sydney (source: University statistics page)

1. Higher doctorates: graduations						
	2004	2005	2006	2007	2008	Total
Doctor of Science in Agriculture	0	0	0	0	0	0
Doctor of Agricultural Economics	0	0	0	0	0	0
Doctor of Science in Architecture	0	0	0	0	0	0
Doctor of Letters	0	0	0	0	0	0
Doctor of Dental Science	0	0	0	0	0	0
Doctor of Science in Economics	0	0	0	0	0	0
Doctor of Letters in Education	0	0	0	0	0	0
Doctor of Letters in Social Work	0	0	0	0	0	0
Doctor of Engineering	0	1	0	0	0	1
Doctor of Laws	0	2	0	0	0	2
Doctor of Medicine	2	1	4	0	2	9
Doctor of Music	0	0	0	0	0	0
Doctor of Science	0	0	3	2	0	5
Doctor of Veterinary Science	0	1	0	1	0	2
Total higher doctorates	2	5	7	3	2	19

2. Professional doctorates: graduations						
	2004	2005	2006	2007	2008	Total
Doctor of Arts	0	0	0	0	0	0
Doctor of Social Sciences	0	0	0	0	0	0
Doctor of Education	2	8	4	3	2	19
Doctor of Social Work	0	1	0	0	0	1
Doctor of Engineering Practice	0	0	0	0	0	0
Doctor of Health Science	0	3	0	1	3	7
Doctor of Juridical Studies	5	2	0	0	1	8
Doctor of Public Health	1	0	0	2	2	5
Doctor of Midwifery (2008)	n/a	n/a	n/a	n/a	n/a	n/a

Doctor of Nursing (2008)	n/a	n/a	n/a	n/a	n/a	n/a
Doctor of Musical Arts (2007)	n/a	n/a	n/a	n/a	n/a	n/a
Total Professional doctorates	8	14	4	6	8	40

3. Coursework doctorates: graduations

	2004	2005	2006	2007	2008	Total
Doctor of Clinical Dentistry (2008)	n/a	n/a	n/a	n/a	n/a	n/a
Doctor of Clinical Psychology	9	10	14	6	9	48
Doctor of Clinical Neuropsychology	n/a	n/a	n/a	n/a	3	3
Total Coursework doctorates	9	10	14	6	12	51

4. PhD graduations

	2004	2005	2006	2007	2008	Total
Agriculture	15	21	30	15	29	110
Architecture	8	5	12	15	5	45
Arts	77	75	72	90	46	360
Dentistry	3	4	4	4	3	18
Economics and Business	19	23	22	22	35	121
Education and Social Work	10	22 (2 SW)	17 (1 SW)	16 (2 SW)	11	76
Engineering & IT (does not seem to include IT before 2008)	27	25	28	34	68	182
Health Sciences	25	28	40	24	35	152
Law	6	13	11	8	8	46
Medicine	96	103	109	127	128	563
Nursing	5	2	6	3	0	16
Pharmacy	7	7	12	12	7	45
Science	89	97	85	123	78	472
SCA	5	2	3	4	0	14
SCM	2	1	4	2	0	9
Vet Sc	6	10	14	10	9	49
Total PhDs	400	438	469	509	462	2278

Appendix 2: Summary totals and Proportions of graduations in the four categories in the last five years.

Higher Doctorates	19	1%
Professional Doctorates	40	2%
Coursework Doctorates	51	2%
PhDs	2278	95%
Total	2388	100%

Prepared by Peter McCallum.
21 May, 2009

Agenda Item 6 Proposals for New and Amended Courses

6.6 Faculty of Medicine

(1) Master of Brain and Mind Sciences, Master of Brain and Mind Sciences in Psychiatry, Graduate Diploma in Brain and Mind Sciences and Graduate Certificate in Brain and Mind Sciences page 9

In addition to the full proposal available on the Committee's website at: http://www.usyd.edu.au/ab/committees/grad_studies/agendas.shtml the Faculty has submitted a further letter of support from the Head of the Discipline of Sleep Medicine (attached).

Recommendation

That the Graduate Studies Committee recommend that the Academic Board

- (1) approve the proposal from the Faculty of Medicine to introduce the Master of Brain and Mind Sciences, Master of Brain and Mind Sciences in Psychiatry, Graduate Diploma in Brain and Mind Sciences and Graduate Certificate in Brain and Mind Sciences;*
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with effect from 1 January 2010, as set out in the reports presented.

6.7 Faculty of Science: Master of Sustainability, Graduate Diploma in Sustainability and Graduate Certificate in Sustainability pages 10-12

In addition to the full proposal available on the Committee's website at:

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details have now been provided of the core units of study for these courses.

Recommendation

That the Graduate Studies Committee recommend that the Academic Board

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 - (3) approve the introduction of the Faculty Resolutions relating to the courses;*
- with effect from 1 January 2010, as set out in the reports presented.*

From: Peter Cistulli [mailto:cistullip@med.usyd.edu.au]
Sent: Monday, 15 June 2009 3:34 PM
To: 'Ayse Burke'
Cc: 'Jennifer Nicholls'
Subject: RE: Follow up on meeting re BMRI new courses

Dear Ayse

Apologies for the delayed response, as I have been overseas.

Thank you for coming to discuss the BMRI plans with respect to 3 sleep elective units for the new postgraduate programmes in Brain and Mind Sciences. I can certainly see the relevance of sleep content for your new programmes and the target audiences for which they are intended.

As I explained, the Discipline of Sleep Medicine was recently established in recognition of the evolution of Sleep Medicine into a distinct specialty and the great academic strength the university has in the field. Our core philosophy is to develop a highly integrated academic sleep programme, spanning education and research across the entire university. Our discipline supports the expansion of education in sleep biology and medicine, and welcomes the BMRI's proposal. The key is to work collaboratively to ensure overall integration of educational offerings in the field, and to guard against fragmentation, competition, and confusion. It is important that the course work for these elective units be developed in a way that compliments the existing Sleep Medicine Postgraduate Programmes. To this end, the discipline is able to assist in the development of your content and can this could enhance the credibility for your offerings.

We look forward to working with you on this, and wish you success with the new programmes.

Yours sincerely
Peter

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SUST5011 An Introduction to Sustainability (6 cp)

This unit of study will introduce students to the concepts and multidisciplinary nature of sustainability by beginning with 6 case studies drawn from the 4 USIS theme areas (Energy, Health, Development, Environment) (i.e., 1 from each theme, 2 from each of 2 themes). The case studies will be presented by industry professionals and will illustrate sustainability issues currently before Australia – their origins, impacts and industry responses. The unit of study will provide students with a holistic systems lens through which to view their learning throughout the Certificate/Diploma/Masters program. This will underpin understanding of the integrated nature of sustainability and facilitate the challenging of silo-based assumptions – their own and those of others. The intention is to ground understanding of complex systems in the real world through the use of case studies that will demonstrate organizational change and problem solving in a world with competing values and conflicting views of what it means to live sustainably. Students completing the unit of study will have a “sustainability tool kit” to apply to sustainability issues in their professional and community activities.

SUST5021 Climate Change (6 cp)

This unit of study explores climate change from a multidisciplinary perspective. It examines how human activities are currently driving rapid global warming, the environmental and socio-economic impacts of climate change, projections of future climate change, and the regulatory strategies for mitigating and adapting to climate change. The unit first considers the climate record and the causes of past climate change, and the current state of climate change science, with particular emphasis on the conclusions of the Intergovernmental Panel on Climate Change (IPCC) in its Fourth Assessment Report. It moves then to consider climate change projections having regard to the IPCC’s emission scenarios and the use of modelling and other methods to make predictions of future change. The importance of risk analysis is introduced, and the distinction drawn between uncertainty and risk discussed. The multi-scalar impacts of climate change are addressed, with particular reference to climate change risk in Australia and the confluence of climate change with other factors driving environmental change in specific ecosystems such as the Great Barrier Reef and the Southern Ocean. Reference will be made to ocean acidification as a process occurring alongside climate change as carbon dioxide is absorbed in the marine environment from the atmosphere. The unit then assesses strategies for adapting to climatic change and the challenges, costs and equities involving in enhancing adaptive capacity. The economic, technological and regulatory challenges involved in effectively mitigating climate change by reducing greenhouse gas emissions from human activities are considered in some depth. Command-and-control and market-based policy measures for the abatement of emissions are examined, including the design and operation of emissions trading systems such as the Commonwealth’s Carbon Pollution Reduction Scheme. This leads to a discussion of the geopolitical constraints in forging international agreement on reducing emissions. In this context we examine the negotiating history and main provisions of the 1992 United Nations Framework Convention on Climate Change, its 1997 Kyoto Protocol and the outcomes of the 2009 Copenhagen conference. The unit will assist students to develop multi-disciplinary skills and capabilities on a critical issue of contemporary policy, which may be applied in commercial, governmental, technological, legal and other industry contexts.

SUST5031 Sustainable Energy (6 cp)

Energy is the single most important factor for defining standard of living. Its production and use over the last 150 years has increased twenty fold, and by over 20% in the last decade alone. Abundant and low cost fossil fuels provided the primary source for this growth, but emissions from the use of these fuels are now altering global climate. The need to decarbonise energy supply is one of the great sustainability challenges of the 21st Century. This course will examine the historical development of human energy usage, explore the fundamentals of energy sources, generation, distribution, storage and usage; the sustainable generation and supply of energy for industry, electricity and transport; trends in energy supply and use; energy policy and planning and the establishment and operation of the Australian National Electricity Market. Both existing (e.g., fossil, bio, nuclear) and the more

promising renewable energy sources (e.g., solar thermal, photovoltaic systems, hydroelectricity, wind, tidal, geothermal and bioenergy) will be covered. Students will gain an understanding of: the different sources of energy and their uses; the economic, environmental and societal contexts of energy use; the need and scope for a transition from conventional energy sources; sound principles for analysing different supply options; the role of new technology and energy efficiency in mitigating harmful impacts; the role of state and federal policy in influencing energy use.

SUST5041 Populations and Health (6 cp)

This unit of study is designed to offer a broad-based perspective on the health of populations and the environments they inhabit. It will explore the extent to which climate change influences demographic trends and health and, conversely, the extent to which changing demographics and lifestyles impact on aspects of climate change. The impact of migration, conflict, food insecurity, scarce resources, poverty, ageing and dependency on physical, mental and social health and economic sustainability will be analysed along side the elements needed to preserve the diversity and functioning of the ecosystem for our future survival. This will include consideration of the effects of environmental changes (ozone depletion, deforestation and land degradation, loss of biodiversity and depletion of fresh water) on the health and well-being of populations. The effects of urbanization, globalization, over-consumption, conflict and excessive waste and changes in population structures on the health of populations will be examined. Conventional measures of economic growth and how they relate to the health of populations will be critiqued and alternative indicators explored, taking into account current and projected limits to the ecosystem. Emphasis will be given to identifying policies and interventions to reduce negative human impact on the environment while simultaneously protecting and promoting health, quality of life and social cohesion. Although focusing on Australia, the information will be presented in the global context of health and sustainability in the 21st century. At the completion of the unit, students will be able to describe, analyse and assess the relative merits of policy and governance options for reversing, mitigating and/or adapting to current sustainability imperatives for populations and the planet.

SUST5051 Analysis, Policy, Security (6 cp)

Climate change, ecological sustainability, food security, resource scarcity, green technology and innovation, rising ocean levels, climate refugees, drought and 'water wars', are just some of the complex topics that now confront policy makers at all levels of government. This unit of study aims to provide students with an understanding of the issues surrounding the development and implementation of policies for sustainability. The unit will examine 1) the historical emergence and evolution of international and national governance frameworks; 2) examples of contemporary policy; and 3) the policy-making process. At all levels there are a range of stakeholders - policy makers, regulators, non-government organizations, industry, citizens and community groups - confronted by a complex ethical environment in their pursuit of different and sometimes competing agendas. As a result, policy and particular policy instruments may reflect conflict and compromise rather than consensus. Students will be introduced to: the role of analysis (scientific, economic, social, political etc) in providing an evidence base; the variety of instruments and institutions available for policy delivery; the lobbying process in influencing policy determination; and effectiveness of policy design and implementation including identification of 'winners' and 'losers'. Students will be encouraged to undertake research and applied work relevant to their interests so as to better understand the policy and governance environment. They will be expected to present this work in both oral and written forms. Topics for discussion will include: history and evolution of policy, governance: international, federal, state, local and personal, policy process: who's interests are being served ('fact based' decision making; instruments to enact policy – markets, regulatory issues, etc.), key issues – symptoms and causes, ethics, effective arguments and accurate information, negotiation and stakeholders, agenda setting and mass communication – using the media to influence stakeholders

SUST5061 Managing Sustainable Change in Society (6 cp)

This unit of study will provide students with the knowledge and cognitive skills required to influence the long term behavioural changes that are essential for the development of a sustainable society. Students will understand how to strategically manage change within the whole system framework required by sustainability. Using a practical, case study based learning design, students will be trained in applying appropriate psychological and business models and skills, to motivate, create and maintain behavioural changes at the governmental, organisational and consumer level. The material covered will include: Theories of change; models of leadership for sustainability; skills to understand complex adaptive systems; decision making approaches – how do organisations and consumers make decisions; systems, tipping points and strategic interventions; change and how to effect change; understanding and influencing entrenched and habitual behaviours.

SUST6011 Capstone experience (24 cp or 2 x 12 cp)

Students in teams of 2-4 members propose a research enquiry (possibly based on their employment). Ideally the students would work in teams (although this may depend on any IP constraints of their employers). The project should cover at least 2 of the USIS theme areas (Energy, Health, Development, Environment) and be approved by the programme co-ordinator on the advice of the relevant USIS theme leaders (or designate). Sydney Talent has provided in principle support to place students not joining the program from the work place. The programme co-ordinator will appoint an academic mentor for each group from among the USIS researchers (and preferably from a 3rd USIS theme area). Students will keep a diary/log of their activities, to be submitted for assessment at the end of the semester. Assessment will be on the basis of 3 oral presentations and 3 written reports. One oral presentation and one written report (plan) will be by the whole group at the beginning of the semester and will involve the presentation of their research enquiry topic and the plan of enquiry. The second oral report will also involve the whole group, will be mid-semester and will be a progress report, the third oral report and second written report will be a group report on the outcome of their enquiry at the end of the semester. The third written report will be an individual report reflecting on the process, their involvement and its anticipated impact.