
ARTS SUBJECT DESCRIPTIONS

ARTS901 Master of Arts Research Methods 24cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 9 hours per week

Assessment: Module 1: A total of 5,000-7,000 words which may include one short paper and one long essay Module 2: This subject is chosen from the MA Coursework schedule. See subject descriptions for assessment Module 3: Survey of sources (annotated bibliography) (40%); Documentation of thesis proposal (40%); Oral presentation of thesis proposal (20%)

Subject Description: This subject provides students enrolled in the Master of Arts (Research) degree with training in the theories and research methodologies current in their chosen discipline areas. This training involves three modules of study: 1. a specific theory and methods module; 2. an advanced content-based module in the student's discipline area and 3. a module in which the student writes a detailed research proposal for the Master of Arts thesis. The precise content of these modules will be determined on a case-by-case basis, with the student and the Academic Program. It will be approved by the Associate Dean (Graduate Studies and Research) Students who have completed a Bachelor of Arts (Honours) with Class II, division ii or above, or have completed appropriate subjects in the Master of Arts by Coursework (or equivalent), may apply for Advanced Standing for this part of the course. Students who achieve a Credit average or higher in this subject will proceed to the thesis component of the degree. Students who achieve a Pass average in this subject will be offered the opportunity to transfer to the Master of Arts by Coursework with 24 credit points of Advanced Standing.

CAPS901 Social Change and Development 6cp

Autumn Wollongong Flexible

Autumn Wollongong On Campus

Contact Hours: 3 hours per week

Assessment: Continuous assessment 60% Project 40%

Subject Description: The key elements of social change in the Asia-Pacific are the forces of globalisation in relation to states and societies. This subject examines the elements of change internal to states in terms of relationships between ethnicity, gender, urbanisation and social movements. States in the Asia-Pacific have responded through various forms of authoritarianism, but since the late 1990s have undergone crises due to international pressures. In identifying the major elements of those pressures this subject will provide students with a new understanding of the issues conventionally understood in terms of "development". The new middle classes, environmental issues and consumption are both causes and effects of these social changes which will be studied.

CAPS902 Issues in Developing Economies 6cp

Spring Wollongong Flexible

Contact Hours: 3hr seminar/lecture per week

Assessment: Continuous assessment 60% Project 40%

Subject Description: The purpose of this subject is to increase students awareness of the problems caused by poverty and underdevelopment, to advance their understanding of strategies for overcoming poverty and underdevelopment, and increase their awareness of the role and limitations of the state in promoting development. Topics covered will be: defining & measuring economic development; theories of economic development; growth, poverty and income distribution; population growth and development; employment & unemployment; migration and urbanisation; rural development; education and development; women & development; development & the environment; the role of the state in development.

CAPS903 Migration and Multicultural Societies 6cp

Autumn Wollongong Flexible

Contact Hours: 3 hours per week

Assessment: Continuous assessment 60% Project 40%

Subject Description: This subject is concerned with the ways in which migration and ethnic diversity influence processes of social transformation in the Asia Pacific region. Both internal and international migration will be discussed. In the case of internal migration, the types to be discussed include rural-urban movements, displacement through development projects and government migration programs (such as transmigrasi in Indonesia). For international migration, the type include permanent settler movements, labour migration, skilled migration, family reunion and refugee movements. A range of multicultural societies will be discussed, including both longstanding situations of multi-ethnicity and more recent immigration societies. In all cases, themes include gender issues, community relations, social and economic aspects, culture, identity and citizenship. These themes are examined from various disciplinary perspectives, including anthropology, economics, sociology, demography and geography. Cross-disciplinary approaches will also be introduced, such as migration systems theory and transnational communities theory.

CAPS904 Social Program Evaluation and Planning 6cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 3 hours per week

Assessment: Continuous assessment 60% Project 40%

Subject Description: This course introduces students to both the theory and practice of policy and program evaluation. It is divided into four modules, each suitable for offering as short courses or workshop sequences. The first deals with such theoretical debates as whether (or to what degree) evaluation is a form of experimentation in social science or a political process; the second with various conceptual organising frames for evaluation design; the third with methods of data collection relevant to program and policy evaluation; and the last with theories and methods in impact evaluation. The course will be student-centred, problem oriented and delivered in a multi-media format. All heuristic material will relate to the Asia-Pacific region (including Australia).

CAPS905 Labour Relations, Regulation and Organisation 6cp**Spring** Wollongong Flexible**Contact Hours:** 3 hours per week**Assessment:** Continuous assessment 60% Project 40%

Subject Description: This subject focuses on the evolution and regulation of labour relations in the Asia-Pacific region. It examines the relationship between markets, production and consumption in the shaping of labour processes, and deals comparatively with the transitions from pre-capitalist to colonial to post-colonial societies in Indonesia, The Philippines, Vietnam, Thailand and Australia. Attention will be paid to the roles of international bodies and regulations in the shaping of labour organisations.

CAPS906 Human Resources In Developing Countries 6cp**Autumn** Wollongong Flexible**Contact Hours:** 3 hours per week**Assessment:** Continuous assessment 60% Project 40%

Subject Description: This subject focuses on the main arguments in favour of investing in human resources, and explains why investing in people is important to individuals, their families and society. It introduces ways of measuring returns to investments in education and health and of relating levels of human and physical capital to the determinants of economic development. It reviews policies that are supportive of human resource development, and examines the roles government, the private sector and international agencies. It also examines how globalising forces have influenced the HRD policies of national and international public and private sector organisations and contributed to the internationalisation of labour markets.

CAPS907 Managing the Production and Diffusion of Knowledge 6cp**Spring** Wollongong Flexible**Contact Hours:** 3 hours per week**Assessment:** Continuous assessment 60% Project 40%

Subject Description: This subject introduces students to the rapid changes in the way that organisations and structures are generating scientific knowledge and contributing to technological innovation, and achieving their diffusion and application in industry and the community. Globalisation of knowledge is contrasted with cultural change and community knowledge at the local level. The course focuses on practical management and policy issues related to research and technology, drawing upon case studies from Australia and the Asia-Pacific region.

CAPS908 Special Project A 6cp**Autumn/ Spring** Wollongong On Campus**Contact Hours:** Minimum of 1 hour per week**Assessment:** Continuous assessment 60% Project 40%

Subject Description: This subject provides students with an opportunity to engage in detailed research on a particular aspect of social change and development approved by the Co-ordinator of the Postgraduate Program.

The project may focus on an issue, an actor (or actors), or a theoretical or methodological question which the student has previously encountered through reading or practical experience. Enrolment requires the Co-ordinator's approval, and may be determined by the availability of suitably qualified staff.

CAPS909 Special Project B 6cp**Autumn/ Spring** Wollongong On Campus**Contact Hours:** Minimum 1 hour per week**Assessment:** Continuous assessment 60% Project 40%

Subject Description: This subject provides students with an opportunity to engage in detailed research on a particular aspect of social change and development approved by the Co-ordinator of the Postgraduate Program. The project may focus on an issue, an actor (or actors), or a theoretical or methodological question which the student has previously encountered through reading or practical experience. Enrolment requires the Co-ordinator's approval, and may be determined by the availability of suitably qualified staff.

CAPS910 Globalisation and Citizenship 8cp**Autumn** Wollongong On Campus**Contact Hours:** 2hr seminar per week

Assessment: Research project 3500 words (40%); In-class document exercise 500 words (10%); Tutorial presentation and bibliographical review 1000 words (20%); Research proposal 1000 words (20%); Participation (10%)

Subject Description: This subject examines the effects of globalisation on representations of identity and citizenship in the Asia Pacific. We will discuss contemporary challenges to state authority coming from grassroots movements for democracy and universal human rights; women's groups; gay rights; ethnic minorities and indigenous peoples seeking self-determination; and the mass migration of workers and refugees. We will consider issues such as the conflict in Aceh, the plight of refugees, the role of organised crime, and the sexual reproduction of the nation.

CAPS911 Social Change and Development 8cp**Autumn** Wollongong Flexible**Contact Hours:** 1hr lecture, 2hr seminar per week

Assessment: Seminar presentation 20%, Research proposal 20%, Essay 50%, Class participation 10%

Subject Description: The key elements of social change in the Asia-Pacific are the forces of globalisation in relation to states and societies. This subject examines the elements of change internal to states in terms of relationships between ethnicity, gender, urbanisation and social movements. States in the Asia-Pacific have responded through various forms of authoritarianism, but since the late 1990s have undergone crises due to international pressures. In identifying the major elements of those pressures this subject will provide students with a new understanding of the issues conventionally understood in terms of "development". The new middle classes, environmental issues and consumption are both causes and effects of these social changes which will be studied.

CAPS913 Migration and Multicultural Societies 8cp**Spring** Wollongong Flexible**Contact Hours:** 1hr lecture, 2hr seminar per week**Assessment:** Seminar presentation 20%, Research proposal 20%, Essay 50%, Class participation 10%

Subject Description: This subject is concerned with the ways in which migration and ethnic diversity influence processes of social transformation in the Asia Pacific region. Both internal and international migration will be discussed. In the case of internal migration, the types to be discussed include rural-urban movements, displacement through development projects and government migration programs (such as transmigrasi in Indonesia). For international migration, the type include permanent settler movements, labour migration, skilled migration, family reunion and refugee movements. A range of multicultural societies will be discussed, including both longstanding situations of multi-ethnicity and more recent immigration societies. In all cases, themes include gender issues, community relations, social and economic aspects, culture, identity and citizenship. These themes are examined from various disciplinary perspectives, including anthropology, economics, sociology, demography and geography. Cross-disciplinary approaches will also be introduced, such as migration systems theory and transnational communities theory.

CAPS915 Labour Relations, Regulation and Organisation 8cp**Spring** Wollongong Flexible**Contact Hours:** 1hr lecture, 2hr seminar per week**Assessment:** Seminar presentation 20%, In-class reading exercise 10%, Research proposal 20%, Project 40%, Class participation 10%

Subject Description: This subject focuses on the evolution and regulation of labour relations in the Asia-Pacific region. It examines the relationship between markets, production and consumption in the shaping of labour processes, and deals comparatively with the transitions from pre-capitalist to colonial to post-colonial societies in Indonesia, The Philippines, Vietnam, Thailand and Australia. Attention will be paid to the roles of international bodies and regulations in the shaping of labour organisations.

CAPS918 Special Project A 8cp**Autumn/ Spring** Wollongong Flexible**Contact Hours:** 1hr supervision per week**Assessment:** Seminar presentation 30%, Research proposal 20%, Project 50%

Subject Description: This subject provides students with an opportunity to engage in detailed research on a particular aspect of social change and development approved by the Co-ordinator of the Postgraduate Program. The project may focus on an issue, an actor (or actors), or a theoretical or methodological question which the student has previously encountered through reading or practical experience. Enrolment requires the Co-ordinator's approval, and may be determined by the availability of suitably qualified staff.

CAPS919 Special Project B 8cp**Autumn/ Spring** Wollongong Flexible**Contact Hours:** 1hr supervision per week**Assessment:** Seminar presentation 30%, Research proposal 20%, Project 50%

Subject Description: This subject provides students with an opportunity to engage in detailed research on a particular aspect of social change and development approved by the Co-ordinator of the Postgraduate Program. The project may focus on an issue, an actor (or actors), or a theoretical or methodological question which the student has previously encountered through reading or practical experience. Enrolment requires the Co-ordinator's approval, and may be determined by the availability of suitably qualified staff.

CAPS933 Social Science Research Methods 6cp**Autumn** Wollongong Flexible**Contact Hours:** 3 hrs per week**Assessment:** Continuous assessment 60% Project 40%

Subject Description: The overall objectives of this course are to provide students with a good grounding in the range of research methods relevant to the wider teaching program of CAPSTRANS, and also to provide an awareness of some of the relevant debates in the area of methodology. Both quantitative and qualitative research methods will be covered in the course, the former being taught largely through the use of the SPSS computer package. The course will be student-centred problem oriented and delivered in a multi-media format. It will be divided into modules suitable for offering in a short-course format and all heuristic material will relate to the Asia-Pacific region (including Australia).

CAPS934 Research Project in Social Change and Development 12cp**Annual** Wollongong On Campus**Autumn/ Spring** Wollongong Flexible**Contact Hours:** By appointment

Assessment: Production of 8000 word research report. Students assessed on: quality of literature search and data collection, quality of analysis and data processing, quality of presentation.

Subject Description: The subject will consist of the execution of, and report on, a research project in consultation with, and under the supervision of, a tutor nominated by CAPSTRANS. The students will utilize theoretical and empirical material as well as data-processing and analysis skills taught in other CAPSTRANS subjects. The subject will develop the students skills in applied empirical research and deepen their understanding of concepts and procedures taught in other CAPSTRANS courses by utilizing them in the context of this research.

CAPS935 Research Project in Social Change and Development 16cp**Annual** Wollongong On Campus**Autumn/ Spring** Wollongong On Campus**Contact Hours:** 1 hr supervision per week

Assessment: Production of 8000 word research report. Students assessed on: quality of literature search and data collection, quality of analysis and data processing, quality of presentation.

Subject Description: The subject will consist of the execution of, and report on, a research project in consultation with, and under the supervision of, a tutor nominated by CAPSTRANS. The students will utilize theoretical and empirical material as well as data-processing and analysis skills taught in other CAPSTRANS subjects. The subject will develop the students' skills in applied empirical research and deepen their understanding of concepts and procedures taught in other CAPSTRANS courses by utilizing them in the context of this research. This subject is a valuable addition to student's professional portfolio.

ELL 901 English for Postgraduate Studies 1 6cp

Autumn Wollongong On Campus

Contact Hours: 2hr lecture; 2hr tutorial per week

Exclusions: ELL 902

Assessment: Writing Skills Assignment (15%) Critical Reading Exercises (10%) Essay (15%) 1000-1500 words Exam (25%) Individual Oral Presentation (15%) Group Oral Presentation (10%) Participation (10%)

Subject Description: This subject provides an overview of the kind of English used in the academic context, particularly in Postgraduate studies. It is designed for Non-English Speaking Background (NESB) students who are wanting an induction into English grammar, micro and macro writing skills and oral skills for postgraduate studies. This subject aims to identify and practice important skills related to postgraduate academic English. These skills include grammar at the level of sentence, paragraph and text; writing conventions; skills in paraphrasing and summarising, as well as practice in some of the common text types used in postgraduate writing and oral presentations including reports, explanations and expositions.

ELL 902 English for Postgraduate Studies 1 (Arts) 8cp

Autumn Wollongong On Campus

Contact Hours: 2hr lecture; 2hr tutorial per week

Exclusions: ELL 901

Assessment: Writing Skills Assignment (15%) Critical Reading Exercises (10%) 2 x Essays (20%) (1500-2000 words) Exam (20%) Individual Oral Presentation (15%) Group Oral Presentation (10%) Participation (10%)

Subject Description: This subject provides an overview of the kind of English used in the academic context, particularly in Postgraduate studies. It is designed for Non-English Speaking Background (NESB) students who are wanting an induction into English grammar, micro and macro writing skills and oral skills for postgraduate studies. This subject aims to identify and practice important skills related to postgraduate academic English. These skills include grammar at the level of sentence, paragraph and text; writing conventions; skills in paraphrasing and summarising, as well as practice in some of the common text types used in postgraduate writing and oral presentations including reports, explanations and expositions.

ELL 903 English for Postgraduate Studies 2 6cp

Spring Wollongong On Campus

Contact Hours: 2hr lecture; 2hr tutorial per week

Exclusions: ELL 904

Assessment: Writing assignments 1:Exposition Rewrite 10% (300-500wds) Writing assignments 2:Information Report 10% (300-500wds) Writing assignments 3:Comparative Report 15% (800 wds) Writing assignments 4:Persuasive Essay 25% (1000 wds) Exam 20% Portfolio (collected study notes) & (10%) Participation (10%)

Subject Description: This subject provides an overview of the kind of English used in the academic context, particularly in Postgraduate studies. It is designed for Non-English Speaking Background (NESB) postgraduate students who are wanting an induction into writing and speaking for postgraduate studies. This subject aims to identify and discuss important issues related to the culture of postgraduate education; to develop academic skills relevant to postgraduate studies and thesis writing. Students will develop a critical and analytical stance to research and learning, an understanding of how the grammatical resources of English are employed to achieve different purposes within postgraduate studies; and expertise and confidence in using a range of resources for learning.

ELL 904 English for Postgraduate Studies 2 (Arts) 8cp

Spring Wollongong On Campus

Contact Hours: 2hr lecture; 2hr tutorial per week

Exclusions: ELL 903

Assessment: Writing assignments 1:Exposition Rewrite 10% (300-500wds) Writing assignments 2:Information Report 10% (500-800wds) Writing assignments 3:Comparative Report 15% (1000 wds) Writing assignments 4:Persuasive Essay 25% (1500 wds) Exam 20% Portfolio (collected study notes) & (10%) Participation (10%)

Subject Description: This subject provides an overview of the kind of English used in the academic context, particularly in Postgraduate studies. It is designed for Non-English Speaking Background (NESB) postgraduate students who are wanting an induction into writing and speaking for postgraduate studies. This subject aims to identify and discuss important issues related to the culture of postgraduate education; to develop academic skills relevant to postgraduate studies and thesis writing. Students will develop a critical and analytical stance to research and learning, an understanding of how the grammatical resources of English are employed to achieve different purposes within postgraduate studies; and expertise and confidence in using a range of resources for learning.

ENGL903 Contemporary Literary Issues 8cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 3 hour seminar per week

Assessment: To be advised

Subject Description: Designed to enable students to undertake a sustained reading program, often in parallel with an existing subject, in Contemporary Literary Issues, under close supervision. Enrolment, selection of appropriate subject or themes and readings, are subject to the approval of the Convenor of Program.

ENGL906 Modernism and Its Others 8cp**Autumn** Wollongong On Campus**Contact Hours:** 3 hour seminar per week**Assessment:** To be advised

Subject Description: Subject focus will change from year to year, alternating primarily between European modernism and post-colonial poetry of the modern age. Check with postgraduate co-ordinator. One focus of Modernism and Its Others is on writing from England, Europe and the Americas produced in the early 20th century - a period marked by radical questioning of the categories that defined and often determined social and self construction. Writers were fascinated with the allure of 'the other'? that against which the self and its community of belonging is defined. Writers explored in this subject include T.S. Eliot, Ezra Pound, Amy Lowell, Radclyffe Hall, Virginia Woolf, D.H. Lawrence, E.M. Forster, Franz Kafka, Herman Hesse, Thomas Mann, Jean Rhys and Claude McKay. This subject also looks at the politics of free voice. It will focus on the 20th century english language poetry of the former British colonies with particular reference to the historical implications of linguistic colonisation and the post-colonial poetic imperative to decolonise the mind, to (re)discover and (re)assert a multiplicity of voice.

ENGL913 Literature, Memory and Forgetting 8cp**Autumn** Wollongong On Campus**Contact Hours:** 3hr seminar per week**Assessment:** Main essay; seminar presentation; journal; and class participation

Subject Description: This thematic subject examines the role of memory in the creation of literature, and the role of literature in the creation of both personal and cultural memory. Beginning with a consideration of the notion of writing as a form of memory, it goes on to examine such issues as memory and history, memory and identity, memory and national mythologies, amnesia in fiction, and futuristic memories. This subject will examine a historically and culturally diverse range of texts, although its emphasis will be on more recent writings. The subject also introduces students to a range of theoretical and historical perspectives on memory and writing, such as those offered by poststructuralist, feminist, and postcolonial theorists. Visual materials will also be used, including images from medieval manuscripts, artworks, and video footage.

ENGL916 US Literature: Modernity and Postmodernity 8cp**Spring** Wollongong On Campus**Contact Hours:** 3 hour seminar per week**Assessment:** To be advised

Subject Description: The subject examines a variety of twentieth-century US fictional, autobiographical and journalistic prose works in relation to generic, cultural and political developments. A particular focus of the course is critical examination of the concepts of modernity and postmodernity, and modernism and postmodernism. Other topics of discussion include: the construction and articulation of racial, classed, sexual and gendered identities; contexts of

the production and consumption of individual texts; tensions and connections between realism and experimentalism as modes of writing practice; the relations of literary genres to other media such as film and TV.

ENGL918 Special Topic 8cp**Spring/ Autumn** Wollongong On Campus**Contact Hours:** 3 hr Seminar per week**Assessment:** To be advised

Subject Description: Directed reading, research and other investigative activities at an advanced level in a field of study selected by the student in consultation with the English Studies Postgraduate Co-ordinator and approval prior to enrolling from the Convenor of Program.

ENGL921 Turning Points: An Introduction to Post-colonial Literary History 8cp**Autumn** Wollongong On Campus**Contact Hours:** 3 hour seminar per week**Assessment:** To be advised

Subject Description: The course will survey novels that are the first in their field or which have become key points of reference in discussions of post-colonial writing. The subject asks such questions as: How does newness occur; spontaneous generation; socio-historical determinism; killing off the father; creative misprision; evolution; intertextual ars combinatoria; retrospection from some pre-conceived end? What are the possibilities for post-colonial texts 'intervening' in literary practice and/or social thought to imaginatively effect cultural liberation? What are we doing when we write literary history, design courses? What use do we make of reading texts? Can we institutionalise 'reading (and writing) against the grain'?

ENGL923 Indigenous Literatures in Canada, New Zealand and Australia 8cp*Not on offer in 2004*

Subject Description: This subject will study indigenous writing and theory in the context of world movements, though it will focus on Canada, New Zealand and Australia. The subject will centre on identity politics, on the appropriation of voice debate, and on the question of what constitutes the 'literary'. The course will interrogate a range of post-colonial practices, as articulated by indigenous theorists and guest speakers.

ENGL930 History and Romance in Early Modern Britain 8cp*Not on offer in 2004*

Subject Description: The subject focuses on texts which deal with history and romance in late Tudor and Stuart England, looking particularly at the way such texts deliberately lend themselves to varying readings, how they become part of the ideology of a culture, legitimating or questioning the powerful, and how both well-known and less familiar men and women writers (and readers) dealt with issues presented in the trappings of history and romance.

ENGL933 Early Women Writers 8cp

Not on offer in 2004

Subject Description: This subject looks at the work of women writers from the mid-fifteenth century to the early eighteenth century. The texts represent different types of writing: fiction, poetry, diaries, letters and autobiographical writings. The subject will examine the establishment of the female writing self within the appropriate cultural structure and historical context, and the engagement of that self with the social and literary conventions of the time.

ENGL944 The Dominant Sound: Australian Women Novelists Between the Wars 8cp

Spring Wollongong On Campus

Contact Hours: Spring 3 hour seminar per week

Subject Description: The course offers a detailed investigation of novels, written by Australian women and published between the wars. It was in this period of time that female authors dominated the Australian Literary scene. The subject considers a number of important issues and historical events - including race, class, the depression, nationalism, the spectre of world war and gender. It also explores the generic and authorial approaches employed by these writers.

INTR905 Case Studies In Diplomacy 8cp

Spring Wollongong On Campus

Contact Hours: 3 hrs per week

Assessment: Essays and Examination

Subject Description: This subject deals with important examples of modern international diplomatic behaviour. It includes an overview of diplomatic practice including various theoretical and historiographical concerns.

INTR910 Politics of International Relations 8cp

Autumn Wollongong On Campus

Contact Hours: 3 hours per week

Assessment: Essays and examination.

Subject Description: Approaches to and methods of study, theories and concepts of international relations: idealist, legal, institutional, realist, Marxist, Neo-Marxist, globalist, feminist, systems, regimes, etc. The role of international law and diplomacy. Foreign policy making and implementation. Political order, multi-dimensional security, international order and the balance of power, both international and regional. The United Nations and other international organisations, including peace-keeping. Issues, blocs, and the politics of international economic, environmental and functional co-operation, including foreign aid.

INTR911 Politics in the South Pacific 8cp

Spring Wollongong On Campus

Contact Hours: 3 hours per week

Assessment: Essays and examination.

Subject Description: Politics in and among South Pacific island countries. Regional and sub-regional co-operation. Relations with external actors, including governments,

international organisations non-governmental organisations and multi-national corporations. Vulnerability and multi-dimensional security. The politics of race, ethnic and class relations. Class work and assignments provide occasions for detailed examination of particular case studies.

INTR912 Pacific Rim and Pacific Basin 8cp

Spring Wollongong On Campus

Contact Hours: 3 hours per week

Assessment: Essays and examination.

Subject Description: The subject analyses aspects of relations between advanced, industrialising and less developed countries on the Pacific Rim and in the Pacific Basin. The subject addresses significant issues in defence, aid, trade, investment and other kinds of international inter-actions. Particular attention is paid to nuclear and environmental issues; security and vulnerability; colonialism and self-determination as well as Asia-Pacific and other forms of international economic co-operation.

INTR931 Public Policy 8cp

Autumn Wollongong On Campus

Contact Hours: 3 hours per week

Assessment: Email discussions 20%; Policy submission 30%; Major essay 50%

Subject Description: This subject examines a broad range of policy areas in the (post) modern world. Students are expected to select issues for study from a range of policies including: media, industrial restructuring, political economy, education, health care, transport, defence, policing, urban and regional renewal, housing and the arts. Students are encouraged to study the impact of Globalisation and global trends on the creation and execution of public policy in advanced industrial countries. The subject offers an approach to policy studies, which focuses on quality of life issues and outcomes. An emphasis on recent developments in Australian public policy is maintained within a comparative perspective.

INTR932 Selected Topics in Management 8cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 3 hours per week

Assessment: Essays and examination.

Subject Description: A special topic selected from any area of management. The selection is made by the Head of Program concerned, taking into account the expertise of academic staff, including visiting staff, and the interests of students

INTR940 Case Study in International Politics A 8cp

Autumn/ Spring Wollongong On Campus

Contact Hours: Minimum 1 hour per week or as required by co-ordinator.

Assessment: Research paper.

Subject Description: This subject provides students with an opportunity to engage in detailed research on a particular aspect of international relations approved by the Co-ordinator of the Postgraduate Program in International Relations. The

project may focus on an issue, an actor (or actors), or a theoretical or methodological question which the student has previously encountered through reading or practical experience. Enrolment requires the Co-ordinator's approval, and may be determined by the availability of suitably qualified staff.

INTR941 Case Study in International Politics B 8cp

Spring Wollongong On Campus

Contact Hours: Minimum 1 hour per week

Assessment: Research paper.

Subject Description: This subject provides students with an opportunity to engage in detailed research on a particular aspect of international relations approved by the Co-ordinator of the Postgraduate Program in International Relations. The project may focus on an issue, an actor (or actors), or a theoretical or methodological question which the student has previously encountered through reading or practical experience. Enrolment requires the Co-ordinator's approval, and may be determined by the availability of suitably qualified staff.

INTR957 Postwar Economic and Social Development in the Asia-Pacific 8cp

Autumn Wollongong On Campus

Contact Hours: 3 hours per week

Assessment: Essays and examination.

Subject Description: This subject traces economic and social development in the Asia Pacific since World War II. It covers major issues of economic development faced by countries of the region from the end of the colonial period to the present day and includes discussion of the colonial economic legacy, the formation of new social classes and their role in independence struggles, indicators of modernisation such as industrialisation, education, urbanisation, women and work, etc. Environmental issues are also discussed.

INTR958 Select Topic in Postwar Econ Social Development in the Asia-Pacific 8cp

Spring Wollongong On Campus

Contact Hours: 3 hours per week

Assessment: Essays and examination..

Subject Description: The subject examines the politics of identity in the Asia-Pacific using a number of case studies. Issues explored include the relationship between nationalism, modernity and politics, the ways history and culture are viewed by present governments, the role of minority groups and relationships between military rule and democracy.

INTR960 Research Project in International Relations 16cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 1 hour per week

Assessment: Research project

Subject Description: A detailed analysis of a significant actor, issue or period in international relations, drawing on research relevant primary and other sources, bodies of theory

and/or comparative materials. Enrolment requires the prior approval of the Co-ordinator of the Postgraduate Programme in International Relations and may depend on the availability of appropriate sources and suitably qualified staff.

INTR961 Research Project in International Relations 16cp

Annual Wollongong On Campus

Spring 04/Aut 05 Wollongong On Campus

Contact Hours: 1 hour per week

Assessment: Research project.

Subject Description: A detailed analysis of a significant actor, issue or period in international relations, drawing on research relevant primary and other sources, bodies of theory and/or comparative materials. Enrolment requires the prior approval of the Co-ordinator of the Postgraduate Programme in International Relations and may depend on the availability of appropriate sources and suitably qualified staff.

PHIL923 Minor Thesis 24cp

Annual Wollongong On Campus

Spring 04/Aut 05 Wollongong On Campus

Contact Hours: As required

Assessment: Minor thesis of 15,000 words

Subject Description: The subject involves the writing of a dissertation of 15,000 words on a research topic to be determined in consultation with the supervisor.

PHIL935 Applied Ethics 8cp

Autumn Wollongong On Campus

Contact Hours: 3 hrs lectures/discussion per week

Exclusions: PHIL206

Assessment: One or two essays totalling approximately 6,000 words and seminar presentation/participation

Subject Description: A systematic study of a range of problems of applied ethics. Among the topics for discussion will be a selection of the following: Discrimination and Affirmative Action; Abortion; Sexual Issues; Warfare; Suicide and Death.

PHIL955 Theoretical Ethics 8cp

Spring Wollongong On Campus

Contact Hours: Spring 3 hours per week

Exclusions: PHIL251 or PHIL301

Assessment: One or two essays totaling approximately 6,000 words and seminar presentation/participation

Subject Description: A systematic study of some central issues in moral philosophy and moral psychology. Among the topics for discussion will be a selection of the following: subjectivist and objectivist theories of morality; facts and values; moral realism; consequentialism; virtues and vices; evaluative thinking and motivation; morality and self-interest.

PHIL965 Bioethics 8cp

Spring Wollongong On Campus

Contact Hours: 3hr lecture/discussion per week

Assessment: One or two essays totalling approximately 6,000 words and seminar presentation/participation

Subject Description: Systematic study of a range of bioethical problems. Topics will include: euthanasia; physician-assisted suicide; reproduction technology; anonymous donor programs; genetic counselling, screening and testing; surrogacy; embryo and fetal research; health resources allocation; organ transplantation; experimentation involving human subjects; research involving animals; the nature of professional ethics.

PHIL976 Ethical Issues in Research 8cp

Not on offer in 2004

Assessment: Research project, 2 seminars

Subject Description: Examines areas of ethical concern in different kinds of research involving human subjects or participants and justifications for such research. Topics discussed include: consent; confidentiality; fraud; disadvantaged participants; use of research findings; institutional ethics committees; codes of research practice and responsibilities in research.

PHIL986 Applied Ethics Topic 8cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 3 hrs per week

Assessment: One or two essays totaling approximately 6,000 words and seminar presentation/participation

Subject Description: Offers students enrolled in the MA (Applied Ethics) the opportunity to investigate applied ethics issues at an advanced level. Students wishing to enrol must discuss their proposal with the Convenor of Program. Normally this is a reading program. Content and assessment is determined by the supervisor and student.

PHIL990 Contemporary Political Philosophy 8cp

Not on offer in 2004

Assessment: Essays equivalent to 5,500 words; seminar

Subject Description: Examination of current themes in political philosophy. Explores differences in the role of the state, civil society and citizenship in recent liberal, communitarian and feminist political theory. In particular, examines the ways in which contemporary political philosophers respond to gender and ethnic diversity in their political theories.

PHIL995 Environmental Ethics 8cp

Autumn Wollongong On Campus

Contact Hours: Autumn 3 hr lecture/discussion per week

Prerequisites: Bachelor degree or equivalent. Not to count with PHIL256

Assessment: One or two essays totalling approximately 5,500 words and seminar presentation/participation

Subject Description: A systematic study of problems in environmental ethics. Topics include the place of humankind in nature; the status of non-human animals and their use in research and as food; our moral obligations to the 3rd world and to future generations, 'deep' versus 'shallow' theories of environmental ethics.

SOC 904 Policy and Program Evaluation 8cp

Spring Wollongong On Campus

Contact Hours: 2hrs seminar per week

Assessment: Continuous assessment 60%; project 40%

Subject Description: The course covers the full range of techniques and applications involved in the evaluation of social programs. It starts with a brief history of evaluation research and then goes on to cover diagnostic procedures, means of fitting evaluation designs to particular problems, program monitoring, data collection and processing, cost-benefit analysis and strategies for impact analysis such as randomised designs and quasi-experimental assessments.

SOC 905 Social Policy Research Project 8cp

Not on offer in 2004

Subject Description: The research report shall be based on empirical research into a social policy issue which demonstrates significant problems for policy analysis and response. The issue will relate to the substantive area of study chosen as a focus for the student's course work program.

SOC 910 Developing a Social Science Thesis 8cp

Autumn Wollongong On Campus

Contact Hours: 2hr seminar per week

Assessment: Small projects; Research proposal; Seminar presentations

Subject Description: This subject aims to prepare Masters and Honours students for the successful completion of their thesis. It will provide appropriate skills in argumentation, information technology and bibliography formation. At its completion, students will be equipped with a well-researched and well thought through research proposal and timetable, and bibliography and will be practised in the oral and written presentation of scholarly ideas and argument, and in criticising them as well. The subject is organised around a series of projects which will enhance abilities to plan time use, to work on several projects at one time and to meet consecutive deadlines. Collegial team work is also an important aspect of the work of the subject.

SOC 911 Postgraduate Sociology Seminar 6cp

Autumn Wollongong On Campus

Contact Hours: 2hr seminar per week

Assessment: Small projects; Research proposal; Seminar presentations

Subject Description: This subject aims to prepare Masters and Honours students for the successful completion of their thesis. It will provide appropriate skills in argumentation, information technology and bibliography formation. At its completion, students will be equipped with a well-researched and well

thought through research proposal and timetable, and bibliography and will be practised in the oral and written presentation of scholarly ideas and argument, and in criticising them as well. The subject is organised around a series of projects which will enhance abilities to plan time use, to work on several projects at one time and to meet consecutive deadlines. Collegial team work is also an important aspect of the work of the subject.

SOC 918 Modernity, Development and Social Change 8cp

Spring Wollongong On Campus

Contact Hours: 1hr lecture; 2hr seminar per week

Assessment: Analysis of development issue and policy 30%; Seminar presentation & paper 30% (oral presentation 20%+ Critical summary 10%); class test 15%; Seen examination 25%

Subject Description: This subject will examine the development experience of people in the new global order. It will introduce students to the debates on modernity and development that emerged following the break up of European colonial empires. It will examine the ensuing interaction between rich and poor nations, and theoretical explanations for the emergence of international disparities of wealth. In particular it will focus on the Asia-Pacific region and explore the power laden international context in which development discourses are produced. A number of case studies will be utilised to explore local understanding of what constitutes development.

SOC 921 Advanced Studies in Sociology 8cp
Not on offer in 2004

Assessment: One essay & tutorial assignments

Subject Description: Topics for this subject may be chosen from any area of Sociology which the Convenor of Program considers to be of suitable substance and level to be offered as a SOC900 subject. This will be a reading subject offered under the direct supervision of a member of staff. For information of availability of topics offered, students should consult the Convenor of Program.

SOC 933 Advanced Research Techniques 8cp

Spring Wollongong On Campus

Contact Hours: 2 hr Lecture/seminar

Assessment: Review Paper 10%; Short-answer quiz 20%; Annotated bibliography 30%; Research project report 40%

Subject Description: Will explore social science techniques of enquiry with a focus of appropriate methods, both qualitative and quantitative, for different types of enquiry. Students will review some of the traditional social science tools of analysis as well as some alternative methods such as unobtrusive research. In addition students will become familiar with a statistical computer package for presenting and analysing quantitative data.

SOC 940 Contemporary Social Policy, Theory and Practice 8cp

Spring Wollongong On Campus

Contact Hours: 2 hrs lecture/seminar per week

Assessment: E-mail group discussion; Book review; social policy research project; seminar paper.

Subject Description: This subject explores the relationship between social policy and sociological theory. The subject will review major debates in contemporary sociology in these areas and move towards developing a paradigm for the evaluation of policy in Australia. The discussion of social policy in Australia will focus on understanding the role of the State, the development and impact of policy and the historical and materialist base in which the State and its policies are located.

SOC 942 Advanced Race and Ethnic Studies 8cp
Not on offer in 2004

Assessment: Seminar paper 20%; Seminar presentation 15%; mid session class test 25%; Open book final examination 40%

Subject Description: This subject introduces students to theories of race, racism, ethnicity and migration. These will be linked to other dimensions of social structure and action, in particular class and gender relations. Global political economy, international migration and the process of ethnic group formation will be examined as the basis for many current situations of ethnic diversity. For Australia, we will look at the situation of indigenous people and of immigrants, and examine the role of cultural diversity in the development of social relations and national identity. We will also examine such issues at the international level. Examples will be drawn both from Australia and other countries. The subject includes consideration of the subjective and structural dimensions of racial oppression, ethnic mobilisation and liberation movements, as well as an analysis of the theoretical and substantive relationships between culture, identity and resistance.

SOC 949 Advanced Social Regulation: Policies and Issues 8cp

Not on offer in 2004

Assessment: Essay 50%; Concept Paper 30%; Presentation 20%

Subject Description: How are your everyday practices regulated or is social regulation only for those who need it, those who transgress like deviants, the mentally ill, criminals, youth gangs, dole bludgers, welfare cheats, etc? Do we only experience social regulation through institutions and their processes, for example, medicine, law and social security? The theory of governance or governmentality (how the social is governed) practices of self (how we govern our self) and neo-liberalism (the politics through which society is governed) will be used to address these questions. The theories will be linked to a number of current issues including, self-esteem, crime prevention, pumping iron at the gym and unemployment.

SOC 950 Advanced Studies of the Individual in Society 8cp

Not on offer in 2004

Subject Description: This subject examines some of the most fundamental aspects of the human life cycle. One broad aim of the subject is the gaining of some personally meaningful understanding of the extent to which an individual is 'socially constructed'. The subject starts with the historical, cultural and institutional context of the individual in 'modern' times.

On that basis the nature of sex, love, death and change will be considered in the context of identity formation and social and cultural reproduction. These themes will involve some treatment of 'post-structural' and 'post-modern' theoretical issues.

SOC 959 Advanced Gender and Society 8cp
Not on offer in 2004

Assessment: Concepts Paper 15%; Major Essay 50%; Exam 35%

Subject Description: Questions such as, how do masculinities and femininities develop, are gender identities unstable, how can we understand patterns of gender relations in a globalising society, and is social justice in gender possible, sit at the center of current debates about gender and society. This subject offers an exploration into the theoretical and practical aspects of gender and its operation in society. It begins by presenting key explanatory approaches to gender, which include: psychoanalytic, functionalist, Marxist and poststructuralist/queer theories. Using this theoretical knowledge, patterns of gender practice within and across institutions such as, the family, media, law, sport, the State and education will be investigated. The aim will be to challenge traditional knowledge about masculinity and femininity, and gender relations and practice so as to uncover possibilities for a new social justice in gender.

SOC 970 Social Movement and Community Activism 8cp
Not on offer in 2004

Assessment: Major essay; Seminar presentation; Project paper; Class participation

Subject Description: This subject will examine, historically and sociologically, local and global power relations with particular reference to traditional and recent channels of resistance and change. Firstly some of the traditional channels, such as trade unions, will be analysed as agents of change. Secondly, new social movements including the women's movement, urban movements, environmental and minority liberation movements will be examined. Thirdly, students will also investigate recently emerged web-based protest groups.

SOC 990 A Minor Thesis 24cp
Annual Wollongong On Campus
Spring Wollongong On Campus

Subject Description: Students will be required to engage in an extensive program of study - reading, research and fieldwork - that will explore in depth and detail one issue (or a set of issues) that arises from or is related to the concepts and material dealt within coursework subjects. This program will result in the submission of an essay of 15,000 words, OR a fieldwork report of 15,000 words (or equivalent taking into account diagrams, tables and other graphics) OR some other equivalent body of work, as arranged with the course administrative panel. Whilst the dissertation can be nominated by the student, they will require the approval of the Board six weeks into the course and this has to be validated by the ninth week, when a formal supervisor will be allocated.

STS 100 Social Aspects of Science and Technology 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hr lecture; 1 hr tutorial

Assessment: Essays, presentations and class participation

Subject Description: This subject introduces different ways of analysing the social and historical dimensions of science, medicine and technology - their origins, dynamics, impacts and management. After breaking down some common myths about science and technology and their relation to society, it shows how we can conceptualise and investigate in a more fruitful way the formation of scientific knowledge, the development of technological artefacts and systems, and debates and policies concerning scientific and technological issues.

STS 903 Minor Thesis 24cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 3 hrs per week

Prerequisites: Approval of Convenor of Program

Assessment: Thesis

Subject Description: A thesis embodying the results of an original investigation under the supervision of a staff member. The topic and programme of research must be approved by the Convenor of Program.

STS 916 Theories and Methods of Science and Technology Studies 8cp

Autumn/ Spring Wollongong On Campus

Contact Hours: By arrangement

Prerequisites: Approval of Convenor of Program

Assessment: Essays, presentations and class participation

Subject Description: Students will study topics appropriate to their field of special interest, subject to the approval of the Convenor of Program.

STS 917 Advanced Topics in Science and Technology Studies 8cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 3 hours per week

Prerequisites: Approval of Convenor of Program

Assessment: Essays, presentations and class participation

Subject Description: Students will study topics appropriate to their field of special interest, subject to the approval of the Convenor of Program.

STS 920 The Dynamics of Science and Technology 8cp

Autumn/ Spring Wollongong On Campus

Contact Hours: By arrangement

Prerequisites: Approval of Convenor of Program

Assessment: Essays, presentations and class participation

Subject Description: This subject introduces current research and theory in the social dynamics of science and technology. It examines alternative explanations of scientific and

Subject Description: This subject examines the social, economic and political processes through which environmental policy is developed. Case studies will be used to understand environmental impacts of technological development. Theoretical perspectives may include the politics and sociology of scientific controversy, global, national and regional developments in environmental regulation, theories of state regulation and intervention, and the choice and negotiation of different environmental strategies.

Subject Description: This subject examines concepts and techniques available for managing technology in private and public sector organisations in the context of the changing role of technology in the national and global economy, and the implications of these changes for national, industry and company strategies. The subject covers issues of technology strategy formulation and management, marketing of technology, models and mechanisms of government intervention, new manufacturing technologies, work organisation and skill formation, and management information systems.

Subject Description: This subject provides practical insights and experience in analysis, policy formulation, implementation and monitoring of scientific or technological changes and their impacts. A case study is chosen according to student interests and expertise, and staff availability. Issues might include: a hazard control policy; a set of national research priorities; a set of performance indicators for research or education funding; or negotiating the purchase and implementation of a major computing system.

COMMERCE SUBJECT DESCRIPTIONS

ACCY901 Accounting for Managers 6cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 2 hrs seminar, 1 hr computer lab per week

Assessment: See Subject Outline

Subject Description: The interpretation and utilisation of the major types of reports and analyses prepared by accountants for management decision making.

ACCY903 Theoretical Foundations of Research 6cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 2 hour seminar

Assessment: See Subject Outline

Subject Description: The nature of theory, research and theory formation. A study of the methods used in theory formation, and of attempts to formulate theories of accounting and finance.

ACCY904 Financial Accounting 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hour seminar per week

Assessment: See Subject Outline

Subject Description: An in-depth study of the basis of external financial reporting, including asset valuation and periodic profit measurement. A study of the elements of financial accountancy and their communication in accounting reports.

ACCY905 International Accounting 6cp

Spring Wollongong On Campus

Contact Hours: 2 hour seminar per week

Assessment: See Subject Outline

Subject Description: Differences in accounting thought and standards between countries. Influence of national outlook and policies and of economic infrastructure on accounting practice. Uniform systems of accounting. Corporate growth and its impact on accounting and auditing. Comparative study of auditing and reporting standards, and international aspects of public accounting practice. The multi-national corporation. The effect of changing price levels on accounting for international operations.

ACCY906 Issues in Financial Accounting 6cp

Not on offer in 2004

Assessment: See Subject Outline

Subject Description: Contemporary issues in financial reporting to external parties, including accounting for different classes of assets, liabilities and equities. Legal, institutional and professional reporting requirements including proposals for improvement in accounting principles applied in practice.

ACCY907 Empirical Research Methods 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hour seminar per week

Assessment: See Subject Outline

Subject Description: The subject provides an overview of the ways accounting and finance researchers identify, formulate and investigate empirical questions in accounting and finance. Subjects include the criteria adopted to select research projects, issues of experimental design, validity threats, measurement problems and statistical analysis. Selected published accounting and finance research will be used to illustrate established methods of empirical research.

ACCY908 Applied Financial Accounting 6cp

Spring Wollongong On Campus

Contact Hours: 2 hour seminar per week

Assessment: See Subject Outline

Subject Description: Advanced problems in external financial reporting, including accounting for groups of companies, price level accounting and reporting theory involving consideration of taxation and economic implications.

ACCY909 Comparative Accounting Systems 6cp

Not on offer in 2004

Subject Description: An in-depth examination of the patterns of accounting development in different national political environments. Key variables determining the differential accounting development patterns and their implications, in particular, for multinational reporting, will be critically evaluated. Approaches for resolving the problems posed by the diversity of accounting systems will also be considered.

ACCY910 Issues in International Accounting 6cp

Not on offer in 2004

Subject Description: Specific current issues that may be examined in-depth include harmonisation of accounting standards and practices, foreign currency accounting, internal control and performance evaluation problems in foreign subsidiaries, and international transfer pricing problems. Content may be revised subject to the currency of specific issues and in light of student interests.

ACCY913 Management Accounting 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hour seminar per week

Assessment: See Subject Outline

Subject Description: The conceptual basis of management accounting and information systems. An examination of traditional and alternative theories and approaches shaping organisational and behavioural aspects of management accounting, including the contingency approach, the agency approach, control system theories, activity based accounting and critical accounting approaches.

ACCY914 Management Planning and Control Systems 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hour seminar per week**Assessment:** See Subject Outline

Subject Description: An in-depth analysis of selected aspects of the design and evaluation of management accounting, planning and control systems in both the private and public sectors.

ACCY916 Studies in Controllership 6cp
*Not on offer in 2004***Assessment:** See Subject Outline

Subject Description: The role and functions of the Chief Accounting Officer. Designing, installing and managing accounting systems - both financial and managerial. Specific problem areas in controllership, as depicted in selected case studies.

ACCY918 Applied Management Accounting 6cp

Spring Wollongong On Campus

Contact Hours: 2 hour seminar per week**Assessment:** See Subject Outline

Subject Description: An in-depth applied analysis of selected topics in management accounting. Topics chosen could include decision theory and analysis, financial model building, cost prediction and control techniques, pricing, management accounting systems design, and the interrelationships between management and the management accounting system. Theoretical concepts developed in other management accounting subjects will be expanded as needed to support the complex applications being studied.

ACCY931 Advanced Decision Support Systems 6cp
*Not on offer in 2004***Assessment:** See Subject Outline

Subject Description: This subject will examine the theoretical foundations for Decision Support Systems. Consideration will be given to architectural and environmental factors in designing Decision Support Systems. Practical accounting applications will be provided. Empirical studies and recent developments in business will be selected for in-depth review.

ACCY933 Studies in Information Systems in Accounting 6cp*Not on offer in 2004***Assessment:** See Subject Outline

Subject Description: Theoretical and practical aspects of contemporary information theory in accounting system evaluation, design, implementation and management, accounting and associated computer applications, sociological and ethical implications and research issues are explored.

ACCY936 Management and Information Systems 6cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 1 hour seminar, 1 hour computer lab per week**Assessment:** See Subject Outline

Subject Description: The effective use and control of information systems, particularly computer-based information systems, and the likely impact of developments in this area on management functions and how managers carry out those functions.

ACCY943 Auditing and Accounting Information Systems 6cp*Not on offer in 2004***Assessment:** See Subject Outline

Subject Description: The general principles of auditing applied to the audit of computer-based accounting systems and the use of computers as an auditing tool. Particular emphasis on the positive aspects of auditing and internal control, including their contribution towards improvements in: (a) management functions such as planning; and (b) the quality (both real and perceived) of information flows within an entity and between it and external parties.

ACCY944 Issues in Auditing 6cp

Spring Wollongong On Campus

Contact Hours: 2 hour lecture, 1 hour tutorial per week**Pre-requisites:****Assessment:** See Subject Outline

Subject Description: An in-depth examination of contemporary topics in auditing with emphasis on controversial and theoretical issues, including social and ethical issues, role of quantitative techniques in the audit function, continuous auditing concept, uncertainty reporting, audit performance evaluation, extension of attest function and public sector auditing.

ACCY950 Introductory Forensic Accounting 6cp

Intake C Wollongong Modular

Intake A, B, D Sydney Modular

Subject Description: This subject provides a broad based overview of forensic accounting within a corporate governance and accountability framework and is designed for progression to more specific topics. Subject content will deal with statutory regulation of corporations and other economic entities including not-for-profit entities in Australia and the Asia-Pacific Region. It will provide an overview of the role of accounting, audit and finance in regulatory and corporate governance frameworks. Students will be introduced to the nature of forensics and its role in the regulatory framework as well as within the legal and ethical framework of corporate governance including the role and duties of directors, executive officers, chief financial officers and management.

ACCY951 Forensic and Litigation Framework 6cp

Intakes A, B, C, D Sydney Modular

Subject Description: This subject will introduce students to the nature and purpose of forensic systems including risk assessment and management and audit procedures and guidelines. It will draw on accounting and audit standards and guidelines issued by CPA Australia, ICAA and IFAC. The subject will facilitate the acquisition of skills aimed at identifying and assessing an organisation's risk profile and appropriate responses. It will also lay the foundations for the

development of knowledge and understanding of the judicial system, law of evidence, preparation of working papers and expert witness preparation and presentation of evidence.

ACCY952 Fraud and Failure 6cp

Intakes A, B, C, D Sydney Modular

Pre-requisites: ACCY950 and ACCY951

Subject Description: This subject will build on the knowledge and skills acquired in ACCY 950 Introductory Forensic Accounting and ACCY 951 Forensic and Litigation Framework. It draws on case studies and actual instances of fraud and other irregularities, corporate governance failures and mismanagement in the corporate, financial and not-for-profit sectors. This material will be used to develop skills for identifying suspicious or irregular activities and analysis and investigation of those activities. The subject matter will include detailed analysis of transactions and events in the context of asset fraud and mismanagement, financial statement manipulation and banking and financial markets transactions and document fraud including cheques, credit cards, letters of credit and securities.

ACCY953 Investigative Processes 6cp

Intakes A, B, C, D Sydney Modular

Pre-requisites: ACCY950 & ACCY951

Subject Description: This subject introduces students to analytical and statistical techniques and systems aimed specifically at identifying/predicting the presence of irregularities, fraudulent and non-fraudulent, in the activities of corporate, financial and not-for-profit entities. Students will acquire knowledge and skills in non-quantitative, simple quantitative and advanced quantitative analytical review procedures in order to evaluate financial information and identify relationships between financial and non-financial data. Strategic analysis including statistical analysis and modelling will be introduced to facilitate knowledge and understanding of risk assessment, including credit risk, fraud detection, and market interactions.

ACCY954 Advanced Investigative Techniques 6cp

Intakes A, B, C, D Sydney Modular

Pre-requisites: ACCY950 and ACCY951

Subject Description: This subject introduces students to advanced techniques of risk assessment and management, detection of fraud and mismanagement, corporate governance and performance assessment and electronic auditing. The focus of the subject is sophisticated quantitative analysis, especially the use of computer assisted analytical procedures, of key operating and financial aspects of economic entities including forecasting, marketing, networking or strategic partnerships and computer systems. The importance to detection and assessment of fraud, risk, mismanagement and corporate governance and performance of a thorough understanding of an entity's components, structure and environment, including cause and effect interactions is emphasised.

ACCY957 Independent Accounting Expert Reports 6cp

Intakes A, B, C, D Sydney Modular

Pre-requisites: ACCY950 and ACCY951

Subject Description: This subject draws on accounting professional standards and guidelines dealing with the identification and collection of forensic evidence, preparation of expert reports and appearing as an expert witness in a court of law. Common law and statutory requirements concerning the law of evidence are integral to this subject. Accordingly, a broad range of litigation eg fraud, divorce settlements, disputes between business partners, solvency and related matters, will be dealt with.

ACCY958 Research Project A 6cp

Intakes A, B, C, D Sydney Modular

Pre-requisites: ACCY950 and ACCY951

Subject Description: This subject provides students with an opportunity to undertake independent research in specialised area within the broad topic area, fraud in a global economic environment. The specialised area must be selected in consultation with the subject co-ordinator and would fall within one of the following areas: international regulatory framework; identifying transnational corporate fraud; and forensic analysis of transnational corporations.

ACCY959 Research Project B 6cp

Intakes A, B, C, D Sydney Modular

Pre-requisites: ACCY950 and ACCY951

Subject Description: This subject provides students with an opportunity to undertake independent research in specialised area within the broad topic area, globalisation and financial fraud - case studies. The specialised area must be selected in consultation with the subject co-ordinator and would fall within one of the following areas: transaction and banking fraud; currency (including forgery), financial fraud using the internet, off-shore banking and illegal money, underground banking, money Laundering, tax havens and fiscal termities, financial terrorists.

ACCY961 Professional Practice - Accounting 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hour seminar per week

Assessment: See Subject Outline

Subject Description: This subject is concerned with statements of Accounting Standards and statements of Accounting Practice and the impact of corporation law on the practice of accountancy..

ACCY962 Professional Practice-Auditing, Risk, Assurance & IS 6cp

Autumn Wollongong On Campus

Assessment: See Subject Outline

Subject Description: Auditing is integral to modern accounting practice. An examination of modern auditing, together with the legal environment which impacts upon it, is provided in this subject.

ACCY963 Professional Practice - Taxation 6cp**Autumn** Wollongong On Campus**Contact Hours:** 2 hour seminar per week**Assessment:** See Subject Outline

Subject Description: This subject includes a detailed examination of the relevant legislation relating to taxation, including income tax and the GST. The application of this legislation is discussed.

ACCY968 Insolvencies 6cp**Spring** Wollongong On Campus**Contact Hours:** 2 hour seminar per week**Assessment:** See Subject Outline

Subject Description: Accounting and legal aspects of corporate and non-corporate insolvencies including liquidations & receivership, and the use of insolvency procedures as a management strategy.

ACCY969 Financial Management For Health Services 6cp**Spring** Wollongong Distance**Assessment:** See Subject Outline

Subject Description: This subject investigates the movement away from the management of costs towards the management of value for money. As such, it is concerned with the measuring and monitoring of efficiency. Accounting tools will be used to investigate quality of care, outcome, utility, products, utilisation and resource allocation.

ACCY973 History of Accounting Thought 6cp*Not on offer in 2004***Assessment:** See Subject Outline

Subject Description: An examination of the environmental factors and processes by which accounting thought, practices and institutions originated and developed in the ancient, medieval and modern eras. Ancient accounts. Special-purpose account-keeping in the Middle Ages. Philosophy, influence and constraints of the double-entry system. Development of basic concepts of continuity, accrual accounting and limited liability. Impact of the Industrial Revolution and changing corporate environment on accounting development. Legislation and institutional influences on accounting.

ACCY974 Accounting Regulation 6cp**Spring** Wollongong On Campus**Contact Hours:** 2 hour seminar per week**Assessment:** See Subject Outline

Subject Description: An in-depth study of the regulation of accounting practice and procedures, the accounting profession and of measurement and disclosure in external financial reporting. This could include an examination of the consequences of regulation, alternative institutional arrangement for setting standards, the impact of accounting theory on standard setting, and a historical review of accounting regulation.

ACCY983 Studies in Government Accounting 6cp*Not on offer in 2004***Assessment:** See Subject Outline

Subject Description: A detailed examination of selected areas in federal, state, regional or local government accounting.

ACCY985 Special Topic In Accounting-A 6cp**Autumn/ Spring** Wollongong On Campus**Contact Hours:** 2 hour seminar per week

Subject Description: A special topic to be selected from any area of financial accounting, management accounting, business finance, information systems or government accounting. The selection would be made by the Head of the Discipline, taking into account the expertise of academic staff, including visiting staff, and the interest of students.

ACCY986 Special Topic In Accounting-B 6cp**Autumn/ Spring** Wollongong On Campus**Contact Hours:** 2 hour seminar per week

Subject Description: A special topic to be selected from any area of financial accounting, management accounting, business finance, information systems or government accounting. The selection would be made by the Head of the Discipline, taking into account the expertise of academic staff, including visiting staff, and the interest of students.

ACCY993 Research Essay 12cp**Autumn/ Spring** Wollongong On Campus

Subject Description: An individual program determined in consultation with the Head of Discipline.

ACCY994 Project 12cp**Autumn/ Spring** Wollongong On Campus

Subject Description: An individual program determined in consultation with the Head of Discipline.

ACCY995 Research Project 24cp**Annual** Wollongong On Campus

Subject Description: An individual program determined in consultation with the Head of Discipline.

ACCY996 Thesis 48cp**Annual** Wollongong On Campus**Spring 04/Aut 05** Wollongong On Campus

Subject Description: An individual program determined in consultation with the Head of Discipline.

BUSS906 Information in Organisations 6cp**Autumn/ Spring** Wollongong On Campus**Assessment:** Essays; and case study.

Subject Description: This subject establishes a basis for understanding the role of information systems in organisations and how such systems relate to organisational objectives,

structures and procedures. Using systems theory plus other social theories including activity theory, the topics covered will include: the system concept in an organisation, information flows and decision processes, techniques and skills in representing system structures and integration of information systems into the organisational structure.

BUSS907 Fundamentals of e-Business 6cp

Autumn/ Spring Wollongong On Campus

Summer 2004/2005 Wollongong On Campus

Contact Hours: 2 hour lecture, 1 hour tutorial per week

Assessment: Projects, class participation, final examination.

Subject Description: This subject examines the principles, techniques, methodologies, organisational and human implications of the business approach to electronic commerce, the business approach to using the internet, commercial applications for the information superhighway and the competitive advantage obtainable from electronic commerce.

BUSS909 Office Automation and Intranets 6cp

Not on offer in 2004

Assessment: Individual Essay; Individual Report and Web Pages; Group work with Individual Report.

Subject Description: This subject considers the integration of key elements in office automation and intranets namely: people; computers, and communication - with the ultimate aim of improving the productivity of office staff. It examines such issues as: the technology of text; hypertext data; image; and audio-processing; human and ergonomic factors; office systems analysis; personnel and professional management aids; computer-based information services and the design of intranets.

BUSS910 Qualitative Analysis of Systems 6cp

Spring Wollongong On Campus

Assessment: Continuous assessment; 3 assignments.

Subject Description: This subject examines newly emerging qualitative, contextual and interpretivist theories and methods used to describe information systems, the process of systems development, and change processes in organisations which emphasise relationships between technical and social change. The subject utilises interdisciplinary approaches drawn from critical theory, discourse analysis, ethnography and anthropology. The subject will also examine the implications of these approaches to the discipline and practice of systems analysis and development in organisations. Students will be involved in applying these theories and methods to system case studies and will be introduced to tools that support these approaches.

BUSS911 Intelligent Systems 6cp

Autumn Wollongong On Campus

Contact Hours: 3 hours per week

Assessment: Project; assignments and final examination.

Subject Description: This subject considers the theory and practice of intelligent information systems development. It introduces the core principles of knowledge representation and reasoning, as well as techniques involved in knowledge acquisition, machine learning, planning and search. It then

examines how these techniques are deployed in practical settings by considering applications such as expert systems, constraint programming, multi-agent systems, data mining and web information retrieval.

BUSS924 Systems Modelling and Simulation 6cp

Spring Wollongong On Campus

Assessment: Weekly assignment; term project; and final examination.

Subject Description: This subject aims to introduce the concepts of systems modelling and simulation, and its role in analysing the operation characteristics of a system for supporting management in decision making. Both discrete and continuous systems modelling and simulation will be covered. Statistical aspects of simulation will be emphasised.

BUSS926 Decision Support Systems 6cp

Spring Wollongong On Campus

Assessment: Assignment, research paper and final examination.

Subject Description: A central concern for the field of Information Systems is the design and implementation of computer systems to support managerial decisions and organisational processes. This requires a good understanding of the process of decision making and the ability to model decisions effectively besides gaining familiarity with a range of software tools for building such systems. This subject will provide a comprehensive review of model-based and data-driven approaches to building systems to provide decision support in organisations. It will have an interdisciplinary thrust drawing on concepts and theories from Information Systems, Computer Science, Management Science among others.

BUSS927 Human Computer Interaction 6cp

Autumn Wollongong On Campus

Contact Hours: 3 hours per week

Assessment: Assignments and final examination.

Subject Description: The aim of this subject is to make students aware of the multidisciplinary nature of the domain of Human Computer Interaction. It aims to provide students with the knowledge and skills required to make sound judgements about the design of a business computer system in terms of its suitability for achieving the particular goals required by its users, to evaluate how well software systems fulfil the needs of their users and to contribute to the design of user-centred systems in which users and task needs are given major consideration.

BUSS929 Information Systems Research Methods 6cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 3 hours per week

Assessment: The subject will have the following assessment components: reviews of research papers; literature review paper for a research topic of your choice; class participation and class presentation on the research topic of your choice.

Subject Description: This subject will provide a comprehensive introduction to a range of issues related to the choice and application of appropriate research methods for information systems (IS) research. Given the multidisciplinary nature of

Subject Descriptions

the IS field, researchers have employed diverse methods and the students will be exposed to some of the more significant approaches.

BUSS945 Information Systems Project 12cp

Autumn/ Spring Wollongong On Campus

Annual Wollongong On Campus

Assessment: Project report, extended literature review, system design and/or development, Case Study OR Develop and use an instrument OR Experiment

Subject Description: The aim of this subject is to provide students with the opportunity to study a topic of research interest either within an external organisational setting (MBA students), or within a staff research group in the department (MIS or MBA students). The project will be completed under staff supervision and culminates in the production of a substantial written report plus other products such as software, manuals as appropriate to the project.

BUSS946 Information Systems Project Part 1 6cp

Spring Wollongong On Campus

Assessment: Work completed in this subject together with that completed in BUSS947 will be assessed as described for BUSS945. (final detailed report plus any other relevant materials related to the project topic).

Subject Description: This subject is specifically for students commencing in Spring Session the information systems project specified in BUSS945. This subject together with BUSS947 Information Systems Project Part 2 (Autumn Session) is equivalent to BUSS945.

BUSS947 Information Systems Project Part 2 6cp

Autumn Wollongong On Campus

Assessment: Work completed in BUSS947 together with that completed in BUSS946 will be assessed as specified in the description of BUSS945. (Final detailed report plus any other relevant materials related to the project topic).

Subject Description: This subject is specifically for those who commenced their project in the previous Spring Session in BUSS946.

BUSS950 Systems Development Methodologies 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hour lecture, 1 hour tutorial per week

Assessment: Seminar Presentation, Reports and final examination.

Subject Description: This subject examines and compares a range of systems development methodologies, through the study of the underlying philosophical basis and the methods, tools and techniques used in these methodologies. The application of these methodologies in practice will also be examined.

BUSS951 Critical Issues in Information Systems 6cp

Spring Wollongong On Campus

Contact Hours: 2 hour lecture, 1 hour tutorial per week

Assessment: Assignments and final examination.

Subject Description: This subject explores the critical issues of current concern to information systems researchers and practitioners in organisations. It will provide both a broad comparative view of state of the art organisational information systems and a detailed study of the development and application of selected systems currently being researched within the Department of Information Systems.

BUSS952 Strategic Information Systems Management 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hour lecture, 1 hour tutorial per week

Assessment: Tutorial Questions, Group Assignment and final examination.

Subject Description: This subject examines a number of current strategic management issues pertinent to the effective and efficient use of IS/IT resources throughout an organisation. Issues considered include: electronic commerce and globalisation, strategic planning and the use of IS/IT for gaining competitive advantage; linking business and IS/IT planning; formulating an IS/IT architecture and information management strategy; the structure, organisation and placement of the IS/IT Department within organisations; end-user computing and IS/IT Department support; IS/IT Department functions and operations; organisational change and IS/IT ethics.

BUSS953 Management of Information Systems Development 6cp

Spring Wollongong On Campus

Contact Hours: 2 hour lecture, 1 hour tutorial per week

Assessment: Assignments and final examination.

Subject Description: This subject provides an introduction to, and overview of, the knowledge and skills required to successfully manage computer-based systems development projects within an organisational setting. Topics and issues considered include: IS/IT project management and its organisational context; inter-organisational arrangements for e-business including B2B and B2C frameworks, project management tools and techniques; feasibility study methods; resource estimation techniques; behaviour and management of IS/IT project groups; systems development environments for professionals and end-users; quality assurance; project and system evaluation.

BUSS981 Advanced Information Systems -Topic A 6cp

Autumn/ Spring Wollongong On Campus

Assessment: Reports; assignments.

Subject Description: This subject is available to those enrolled in the Honours Master of Information Systems program by coursework and BUSS986 Research Report. The subject provides the opportunity for students to undertake individual supervised study related to their individual program and the topic of their BUSS986 Research Report.

BUSS982 Advanced Information Systems -Topic B 6cp

Autumn/ Spring	Wollongong	On Campus
Annual	Wollongong	On Campus

Assessment: Reports; assignments.

Subject Description: This subject is available to those enrolled in the Honours Master of Information Systems program by coursework and BUSS986 Research Report. The subject provides the opportunity for students to undertake individual supervised study related to their individual program and the topic of their BUSS986 Research Report.

BUSS983 Advanced Information Systems -Topic C 12cp

Annual	Wollongong	On Campus
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Assessment: Reports; assignments.

Subject Description: This subject is available to those enrolled in the Honours Master of Information Systems program by coursework and BUSS986 Research Project. The subject provides the opportunity for students to undertake individual supervised study related to their individual program and the topic of their BUSS986 Research Report.

BUSS984 Advanced Information Systems -Topic D 12cp

Autumn/ Spring	Wollongong	On Campus
Annual	Wollongong	On Campus

Assessment: Reports; assignments.

Subject Description: This subject is available to those enrolled in the Honours Master of Information Systems program by coursework and BUSS986 Research Report. The subject provides the opportunity for students to undertake individual supervised study related to their individual program and the topic of their BUSS986 Research Report.

BUSS986 Research Report 24cp

Autumn/ Spring	Wollongong	On Campus
Annual	Wollongong	On Campus

Assessment: Final written report and progress reports.

Subject Description: This subject must be completed by students undertaking the Honours Master of Information Systems by coursework plus project. The project involves completing a significant research report on a specific information systems topic.

BUSS987 Master Thesis 48cp

Annual	Wollongong	On Campus
Spring 04 / Aut 05	Wollongong	On Campus

Assessment: Research thesis to be examined in accordance with University rules and regulations.

Subject Description: This subject is specifically for students undertaking the Honours Master of Information Systems program by research. The subject requires individual, supervised research on an advanced information systems topic and culminates in the submission of a thesis in the topic.

BUSS991 Research Report - Part 1 12cp

Spring	Wollongong	On Campus
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Assessment: Work completed in this subject together with that completed in BUSS992 will be assessed as described for BUSS986.

Subject Description: This subject is specifically for students in the Honours Master of Information Systems by coursework plus project who are commencing work on their project in Spring Session. This subject together with BUSS992 taken in the following Autumn Session is equivalent to BUSS986.

BUSS992 Research Report - Part 2 12cp

Autumn	Wollongong	On Campus
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Assessment: Work completed in BUSS992 together with that completed in BUSS991 will be assessed as described for BUSS986.

Subject Description: This subject is specifically for Honours Master of Information Systems students completing their program by coursework plus project who have commenced their project in BUSS991 in the previous Spring Session.

BUSS999 Doctoral Thesis 48cp

Annual	Wollongong	On Campus
Autumn/Spring	Wollongong	On Campus

Assessment: Research thesis to be examined in accordance with University rules and regulations.

Subject Description: This subject is specifically for students undertaking the Doctor of Philosophy program in Information Systems. The subject requires individual, supervised research on an advanced information systems topic and culminates in the submission of a thesis which demonstrates an original contribution to the field of study.

ECON901 Monetary Economics 6cp

Autumn	Wollongong	On Campus
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Contact Hours: 2 hour lecture, 1 hour tutorial per week

Subject Description: The subject is in two sections. The first focuses on a comparison of the monetary transmission mechanism and policy implications arising from the Classical, Keynesian, Monetarist and New Classical theories. The second section analyses the money supply and its control, and conduct of monetary policy, money in the open economy, inflation, the Australian financial system, and financial deregulation in Australia.

ECON902 Advanced International Monetary Economics 6cp

Spring	Wollongong	On Campus
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Contact Hours: 2 hour lecture, 1 hour tutorial per week

Subject Description: Topics covered will include foreign exchange markets; banking and financial institutions; money supply, price level and international adjustment; international monetary system.

ECON903 Public Finance 6cp*Not on offer in 2004*

Subject Description: This subject further develops topics encountered in the undergraduate Public Finance course. Particular emphasis will be placed on issues surrounding inter-governmental fiscal relations in a federal system. Questions of fiscal transfer mechanism, divisions of powers and responsibilities and the equalisation measures which might be used will be considered.

ECON904 Trade, Growth and Development 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hour lecture, 1 hour tutorial per week

Subject Description: The following topics will be covered: The WTO as an international organisation; capital-skill complementarity new investment and technical progress; concerns about the role of multinational corporations in trade and technology progress; the role of multinational corporations in trade and technology transfers; human development, economic democracy and shared growth; international economic institutions (IBRD, IMF, WTO) and the national economies. Examples will be cited from developing and developed countries but recent Australian and Asian experience will be emphasized.

ECON906 History of Economic Thought 6cp*Not on offer in 2004*

Subject Description: A subject designed to introduce students to the main developments in economic theory from the 17th to 20th centuries. Internal changes in theories, relationships between successive theories and external influences on this development will be examined. Students will be expected to read widely in both primary and secondary sources.

ECON907 Cost-Benefit Analysis 6cp

Spring Wollongong On Campus

Contact Hours: 3 hour lecture per week

Subject Description: The main objective of the subject is to develop skills in appraising public sector (and other) investment projects. These skills are sought through the study and role of theory underlying cost-benefit analysis. The subject contains a practical component involving the appraisal of specific investment projects. Topics covered include: welfare economics; the derivation of analytical criteria for investment appraisal; the identification of benefits and costs; shadow prices for imperfect product and factor markets; unpriced goods and services; multiple objective planning; and the incorporation of risk and uncertainty.

ECON908 Advanced Topics in the Economics of Development 6cp

Spring Wollongong On Campus

Contact Hours: 2 hour lecture, 1 hour tutorial per week

Subject Description: The subject provides an in-depth analysis of development in the light of theory and experience. Topics include: economic growth versus economic development; poverty and inequality; population growth; unemployment and rural-urban migration; technological change; peasant

agriculture and agricultural productivity; human capital and development; role of capital; credit and institutions; international dimensions of development and development policy.

ECON909 Econometric Theory 6cp*Not on offer in 2004*

Subject Description: This subject deals with advanced topics in the theory and practice of econometrics and covers contemporary issues of modelling specification, estimation, testing, and forecasting. Much of the subject will be based on journal articles in which the current econometric issues have been discussed.

ECON910 Economics for Accounting Professionals 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hour lecture, 1 hour tutorial per week**Assessment:** Assignments and Final Examinations

Subject Description: This subject provides the student with knowledge about the principles of economics and those parts of the economic system that are particularly relevant to professional accountants. The unit will examine key topics in microeconomics and international economics that are used in business and managerial decision-making, focusing on how they influence accounting outcomes and project evaluations. These will include price theory, cost analysis, profit determination, exchange rate determination. It also introduces students to the economic perspective underlying business issues such as wage rate determination, environmental policy, income distribution and international trade.

ECON911 Advanced International Economics 6cp

Spring Wollongong On Campus

Contact Hours: 2 hour lecture, 1 hour tutorial per week

Subject Description: Aspects of some of the following topics are studied in-depth: growth and trade; factor transfers (foreign investment); tariffs; import-substituting industrialisation; foreign exchange market; internal and external balance (the two-gap model).

ECON912 Labour Economics 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hour lecture, 1 hour tutorial per week

Subject Description: This subject will provide a comprehensive analysis of labour market issues using a range of economic theories. Special emphasis is placed on analysing the structural change in industries and occupations of the Australian labour market and selected overseas countries.

ECON913 Industrial Organisation 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hour lecture, 1 hour tutorial per week

Subject Description: A study of industrial organisation and performance, decision-making criteria and constraints affecting output and distribution of revenue, market behaviour, and matters of ownership and control of the unit organisation.

ECON915 Electronic Commerce and the Economics of Information 6cp**Autumn/ Spring** Wollongong On Campus**Contact Hours:** 2 hour lecture, 1 hour tutorial per week

Subject Description: This subject analyses the impact of electronic commerce on the markets for consumer goods and services and factors of production. Reasons for the dramatic increase in the use of electronic commerce and its effects on consumers, business firms and the wider community will be explored. Special attention will be given to the implications for small and medium-sized firms and the impact of electronic commerce on the globalisation of markets. The subject develops the theory of the economics of information, technology and transaction costs and investigates the role and value of information in decision making.

ECON916 Economics of Education, Health and Welfare 6cp*Not on offer in 2004*

Subject Description: Several areas of microeconomic theory will be selected for advanced treatment. Within each topic contemporary applications will be explored after the development of a theoretical base.

ECON918 Economics of Health Care 6cp**Autumn/ Spring** Wollongong On Campus**Autumn** Wollongong Distance**Contact Hours:** 2 hour lecture, 1 hour tutorial per week

Subject Description: A survey of economic aspects of the Australian health care system. Topics covered will include the supply and demand for health services, health care delivery systems, health insurance, social statistics and medical decision making. Government policies influencing all aspects of health care will be analysed and evaluated.

ECON921 Econometric Models 6cp**Spring** Wollongong On Campus**Contact Hours:** 2 hour lecture, 1 hour tutorial per week

Subject Description: This is a subject on the foundations of econometric models. Both single-equation and simultaneous equation models will be studied. Emphasis is on suitable model building with economic content, on obtaining estimates with desirable properties, on testing procedures, on model evaluation and selection, and applications. Examples from current Australian econometric models will be critically examined.

ECON924 International Economic Relations 6cp**Spring** Wollongong On Campus**Contact Hours:** 2 hour lecture, 1 hour tutorial per week**Exclusions:** Not to count with INTR920 and ECON982

Subject Description: The subject will examine policy issues in the international economy, especially as they affect the Asia-Pacific region. The role of international economic organisations such as the IMF, World Bank, and GATT will be emphasised as well as issues such as free trade, protectionism, exchange rate determination and international

capital flows. Options available to individual countries for international economic policy will be explored.

ECON927 Innovation and Technology in the New Economy 6cp**Spring** Wollongong On Campus**Contact Hours:** 2 hour lecture, 1 hour tutorial per week**Assessment:** Essays; seminar and exam

Subject Description: This subject provides economic conceptual frameworks in which to think systematically about the economy, technology, innovation and related policy issues. The course does not include theory for the theory's sake, but presents and uses theoretical tools as a means to the end of gaining better understanding of the role of innovation-related policy issues in the context of a creative economy. Although the concepts and tools developed are relevant to all countries, special attention will be given to Australian and other OECD economies.

ECON933 Conflict and Cooperation 6cp**Spring** Wollongong On Campus**Contact Hours:** 2 hour lecture, 1 hour tutorial per week**Pre-requisites:** ECON111 and ECON122

Subject Description: A study of advanced topics in game theory. The objective of this subject is to build on traditional analytical techniques in economics based on assumptions of certainty and competitive markets. Using game theory, the analysis is extended to settings that traditional economic analysis is unable to cope with. These typically involve settings incorporating risk and uncertainty, asymmetric and incomplete information and strategic situations where the assumptions of competitive markets do not apply. The emphasis is on theoretical developments and the application of the central tools of game theory to real world problems of business and economics involving strategic interactions between parties.

ECON935 Advanced Managerial Economics and Operations Research 6cp*Not on offer in 2004*

Subject Description: A study of advanced quantitative techniques applicable to economic and managerial decision-making. This subject covers a wide range of quantitative analyses such as forecasting techniques, Bayesian analysis, Markov process models, PERT, CPM and specialised network algorithms, risk preference analysis, transportation and assignment models and quadratic and nonlinear programming.

ECON936 Graduate Macroeconomics 6cp**Spring** Wollongong On Campus**Contact Hours:** 2 hour lecture, 1 hour tutorial per week

Subject Description: This subject analyses the major factors which determine macroeconomic behaviour and associated policy prescriptions. The effects of consumption and investment, international factors, monetary and fiscal policies on aggregate demand are examined. The determination of wages and prices, inflation and unemployment are also considered in terms of aggregate supply.

ECON937 Graduate Microeconomics 6cp**Autumn** Wollongong On Campus**Contact Hours:** 2 hour lecture, 1 hour tutorial per week

Subject Description: The subject provides the theoretical basis for analysis of a wide range of microeconomic issues and policies. Topics include demand and supply theory; consumer preference theory; theory of the firm; cost functions; market behaviour under perfect competition, monopoly, and imperfect competition; factor markets; general equilibrium theory; externalities and intertemporal choice and risk. The emphasis in these topics is on providing a theoretical foundation that is linked to empirical analysis and interpretation of real world problems.

ECON938 Environmental Economics 6cp**Spring** Wollongong On Campus**Contact Hours:** 2 hour lecture, 1 hour tutorial per week

Subject Description: This subject will provide a comprehensive analysis of environmental issues utilising the theory of economic externalities and the theory of ecologically sustainable development. Methods used to convert environmental problems and to measure externalities will be analysed. It will also evaluate environmental policies in Australia, developing countries and in the international economy.

ECON939 Quantitative Economic Analysis 6cp**Autumn** Wollongong On Campus**Contact Hours:** 2 hour lecture, 1 hour tutorial per week

Subject Description: This course deals with the fundamental concepts of econometrics used in applied economic work in the academic, business and government sectors. The course covers the standard and non-standard econometric models, based on time series, cross-section, or qualitative data. Emphasis will be on applications of the econometric methodologies in empirical research.

ECON940 Statistics for Decision Making 6cp**Spring** Wollongong On Campus**Contact Hours:** 2 hour lecture, 1 hour tutorial per week**Assessment:** Assignments and Final Examination

Subject Description: This subject covers description and inferential statistics, and their applications in the business environment. A foundation of descriptive statistics and probability is first developed, followed by discussion of the concepts and principles of statistical inference. Several topics in statistical inference are then examined including confidence intervals, hypothesis testing, statistical quality control, regression analysis and forecasting. Realistic case studies are used to demonstrate the application of statistical methodology as an aid business decision making.

ECON941 Advanced Topics in Economics - A 6cp**Autumn/ Spring** Wollongong On Campus**Contact Hours:** 2 hour lecture, 1 hour tutorial per week

Subject Description: Topics for these subjects (A-C) may be drawn from any area of Economics which the Head of the

Department considers to be suitable preparation for a higher degree and appropriate to the student's special interests.

ECON942 Advanced Topics in Economics-B 6cp**Autumn/ Spring** Wollongong On Campus**Contact Hours:** Refer Department

Subject Description: Topics for these subjects (A-C) may be drawn from any area of Economics which the Head of the Department considers to be suitable preparation for a higher degree and appropriate to the student's special interests.

ECON943 Advanced Topics in Economics - C 6cp**Autumn/ Spring** Wollongong On Campus**Contact Hours:** Refer to Department

Subject Description: Topics for these subjects (A-C) may be drawn from any area of Economics which the Head of the Department considers to be suitable preparation for a higher degree and appropriate to the student's special interests.

ECON982 International Economic Relations 6cp**Spring** Wollongong On Campus**Contact Hours:** 2 hour lecture, 1 hour tutorial per week

Subject Description: The subject will examine policy issues in the international economy, especially as they affect the Asia-Pacific region. The role of international economic organisations such as the IMF, World Bank, and GATT will be emphasised as well as issues such as free trade, protectionism, exchange rate determination and international capital flows. Options available to individual countries for international economic policy will be explored.

ECON983 Trade and Industry in East Asia 6cp**Spring** Wollongong On Campus**Contact Hours:** 2 hour lecture, 1 hour tutorial per week

Subject Description: This subject studies the growth of the major economies in East Asia. It examines Japan, Korea, China, Taiwan & Hong Kong and their history of industrialisation in the post-war period, industrial structure, macroeconomic trends and policies. It examines trade patterns and trade policy, and strategic trade theories and policies. Comparisons of growth paths and the role of government will be made. Trade and investment flows in the Asia-Pacific region are analysed and implications for Australia and the Asia-Pacific Region are emphasised.

ECON984 Financial Economics 6cp**Spring** Wollongong On Campus**Contact Hours:** 2 hour lecture, 1 hour tutorial per week

Subject Description: An advanced study of the theory of efficient acquisition, financing and composition of assets and production activities with applications in the fields of economics of the firm, agricultural economics and international economics. Optimal control methods and phase-plane diagrams are used for analysing efficient trajectories of capital investment and borrowing. Investors' portfolio choices and producers' activity sets will be analysed within a mean-variance expected utility maximisation framework.

ECON991 Project 12cp
Autumn/ Spring Wollongong On Campus
Subject Description: N/A

ECON992 Research Report 24cp
Annual Wollongong On Campus
Subject Description: N/A

ECON993 Thesis 48cp
Annual Wollongong On Campus
Subject Description: N/A

ECON996 Advanced Macroeconomic Theory 6cp
Autumn Wollongong On Campus
Contact Hours: 3 hour lecture per week

Subject Description: This subject critically reviews advanced contemporary macroeconomic theories and their policy prescriptions. It stresses the need to consider four important concepts; namely the international orientation of macroeconomics, the role of expectations and their formation, the importance of macroeconomic adjustment speeds, dynamics and stability properties, and finally, the difficulty of formulating and implementing consistent, optimum macroeconomic policy in a changing world.

ECON997 Advanced Microeconomic Theory 6cp
Autumn Wollongong On Campus
Contact Hours: 3 hour lecture per week

Subject Description: The objective of this subject is to provide a balanced and comprehensive coverage of the core topics in theoretical microeconomics, with particular attention to welfare economics, the economics of production, and contestable markets.

FIN 920 Advanced Risk and Insurance 6cp
Spring Wollongong On Campus
Assessment: See Subject Program

Subject Description: Deals with the concepts and technical description of risk, risk attitudes/preferences and insurance. Conceptual models and tools discussed include those used in protecting against portfolio risk, other financial risks (e.g. exchange rate risk) and more general corporate risks (e.g. regulatory risk). Specific risk management tools are taught by way of hypothetical applications. These include share portfolio insurance using derivatives, and hedging against currency exchange rate and interest rate movements both in the spot and derivative markets.

FIN 921 Managerial Finance 6cp
Autumn/ Spring Wollongong On Campus
Contact Hours: 2 hour seminar per week
Exclusions: Not to count with ACCY921
Assessment: See Subject Outline

Subject Description: An examination of the sources and uses of corporate finance, and the identification of relevant costs

for decision making. Specific topics may include financial decision and corporate strategy, valuation, receivables, capital investment, risk and uncertainty, required rates of return, dividend policy, leasing, mergers and acquisitions.

FIN 922 Investment Analysis 6cp
Autumn Wollongong On Campus

Contact Hours: 2 hour seminar per week

Exclusions: Not to count with ACCY922

Assessment: See Subject Outline

Subject Description: An in-depth study of investments and investment decision analysis. The theoretical bases of asset pricing and net present value. The application of investment selection criteria under diverse conditions and in different market settings. The incorporation of risk into investment decision analysis and a study of the application of capital asset pricing models in investment evaluation.

FIN 923 Investment Management 6cp
Spring Wollongong On Campus

Contact Hours: 2 hour seminar per week

Exclusions: Not to count with ACCY923

Assessment: See Subject Outline

Subject Description: The subject examines some advanced topics in the modern theory of optimal investment decision-making, portfolio theory, capital and derivative markets. The subject will explore areas including; market efficiency models in valuing portfolios and securities, bond analysis, portfolio management and performance evaluation. The subject will provide a theoretical framework within which all derivative securities can be valued and hedged and also examine the way they are traded.

FIN 924 Corporate Financial Information Analysis 6cp
Autumn Wollongong On Campus

Contact Hours: 2 hour seminar per week

Exclusions: Not to count with ACCY924

Assessment: See Subject Outline

Subject Description: A survey of methods for the appraisal and prediction of corporate financial performance from such publicly available information as accounting numbers, industry and economic statistics, and stock market data. Equal emphasis is placed upon the development of theoretical constructs, and appraisal of the results of empirical research, especially Australian studies.

FIN 925 Banking Theory and Practice 6cp
Autumn Wollongong On Campus

Contact Hours: 2 hour seminar per week

Exclusions: Not to count with ACCY925

Assessment: See Subject Outline

Subject Description: This subject focuses on accounting aspects of the practices and operations of banks and other financial institutions. It entails comprehensive discussions on issues that are commonly involved within the banking environment such as the regulatory structure, the cheque clearing system, risk management, lending issues, capital

Subject Descriptions

adequacy analysis and the latest information technology within the banking world.

FIN 926 Studies in Business Finance 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hour seminar per week

Exclusions: Not to count with ACCY926

Assessment: See Subject Outline

Subject Description: Contemporary business finance theory, including option pricing theory, arbitrage pricing model, bond swapping and bond immunisation.

FIN 927 Small Business Finance 6cp

Spring Wollongong On Campus

Contact Hours: 2 hour seminar per week

Exclusions: Not to count with ACCY927

Assessment: See Subject Outline

Subject Description: Two major problems account for the majority of small business failures. These are managerial problems and financial limitations. Both are intertwined. The material in this subject covers the sources, uses and management of funds from pre-purchase to public listing. For example, common errors in the financial management of small firms include a lack of adequate control systems for cash and inventory management, accounts receivable and payable, credit management etc. Financial decisions involve complex issues that have both theoretical and applied components that will be discussed in some detail.

FIN 928 Multinational Financial Management 6cp

Spring Wollongong On Campus

Contact Hours: 2 hour seminar per week

Exclusions: Not to count with ACCY928

Assessment: See Subject Outline

Subject Description: The role of multinationals in international investment; aspects of the international monetary system; Euromarkets; foreign exchange markets; internal and external exposure management techniques; currency futures and options; swaps; financing MNC investment; MNC investment decision making; political risk analysis; international taxation.

FIN 929 Risk, Development and Venture Capital 6cp

Spring Wollongong On Campus

Contact Hours: 2 hour seminar per week

Exclusions: Not to count with ACCY928

Assessment: See Subject Outline

Subject Description: This is predominantly a research subject. The material covered includes the foundations and development of the risk capital industry, management structures, investment decision making processes, deal structures and post investment involvement in entrepreneurial companies by venture capitalists. The risk capital industry has been promoted, by numerous governments, as a panacea for economic woes. This tendency, its rationale and the approaches taken for risk capital development internationally will also be discussed.

FIN 955 International Banking 6cp

Spring Wollongong On Campus

Contact Hours: 2 hour seminar per week

Exclusions: Not to count with ACCY955

Assessment: See Subject Outline

Subject Description: The global impact of banking is the focus of this subject. The subject entails comprehensive discussions on issues that are commonly involved within the international banking environment such as the development of the international monetary system, deregulation of banks, methods of payment in international trade, the foreign markets, international lending and developments of new technology and its impact on the international banking sector.

FIN 956 Banking, Lending and Securities 6cp

Spring Wollongong On Campus

Contact Hours: 2 hour seminar per week

Exclusions: Not to count with ACCY956

Assessment: See Subject Outline

Subject Description: The criteria involved in the bank's lending process and the securities associated with such a process are the focus of this subject. The subject entails comprehensive discussions on issues of lending within the banking environment such as regulations of security offerings, principles of good lending, documents involved in lending, lending and the consumer credit code, new developments in lending and securities and its impact on the banking sector.

FIN 987 Special Topic in Finance 6cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 2 hour seminar per week

Exclusions: Not to count with ACCY987

Assessment: See Subject Outline

Subject Description: This course provides an opportunity to study a topic of research interest within the theory and application of finance as it relates to (i) corporate finance and (ii) investments. The research will be completed under staff supervision and culminates in the production of a written report.

FIN 993 Research Essay 12cp

Autumn/ Spring Wollongong On Campus

Subject Description: An individual program determined in consultation with the Head of Discipline.

FIN 994 Project 12cp

Autumn/ Spring Wollongong On Campus

Subject Description: An individual program determined in consultation with the Head of Discipline.

FIN 995 Research Project 24cp

Autumn/ Spring Wollongong On Campus

Subject Description: An individual program determined in consultation with the Head of Discipline.

FIN 996 Thesis 48cp
Annual Wollongong On Campus
Subject Description: An individual program determined in consultation with the Head of Discipline.

INTR920 Advanced International Economic Relations B 8cp
Spring Wollongong On Campus
Contact Hours: 2 hour lecture, 1 hour tutorial per week
Subject Description: The subject examines policy issues in the international economy especially as they affect the Asian-Pacific region. The role of international economic organizations such as the IMF, World Bank and GATT is emphasised as well as issues such as free trade, protectionism, exchange rate determination and international capital flows. Options available to individual countries for international economic policy are explored.

INTR921 Advanced International Economics 8cp
Autumn/ Spring Wollongong On Campus
Subject Description: Aspects of some of the following topics are studied in depth: 1. Growth and Trade; 2. Factor Transfers (Foreign Investment); 3. Tariffs; 4. Import-Substituting Industrialisation; 5. Foreign Exchange Market; 6. Internal and External Balance (the two-gap model).

INTR922 Advanced Topics in Economics 8cp
Autumn/ Spring Wollongong On Campus
Subject Description: Topics for this subject may be drawn from any area of Economics which the Heads of the Departments concerned consider to be suitable preparation for a higher degree and appropriate to the student's special interests.

MARK901 Marketing on the Internet 6cp
Spring Wollongong On Campus
Subject Description: Understand what is required for an effective web site to add most possible customer value. Understand the different issues in different applications of the internet. In particular the difference in appropriate applications for different product types and strategy choices of organisations. Be aware of ethical and legal issues relating to internet use. Understand the potentials for value adding for customers and stakeholders of organisations.

MARK917 Business to Business Marketing 6cp
Autumn Wollongong On Campus
Subject Description: Business to Business Marketing covers issues particular to the situation where one business markets a product or service to another business (rather than to an individual consumer). This subject is also referred to at times as Industrial Marketing.

MARK922 Marketing Management 6cp
Autumn Wollongong On Campus
Contact Hours: 3 hours lecture per week
Exclusions: WBS904
Subject Description: This is the introductory postgraduate Marketing subject. It examines the contemporary view of marketing and focuses on the following areas: identification of market opportunities, segmentation and target marketing, marketing mix decisions, service marketing and international marketing.

MARK935 Marketing Strategy 6cp
Spring Wollongong On Campus
Contact Hours: 3 hours lecture per week
Subject Description: With the use of case studies, this subject will examine the development and implementation of marketing plans and strategies at the organisational level. Key issues may include: marketing's strategic role in the organisation, marketing strategy and competitive advantage, including marketing mix strategies, marketing strategy formulation, implementation and control.

MARK936 Consumer Behaviour 6cp
Spring Wollongong On Campus
Contact Hours: 3 hours lecture per week
Subject Description: The subject will explore the motives of consumers during the purchase of products and services. It will investigate sociological and psychological concepts as they specifically apply to the behaviour of consumers in order to learn how to make more effective marketing decisions. In addition to a required text that will be used to understand the theory, readings and case studies will be assigned for practical application of the concepts.

MARK937 Relationship Marketing 6cp
Autumn Wollongong On Campus
Subject Description: Marketing has been defined by some as the art of getting and keeping customers. However, most of the emphasis has been placed on attracting customers. Relationship marketing stresses the importance of keeping customers. This subject will provide both a theoretical and practical perspective to relationship marketing.

MARK938 Managing Services Marketing 6cp
Autumn Wollongong On Campus
Contact Hours: 3 hours lecture per week
Subject Description: This course provides an in-depth analysis of the problems facing services marketing managers. Through lectures, class discussions, readings and case analysis, plus observation of firms in actual service situations, students will develop insights concerning the unique characteristics of marketing in the services sector. Major topics include: problems and strategies in services marketing; understanding the service experience, dimensions of service quality, services marketing mix, growth strategies for service firms and marketing implementation issues.

MARK939 Contemporary Issues in International Marketing 6cp**Autumn** Wollongong On Campus**Contact Hours:** 3 hours lecture per week

Subject Description: This subject examines the role of globalisation and international marketing in economic development. The major focus is on the discourse of globalization and how this relates to current issues in international marketing. Topics include: cultural and social effects of international marketing, the role of multinationals in developing countries, ecological effects of globalisation and economic development, consumer issues in developing countries, and the role of government in international marketing.

MARK940 Advertising and Promotion Strategy 6cp**Autumn** Wollongong On Campus**Contact Hours:** 3 hours lecture per week

Subject Description: This subject will provide both a theoretical and a practical perspective on Marketing Communications and Promotion Strategy. Students will learn to use communication tools such as advertising, sales promotion, point-of-purchase materials, sponsorship programs and publicity, to optimise intervention on organisational issues.

MARK954 Special Topic in Marketing A 6cp**Autumn/ Spring** Wollongong On Campus**Contact Hours:** 3 hours lecture per week

Subject Description: A special topic selected from any area of marketing. The selection would be made by the Head of the Discipline, taking into account the expertise of academic staff, including visiting staff, and the interest of students.

MARK956 New Product Marketing 6cp**Spring** Wollongong On Campus

Subject Description: New products are the "lifeblood" of the modern organisation, with the majority of firms' sales coming from new products or services which they have introduced in the past 3 years. With a combination of theory and practical "hands-on" assignments, this course takes students to that status of "new products executives", i.e. capable of managing the new product process from new products strategy to successful launch.

MARK957 International Marketing Strategy 6cp**Spring** Wollongong On Campus**Contact Hours:** 3 hours lecture per week

Subject Description: The course will encompass the issues involved in international marketing. Primary focus will be on the strategic aspects with particular emphasis on environmental consideration and international marketing decisions in the global context. A managerial perspective will be adopted and decision-making skills will be imparted through the case method of instruction.

MARK959 Sales Management 6cp**Spring** Wollongong On Campus**Contact Hours:** 3 hours lecture per week

Subject Description: This course involves organising and planning the company's overall personal selling efforts and integrating these efforts with the other elements of the firm's marketing strategy. It also includes the selecting of appropriate sales personnel and designing and implementing policies and procedures that will direct their efforts towards the firm's desired objectives. The final part of the course involves developing procedures for monitoring and evaluating sales force performance so that adjustments can be made to either the sales program or its implementation when performance is unsatisfactory.

MARK960 Case Study 6cp**Autumn/ Spring** Wollongong On Campus**Contact Hours:** 3 hours lecture per week

Subject Description: This is an approved program of study to be agreed with the Head of School, where students will conduct an in-depth analysis of a particular marketing problem.

MARK970 Contemporary Issues in Marketing 6cp**Autumn** Wollongong On Campus**Contact Hours:** 3 hours lecture per week

Subject Description: This course will focus on advanced topics in marketing and strategic issues relating to marketing. Emphasis will be placed on reviewing contemporary readings in the academic and professional literature, together with a focus on practical issues affecting marketing.

MARK977 Research For Marketing Decisions 6cp**Autumn** Wollongong On Campus

Subject Description: This subject is concerned with examining the techniques and principles for systematically collecting, recording, analysing and interpreting data that can aid decision makers who are involved with marketing products, services or ideas. Topics include: the structure and function of research information, problem definition and research design, the measurement of consumer attitudes and preferences, design of sampling plans, collecting primary and secondary data, analysing and interpreting statistical research results.

MARK989 Special Topic b 12cp**Autumn/ Spring** Wollongong On Campus

Subject Description: A program of coursework and reading as prescribed by the Head of School. This subject is normally available only to MCom(Honours) students.

MARK990 Minor Thesis 24cp**Autumn/ Spring** Wollongong On Campus

MARK991 Major Thesis **48cp**
Annual Wollongong On Campus

MARK997 Retail Marketing Management **6cp**
Spring Wollongong On Campus

Contact Hours: 3 hours lecture per week

Subject Description: This subject will include a background to retailing, the scope of retailing, retailing strategies, merchandise and store management. Particular emphasis will be placed on case analysis in order to bring as much of the real world as possible into the classroom.

MGMT908 Human Resources Development **6cp**
Autumn Wollongong On Campus

Subject Description: This subject provides an advanced perspective on the use of Human Resource Development (HRD) in enhancing the Competitive Advantage of Organisations, by building up the Intellectual and Learning System capacities of the Organisation to cope with a rapid change, customer focused environment. The concept of the Learning Organisation will be developed through the perspective of the HRD policies and actions required to develop and change organisations through their human capital and capabilities.

MGMT910 Strategic Technology Management **6cp**
Spring Wollongong On Campus

Subject Description: This subject introduces students to concepts and practical issues concerned with the strategic management of technology at both the firm and national level. Topics examined include technological change and long-term economic change; internal and external sourcing of new technologies; technology viewed as a stock and a flow of knowledge; and private and public-sector technology policies in Australia and overseas.

MGMT911 Leadership and Team Dynamics **6cp**
Autumn/ Spring Wollongong On Campus

Subject Description: This subject analyses and applies research findings, practice and skills in regard to leadership and team dynamics. The main issues for discussion include: nature and importance of leadership; traits and characteristics of leaders; effective leadership behaviours and attitudes; leadership styles; power and politics; team dynamics; motivation and coaching; problem-solving; communication; conflict resolution; diversity and leadership development.

MGMT915 Leading Organisational Change: Framing the Management of Change **6cp**

Spring Wollongong On Campus

Subject Description: This subject analyses how managers can conceptualise and lead the process of organisational change. Issues under discussion will be: organisational change theories and models; forces for change; resistance to change; coping with change; recognising, diagnosing, planning and implementing change; organisational development;

contingency approaches to change; and aspects of cultural change management.

MGMT916 Management and Employment Relations **6cp**

Autumn Wollongong On Campus

Subject Description: This subject examines the management of employment relationships using a number of theoretical approaches and utilising the perspectives of individual, unions, employers and government. The subject is based on the premise that the employment relationship is not managed exclusively by 'managers', but that other individuals and groups, including organised labour and the government, are all involved in the management of employment relations.

MGMT920 Organisational Analysis **6cp**

Spring Wollongong On Campus

Subject Description: This subject provides students with an understanding of the main theoretical frameworks and conceptual tools used to analyse organisations. The subject approaches organisational analysis using four perspectives: bureaucratic, contingency, political, and cultural. Emphasis is placed on understanding the basis in theory and metaphorical roots of each perspective, as the foundation for using a multiple perspectives approach to identify the key dynamics of organisations.

MGMT930 Strategic Human Resource Management **6cp**

Autumn Wollongong On Campus

Subject Description: This subject examines strategic management concepts and frameworks, and explores the links between strategic management and human resource management. A number of models of strategic HRM are considered, in terms of their theoretical foundations and practical utility. The overall focus is on using the conceptual and analytical frameworks of strategic HRM to develop and implement effective human resource strategies.

MGMT933 Organisational Design: Tools & Techniques **6cp**

Autumn Wollongong On Campus

Subject Description: A key concern of contemporary technology management is improving the rate and quality of process innovation by adopting new methods to successfully integrate environmental, human, organisational and technological factors. This subject introduces the student to the interdependent human and technological character of work systems and provides principles and methodologies for designing more effective organisations. This subject is focused on the 'design' aspects of process innovation and covers in some detail, socio-technical system design.

MGMT940 Innovation and Entrepreneurship **6cp**

Spring Wollongong On Campus

Subject Description: True Entrepreneurship and Innovation are key to the future economic development in many nations. This subject investigates the Innovation and Entrepreneurial

Subject Descriptions

processes, including New Venture Creation and Intreprenurship. Students will learn how to differentiate between a good idea and a real business opportunity. A key part of this subject is the development of a realistic written business plan for an innovative business opportunity and its presentation via an action learning process utilising teams.

MGMT941 Small Business Management I 6cp

Autumn Wollongong On Campus

Subject Description: The smaller enterprise is becoming increasingly important to the economic well being of many nations. This subject gives students an opportunity to develop a sophisticated and postgraduate awareness of the role of the smaller enterprise in the economy and society, and the key factors involved in their management. This subject is oriented at both the study of smaller enterprise as well as training the student to start and manage a small firm itself.

MGMT946 Personal Learning: The Reflective Manager 6cp

Autumn Wollongong On Campus

Subject Description: This subject covers a range of theories and skills to assist the manager in developing their capacities as a 'reflective' practitioner. Topics include: personality types; interpersonal psychology; perceptions of self and others; risk perception and locus of control; issues of ethics, guilt, shame and responsibility.

MGMT948 Employers and Industrial Relations 6cp

Spring Wollongong On Campus

Exclusions: Not to count with ECON948

Subject Description: The objective of this subject is to develop an understanding of the pressures and constraints on employers/managers, and the way these influence strategies in the control and administration of the employment relationship. This requires a critical analysis of various theories and styles, as well as practical exercises and evaluation of current trends. The influence of product, labour and financial markets on the strategies and choices will be examined.

MGMT949 Performance Management 6cp

Spring Wollongong On Campus

Subject Description: This subject examines the area of performance management, defined as an ongoing communication process that, ideally, involves both the performance manager and employee in identifying and describing essential job functions and relating them to the mission and goals of the organisation; developing realistic and appropriate performance standards; giving and receiving feedback about performance; writing and communicating constructive performance evaluations and planning education and development opportunities to sustain, improve or build on employee work performance.

MGMT950 Gender and Work 6cp

Autumn Wollongong On Campus

Contact Hours: 3 hour lecture per week

Exclusions: Not to count with ECON950

Subject Description: This subject presents a multi-disciplinary overview of issues arising from the effects of gender on, and within, the workplace. It addresses a range of concepts and methods necessary for understanding the position of men and women at work, both as workers and managers. The influence of gender on both paid and unpaid work will be considered, including its place in the relationship between these areas.

MGMT952 Workplace and Enterprise Industrial Relations 6cp

Autumn Wollongong On Campus

Exclusions: Not to count with ECON952

Subject Description: This subject will focus on the employment relationship at the level of the firm and workplace with particular reference to contemporary micro-level reform, in a variety of countries in Asia and Pacific Rim. The nature and effects of the economic environment on managerial styles and trade union organisation will also be examined.

MGMT953 Human Resource Management 6cp *Not on offer in 2004*

Exclusion: Not to count with TSB903 Managing People in Organisations

Subject Description: Gives students a critical introduction to broad subject of Human Resource Management (HRM) and to examine in detail some of the specific strategic, theoretical and practical issues. Under the broad rubric of HRM there are a number of competing perspectives, view and voices. This subject will not privilege one model over another. Rather, it will present some of these competing views in a manner that will require individual students to exercise their critical faculties and develop their own, theoretically informed, approach to the practical management of human resources.

MGMT954 Political Economy of Australian Wage Determination 6cp

Autumn Wollongong On Campus

Exclusions: Not to count with ECON953

Subject Description: An examination of the broad political and economic contexts which have shaped wage-effort bargaining and the major institutions of industrial relations in Australia from 1850 to the present. Some comparative perspectives will also be developed.

MGMT955 Comparative Studies in Industrial Relations 6cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 2 hour lecture, 1 hour tutorial per week

Exclusions: Not to count with ECON955

Subject Description: A comparative examination of the development and organisation of industrial relations systems in a variety of different countries.

MGMT956 Negotiation, Advocacy and Bargaining 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hour lecture, 1 hour tutorial per week

Exclusions: Not to count with ECON975

Subject Description: This subject will develop concepts, theories and techniques for the choice and evaluation of strategies and tactics in collective bargaining and advocacy.

MGMT957 Productivity and Labour 6cp

Not on offer in 2004

Exclusions: Not to count with ECON957

Subject Description: An examination of the meaning and measurement of labour productivity, and its relationship to wage bargaining at national industry and enterprise levels. The subject also examines the impact of productivity-based wage bargaining of unions, employer organisation and the economy.

MGMT958 Industrial Relations and Management 6cp

Autumn Wollongong On Campus

Contact Hours: 3 hour lecture per week

Exclusions: Not to count with ECON958

Subject Description: An examination of the ideas and strategies which modern management theorists have developed in order to deal effectively with the open-ended nature of the employment relationship. Particular attention is paid to reasons why management has developed and applied these theories and the extent to which they have proven successful.

MGMT963 Management of Occupational Health and Safety 6cp

Spring Wollongong On Campus

Subject Description: This subject examines issues associated with the establishment of programs for the effective management of Occupational Health and Safety and Rehabilitation. Topics include: Technical and motivational programs, the role of the specialist, benefit-cost analysis, emergency and disaster management, networking within and between organisations, design of accident investigation and hazard assessment reporting systems, and the impact of work organisation on occupational health and safety.

MGMT969 Job Analysis, Recruitment and Selection 6cp

Autumn Wollongong On Campus

Subject Description: This subject examines the environment and process of recruitment and selection. Recruitment strategies are described and assessed from the perspective of the organisation and the individual. In particular, a range of personal selection techniques are examined in relation to issues of reliability, validity, fairness, and applicability. Also a range of practical skills in designing personnel selection techniques are developed.

MGMT973 Employers and Industrial Relations A 6cp

Spring Wollongong On Campus

Contact Hours: 2 hour lecture, 1 hour tutorial per week

Exclusions: Not to count with ECON973

Subject Description: The objective of this subject is to develop an understanding of the pressures and constraints on employers/managers, and the way these influence strategies in

the control and administration of the employment relationship. This requires a critical analysis of various theories and styles, as well as a practical exercises and evaluation of current trends. The influence of product, labour and financial markets on the strategies and choices will be examined.

MGMT975 Negotiation Advocacy and Bargaining 6cp

Autumn/Spring Wollongong On Campus

Contact Hours: 3 hour lecture, 1 hour tutorial per week

Exclusions: Not to count with ECON956

Subject Description: The subject develops concepts and techniques for the choice and evaluation of strategies and tactics in collective bargaining and advocacy. Much of the subject will involve case studies and role playing.

MGMT976 Advanced Topics in Industrial Relations - A 8cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 3 hour lecture, 3 hour tutorial per week

Subject Description: Topics for this subject may be drawn from any area of Industrial Relations which the Head of School considers to be suitable preparation for a higher degree and appropriate to the student's special interests.

MGMT977 Advanced Topics in Industrial Relations - B 8cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 3 hour lecture, 3 hour tutorial per week

Subject Description: Topics for this subject may be drawn from any area of Industrial Relations which the Head of School considers to be suitable preparation for a higher degree and appropriate to the student's special interests.

MGMT978 Cross Cultural Management 6cp

Autumn/ Spring Wollongong On Campus

Subject Description: The subject explores management practices, issues and theory across cultures in international business. It seeks to engage students with problems associated with management practices in a context of increasing global contact. Topics include the communication, technology, comparative management practices, managing with multicultural policies and the implications of culture for international/global managers. On successful completion of this course, students will have an appreciation and knowledge of managing across cultural boundaries in international business.

MGMT979 Advanced Topics in Industrial Relations - C 6cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 3 hour lecture, 1 hour tutorial per week

Subject Description: Topics for this subject may be drawn from any area of Industrial Relations which the Head of School considers to be suitable preparation for a higher degree and appropriate to the student's special interests.

MGMT983 Leading Organisations: Politics, Power and Change Agency 6cp**Autumn/ Spring** Wollongong On Campus

Subject Description: This subject provides students with the ability to reflect upon and improve their capacity to act effectively as an innovator and change agent. It introduces students to the nature of power and politics in organisations, how this dimension of organisational life impacts upon individual careers and organisational success, commonly recommended approaches and techniques for managing politics, and the personal and ethical issues involved in either participating in or abstaining from politics. The subject reviews current management research on organisational politics and change management, and provides checklists, case studies, guidelines and exercises for improving the students practical knowledge and experience.

MGMT986 Special Topics A 6cp**Intake A** Wollongong On Campus

Subject Description: Approved program of study agreed with the Head of the Department of Management

MGMT987 Special Topics B 12cp**Autumn/ Spring** Wollongong On Campus

Subject Description: Approved program of study agreed with the Head of the Department of Management

MGMT990 Minor Thesis 24cp
Not on offer in 2004

Subject Description: Approved program of study agreed with the Head of the Department of Management or Course Director.

MGMT991 Major Thesis 48cp**Annual** Wollongong On Campus

Subject Description: Approved program of study agreed with the Head of the Department of Management or Course Director.

PEIS102 An Introduction to Web Programming 6cp
Not on offer in 2004

Assessment: Participants will be awarded a certificate based on completion of the online project plus satisfactory completion of a practical programming test.

Subject Description: An introduction to the basics of computer programming using popular tools for interactive Web design: Hypertext Markup Language (HTML) and Java Script.

TBS 901 Accounting for Managers 6cp**Intakes A, C** Wollongong Modular**Intakes B, D** Sydney Modular**Contact Hours:** 36-40 hours in total**Exclusions:** ACCY901 and TBS979

Subject Description: A conceptual introduction to accounting, focusing on accounting from the viewpoint of the manager's specific needs for financial information. Key areas to be

covered include: decision making (short and long-term), internal performance evaluation, legal and quasi-legal background to financial reporting, analysis of financial statements, and strategic business accounting.

TBS 902 Statistics for Decision Making 6cp**Intakes A, C** Wollongong Modular**Intakes B, D** Sydney Modular**Contact Hours:** Normally 36-40 hours in total

Subject Description: This unit will provide an in-depth introduction to probability, decision theory, and statistical inference with emphasis on solutions to actual business problems. After developing a foundation in probability theory, the subject will extend this foundation to a set of methodologies for the analysis of decision problems. The unit examines structures for managerial decision making under conditions of partial information and uncertainty. The examination of the use of statistical techniques in managerial decision making processes, including, confidence intervals, hypothesis testing, quality control, simple and multiple regression and factor analysis should be applied in realistic case situations.

TBS 903 Managing People in Organisations 6cp**Intakes B, C, D** Wollongong Modular**Intakes A, B, C,** Sydney Modular**Contact Hours:** Normally 36-40 hours in total**Exclusions:** MGMT906**Assessment:** Refer to subject outline.

Subject Description: This subject analyses central organisational challenges for those who manage people in organisations and a variety of the proposed solutions. To do this, it uses discussion of the employment relationship as a platform for examining central areas of organisational behaviour. It thus starts with the employment relationship, its place within the labour market and its implications for managerial decision-making. Subsequent topics analyse organisational types and the role of managers and managing in organisations. These provide a basis for understanding theories of motivation, group behaviour and teams, organisational culture and the local cultural context, leadership in organisations, power and politics in organisations, consent and control in organisations, and decision-making in organisations.

TBS 904 Marketing Management 6cp**Intakes B, D** Wollongong Modular**Intakes A, C, D** Sydney Modular**Contact Hours:** Normally 36-40 hours in total**Exclusions:** MARK922

Subject Description: This subject examines the contemporary view of marketing and focuses on the following areas: international marketing, advertising, consumer behaviour, product development and pricing, sales management, services and relationship marketing, distribution/retailing, marketing research, business-to-business, and contemporary issues in marketing, e.g. Internet, ethics, etc.

TBS 905 Economic Analysis of Business 6cp

Intakes A, C, D Wollongong Modular

Intake C, D Sydney Modular

Contact Hours: Normally 36-40 hours in total**Exclusions:** ECON932

Subject Description: This subject provides an introduction to the macro and micro economic environment of business and organisations. It provides an analysis of the logic underlying the operation of a market-based economic system. The processes which lead to the internationalisation of business and globalisation of economies are studied, as well as macroeconomic and microeconomic policies which affect the business environment.

TBS 906 Information Systems for Managers 6cp

Intakes A, C, D Wollongong Modular

Intakes B, C, D Sydney Modular

Contact Hours: Normally 36-40 hours in total**Exclusions:** BUSS903

Subject Description: This subject provides an understanding of the use and impact of information technology in organisations; in particular, it provides an analysis of the structures and functions of the range of typical computer-based business information systems. The applications of information systems and issues facing managers will be examined. Other issues considered are the integration of discrete applications into the total information system and organisational implications of such integration and automation.

TBS 907 Financial Strategy 6cp

Intake B, D Wollongong Modular

Intake A, C Sydney Modular

Contact Hours: Normally 36-40 hours in total**Pre-requisites:** TBS901: Accounting for Managers**Exclusions:** ACCY921 and TBS979**Assessment:** Refer to subject outline.

Subject Description: The introduction to this unit will start with a review of corporate goals as they relate to financial strategy. This will be followed by an introduction to key financing decisions such as capital structure and re-structure, dividend policy, company valuation, and sourcing finance. The second half of this unit will comprise case-studies that stress key elements of financial strategy..

TBS 908 Supply Chain Management 6cp

Intake C Wollongong Modular

Intake A, B, D Sydney Modular

Contact Hours: Normally 35 hours in total**Assessment:** Refer to subject outline.

Subject Description: Supply Chain Management involves all the functions within the organisation. It brings together the functions of operations, logistics, information systems, purchasing, engineering and marketing. This subject provides insights into the conceptual foundations of Supply Chain Management. It will answer the questions: What is a supply chain? What types of challenges and opportunities are there in efficient supply chain management?

TBS 912 Quantitative Methods for Decision Making 6cp

Intake A, C Wollongong Modular

Intake B, D Sydney Modular

Contact Hours: Normally 35 hours in total

Subject Description: This subject focuses on the quantitative and qualitative techniques available to managers in problem solving and decision making in organisations. Decision making models will be explored and the criteria used for rational decision making under conditions of risk and uncertainty will be examined. This decision making process will focus in areas such as forecasting, linear programming and project planning.

TBS 913 Innovation Topics and Cases 6cp*Not on offer in 2004***Assessment:** Refer to subject outline.

Subject Description: The subject covers integration issues that must be confronted and managed to create value from technological and business innovation, including: Initiating innovation and incubating novel thinking, technological innovation, the innovation process, theories of innovation, planning innovation, strategy and innovation, R & D management, economic justification and innovation, new products and processes, operations strategy and innovation, process innovation, managing future technologies, public policy and technological innovation, and globalising change.

TBS 918 Strategic Supply Chain Management 6cp

Intake D Wollongong Modular

Intake C Sydney Modular

Contact Hours: Normally 35 hours in total**Pre-requisites:** TBS908: Supply Chain Management

Subject Description: This subject extends the study of Supply Chain Management from the introductory study covered in TBS908. This subject examines the development of Organisational Strategy in the context of Supply Chain Management and the Supply Chain Management Performance/ Capability Continuum, which consists of three critical components - operational excellence, supply chain integration and, collaboration and virtual supply chains.

TBS 920 International Business 6cp

Intakes C, D Wollongong Modular

Intakes B, C Sydney Modular

Contact Hours: Normally 35 hours in total**Exclusions:** TBS984 and MGMT961

Subject Description: This capstone subject provides a development of strategic business thinking in an international context. The international competitiveness of any country will be determined by underlying international rivalry that is not within the scope of general strategic management literature. Influencing the variables of international economic systems is usually beyond the scope of managers, hence students are challenged to consider strategic positioning of business organisations in an international context where there are many interacting influences. These include technology, HRM, international finance, marketing and law. Ethical and political issues are given major attention. Predominant teaching methods are case study and project based.

TBS 921 Strategic Decision Making 6cp**Intake B** Wollongong Modular**Intakes A, C, D** Sydney Modular**Contact Hours:** Normally 35 hours in total**Exclusions:** MGMT931

Subject Description: This capstone unit brings together much of what students have discussed in other units, including finance, marketing and HRM. An integrated approach is taken to developing the strategic direction of organisations. This occurs in three main areas of Strategic Analysis, Strategic Choice and Strategy Implementation. The competitive forces that emanate from inside and outside the organisation are considered and hence strategic choices are identified. The unit is taught largely by case-analysis and can involve a substantial mini-project based on an analysis of the strategic decisions that may be taken in the participants workplace.

TBS 924 Management Project 12cp*Not on offer in 2004*

Subject Description: Students are required to present a management report, to agreed guidelines and to a maximum length of 10,000 words. This project must relate to a student's chosen area of specialisation within the MBA.

TBS 925 Inventory Management 6cp**Intake B** Wollongong Modular**Intake D** Sydney Modular**Contact Hours:** Normally 35 hours in total**Pre-requisites:** TBS 930**Co-requisites:** TBS 930 may be completed simultaneously

Subject Description: This subject aims to provide the student with state-of-the-art knowledge of inventory management theory and practice. Topics included will be as follows: materials management; management of storage and retrieval facilities; types of inventory problems; measuring inventory performance; inventory management systems for independent demand items; influence of forecasts and uncertainties of demand and lead time; dependent demand inventory systems; multi-echelon inventory management; decision models for inventory management; simulation models of inventory management systems; and case studies of world-class inventory management.

TBS 926 Manufacturing Management 6cp**Intake D** Wollongong On Campus**Intakes B, C** Sydney Modular**Contact Hours:** Normally 35 hours in total

Subject Description: Manufacturing industry dynamics and manufacturing strategy, value adding in manufacturing, materials flow, manufacturing planning and control including MRP II, ERP, JIT and OPT. Maintenance management, supply procurement, distribution quality control, assurance and improvement, manufacturing information technology, performance management, concept of lean and agile manufacturing. Students are expected to undertake a substantial mini-project that is usually case-based, preferably on an aspect of the student's work experience.

TBS 928 Transport Logistics Management 6cp**Intakes B, D** Wollongong Modular**Intakes A, C, D** Sydney Modular**Contact Hours:** Normally 35-40 hours in total

Subject Description: This subject provides the student with state-of-the-art knowledge of management systems relating to the transportation of products within manufacturing plants and their distribution to the market. Topics covered will include: location analysis; location planning; layout planning; transportation systems in manufacturing plants; managing the distribution of finished products; optimum vehicle routing techniques; and achieving high quality delivery performance.

TBS 929 Management of Process Innovation 6cp**Intake C** Wollongong Modular**Intake B** Sydney Modular**Contact Hours:** Normally 36 - 40 hours in total**Exclusions:** MGMT933

Subject Description: A key concern of contemporary technology management is improving the rate and quality of process innovation by adopting new methods to successfully integrate environmental, human, organisational and technological factors. This subject introduces the student to the interdependent human and technological character of work systems and provides principles and methodologies for designing more effective organisations. This subject is focused on the 'design' aspects of process innovation and covers in some detail socio-technical system design.

TBS 930 Operations Management 6cp**Intakes A, C** Wollongong Modular**Intakes B, C, D** Sydney Modular**Contact Hours:** Normally 35-40 hours in total**Exclusions:** MGMT952

Subject Description: This subject is a study of the design and operations of activities for the production of goods and services. Topics include: qualitative and quantitative forecasting, production planning, scheduling, management of quality and productivity, project management and flexible manufacturing systems (FMS). Emphasis will be placed on a comparison of Japanese production and quality management methods with traditional Western methods, total quality management (TQM), computer aided manufacturing (CAM), and implications for human resource management.

TBS 932 Service Operations 6cp**Intake A** Sydney Modular**Contact Hours:** 35 hours in total

Subject Description: The service sector is an important and growing part of the economy. As a result, Service Operations Management and its impact is widespread. Services and Service Operations Management have some similarities to manufacturing and Production Management yet numerous differences exist and will be highlighted. The subject will focus on three primary areas of knowledge: understanding the nature of services, designing efficient and competitive services and managing the delivery of services.

TBS 933 Procurement Management 6cp**Intake B** Wollongong Modular**Intake A** Sydney Modular

Subject Description: In most leading firms today, the function that used to be called purchasing, or procurement, has expanded to become Supply Management. This subject looks at the expanded responsibility of procurement and its integration with long-term strategic corporate planning. Procurement now includes participating collaboratively in key material requirements determinations and supplier qualification; and focuses on the management of supplier relations and performance. This subject incorporates all these areas in the development of procurement and supply chain management.

TBS 940 Special Topic In Management - Project Management 6cp*Not on offer in 2004*

Subject Description: The services sector has grown to dominate most western economies, employing more people than manufacturing, and accounting for an increasing proportion of individuals' and organisations' expenditure. However, the sector has generally been much slower than manufacturing in applying the principles of project management. This emerging 'globalising economy', when coupled to more educated, demanding and litigious customers, is creating a strong need for flexible and quick response capabilities in organisations together with strong accountability mechanisms. Managers who are confident in planning, implementing and controlling change(s) through I.T. enhanced capabilities such as project management, are building organisational and personal capabilities which will enhance their organisations whether manufacturing, service or 'not for profit'. This subject analyses key issues in the uses and applicability of Project Management as a management and organisational capability, which includes the use of I.T. based support capabilities such as MS Project, MS Powerpoint and web based support systems.

TBS 941 Advanced Business Studies 6cp*Not on offer in 2004*

Subject Description: This subject provides students with exposure to current theoretical developments in business and management. There is an emphasis on integrative theory, although discipline based theory advances will also be canvassed. It seeks to develop the skills of critical analysis of theory both on the basis of its own assumptions and structure and by exploration of the related research literature. Students also investigate the skills of lateral thinking as they relate to business practice and innovation.

TBS 942 Advanced Business Specialisation Studies 6cp*Not on offer in 2004*

Subject Description: This subject is designed to enable DBA students to become thoroughly familiar with the subject in which they intend to specialise in their later thesis. Students will be expected to research the area well, using any university facilities available. Industry-based students will also be expected to provide information and knowledge based on their working environment. A substantial knowledge of the relevant literature must be demonstrated. Students will be expected to

organise, categorise and discuss the information and issues they identify as part of their specialisation topic. A seminar, report and substantial list of references must be provided.

TBS 943 Advanced Business Research Methods 6cp*Not on offer in 2004*

Subject Description: In this subject students will examine epistemology and methodology in social science and business research, and then explore the foundations for choosing methods and techniques in advanced applied business research. Students will develop and extend analytical skills required for successful doctoral research, including statistical techniques, the use of research software, case studies, ethnography, and surveys, as well as ethical issues in business research, and the influence of ethical considerations on research methods and methodology.

TBS 944 Advanced Business Specialisation Research 6cp*Not on offer in 2004*

Subject Description: In this subject DBA students create a research proposal and develop it into the brief for their DBA research project. Students will be expected to organise the structure of their proposed research project and clearly identify the issues, methodology and sources of reference they will investigate. This will take place in consultation with their DBA supervisor/mentor. There will also be regular class meetings where students will be expected to provide a progress report and receive feedback from colleagues and academic staff.

TBS 950 Quality In Management 6cp**Intake A, B, D** Wollongong Modular**Intake A, B, C** Sydney Modular**Contact Hours:** Normally 35-40 hours in total**Exclusions:** MGMT947

Subject Description: This subject provides an introduction to Quality Management in organisations undergoing rapid change. It provides frameworks of understanding for the development of the quality movement in post-industrial society and as a coherent field of intellectual study; an overview of quality tools and their purposes; the critical roles of people and change in quality organisations; and an understanding of services marketing with particular focus on service quality and customer satisfaction.

TBS 952 Implementing Quality Systems 6cp*Not on offer in 2004*

Subject Description: This subject addresses the systems employed for ongoing quality management, including quality control and quality assurance, as well as improvement of quality. Included is an examination of systems thinking as it applies to quality management; the scope of modern quality systems; ISO quality system certification; continuous improvement methodologies, quality system implementation; various practical high impact methodologies and tools; the financial systems to support quality management endeavours; and case studies.

TBS 953 Management of Service Quality 6cp*Not on offer in 2004***Pre-requisite / Co-requisites:** TBS950

Subject Description: This course identifies and examines the framework of understanding from which the Management of Service Quality can be analysed and improved, as a contribution to the long term Competitive Advantage of Organisations in rapid change economies. The course will review the main theories and approaches to Service Management, and will develop case studies and exemplars of best practice service management for a range of industries and organisations. This subject is based on a framework of service issues that allows common principles of both manufacturing and service organisations to be studied. Similarities, contrasts and unique topics in each industry are pointed out so that the widest variety of students will feel comfortable with the subject material. The combination of text, short cases and readings make this subject suitable for an introductory subject in service quality. The assignments allow for in-depth analysis for students with prior service experience.

TBS 954 Quality Management and Design 6cp*Not on offer in 2004***Pre-requisites:** TBS950:

Subject Description: This course emphasises the application of organisation level improvement techniques in the effective management of Learning Organisations in a post industrial rapid change economy. Issues covered emphasise Organisational Performance Measurement (OPM) and improvement, and develop intellectual frameworks for:- the contribution of good design to the effective management of quality systems in organisations; the establishment of new styles of competitive advantage through quality systems in Learning Organisations; using OPM to improve specific quality environments and the development of case studies for good organisational design; coverage of methodologies for designing and integrating quality into organisational systems, and a futures perspective on the likely successful features of quality organisations in non ferrous manufacturing environments such as transgenics, nanotechnologies, molecular manufacturing.

TBS 955 Quality Assurance 6cp*Not on offer in 2004***Pre-requisites:** TBS950

Subject Description: This course provides an opportunity for specialised interest study within the Quality management program, by developing the following frameworks of understanding:- The terminologies and propose of Quality Assurance; studies of selected methodologies of Quality Assurance; a Case Study in Quality Assurance: preparing an organisation for a selected QA award or accreditation.

TBS 970 Management Project Planning 6cp*Not on offer in 2004***TBS 971 Quality Management Project 6cp***Not on offer in 2004***Pre-requisites:** TBS970**TBS 980 International Financial Management 6cp****Intakes A, C** Wollongong Modular**Intakes B, D** Sydney Modular**Contact Hours:** Normally 35-40 hours in total**Exclusions:** ACCY928, ACCY905, WBS980 and TBS979

Subject Description: This subject introduces students to financial management in an international context. In any one intake, the topics will be selected from the following: Financial environment of international corporate activity; foreign exchange and derivatives markets; methods of foreign exchange risk measurement and management; overview of international financial markets and instruments; financing of foreign trade and foreign direct investments; international working capital management; investment decision making in an international context, including country risk analysis; international aspects of controlling, reporting and performance analysis; effects of government regulation on management decision making

TBS 981 Employment Relations in an International Context. 6cp**Intake A, C** Wollongong Modular**Intake B, D** Sydney Modular**Contact Hours:** Normally 36 - 40 hours in total

Subject Description: This subject, while useful for all students, is particularly relevant for those working or seeking work in multinational corporations. It combines the literature on comparative international industrial relations and human resource management in multinational corporations. It begins by examining the major structural and regulatory factors facing human resource managers of multinational corporations: labour markets, national and international regulatory frameworks, union movements and employer organisations. The rest of the subjects examines important areas of human resource management with a particular emphasis on cross-national and cross-cultural aspects.

TBS 982 Advertising and Marketing in a Global Economy 6cp**Intake B, D** Wollongong Modular**Intake A, C** Sydney Modular

Subject Description: This subject will include the following: introduction to global marketing; the global economic environment; international organisations/regional groupings; social, cultural, political, legal and regulatory environments; the impact of the global financial environment and foreign exchange decisions on marketing; global marketing information systems and research; market entry mode strategies; exporting, licensing, joint ventures, strategic alliances and wholly-owned subsidiaries; global segmentation, targeting, product and pricing decisions; international logistics planning; global marketing communications decisions and the global marketing plan.

TBS 983 International Economic Environment for Business 6cp**Intakes B, D** Wollongong Modular**Intakes A, C** Sydney Modular**Contact Hours:** Normally 36-40 hours in total

Subject Description: This subject examines the national and international factors which shape the business environment. The inter-play between macro and microeconomic is examined as well as the impact of national economic policies on business. The role of international trade and foreign investment is discussed along with protectionism, foreign direct investment, payments between the nations, exchange rates and globalisation. A framework for evaluating the costs and benefits of government policies will be developed.

TBS 984 International Business 6cp

Intake A, C Wollongong Modular

Intake B, D Sydney Modular

Contact Hours: Normally 36-40 hours in total

Exclusions: WBS920 and MGMT961

Subject Description: This subject brings together and develops in more detail specific subject material covered in the other compulsory subjects for the program. Integrative key topic areas are drawn from: strategic operations, finance, marketing, macro-economics, competitive advantage and corporate and global strategies.

TBS 990 Special Topic in Business 6cp

Not on offer in 2004

TBS 991 Management Project - Part 1 6cp

Not on offer in 2004

TBS 992 Management Project - Part 2 6cp

Not on offer in 2004

CREATIVE ARTS SUBJECT DESCRIPTIONS

CREA921 Research Topics in Creative Arts 48cp

Annual	Wollongong	On Campus
Autumn/Spring	Wollongong	On Campus

Contact Hours: To be negotiated with supervisor

Assessment: Assessment will be by two internal assessors.

Subject Description: This subject provides students enrolled in the Master of Arts - Research degree with training in the theories and research methodologies current in their chosen discipline areas. This training involves three modules of study: 1. a specific theory and methods module; 2. an advanced content-based module in the student's discipline area; and 3. a module in which the student writes a detailed research proposal for the Master of Arts thesis. The precise content of these modules will be determined on a case-by-case basis, with the student and the supervisor. It will be approved by the Head of Postgraduate Studies.

DESN910 Graphic Design and New Media Theory 12cp

Autumn	Wollongong	On Campus
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Assessment: Two 4,000 word essays based on the seminar series of lectures.

Subject Description: Students are required to present two 4,000 word essays based on the seminar series of lectures. They are expected to carry out further research into the topic issues raised in class and referred to in references. The subject explores historical and contemporary theoretical issues concerning graphic design and new media arts. Guest designers will discuss current ideas and latest production techniques at work within the industry.

DESN911 Studies in Process and Analysis - Graphic Design and New Media 12cp

Spring	Wollongong	On Campus
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Assessment: See Subject Description

Subject Description: Students will keep a journal recording the development of their creative work in CD Rom, website, graphic or photographic images and other new media. Also, in consultation with the Subject Co-ordinator, students will prepare a 4,000 word paper addressing issues relevant to design practice framed by critical and theoretical analysis. The focus of this paper may, with the approval of the Subject Co-ordinator, explore cogent and discursive analysis of content relevant to student's most recent practice. In short, this document will show evidence of research, theoretical back-up and critical analysis of design. In conjunction to the paper, students will present a seminar on graphic design and new media processes in the context of their field. Students will be expected to work independently at an advanced level while consulting with the Subject Co-ordinator on a regular basis.

DESN913 Major Presentation - Graphic Design and New Media 24cp

Annual	Wollongong	On Campus
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Assessment: Assessment will be by two internal assessors. Students will be awarded a "satisfactory" or "unsatisfactory" grade for this subject.

Subject Description: Students will present a substantial final project presentation of work that reflects technical skill, knowledge and use of hardware and software to develop, sustain and execute original ideas and researched materials in a cohesive and thematic way. As an example of content, designers would submit 10 graphic design works. Web designers would submit a major interactive web site or three smaller sites on the net. Multimedia designers would submit an interactive CD-Rom that demonstrates an innovative design approach. All students must submit design roughs and supporting material for exhibition. The outcome of the DESN 913 program must be a final project presentation that demonstrates a 'deep link' industry/design practice project with the possibility of real or applied outcomes. Students must start the course with an industry/design connection of their own, one they bring with them to the Faculty. Alternatively, on entry into the MCA, students must frame an industry/design connection for their DESN913 presentation based on a relationship established with, or a survey of, practising design possibilities in the Wollongong/Sydney area. In either case, all due ethical considerations must be taken into account and complied with during the entire course of this project and the student will be required to develop sophisticated professional networking skills. The outcome will be an emphasis on practising design presented as an industry style, rather than exhibition style - with relevant parties to the development of the project invited to the opening of the display. Students must submit a detailed outline of their proposed work (research/production schedule) for the Major Presentation to the supervisor(s) by the fourth week of enrolment. A cross disciplinary approach may be possible.

DESN921 Creative Industries: Design for Interactive Multimedia 6cp

Spring	Wollongong	On Campus
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Contact Hours: 1 hr lecture and 2 hr tutorial each week

Restrictions: Only available to students enrolled in Master of Multimedia Technologies (Faculty of Informatics).

Assessment: Design projects 60% Process 40%

Subject Description: This subject examines the partnership between creative innovation and commercial application of interactive design. Students will be introduced to the fundamentals of interactive design. Within a framework of weekly lectures and tutorials, students will be required to undertake research and develop design concepts and solutions to interactive

JOUR901 News and Feature Writing 6cp

Autumn	Wollongong	On Campus
Autumn	Wollongong	Distance
Autumn	Hong Kong	Flexible

Contact Hours: 3 hours per week for on campus students.

Assessment: Written assignments and practical work.

Subject Description: This foundation subject develops basic skills in straight news reporting to extended feature writing for newspapers and magazines. Attention will be given to subjective aspects of news and feature writing, including the use of comment and opinion; colour stories; the contribution

Subject Descriptions

of 'new journalism' to writing human interest stories; interviewing and information gathering techniques; and the application of conventional news values to reporting.

JOUR902 Journalistic Method & Practice 6cp

Autumn	Wollongong	On Campus
Autumn	Wollongong	Distance
Autumn	Hong Kong	Flexible

Contact Hours: 3 hours per week for on campus students.

Assessment: Written assignments, practical exercises and an essay.

Subject Description: This subject considers the basic attributes of news, the nature of news construction, theories of news making and the structure of news narratives. It takes students through the process of initiating to the completion of a news assignment. Practical areas of discussion are: the structure and conventions of a news round, use of recording devices, interview techniques, working with photographers and camera teams, packaging of news copy, news construction, follow-ups and news management.

JOUR903 Ethics, Law and Standards 6cp

Autumn	Wollongong	On Campus
Autumn/ Spring	Wollongong	Distance
Spring	Hong Kong	Flexible

Contact Hours: 3 hours per week for on campus students.

Assessment: Written assignments, essays, hypotheticals.

Subject Description: This subject examines the legal and ethical framework which governs the work of journalists. It considers the nature, efficacy and administration of ethical codes relevant to journalism, particularly the Media Entertainment and Arts Alliance (MEAA) Code of Ethics and the Australian Press Council's Statement of Principles. Other aspects of professional conduct and professional standards considered include guarding against defamation actions; libel laws; breach of privacy; confidentiality; protection of sources; standards of accuracy, fairness and subjectivity in journalism.

JOUR905 Specialist Journalism 1 6cp

Autumn	Wollongong	On Campus
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Contact Hours: 3 hours per week for on campus students.

Assessment: Practical assignments and project.

Subject Description: This subject is designed to complement and amplify preliminary courses which cover broader aspects of news gathering and presentation. Specialist areas dealt with shall include one of the following areas: environment; science and technology ; public affairs; arts, lifestyle and leisure; economics and business; and sports. Selected topics will cover conceptual approaches and skills in print journalism. NOTE: Usually, only one specialist area will be dealt with in this subject. A further option for study in specialist journalism will be available in JOUR906 Specialist Journalism 2.

JOUR906 Specialist Journalism 2 6cp

Spring	Wollongong	On Campus
Spring	Wollongong	Distance

Contact Hours: 3 hours per week for on campus students.

Assessment: Practical assignments and project.

Subject Description: This subject provides an additional option of specialist study in a major area of contemporary journalism. Specialist areas are set out under JOUR905 Specialist Journalism 1. However, the concepts and skills taught will mainly focus on the electronic journalistic genre.

JOUR931 Broadcasting Journalism 6cp

Spring	Wollongong	On Campus
Spring	Wollongong	Distance
Spring	Hong Kong	Flexible

Contact Hours: 3 hours per week for on campus students.

Assessment: Assignments and studio work.

Subject Description: This subject provides advanced skills in script writing, editing, producing and presenting radio news and current affairs programs. The course has a strong practical component. NOTE: This subject provides the foundation for Current Affairs Journalism JOUR942.

JOUR932 Television Journalism 6cp

Spring	Wollongong	Distance
Spring	Wollongong	On Campus
Spring	Hong Kong	Flexible

Contact Hours: 3 hours per week for on campus students.

Assessment: Script, proposal, and production assessment with integrated theory.

Subject Description: This subject provides advanced skills in script writing, editing, producing and presenting television news and current affairs programs. A primary emphasis will be placed on techniques for gathering television news or documentary materials in the field. NOTE: This subject provides the foundation for Current Affairs Journalism JOUR942.

JOUR933 On-Line and Research Journalism 6cp

Autumn	Wollongong	On Campus
Autumn/ Spring	Wollongong	Distance
Autumn	Hong Kong	Flexible

Contact Hours: 3 hours per week for on campus students.

Assessment: Written and field assignments.

Subject Description: This subject is designed to develop a range of research and journalism investigative methods. It will include the use of online data bases, the Internet, library and archive work and other sources of public information. The use of survey material in journalism will be studied, particularly the presentation of this data in a news format. The organisation of news investigation teams, the techniques that they use, and what they produce will be analysed. Part of the subject will be devoted to news design and presentation on the World Wide Web.

JOUR934 Print Production and Publication 6cp

Spring	Wollongong	On Campus
Autumn/ Spring	Wollongong	Distance
Autumn	Hong Kong	Flexible

Contact Hours: 3 hours per week for on campus students.

Assessment: Written assignments and workshop assessment.

Subject Description: This subject focuses on the production of inhouse newsletters and magazines by a combination of

conventional techniques and desktop publishing. Topics include copy preparation and editing, principles of typography, news layout, news illustration, production planning and desktop publishing applications.

JOUR936 International Journalism 6cp

Spring	Wollongong	On Campus
Spring	Wollongong	Distance
Spring	Hong Kong	Flexible

Contact Hours: 3 hours per week for on campus students.

Assessment: Assignments and one hour examination in class.

Subject Description: This seminar-based subject focuses on international news flow in the context of the New World Information Order debates in the early 70s and news flow in the context of Internet communication; culture, values and ideology in international news production (discussions derived mainly from Australian reporting of Asia); media systems in selected Asia-Pacific countries; and renewed interest in community development oriented journalism.

JOUR942 Current Affairs Journalism 6cp

Spring	Wollongong	On Campus
Spring	Wollongong	Distance

Contact Hours: 3 hours per week for on campus students.

Assessment: Script, proposal and production assessment with integrated theory.

Subject Description: This subject provides practical instruction in the preparation of current affairs programs in radio, television and multi-media. A simulated producer journalist environment will provide opportunities for specialisation in one of the three media areas. Unless a student has prior experience, Current Affairs Journalism is to be elected at the same time as either Television Journalism or Broadcast (Radio) Journalism. Students will be able to develop a current affairs project that is informed and designed from within Television Journalism or Broadcast (Radio) Journalism and then developed within the Current Affairs subject. This provides the opportunity for a 12 credit point context, thus adequate time to develop a current affairs piece that involves time consuming production, writing and editing.

JOUR943 Directed Readings in Journalism 6cp

Autumn/ Spring	Wollongong	On Campus
Autumn/ Spring	Wollongong	Distance
Summer 2004/2005	Wollongong	On Campus

Contact Hours: Directed readings/tutorials

Assessment: Major written evaluation of about 8,000 words of the selected reading program.

Subject Description: This subject enables students to extend their knowledge of the theory and practice of journalism by directed reading courses in selected topics. Topics available include: structure of the Australian news media; news media management in the cyberspace; comparative media systems and practices; qualitative studies of individual journalists and their work; and textual analysis. On the advice of an academic adviser, students have the option of nominating their own topic.

JOUR945 Advanced Journalism Project 6cp

Autumn/ Spring	Wollongong	On Campus
Autumn/ Spring	Wollongong	Distance
Summer 2004/2005	Wollongong	On Campus

Contact Hours: Directed research/consultation

Assessment: Written evaluations of progress; final research report of 8,000 words which may include electronic media and print production material.

Subject Description: This subject provides a shorter alternative project for final session students not wanting to undertake the major project, or electing to do additional course work, or wanting to develop vocational skills acquired in previous subjects. Project areas available include: news design and presentation on the World Wide Web; print media production; electronic news gathering and production; multimedia production.

JOUR949 Multicultural Journalism 6cp

Autumn/ Spring	Wollongong	On Campus
Autumn/ Spring	Wollongong	Distance

Contact Hours: 3 hours per week for on campus students.

Assessment: Assignments and publications.

Subject Description: This subject provides an historical, cultural and social background for students wanting to work in Australia's growing multicultural media. It will give practical instruction in multicultural print, electronic and multi-media news applications. Particular emphasis is placed on differences between news production and presentation in multicultural media and traditional media.

JOUR991 Major Journalism Project 12cp

Autumn/ Spring	Wollongong	On Campus
Autumn/ Spring	Wollongong	Distance
Summer 2004/2005	Wollongong	On Campus

Contact Hours: Directed research/consultation

Assessment: Two interim reports and major research or fieldwork report.

Subject Description: This subject is designed to give students the opportunity to undertake either a major research project or substantial supervised practical work. In particular, it allows students to complete an internship with a media organisation. Such placement should generally have a minimum duration of six weeks. Students on internship are required to submit detailed records of their work experience, supported by verification from the media organisation, and an internship report of 3,000 words. Research projects should be linked directly to subject areas represented in the journalism schedule, and may include an essay of 10,000 words, visual, sound or multi-media components.

JOUR992 Research Topics in Journalism 24cp

Autumn/ Spring	Wollongong	On Campus
Summer 2004/2005	Wollongong	On Campus

Contact Hours: As arranged with supervisor.

Assessment: See subject description.

Subject Description: This subject will provide students enrolled in the Master of Arts - Research (Journalism) degree with training in the theories and research methodologies current in their chosen discipline areas. This training involves three modules of study: (1) a specific theory and methods module. 5,000 - 7,000 words, possibly one short and one long essay. Seminar participation if determined will be assessed (2) an advanced content-based module in the student's discipline area requiring the completion of the contents of an existing subject and (3) a module in which the student writes a detailed research proposal for the thesis covering: - an annotated bibliography 40% - the development of thesis question and rationale for chapter divisions, involving exposition of thesis argument 40% and - an oral presentation of the thesis proposal 20% The precise content of these modules will be determined on a case by case basis, with the student and the supervisor. It will be approved by the Program Coordinator.

MUS910 Music Analysis 12cp

Autumn Wollongong On Campus

Assessment: Students will submit two (2) analytical essays of approximately 4,000 words each on topics related to the area of the student's specialisation and determined in consultation with the Subject Co-ordinator.

Subject Description: Students will undertake research-based analysis that addresses specific aspects of their musical practice in performance and/or composition. The study may draw on such material as historical survey, critical commentary, verbal history, archival and other material as relevant to the particular areas of theoretical and creative interest.

MUS912 Studies in Performance Technique 12cp

Spring Wollongong On Campus

Assessment: Students will normally be required to submit essays (up to 4,000 words) and give a presentation of a lecture-recital or equivalent work on a topic related to technique and performance in the student's area of specialisation.

Subject Description: Students will attend and participate in a performance seminar.

MUS913 Major Presentation - Music Performance 24cp

Annual Wollongong On Campus

Assessment: Assessment will be by two internal assessors. Students will be awarded a "satisfactory" or "unsatisfactory" grade for this subject.

Subject Description: A 50 minute recital of major works from the instrumental or vocal repertoire, given in the final session of a student's full-time enrolment (or equivalent), is required. The recital program should be approved well in advance by the supervisor(s). A presentation of a concerto or equivalent work of approximately 20 to 30 minutes duration is also required. The work (which may, in the case of longer works, be a movement or movements of a concerto) should be chosen in consultation with the supervisor(s) and may be presented with piano reduction as accompaniment.

Detailed annotations for both the concerto and recital presentation, of approximately 2,000 words, must be provided four weeks in advance of recital dates. Students must submit a detailed outline of their proposed work for the Major Presentation to the supervisor(s) by the fourth week of enrolment. A cross disciplinary approach may be possible.

MUS914 Major Presentation - Music Composition 24cp

Annual Wollongong On Campus

Assessment: Assessment will be by two internal assessors. Students will be awarded a "satisfactory" or "unsatisfactory" grade for this subject.

Subject Description: Submission of the following is required: 1. A portfolio of at least four compositions, including one major work for large resources or performance media. 2. Sketches, recordings and other supporting material. 3. Analytical commentaries on the works submitted of approximately 2,000 words. The submission is due in the final session of a student's full-time enrolment or equivalent. Students must submit a detailed outline of their proposed work for the Major Presentation to the supervisor(s) by the fourth week of enrolment. A cross-disciplinary approach may be possible.

MUS915 Studies in Composition Technique 12cp

Spring Wollongong On Campus

Assessment: Assessment will be by the Subject Co-ordinator or nominee.

Subject Description: Students will participate in composition seminars and workshops. They will be required to complete a project in one of the following areas (following consultation with the supervisor/s): orchestration; studies in traditional compositional techniques; studies in computer music; multi-media collaborative project.

THEA910 Theatre Analysis 12cp

Autumn Wollongong On Campus

Assessment: Assessment will be by the Subject Co-ordinator or nominee and will consist of essays (up to 8,000 words).

Subject Description: The student will undertake research based analysis, the scope of which may include the survey of historical and archival material, verbal history, critical commentary or the specific detailing of contemporary performance/production methodologies. This analysis should address a particular aspect of the dramaturgy.

THEA911 Advanced Techniques in Theatre 12cp

Spring Wollongong On Campus

Assessment: Assessment will be determined by the Subject Co-ordinator (or nominee) and will consist of essays of up to 8,000 words.

Subject Description: Students will write essays that directly relate historical analysis and development of experimental or new technologies and methodologies with the intention and process of their creative work.

THEA913 Major Presentation – Theatre 24cp**Annual** Wollongong On Campus

Assessment: Students will give a public presentation accompanied by a 2,000 word analysis of the performance process. Assessment will be by two internal assessors. Students will be awarded a "satisfactory" or "unsatisfactory" grade for this subject.

Subject Description: The major presentation is the planning and implementation of a practical demonstration of the research and thesis development associated with THEA910 and THEA911. The parameters of the Presentation must be negotiated with the supervisor(s). Students must submit a detailed outline of their proposed work for the Major Presentation to the supervisor(s) by the fourth week of enrolment. A cross disciplinary approach may be possible.

THES924 or THES912 - Thesis**Thesis (MA-R)****Autumn/ Spring** Wollongong On Campus

Assessment: By two external assessors.

Subject Description: Submission will be in the form of: scholarly thesis (100%); or scholarly thesis (50%) combined with creative work (50%). As a guide, submission by thesis only will be in the range of 40,000 to 50,000 words, with an equivalent workload where submission is by thesis (20,000 to 25,000 words) and creative work.

Examples of creative work submission include a folio of compositions or writing, exhibition of artwork and musical or dramatic performances. As a guide, the submission of creative work would normally not constitute less than the expectations in the subjects MUS913, MUS914, THEA913, VISA913, DESN913 or WRIT913 as applicable. The exact nature of each submission will vary according to the student's educational and professional background and will be negotiated in consultation with the Head of Postgraduate studies. A brief explanatory annotation may be submitted to support the creative work submission.

Thesis (MCA-R)**Autumn/ Spring** Wollongong On Campus

Assessment: By two external assessors.

Subject Description: Submission will be in the form of: creative work (research) (67%) combined with coursework for the two 12 credit point subjects (33%). The submission of creative work (research) will normally be by exhibition, performance or publication in the area of major, supported by written documentation (approximately 5,000 words) focusing on aspects such as origins of the work, structures and techniques used, and artistic theories underpinning the work.

The following is intended as a guide to the scale and style of creative work submission for the Thesis.

Creative Writing: Substantial folio of creative writing which may take the form of a large-scale project such as a novel (50,000 words), poetry collection (64 pages) or script (75 minutes duration) or consist of a combination of smaller pieces.

Graphic Design & New Media: Graphic design portfolio/exhibition and/or website/CD-Rom. As an example of content, designers would submit 10 to 15 graphic design works. Web designers would submit a major interactive web site or at least three smaller sites on the net.

Multimedia designers would submit a substantial interactive CD-Rom that demonstrates an innovative and professional design approach. All students must submit design roughs and supporting material for exhibition.

Music Composition: Folio of compositions including up to five compositions and at least one work that employs large resources or performance media.

Performance – Music: Two recitals demonstrating high levels of artistry and focus; normally such recitals would be chosen from a solo performance (up to 60 minutes), chamber music performance (up to 60 minutes), a concerto or equivalent (up to 40 minutes) and a lecture recital (up to 60 minutes).

Performance – Theatre: Demonstration of proficiency of technical assurance and artistry in one of the following: directing, performance management (facilitation of the rehearsal room for theatre, opera, dance, gallery), dramaturgy or performance in a production of 45 to 60 minutes duration.

Visual Arts: Major solo exhibition of artwork plus documented preliminary exhibitions. As an example of content, painters should submit at least eight to 12 major pieces, plus drawings and supporting material of exhibition standard. Equivalent amounts of work will be expected of students working in other areas of the visual arts.

Note: After three - six months of enrolment the candidate will be required to present a detailed outline of their proposed submission for the Thesis.

Thesis (DCA)**Autumn/ Spring** Wollongong On Campus

Assessment: By two external assessors.

Subject Description: The submission of the DCA will normally be by exhibition, performance or publication of creative work in the area of major, supported by written documentation (approximately 20,000 to 30,000 words) focusing on aspects such as origins of the work, structures and techniques used, and artistic theories underpinning the work. It may be appropriate to support written material with documentation in other forms, for example, photographs or sound and video recordings. In all cases, the dissertation is intended to be an integrated part of the full submission and, wherever possible, to argue the case for the merit and originality of the creative work. The Faculty is keen that the dissertation should be a vital and engaging document. It therefore permits some flexibility in the style of its submission. Nonetheless, the dissertation should be presented in a well-researched form that demonstrates an understanding of scholarly method.

The following is intended as a guide to the scale and style of creative work submission:

Creative Writing: Substantial folio of creative writing which may take the form of a large-scale project such as a novel (75,000 words), poetry collection (80 pages) or playscript (90 minutes duration), or consist of a combination of smaller pieces.

Graphic Design & New Media: Graphic design portfolio/exhibition and/or website/CD-Rom.

Music Composition: Folio of up to 10 compositions and several works that employ large resources or performance media.

Performance – Music: Three or four recitals demonstrating high levels of artistry and focus; normally such recitals include full-length solo and chamber music performances, a concerto or equivalent and a lecture recital.

Performance – Theatre: Direction or facilitation of a production of no less than 90 minutes' duration; significant dramaturgical analysis and portfolio of a full-length theatrical performance; or performance in a leading role demonstrating high levels of technical assurance and artistry.

Visual Arts: Major solo exhibition of artwork plus documented preliminary exhibitions.

In all cases, the submission should demonstrate originality and high levels of artistry and specialist skill. The work should be of a publishable standard, should show an engagement with artistic and intellectual ideas and have a strong artistic and academic focus. The Faculty expects that candidates for the DCA will complete artistic work, research and reflection that they may not otherwise have had the opportunity to undertake. Wherever possible, exhibitions and performances will be held at the University of Wollongong or associated venues. Under some circumstances external or professional engagements by DCA candidates may form a part of the submission. The exact nature of each student's program will be finalised in consultation with the supervisor(s) and the Head of Postgraduate Studies.

Students presenting their work by exhibition or performance are required to present their dissertation for examination no later than three months after the final performance or exhibition. Students presenting their work by folio or similar means should present their dissertation and folio in one submission.

Thesis (PhD)

Autumn/ Spring Wollongong On Campus

Assessment: By two external assessors.

Subject Description: As a guide, submission by thesis only will be in the range of 60,000 to 90,000 words, with an equivalent workload where submission is by thesis and creative work. The exact nature of each submission will vary according to the student's educational and professional background and will be negotiated in consultation with the supervisor(s) and the Head of Postgraduate Studies. Examples of creative work submission include a folio of compositions or writing, exhibitions of artwork and musical or dramatic performances. As a guide, the scale of the submission of creative work would normally not constitute significantly less than for the Doctor of Creative Arts.

Thesis (PhD - Journalism)

Autumn/ Spring Wollongong On Campus

Assessment: By two external assessors.

Subject Description: This subject requires the submission of a scholarly thesis in the range of 80,000 to 100,000 words. The exact nature of each submission will vary according to the student's educational and professional background and will be negotiated in consultation with the supervisor(s) and the Head of Postgraduate Studies.

VISA910: Visual Arts Theory 12cp

Autumn Wollongong On Campus

Assessment: Assessment will be by the Subject Co-ordinator or nominee and will be by presentation of two essays of approximately 4,000 words each on topics related to the seminar series and after consultation with the lecturer.

Subject Description: This subject aims to explore contemporary arts practice and theory in order that students may place their own work within the broader contexts of arts practices, and the debates and developments in the global field of visual culture and postcolonial arts.

VISA911 Studies In Process and Analysis - Visual Arts 12cp

Spring Wollongong On Campus

Assessment: See Subject description.

Subject Description: In consultation with the Subject Co-ordinator, students will prepare a visual journal of their creative work. This will show an analysis of the processes, experimentation, materiality and content of the work. This journal documentation will be accompanied by an essay of 2,000 words. Students will also present a seminar on visual process in the context of their field. Students will be expected to work at an advanced level and with a high degree of independence in their chosen studio discipline.

VISA913 Major Presentation - Visual Arts 24cp

Annual Wollongong On Campus

Assessment: Assessment will be by two internal assessors. Students will be awarded a "satisfactory" or "unsatisfactory" grade for this subject.

Subject Description: Students will present a substantial exhibition of work that reflects technical skill, knowledge and use of materials, and an ability to develop, sustain and execute original ideas in a cohesive and thematic way. Preparation of the Major Presentation should occupy students for at least four hours per day for the period of enrolment. As an example of content, painters should submit at least eight major pieces plus drawings and supporting material of exhibition standard. Equivalent amounts of work will be expected of students working in other areas of the visual arts. Students must submit a detailed outline of their proposed work for the Major Presentation to the supervisor(s) by the fourth week of enrolment. A cross disciplinary approach may be possible.

WRIT910 Analysis of Texts 12cp

Autumn Wollongong On Campus

Assessment: Students will present three seminars on topics decided upon in consultation with the Subject Co-ordinator. After the seminar, each presentation will be written up and submitted in the form of an essay of approximately 2,500 words.

Subject Description: In fortnightly seminars students will undertake a detailed study of relevant texts in their area of specialisation, which may be in poetry, prose fiction or script writing. The subject aims to develop and refine the ability to trace in detail the relationship between the effects gained by a text and the techniques of writing used to achieve them.

WRIT911 Literary Composition 12cp**Spring** Wollongong On Campus

Assessment: Assessment will be based on approximately 5,000 words of experimental writing and self-evaluation of the effectiveness of the techniques used.

Subject Description: In fortnightly seminars students will be required to develop and refine their awareness of the techniques and processes of literary composition and to demonstrate their control of these through the composition of a major piece of writing in a mode outside of their usual practice. Students will be required to outline the effects they are seeking in their writing and to describe and evaluate the techniques they have employed to achieve those effects.

WRIT913 Major Presentation - Creative Writing 24cp**Annual** Wollongong On Campus

Pre/Co-requisites: WRIT910 and WRIT911

Assessment: Assessment will be by two internal assessors. Students will be awarded a "satisfactory" or "unsatisfactory" grade for this subject.

Subject Description: Students will present either a work of prose fiction (minimum 25,000 words); or a collection of poetry (48 pages); or a 60 minute theatre/film/television script. Students must submit a detailed outline of their proposed work for the major presentation to the supervisor(s) by the fourth week of enrolment. A cross disciplinary approach may be possible.

EDUCATION SUBJECT DESCRIPTIONS

EDGA806 Practicum in Adult Education 8cp

Autumn/ Spring Wollongong Flexible

Co-requisites: EDGH993 and EDGH994

Subject Description: The practicum in the GDipAdEd allows students to demonstrate their knowledge and performance skills in their work environment. They must demonstrate such basic professional competencies as needs assessment, course design, development, implementation, evaluation, and change management. The practicum is based on an individually defined and negotiated learning contract. Initial meetings will focus on refining ideas and developing a proposal after which students undertake their project with help from a nominated supervisor.

EDGA917 International & Intercultural Perspectives 8cp

Spring Wollongong On Campus

Subject Description: Learning and teaching is strongly influenced by international developments in education and by multicultural learning environments. Students will critically analyse curriculum and instruction from contemporary international and intercultural perspectives. The issues of language policy, intercultural communication, ethnicity, culture, power and student participation will be examined. Students will explore concepts of international education through a comparative education perspective, including education in less industrialised regions of the world and education for minority groups.

EDGA920 Curriculum Problems and Issues in Physical and Health Education 8cp

Not on offer in 2004

Subject Description: This subject will examine the development of the curriculum in Physical and Health Education from an historical and social perspective. Particular issues will be taken as case studies. This subject is also intended to assist teachers in clarifying their position in relation to the PDHPE curriculum so that they may take a greater part in the curriculum change process itself and make considered judgements in its implementation.

EDGA921 Scientific Bases of Health Education 8cp

Not on offer in 2004

EDGA924 Adolescent Health Status and Behaviour 8cp

Not on offer in 2004

Subject Description: Adolescence provides a crucial access point for the improvement of health, not only now but in adult life and in the next generation. This subject will explore the nature of adolescence and those factors influencing adolescent health. It will examine various strategies implemented in schools and the community to improve adolescent health. It will also examine the assumptions underpinning the adoption of particular approaches rather than others.

EDGA959 Adult Literacy 8cp

Autumn/Spring Wollongong Flexible

Subject Description: Adult literacy education involves assistance for those who have basic literacy problems as well as those who need to extend their language abilities in workplace. This subject will examine how to identify the language demands of various contexts in which adults need to employ various literacy skills, to diagnose the literacy needs of adult clients, and to develop programs to assist clients to extend their literacy proficiency.

EDGA970 Early Language and Literacy Development 8cp

Not on offer in 2004

Subject Description: This subject focuses on language development in early childhood. It highlights theories of language learning, models of language, milestones in development, socio-cultural variation, and the implications for teaching and assessment strategies.

EDGA971 Assessment and Evaluation of Language and Literacy 8cp

Autumn/Spring Wollongong Flexible
Autumn/Spring Wollongong Distance
Autumn Minnesota (USA) On Campus

Subject Description: This subject examines both past and current issues and theoretical underpinnings of evaluating student learning. It will critically examine these issues in terms of contemporary theories of language and literacy learning. It will draw on recent research and theory related to the areas of psychometrics, qualitative evaluation, and linguistics. Students will also be required to trial and evaluate a range of assessment and evaluation instruments and procedures. The current move to standards and benchmarks will be addressed.

EDGA977 Communication and Learning 8cp

Not on offer in 2004

Subject Description: This subject examines the relationships which exist between communication, comprehension and learning. Research into the characteristics of effective communication and instruction, and the nature of classroom discourse will be critically analysed and its significance for teaching practice considered. The role of collaborative talk in learning to be literate will be of special interest.

EDGA978 Literacy Practices For Diverse Needs 8cp

Not on offer in 2004

Subject Description: The subject will introduce students to mainstream classroom practices with regard to the literacy development of students from various 'minority' backgrounds (NESB students, students with reading difficulties, gifted and talented). It will examine ways in which mainstream programs can be adapted to meet particular literacy needs, the ways in which mainstream teachers can work with specialist teachers,

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the diagnosis and assessment of students' literacy proficiency, and evaluation of literacy programs.

EDGA985 English in Specific Contexts 8cp

Not on offer in 2004

Pre-requisites: EDGA976

Subject Description: This subject prepares students to design and teach English projects and programs which address the needs of a specific clientele (e.g. English for Business, in the Workplace, for new arrivals). It examines how language varies across cultural contexts (nationally or internationally) and deals with methods for exploring the contexts and relevant language (academic, vocational, social, personal), using these analyses in the study of projects, teaching programs and materials.

EDGA987 Children's Literature 8cp

Not on offer in 2004

Subject Description: Students will be guided towards an appreciation, enjoyment, evaluation and critique of a broad range of children's literature in the light of various theories of literary criticism. In addition, participants will become familiar with a number of strategies relating to children's literacy for use in the classroom. Students will be asked to consider the apparent assumptions about children as readers in the texts examined and the relationship between new technologies and children's literature.

EDGA988 Aspects of Linguistics for TESOL 8cp

Not on offer in 2004

Subject Description: This subject provides an introduction to a range of issues in linguistics, sociolinguistics and psycholinguistics which provide the foundations for theory, research and practice in second language development. Subject content will be selected from areas such as first language acquisition, language variation and change, language typology, syntax, phonology, and semantics.

EDGC800 Practicum 6cp

Annual Wollongong On Campus

Subject Description: This subject is compulsory practicum component of the degree. It focuses on field experience in schools and on practice teaching in schools. Emphasis is placed on lesson planning and classroom management, and catering for a diversity of learners in the classroom. Students will also be required to reflect on the role of the teacher in child protection and welfare.

EDGC811 Understanding Learning A 6cp

Autumn Wollongong On Campus

Subject Description: This subject explores the nature of the learner and the role of the teacher. It will include a focus on the psychology and pedagogy of learners with an emphasis on their diverse needs. Issues of classroom management will be explored through the lens of the diversity of learners and their environments. Issues relating to personal development and health will be explored, including child protection and welfare.

EDGC812 Professional Skills A 6cp

Autumn Wollongong On Campus

Subject Description: This subject covers the skills required of teachers as professionals. Emphasis on the development of language and literacy skills, encompassing communication, listening, interviewing, library researching, reporting and personal use of information and communication technology. Focus on developing awareness of school culture and the wider community, developing skills in intercultural communication, class management and protocol to support student welfare. Tertiary literacy development is expressed through the organization and presentation of assessment tasks in a developing portfolio.

EDGC813 Learning and Teaching Contexts A 6cp

Autumn Wollongong On Campus

Subject Description: This subject is a critical study of the educational policies, historical, social and cultural contexts and philosophical underpinnings of education as they apply to the experiences of learners in schools, in particular NSW schools. This subject focuses on the diversity of school contexts and learners, and the welfare of students. Teachers values, perceptions and judgements and the way these impact on assessment and evaluation of student learning are systematically explored in conjunction with processes of curriculum development, implementation and evaluation. Emphasis is placed on the ways in which gender, aboriginality, ethnicity, class, sexuality, and difference are constructed. Language use, teaching strategies, student welfare, assessment and information technology in the curriculum are critically examined.

EDGC821 Understanding Learning B 6cp

Spring Wollongong On Campus

Subject Description: This subject continues to develop understandings related to the nature of the learner and the role of the teacher. The key focus in this subject is on the particular needs of learners with special needs, including those who are gifted. The place of physical activity in school contexts will be examined.

EDGC822 Professional Skills B 6cp

Spring Wollongong On Campus

Subject Description: This subject covers the skills required of teachers as professionals operating within the school context. Emphasis is placed on school management organization and leadership; ESL skills; skills for teaching language across the curriculum and contemporary knowledge and language of the curriculum. This subject focuses on further development of information and communication technology skills, class management, group work and assessment of Learners with Special Needs. Tertiary literacies are expressed through the completion of a professional portfolio encompassing assessment tasks drawn from all subjects.

EDGC823 Learning and Teaching Concepts B 6cp**Spring** Wollongong On Campus

Subject Description: This subject is a critical study of the influence of social, historical and theoretical contexts for teaching and learning and the curriculum. By critically examining the theoretical trends in sociology and changes in philosophical ideals, students can make sense of our current teaching and learning milieu: local, national and global. This subject focuses on the use of reflection to understand the impact of teacher values, perceptions and judgements in assessment practices in these diverse contexts. A focus is on the principles of leadership and teamwork and practical approaches to responding to changing needs. It deepens the students' understanding of time, place and identity in relation to educational change.

EDGC851 Science Method A 6cp**Annual** Wollongong On Campus

Subject Description: This subject will cover the content of the NSW Year 7-10 syllabuses in Science. Included will be the teaching and assessment methods applicable to the NSW Years 7 to 10 syllabuses in Science. There will be critical examination of mandatory policies that affect teachers of Science (including child protection and occupational health and safety). This subject also covers the classroom management practices for teachers of Science. There will be critical examination of syllabuses in Science from other states and countries.

EDGC852 Science Method B 6cp**Annual** Wollongong On Campus

Subject Description: This subject will cover the content of the NSW Year 11-12 syllabuses in Science. Included will be the teaching and assessment methods applicable to the NSW Higher School Certificate in Science. There will be critical examination of mandatory policies that affect teachers of senior high school Science (including child protection and occupational health and safety). This subject also covers the classroom management practices for teachers of senior high school Science. There will be critical examination of syllabuses in senior high school Science from other states and countries.

EDGC853 Mathematics Method A 6cp**Annual** Wollongong On Campus

Subject Description: This subject will cover the content of the NSW Year 7-10 syllabuses in Mathematics. Included will be the teaching and assessment methods applicable to the NSW Years 7 to 10 syllabuses in Mathematics. There will be critical examination of mandatory policies that affect teachers of Mathematics (including child protection and occupational health and safety). Programming and planning methods for teaching Mathematics. This subject also covers the classroom management practices for teachers of Mathematics. There will be critical examination of syllabuses in Mathematics from other states and countries.

EDGC854 Mathematics Method B 6cp**Annual** Wollongong On Campus

Subject Description: This subject will cover the content of the NSW Year 11-12 syllabuses in Mathematics. Included will be the teaching and assessment methods applicable to the NSW Higher School Certificate in Mathematics. There will be critical examination of mandatory policies that affect teachers of senior high school Mathematics (including child protection and occupational health and safety). Programming and planning methods for teaching senior high school mathematics. This subject also covers the classroom management practices for teachers of senior high school Mathematics. There will be critical examination of syllabuses in senior high school Mathematics from other states and countries.

EDGC855 English Method 6cp**Annual** Wollongong On Campus

Subject Description: This subject will cover the content of the NSW Year 7-12 syllabuses in English. Included will be the teaching and assessment methods applicable to the NSW syllabuses in English. There will be critical examination of mandatory policies that affect teachers of English (including child protection and occupational health and safety). Programming and planning methods for teaching English. This subject also covers the classroom management practices for teachers of English. There will be critical examination of syllabuses in English from other states and countries.

EDGC856 History Method 6cp**Annual** Wollongong On Campus

Subject Description: This subject will cover the content of the NSW Year 7-12 syllabuses in History. Included will be the teaching and assessment methods applicable to the NSW syllabuses in History. There will be critical examination of mandatory policies that affect teachers of History (including child protection and occupational health and safety). Programming and planning methods for teaching History. This subject also covers the classroom management practices for teachers of History. There will be critical examination of syllabuses in History from other states and countries.

EDGC857 Social Science Method - (Geography) A 6cp**Annual** Wollongong On Campus

Subject Description: This subject will cover the content of the NSW Year 7-12 syllabuses in Geography. Included will be the teaching and assessment methods applicable to the NSW syllabuses in Geography. There will be critical examination of mandatory policies that affect teachers of Geography (including child protection and occupational health and safety). Programming and planning methods for teaching Geography. This subject also covers the classroom management practices for teachers of Geography. There will be critical examination of syllabuses in Geography from other states and countries.

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EDGC858 Social Science Method - (Economics) B 6cp

Annual Wollongong On Campus

Subject Description: This subject will cover the content of the NSW Year 7-12 syllabuses in Economics. Included will be the teaching and assessment methods applicable to the NSW syllabuses in Economics. There will be critical examination of mandatory policies that affect teachers of Economics (including child protection and occupational health and safety). Programming and planning methods for teaching Economics. This subject also covers the classroom management practices for teachers of Economics. There will be critical examination of syllabuses in Economics from other states and countries.

EDGC859 English As A Second Language Method 6cp

Annual Wollongong On Campus

Subject Description: Included will be the teaching and assessment methods applicable to ESL students. There will be critical examination of mandatory policies that affect ESL teachers (including child protection and occupational health and safety). Programming and planning methods for teaching ESL. This subject also covers the classroom management practices for ESL teachers. There will be critical examination of policies from other states and countries that relate to ESL teaching.

EDGC861 Method for Primary Teachers A (K-2) 6cp

Annual Wollongong On Campus

Subject Description: Included will be the teaching and assessment methods applicable to Early Stage 1 / Stage 1 students (K-2). There will be critical examination of mandatory policies that affect Primary Stage 1 teachers (including child protection and occupational health and safety). Programming and planning methods for teaching Primary Stage 1. This subject also covers the classroom management practices for Primary Stage 1 teachers. There will be critical examination of curriculum and relevant policies from other states and countries that relate to the first three years of learning.

EDGC862 Method for Primary Teachers B (3-6) 6cp

Annual Wollongong On Campus

Subject Description: Included will be the teaching and assessment methods applicable to Stage 2 / Stage 3 (years 3-6). There will be critical examination of mandatory policies that affect Stage 2 / Stage 3 (3-6) teachers (including child protection and occupational health and safety). Programming and planning methods for teaching Stage 2 / Stage 3 (3-6). This subject also covers the classroom management practices for Primary (3-6) teachers. There will be critical examination of policies from other states and countries that relate to the next four years of learning.

EDGC871 Music Method A 6cp

Annual Wollongong On Campus

Subject Description: This subject will cover the content of the NSW Year 7-10 syllabuses in Music. Included will be the teaching and assessment methods applicable to the NSW

Years 7 to 10 syllabuses in Music. There will be critical examination of mandatory policies that affect teachers of Music (including child protection and occupational health and safety). Programming and planning methods for teaching Music. There will be critical examination of syllabuses in Music from other states and countries.

EDGC872 Music Method B 6cp

Annual Wollongong On Campus

Subject Description: This subject will cover the content of the NSW Year 11-12 syllabuses in Music. Included will be the teaching and assessment methods applicable to the NSW Years 11 and 12 syllabuses in Music. There will be critical examination of mandatory policies that affect teachers of Music (including child protection and occupational health and safety). Programming and planning methods for teaching Music to Years 11 and 12. This subject also covers the classroom management practices for teachers of Music. There will be critical examination of Year 11 and 12 syllabuses in Music from other states and countries.

EDGC873 Visual Arts Method A 6cp

Annual Wollongong On Campus

Subject Description: This subject will cover the content of the NSW Year 7-10 syllabuses in Visual Arts. Included will be the teaching and assessment methods applicable to the NSW Years 7 to 10 syllabuses in Visual Arts. There will be critical examination of mandatory policies that affect teachers of Visual Arts (including child protection and occupational health and safety). Programming and planning methods for teaching Visual Arts. This subject also covers the classroom management practices for teachers of Visual Arts t. There will be critical examination of syllabuses in Art from other states and countries.

EDGC874 Visual Arts Method B 6cp

Annual Wollongong On Campus

Subject Description: This subject will cover the content of the NSW Year 11-12 syllabuses in Visual Arts. Included will be the teaching and assessment methods applicable to the NSW Years 11 and 12 syllabuses in Visual Arts. There will be critical examination of mandatory policies that affect teachers of Visual Arts (including child protection and occupational health and safety). Programming and planning methods for teaching Art to Years 11 and 12. This subject also covers the classroom management practices for teachers of Visual Arts. There will be critical examination of Year 11 and 12 syllabuses in Visual Arts from other states and countries.

EDGC875 Drama Method 6cp

Annual Wollongong On Campus

Subject Description: This subject will cover the content of the NSW Year 7-12 syllabuses in Drama. Included will be the teaching and assessment methods applicable to the NSW syllabuses in Drama. There will be critical examination of mandatory policies that affect teachers of Drama (including child protection and occupational health and safety). Programming and planning methods for teaching Drama. This subject also covers the classroom management practices for

teachers of Drama. There will be critical examination of syllabuses in Drama from other states and countries.

EDGC876 French Method 6cp

Annual Wollongong On Campus

Subject Description: This subject will cover the content of the NSW Year 7-12 syllabuses in French. Included will be the teaching and assessment methods applicable to the NSW syllabuses in French. There will be critical examination of mandatory policies that affect teachers of French (including child protection and occupational health and safety). Programming and planning methods for teaching French. This subject also covers the classroom management practices for teachers of French. There will be critical examination of syllabuses in French from other states and countries.

EDGC877 Italian Method 6cp

Annual Wollongong On Campus

Subject Description: This subject will cover the content of the NSW Year 7-12 syllabuses in Italian. Included will be the teaching and assessment methods applicable to the NSW syllabuses in Italian. There will be critical examination of mandatory policies that affect teachers of Italian (including child protection and occupational health and safety). Programming and planning methods for teaching Italian. There will be critical examination of syllabuses in Italian from other states and countries.

EDGC878 Japanese Method 6cp

Annual Wollongong On Campus

Subject Description: This subject will cover the content of the NSW Year 7-12 syllabuses in Japanese, specifically Italian or French. Included will be the teaching and assessment methods applicable to the NSW syllabuses in Japanese. There will be critical examination of mandatory policies that affect teachers of Japanese (including child protection and occupational health and safety). Programming and planning methods for teaching Japanese. This subject also covers the classroom management practices for teachers of Japanese. There will be critical examination of syllabuses in Japanese from other states and countries.

EDGC881 Computer Studies Method A 6cp

Annual Wollongong On Campus

Subject Description: This subject will cover the content of the NSW Year 7-10 syllabuses in Computer Studies. Included will be the teaching and assessment methods applicable to the NSW School Certificate in Computer Studies. There will be critical examination of mandatory policies that affect teachers of Computer Studies (including child protection and occupational health and safety). Programming and planning methods for teaching Computer Studies for Years 7-10. This subject also covers the classroom management practices for teachers of Computer Studies for Years 7-10. There will be critical examination of syllabuses for Years 7-10 Computer Studies from other states and countries.

EDGC882 Computer Studies Method B 6cp

Annual Wollongong On Campus

Subject Description: This subject will cover the content of the NSW Year 11-12 syllabuses in Computer Studies. Included will be the teaching and assessment methods applicable to the NSW Higher School Certificate in Computer Studies. There will be critical examination of mandatory policies that affect teachers of senior high school Computer Studies (including child protection and occupational health and safety). Programming and planning methods for teaching senior high school Computer Studies. This subject also covers the classroom management practices for teachers of senior high school Computer Studies. There will be critical examination of syllabuses in senior high school Computer Studies from other states and countries.

EDGC883 Computer Studies Method 6cp

Annual Wollongong On Campus

Subject Description: The content of the NSW Year 7 - 12 syllabuses in Computer Studies. Teaching & assessment methods applicable to the NSW School Certificate and Higher School Certificate in Computer Studies. Critical examination of mandatory policies that affect teachers of Computer Studies. Programming and planning methods for teaching Computer Studies for Years 7 - 12. Critical examination of syllabuses for years 7 - 12 Computer Studies from other states and countries.

EDGC909 Teaching Internship 8cp

Not on offer in 2004

Subject Description: Students will design, implement and evaluate one or more integrated sequences of quality learning experiences extending over a period of about 10 weeks which display diversity of teaching strategies and techniques and encompass a wide range of learning styles. There will be a major emphasis on an ongoing reflective evaluation involving the student, peers, professional mentor and University staff culminating in a comprehensive critical analysis of the activities of the subject.

EDGC911 Advanced Perspectives 8cp

Not on offer in 2004

Subject Description: Students will work in small groups on aspects of Curriculum, Philosophy, Psychology and Sociology relevant to classrooms. Students will identify an investigation to be followed up on an individual basis through the literature and investigated in a professional context. The work will draw on skills from EDGZ900 Intro. to Research Methods, and make use of professional and institutional contacts developed in EDGC909 Internship. The report will be presented for critical analysis to the group and institutional stakeholders before being submitted for assessment.

EDGC912 Advanced Studies in the Key Learning Areas 8cp

Not on offer in 2004

Subject Description: This subject will require students to identify and examine the factors which are driving current curriculum changes. An analysis of these change processes will be undertaken within the context of contemporary

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curriculum theory and through a critical review of the current literature. Students will negotiate, plan, conduct and report an investigation of an educational issue in a KLA.

EDGE910 Early Childhood Curriculum Theory and Practice 8cp

Not on offer in 2004

Pre-requisites: CSC1101 or NSW HSC 3 unit computing studies or equivalent

EDGE911 Child Development 8cp

Not on offer in 2004

Pre-requisites: CSC1101 or NSW HSC 3 unit computing studies or equivalent

EDGE913 Music Education in Early Childhood 8cp

Not on offer in 2004

Pre-requisites: CSC1101 or NSW HSC 3 unit computing studies or equivalent

EDGH911 Instructional Design 6cp

Autumn Wollongong On Campus

Subject Description: This subject is presented through a combination of the www and four class meetings, each of 3 hours duration. Syndicate groups formed early in the process will meet independently as required to complete the design tasks, and chat spaces and E-mail will be used for progress reports and the sharing of design strategies and ideas. This subject is designed to provide the student with information, modelling and practice in applying Instructional Design (ID) principles to the design of a simple training program. Given a specific scenario, students are expected to prepare a design statement, complete a needs assessment, write a problem statement, perform task and instructional analyses, develop a curriculum map, and outline planning decisions related to assessment, instructional strategies, media selection, and program evaluation.

EDGH912 Project for Instructional Design 2cp

Autumn Wollongong On Campus

Co-requisites: EDGH911

Subject Description: There is no attendance requirement for this project, but students may arrange consultation times to suit their own requirements. Class or group meetings may be negotiated and the original www program (EDGH911) is available for reference as required by the individual. This subject involves an application of the understandings and skills developed through the study of EDGH911. It allows students to replicate the design process and generate a design statement relevant to a problem from their own workplace or some other appropriate environment

EDGH921 Evaluation and Assessment for Adult Learning 6cp

Spring Wollongong On Campus

Pre-requisites: EDGH911

Subject Description: Pattern of Study: This subject is presented through a combination of the www and class meetings. Chat spaces, DISCUS and E-mail will be used for progress reports and the sharing of decisions, strategies and ideas. This subject is designed for students to develop the essential knowledge, skills, understandings and attitudes which will ensure a sound approach to the assessment of learner performance in training and other educational situations. Students will be required to develop instruments for the assessment of trainee/student learning and the evaluation of instructional interventions. They will be required to justify their approach within the framework of an appropriate evaluation methodology.

EDGH922 Project for Evaluation and Assessment for Adult Learning 2cp

Spring Wollongong On Campus

Pre-requisites: EDGH921

Subject Description: Pattern of Study: This subject is presented through independent study and research. However, chat spaces, DISCUS and E-mail will be used for progress reports, the sharing of decisions, strategies and ideas, and the provision of feedback. Through involvement in this project students will understand the nature, role and principles of student assessment and course evaluation. They will exhibit skills in a range of tasks involved in assessment and evaluation, apply these understandings and skills to workplace context, and develop assessment and evaluation strategies based upon a selected evaluation model.

EDGH923 Adult Learning Strategies and Communication 6cp

Spring Wollongong On Campus

Pre-requisites: EDGH911

Subject Description: This subject is presented through a series of interactive workshops designed to provide students with experience of a range of instructional strategies for adult learning: on-line instruction, interactive multimedia, case study, gaming and simulation, role play, discussion methods, etc. This subject is designed to develop the capabilities of students to (a) select appropriate training/instructional strategies for stated training objectives and (b) design and produce high quality support materials for effective learning in a range of educational contexts. The subject builds upon prior studies in psychology and instructional design and contributes to student insight into the implementation stage of the design process. It comprises practical workshops in the development of instructional plans and strategies for learning. It considers the development of a climate conducive to learning and the design of appropriate learning sequences

EDGH924 Project for Adult Learning Strategies and Communication 2cp

Spring Wollongong On Campus

Pre-requisites: EDGH911

Co-requisites: EDGH932

Subject Description: Contact hours: Equivalent of 3hrs per week. Through involvement in this project students will be able to implement planned activities for student learning and reflect on both personal performance and student learning.

EDGH931 Psychology of Adult Learning 6cp**Autumn** Wollongong On Campus

Subject Description: As professionals engaged in the education and training of adults, students will be expected to develop an understanding of the dynamics, theories, principles and styles commonly identified in adult learning environments. They will consider the context of adult learning, the learner and the learning process. They will be expected to generate a theoretical base for adult learning and to link theory and practice.

EDGH932 Project for Psychology of Adult Learning 2cp**Autumn** Wollongong On Campus**Co-requisites:** EDGH931

Subject Description: As a result of their involvement in this project students will be able to relate theoretical perspectives to the characteristics of adult learners through critical analysis and synthesis of literature related to a particular aspect of adult learning.

EDGH933 Management and Organisational Context of Learning 6cp**Autumn** Wollongong On Campus

Subject Description: This subject focuses on the organisational and management aspects of adult education and training. The contextual focus includes the political context in which the adult educator or trainer must operate. It explores particular management/organisational issues related to the development of professional competency in the workplace.

EDGH934 Project for Management and Organisational Context of Learning 2cp**Autumn** Wollongong On Campus**Co-requisites:** EDGH933

Subject Description: This subject builds on the professional and theoretical perspectives gained from EDGH933 Management and Organisational Context of Learning. It provides the opportunity for students to explore more deeply a particular management/organisational issue related to the development of professional competency in preparing proposals for enhancing learning in the workplace. The project may take the form of a case study, or a proposal which must include an extensive rationale.

EDGH935 Issues in Adult in Education 6cp**Spring** Wollongong On Campus**Pre-requisites:** At least 16cp of subjects from Adult Ed. specialisation

Subject Description: This subject requires students to examine current issues facing professionals in the field: international issues such as problem-based learning, access to technology, distance education of adults, implementation of government policies, working with third age learners, equity, renewal of the workforce, and workplace literacy. Students will consider psychological bases for adult learning and teaching, learning contexts and the management of adult teaching and learning.

EDGH936 Project for Issues in Adult Education 2cp**Spring** Wollongong On Campus**Pre/Co-requisite(s):** EDGH935

Subject Description: Successful completion of this subject entails the evaluation of a significant issue in adult learning and teaching, with specific reference to workplace or other contextual applications.

EDGH940 Adult Career Development 6cp**Autumn/Spring** Wollongong Distance**Exclusions:** EDGA990 or EDGA998

Subject Description: This subject introduces the area of adult career development and how the professional supports the process. It introduces the core theories of career development and reviews the selection of a range of career development resources that might be used to help clients. This core subject also examines the personal goals of the career development worker so that the areas for development are related to their own career progression.

EDGH942 Adult Career Development and the Organisation 6cp**Autumn/ Spring** Wollongong Distance**Pre-requisites:** EDGH940**Exclusions:** EDGA990 or EDGA998

Subject Description: This subject will review the elements of career development within the organisation, it will examine appropriate systems, strategies and how they can be linked to organisational goals. Examples discussed are mentoring systems, workshops, outplacement, redeployment and career coaching. The final module in the subject will examine the role new technologies can play within the process of developing careers. New methods will include the informal, such as email and more formal methods, such as organisational databases for shared learning and tracking progress.

EDGH944 Adult Career Development with Clients 6cp**Autumn/ Spring** Wollongong Distance**Pre-requisites:** EDGH940**Exclusions:** EDGA990 or EDGA998

Subject Description: This subject will focus upon the understanding and skills required of a person providing career development support services. It will identify the differences between this role and other counselling roles and will examine styles of helping and identify methods of conflict resolution. The subject will develop specific career support skills including, problem exploration and clarification, client agreements, dynamics of the helping relationship and client occupational decision making. The effective career outcomes will be examined by reference to roadblocks, constraints, mapping and implementing options, action planning, resources and the problems of transition.

Subject Descriptions

EDGH946 Practicum or Project in Adult Career Development 6cp

Autumn/ Spring Wollongong Distance

Pre-requisites: EDGH940 and one of EDGH942 or EDGH944

Exclusions: EDGA836

Subject Description: This subject provides an opportunity to demonstrate the ability to integrate the essential knowledge, skills, understandings, attitudes and values developed throughout the course. Through the project, students will demonstrate that they have the basic professional competencies to which the preceding subjects have been directed. Students will have the opportunity to synthesise their learnings in the areas of designing adult career development options, implementing and evaluating their effectiveness.

EDGI911 Information Technology in Education and Training 6cp

Autumn Wollongong On Campus

Autumn Wollongong Flexible

Autumn Hong Kong On Campus

Subject Description: This subject provides a basic introduction to information technology in education and training. As such, it is an overview of the range of issues and topics that will be further elaborated upon in subsequent subjects. The subject explores the concept of information technology and the ways in which the educational enterprise is affected by it. Topics include: The Technology: Hardware, software, media; Learning Theory; Formal Learning Environments; Instructional Design Process; Teaching and Learning Strategies; and Informal Learning Environments.

EDGI912 Project for EDGI911 2cp

Autumn Wollongong On Campus

Autumn Wollongong Flexible

Autumn Hong Kong On Campus

Co-requisites: EDI911

Subject Description: This is an optional project component to be taken in conjunction with EDGI 911. The 2 cp Project extends the opportunity to study the issues of EDGL911 Instructional Design.

EDGI913 Instructional Strategies and Authoring 6cp

Autumn Wollongong Flexible

Autumn Wollongong On Campus

Autumn Hong Kong On Campus

Subject Description: This subject examines instructional strategies employed in a range of technology-supported learning environments, focusing particularly on CD-based multimedia applications. Learners develop their understanding of a variety of strategies through the design and development of small multimedia prototypes, using written documentation and authoring tools to explore and present their ideas.

EDGI914 Project for EDGI913 2cp

Autumn Wollongong Flexible

Autumn Wollongong On Campus

Autumn Hong Kong On Campus

Co-requisites: EDGI913

Subject Description: This is an optional project component to be taken in conjunction with EDGI 913. The 2 cp Project extends the opportunity to study the issues of EDGI913 Instructional Strategies and Authoring.

EDGI915 Network-Based Learning 6cp

Spring Wollongong Flexible

Spring Hong Kong On Campus

Subject Description: This subject examines the design and research that surrounds the development of flexible learning systems and the application of computer mediated communications using the Web and other networked environments. Topics include: The design of information structures for use with hypertext; The design and development of graphical and textual interfaces; and The communication models which can be implemented for Web-based learning.

EDGI916 Project for EDGI915 2cp

Spring Wollongong Flexible

Spring Hong Kong On Campus

Subject Description: This is an optional project component to be taken in conjunction with EDGI 915. The 2 cp Project extends the opportunity to study the issues of EDGI915 Network-Based Learning

EDGI931 Interactive Multimedia Design 6cp

Spring Wollongong Flexible

Pre-requisites: EDGI911 and EDGI913

Subject Description: This subject explores the instructional issues important in the design of media resources for Web and CD-based multimedia educational materials. Students will have an opportunity to design their own multimedia treatments for concepts of their choice, and using the software tools available, develop these into small on-screen presentations.

EDGI932 Project for EDGI931 2cp

Spring Wollongong Flexible

Co-requisites: EDGI932

Subject Description: This is an optional project component to be taken in conjunction with EDGI 915. The 2 cp Project extends the opportunity to study the issues of EDGI916 Network-Based Learning

EDGI933 Implementation and Evaluation of Technology-Based Learning 6cp

Spring Wollongong Flexible

Spring Hong Kong On Campus

Subject Description: This subject is designed to investigate the links between educational evaluation and implementation, particularly where learning is being supported by information technologies. It seeks to define the basic issues facing the practitioner when they are trying to manage technology-based learning projects and to answer such questions as: Is the project effective? Is there a problem with the design or the way it is implemented? How might it be changed or modified?

Students will use on-line tools and work collaboratively over the Web.

EDGI934 Project for EDGI933 2cp

Spring	Wollongong	Flexible
Spring	Hong Kong	On Campus

Co-requisites: EDGI933

Subject Description: This is an optional project component to be taken in conjunction with EDGI933. The 2 cp Project extends the opportunity to study the issues of EDGI933 Implementation and Evaluation of Technology-Based Learning

EDGI951 Visual and Interface Design 6cp

Autumn	Wollongong	Flexible
Autumn	Hong Kong	On Campus

Subject Description: In the design of interactive learning systems, the development of an effective interface requires not only an understanding of the structure of the knowledge domain but also the most effective way to represent this structure to users and allow it to be manipulated in the pursuit of the desired outcome. This subject discusses the role of effective visualization and screen design and the ways it can facilitate understanding by learners/users of software. Topics focus on how visual design and metaphor support reduction in cognitive load, how effective electronic performance support systems support work through complex tasks, and how usability can be investigated.

EDGI952 Project for EDGI951 2cp

Autumn	Wollongong	Flexible
Autumn	Hong Kong	On Campus

Subject Description: This is the project for EDGI951

EDGI953 Current Issues in Information Technology in Education and Training 6cp

Not on offer in 2004

Subject Description: This subject involves an investigation of current key and topical research and design issues in information technology in education and training. It incorporates a review of the most recent technical and educational developments in this area, and offers students an opportunity to investigate a specific issue of interest in detail. It is expected that students will critically review the topic and develop a view on its implications for learning.

EDGI954 Project For EDGI954 2cp

Not on offer in 2004

Subject Description: This is the project for EDGI954

EDGI955 Research In Learning Environments 6cp

Not on offer in 2004

Subject Description: This subject builds on the research work of the Educational Multimedia Laboratory research program. Students will work with a mentor to develop a research proposal that can be presented for Faculty approval as a future Masters (Research) or Doctoral study.

EDGI956 Project For EDGI955 - Research In Learning Environments 2cp

Not on offer in 2004

EDGI957 Digital Learning Systems Design 6cp

Not on offer in 2004

Pre-requisites: EDGI913 and/or EDGI911

Subject Description: This subject focuses on design, development and management issues associated with creating technology-supported learning environments. The detailed issues of design will be examined through the use of instructional design models based on theoretical views of learning and through the analysis of real-life cases. Teams of students will work together to develop a project that addresses a specific educational or training problem through to an advanced prototype.

EDGI958 Project for EDGI957 2cp

Not on offer in 2004

Co-requisites: EDGI957

Subject Description: This is an optional project component to be taken in conjunction with EDGI 957. The 2 cp Project extends the opportunity to study the issues of EDGI 957 (Un) Intelligent Computer Mediated Learning Systems

EDGL901 Foundations of Educational Leadership 6cp

Autumn	Wollongong	Flexible
Autumn	Wollongong	On Campus

Subject Description: This core subject provides students with the range of foundational understandings essential for understanding the leadership function in education and training organisations. The content covers the main areas of intellectual understanding which underpin 'futures oriented' effective leadership, by developing conceptual understandings of: policy context and planning; sociological pressures; futurism; economic realities and education; curriculum leadership and planning; and change strategies.

EDGL902 Project in Foundations of Educational Leadership 2cp

Autumn	Wollongong	Flexible
Autumn	Wollongong	On Campus

Pre-requisites: EDGL901

Subject Description: The 2 cp Project extends the opportunity to study the issues of EDGL901 Foundations of Educational Leadership. In general a major project or case study will form the basis of the additional work for the extra 2 cp undertaken

EDGL903 Introduction to Educational Management 6cp

Spring	Wollongong	Flexible
Spring	Wollongong	On Campus

Subject Description: This core subject provides students with the range of foundational understandings essential for understanding the management function in education and training organisations. The content topics are selected to introduce the main areas of intellectual understanding which

Subject Descriptions

underpin present oriented effective management by developing conceptual understandings of: adult education and training; staff development; information systems; financial management; personal management skills- as they contribute to the management function of educational organisations.

EDGL904 Project For EDGL903 2cp

Spring	Wollongong	Flexible
Spring	Wollongong	On Campus

Pre-requisites: EDGL903

Subject Description: The 2 cp Project extends the opportunity to study the issues of EDGL903 Introduction to Educational Management. In general a major project or case study will form the basis of the additional work for the extra 2 cp undertaken

EDGL905 International Trends In Educational Leadership 6cp

Spring	Wollongong	On Campus
Spring	Wollongong	Flexible

Pre-requisites: EDGL901 or EDGL903

Subject Description: Contact hours: 3 hr/ week or equivalent This core subject provides a futures oriented context and understanding to the development and implementation of education and training policies in a rapid change, globalising economy. Selected content areas include: internationalisation of economies and social systems; policy and planning implications of weakened nation states, and the emergence of global social, economic, and legal systems; international perspectives on education and training; approaches to policy and planning in comparative social systems; the limitations of central policy and planning systems in rapid change customer focussed contexts; emerging methodologies for effective policy and planning in education and training systems and organisations.

EDGL906 Project For EDGL905 2cp

Spring	Wollongong	On Campus
Spring	Wollongong	Flexible

Co-requisites: EDGL905

Subject Description: The 2 cp Project extends the opportunity to study the issues of EDGL905. In general a major project or case study will form the basis of the additional work for the extra 2 cp undertaken

EDGL907 Leadership For Organisational Effectiveness. 6cp

Spring	Wollongong	Flexible
Spring	Wollongong	On Campus

Pre-requisites: Permission of subject co-ordinator

Subject Description: This course will examine the concept of organizational effectiveness and its relationship to the leadership function in a professional service organization. Participants will critique selected internal and externally driven frameworks to diagnose organizational effectiveness and their appropriateness to their own workplace. They will also examine different approaches to building organizational effectiveness and consider their relevance to their own

workplace, together with leadership implications of building a quality organization.

EDGL908 Project For EDGL907 2cp

Spring	Wollongong	Flexible
Spring	Wollongong	On Campus

Pre-requisites: Permission of subject co-ordinator

EDGL909 Leadership of Effective Change 6cp

Autumn	Wollongong	Flexible
Autumn	Wollongong	On Campus

Pre-requisites: 18 credit points of EDGL subjects or equivalent

Subject Description: The topics, case studies, and projects of this subject are selected to develop effective leadership strategies for implementing effective change in education and training organisations. They include: characteristics of effective change; environmental scans; the critical role and importance of staff in implementing effective change; working through HR strategies to achieve effective change strategies for planning, implementing and monitoring effective change in professional service organisations, with a particular focus on project management techniques for effective change

EDGL910 Project In Leadership of Effective Change 2cp

Autumn	Wollongong	Flexible
Autumn	Wollongong	On Campus

Co-requisites: EDGL909

Subject Description: The 2 cp Project extends the opportunity to study the issues of EDGL909 Leadership of Effective Change. In general a major project or case study will form the basis of the additional work for the extra 2 cp undertaken.

EDGL911 Leadership of Curriculum and Instruction 6cp

Autumn	Wollongong	Flexible
Autumn	Wollongong	On Campus

Pre-requisites: EDGL901 or EDGL903

Subject Description: This core subject deals with the special leadership and management tasks of the education and training organisation. The particular features of professional service organisations dealing with education and training processes and outcomes will be highlighted. The leadership/management roles and tasks which both oversight and complement the professional roles of the curriculum and instructional specialist(s) will be particularly emphasised. The subject will take a practical, case study approach to the range of issues and concerns generated by the special leadership requirements of the educational organisation.

EDGL912 Project in Leadership of Curriculum and Instruction 2cp

Autumn	Wollongong	Flexible
Autumn	Wollongong	On Campus

Co-requisites: EDGL911

Subject Description: The 2 cp Project extends the opportunity to study the issues of EDGL911 Leadership of Curriculum and

Instruction. In general a major project or case study will form the basis of the additional work for the extra 2 cp undertaken.

EDGL913 Program Evaluation 6cp
Not on offer in 2004

Subject Description: A range of evaluation approaches, their assumptions and major methodologies which may be applicable in formal educational, non-formal and business and industry environments are discussed and critiqued. Students have the opportunity to participate in evaluation simulations and undertake and share their own evaluation as part of the subject. Issues addressed include: ethical priorities; program planning and budgeting; QA, accreditation; skill transfer and site based action research.

EDGL914 Project In Program Evaluation 2cp
Not on offer in 2004

Pre-requisites: EDGL913

Subject Description: The 2 cp Project extends the opportunity to study the issues of EDGL913 Program Evaluation. In general a major project or case study will form the basis of the additional work for the extra 2 cp undertaken.

EDGL915 Information Systems for Educational Leadership 6cp

Autumn	Wollongong	On Campus
Autumn	Wollongong	Flexible

Pre-requisites: EDGL901 or EDGL903

Subject Description: This core subject deals with the developing understandings and skills required of educational leaders in the transformational influence(s) of information systems and information technology on the education and training function. Topics will include: information systems and their impact on educational management; development of information analysis techniques; writing specifications for systems; linking information systems with management processes and organisational structures; issues for educational management; course delivery; logistics; records management; databases; and curriculum organisation.

EDGL916 Project In Information Systems for Educational Leadership 2cp

Autumn	Wollongong	On Campus
Autumn	Wollongong	Flexible

Pre-requisites: EDGL915

Subject Description: Project extends the opportunity to study the issues of EDGL915 Information Systems and Educational Leadership. In general a major project or case study will form the basis of the additional work for the extra 2 cp undertaken.

EDGL917 Quality Learning and Teaching 6cp

Spring	Wollongong	On Campus
Spring	Wollongong	Flexible

Subject Description: Students will examine the impact on learning communities of changing instructional and learning needs in relation to concepts of quality, effectiveness, improvement and accountability. Critical influences of learning contexts on learning outcomes will be considered. Students

will explore recent developments in learning and teaching theory in terms of the enhancement of reflective and self-directed learning, the encouragement of student voice, mentoring, and interactive multimedia teaching and learning strategies.

EDGL918 Project In Quality Learning and Teaching 2cp

Spring	Wollongong	On Campus
Spring	Wollongong	Flexible

Pre/Co-requisite: EDGL917

Subject Description: The 2 cp Project extends the opportunity to study the issues of EDGL917 Quality Learning and Teaching. In general a major project or case study will form the basis of the additional work for the extra 2 cp undertaken.

EDGL919 Mentoring Beginning Teachers 6cp

Autumn	Wollongong	Flexible
Autumn	Wollongong	On Campus

Subject Description: Theoretical framework: analysis and critique of relevant literature. Professional needs of beginning teachers. Context in terms of relevant policy documents. Mentoring as a model of promoting teachers development. Assessing teacher performance. Designing, implementing and evaluating a mentoring program.

EDGL920 Developing and Managing People 6cp

Spring	Wollongong	On Campus
Spring	Wollongong	Flexible

Subject Description: People constitute a major source of organisational advantage and success. This course deals with the leadership challenges of managing, motivating and energising people in human service organisations such as education. Drawing upon research and effectual/ineffectual exemplars, participants will consider people management strategies from a variety of perspectives: recruitment and induction, supervision and performance management, team building, conflict resolution, and professional development.

EDGL921 Project for EDGL920 2cp

Spring	Wollongong	Flexible
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Subject Description: The 2 cp Project extends the opportunity to study the issues of EDGL920 Developing and Managing People. In general a major project or case study will form the basis of the additional work for the extra 2 cp undertaken.

EDGP910 Introduction to Outdoor Education 6cp

Not on offer in 2004

EDGP911 Project for EDGP910 2cp

Not on offer in 2004

Subject Description: The 2 cp Project extends the opportunity to study the issues of EDGP910 Introduction to Outdoor Education. In general a major project or case study will form the basis of the additional work for the extra 2 cp undertaken.

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EDGP912 Facilitation Techniques in Outdoor Education 6cp

Autumn Wollongong On Campus

Contact hrs: 35 hrs

Subject Description: This subject is a complementary blend of theory and practice to highlight the various leadership, and management styles evident in outdoor education. Facilitation and processing techniques incorporated into outdoor education programs in a variety of pedagogical contexts will be examined. Specific content will explore various philosophies and methodologies used in adventure-based outdoor education programs and enable students to delineate common elements of individual facilitation techniques. Practical fieldwork will be used as a vehicle to integrate theory and practice. A variety of learning experiences will be presented which will enable students to gain an insight into how Outdoor Education is used as a catalyst for social and personal development.

EDGP913 Project for EDGP912 2cp

Autumn Wollongong On Campus

Co-requisites: EDGP912

Subject Description: This is an optional project component subject taken in conjunction with EDGP912 and not available separately. The 2 cp Project extends the opportunity to study the issues of EDGP912.

EDGP930 Theoretical and Practical Bases of Coach Education 6cp

Autumn/Spring Wollongong Flexible

Contact hrs: 3 hrs per week

Subject Description: This subject analyses current coaching theory related to pedagogical issues, time management and overseas developments in coaching. Students undertake an indepth analysis of the discipline areas applied to coaching. A conceptual framework of coaching both in Australia and overseas will be used with practical implications related to practice sessions in a variety of sport environments.

EDGP931 Project for EDGP930 2cp

Autumn/Spring Wollongong Flexible

Co-requisites: EDGP930

Subject Description: This is an optional project component subject taken in conjunction with EDGP930 and not available separately. The 2 cp Project extends the opportunity to study the issues of EDGP930.

EDGP932 Issues In Coach Education and Sport Management 6cp

Not on offer in 2004

EDGP933 Project For EDGP932 – Issues In Coach Education and Sport Management 2cp

Not on offer in 2004

EDGP934 Culture Politics of Sport, Leisure and Physical Education 6cp

Autumn Wollongong On Campus

Autumn Wollongong Flexible

Subject Description: This subject will examine contemporary debates and issues in the areas of sport, leisure and physical education from a critical perspective. It will examine how the knowledge, values and practices associated with these areas are constituted in the context of specific social, economic, political and cultural relations and how the practices associated with these areas in turn shape social knowledge and values. The subject will draw on a range of methodologies and resources including media and document analysis, the interrogation of statistical reports and contemporary mythologies about sport and physical activity; current feminist and masculinity research on sport, leisure and physical education; contemporary theories of leisure as consumption; youth studies and leisure and physical activity;

EDGP935 Leadership and Management In Physical Education, Sport and Recreation 6cp

Spring Wollongong Distance

Spring Wollongong Flexible

Subject Description: This subject is designed to provide students with an examination of current issues in the management of physical education, sport and recreation programs. Attention will be given to current international issues such as administrative structures and leadership, communication and motivation, personnel management, public relations, financial management, sport and the law, evaluation, government policy, and research in sport administration.

EDGP990 Practicum in a Learning Environment 6cp

Autumn/Spring Wollongong Flexible

Pre-requisites: At least 12cp of EDGP subjects

Subject Description: Students will design, implement and evaluate a program of work in a practical environment. This will extend over 30 hours of contact during the session at a worksite of choice. Reflective evaluation will take place on all of the practicum resulting in a critical analysis. All students will meet on a regular basis to discuss issues related to the practicum.

EDGP991 Project for EDGP990 2cp

Autumn Wollongong On Campus

Spring Wollongong Flexible

Pre-requisites: EDGP990

Subject Description: This is an optional project component subject taken in conjunction with EDGP932 and not available separately. The 2 cp Project extends the opportunity to study the issues of EDGP932.

EDGR911 Teaching Reading 8cp

Autumn Hamline Uni Minnesota On Campus

Autumn/Spring Wollongong Flexible

Autumn/Spring Wollongong Distance

Subject Description: This subject will examine the nexus between reading theories and practices. Topics to be studied

will include: reading and its relationship to language and learning; models of reading instruction and practices; history of reading policies and methods; learning to read and learning through reading; sociocultural relationships between the reader and the written texts; reading for different purposes; evaluation of reading; the reading-writing connections and current debates around reading instruction.

EDGR912 Teaching Writing 8cp

Autumn/Spring	Wollongong	Distance
Autumn	Hamline Uni Minnesota	On Campus
Autumn/Spring	Wollongong	Flexible

Subject Description: This subject will examine the nexus between writing theories and practices. Topics to be studied will include: the writing process and its relationship to language and learning; models of writing instruction; learning to write and learning through writing; the role of context, purpose and audience in shaping written genres; the writing/reading connection - specifically spelling, grammar and the role of editing and proofreading, and the evaluation of written texts.

EDGS910 Learning Theories and Exceptionality 6cp

Autumn/Spring	Wollongong	On Campus
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Subject Description: This subject explores a range of learning theories and their application to children with special needs. Topics include: behaviourism; Piaget and critiques of his theory; socio-cultural accounts of learning; information processing perspectives including the development of metacognition and self-regulation; the relationships among language, learning and thought; and issues in the assessment of intelligence.

EDGS911 Project in Exceptional Education Practices 2cp

Autumn/Spring	Wollongong	On Campus
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Pre/Co-requisite(s): EDGS910

Subject Description: This subject builds on the theoretical perspectives gained from the subject, Learning Theories and Exceptionality. It provides the opportunity for students to explore more deeply a particular learning theory and its application to children with special needs. Students will select one theoretical perspective and then complete a project related to the practical application of that theory. The project may take the form of a case study, a curriculum plan or an evaluation study. Projects will be determined in consultation with the lecturer.

EDGS912 Contemporary Perspectives Education of Students with Diverse Needs 6cp

Spring	Wollongong	On Campus
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Subject Description: This subject will critically examine current philosophical and policy issues related to the education of students with special needs, including gifted children. The link between theoretical frameworks and practical applications will be explored with a particular focus

on the impact of current theories on change processes in special education.

EDGS913 Project in Contemporary Perspectives 2cp

Spring	Wollongong	On Campus
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Co-requisites: EDGS912

Subject Description: This subject builds on the theoretical perspectives gained from the subject, Contemporary Perspectives in the Education of Students with Diverse Needs. It provides the opportunity for students to explore more deeply a particular issue related to policy or programming for students with special needs. Students completing the project will select a topic in consultation with the lecturer. The project may take the form of a case study, a curriculum plan or an evaluation study.

EDGS914 Assessment and Instruction of Students with Learning Difficulties 6cp

Spring	Wollongong	On Campus
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Subject Description: This subject aims to develop basic skills in assessment, program planning, program implementation and evaluation in relation to students with special educational needs. The principles of effective teaching and curriculum modification will be addressed. While a range of teaching approaches will be reviewed, the emphasis will be on those which have strong empirical support for their effectiveness.

EDGS915 Programs for Students with Learning Difficulties 2cp

Spring	Wollongong	On Campus
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Co-requisites: EDGS914

Subject Description: This subject will provide students with the opportunity to investigate the educational needs of one particular group of students, and to evaluate the efficacy of current responses to their educational needs. Students will draw upon understandings and skills developed in EDGS914 which is a pre- or co-requisite for this subject.

EDGS916 Models of Behaviour Management 6cp

Autumn	Wollongong	On Campus
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Subject Description: This subject examines a range of approaches to behaviour management and the theoretical principles upon which they are based. Problems associated with non school attendance, oppositional disorders, attention deficit disorders and other commonly occurring behaviour disorders are critically examined within the context of increasing academic engaged time and developing social and conflict resolution skills.

EDGS917 Programming for Behaviour Management 2cp

Autumn	Wollongong	On Campus
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Co-requisites: EDGS916

Subject Description: This subject will build on the conceptual understandings and skills developed in EDGS916 and involve the development of a schoolwide behaviour management plan for a nominated educational setting. It will incorporate an

Subject Descriptions

analysis of the function of schools, the causes of inappropriate behaviour and the role of the teacher in guiding student behaviour.

EDGS918 Approaches to Reading Difficulties: Theories and Strategies 6cp

Not on offer in 2004

Subject Description: This subject will engage students in a critical review of current empirical research in the area of reading difficulties. Theoretical and methodological aspects will be considered.

EDGS919 Reading Difficulties: Program Design and Implementation 2cp

Not on offer in 2004

Co-requisites: EDGS918

Subject Description: This subject will engage students in the practical implementation of current theories regarding the identification and remediation of reading difficulties. Students will be required to work with a student with reading difficulties for a period of 6-8 weeks. This will involve pre- and post-assessment tasks and designing and implementing an appropriate instructional program.

EDGS920 Language and Communication Difficulties: Theory and Practice 6cp

Spring Wollongong On Campus

Subject Description: This subject examines the major causes of language and communication difficulties. An overview of the topic will include an historical perspective which indicates shifts in issues such as identification, classification and categorization. Specific language difficulties associated with autism, cerebral palsy hearing impairment, intellectual impairment and learning disabilities will be examined. Assessment of communication difficulties and evaluation of a range of educational strategies will conclude the subject.

EDGS921 Language-Related Learning Difficulties: A Case Study 2cp

Spring Wollongong On Campus

Co-requisites: EDGS920

Subject Description: This subject examines the impact of language-related learning difficulties on academic performance. Students will analyse the needs of a child with such difficulties and make recommendations for compensatory teaching practices to enhance classroom success.

EDGS922 Teaching Gifted Students 6cp

Autumn Wollongong On Campus

Subject Description: This subject will identify and critically examine the current issues related to the education of gifted students. It will also prepare teachers to meet effectively the needs of such students through curriculum modification and application of special educational strategies. Topics will include: definition and identification issues; instructional

models; educational strategies; creativity and thinking skills; counselling needs; special populations; and the implications of policy on educational practice.

EDGS923 Project in Gifted Education 2cp

Autumn Wollongong On Campus

Co-requisites: EDGS922

Subject Description: This subject builds on the theoretical perspectives gained from the subject, Teaching Gifted Students. It provides the opportunity for students to explore more deeply a particular issue related to policy or programming for gifted students. Students completing the project will select a topic in consultation with the lecturer. The project may take the form of a case study, a curriculum plan or an evaluation study.

EDGS924 Giftedness in Special Populations 6cp

Spring Wollongong On Campus

Contact hours: 3 hrs per week x 9

Subject Description: This subject will critically examine the needs of special populations of students who are generally under-represented in programs for gifted children. Students will engage in analysing and evaluating alternative forms of assessment and developing appropriate strategies for curriculum design and delivery. Possible focus groups will include: Aboriginal children, ethnic minority children, low SES, girls, underachievers, preschoolers, prodigies, and students with emotional difficulties, physical or learning disabilities.

EDGS925 Project in Dual Exceptionality 2cp

Spring Wollongong On Campus

Subject Description: This subject builds on the theoretical perspectives gained from the subject, Giftedness in Special Populations. It provides the opportunity for students to explore more deeply a particular issue related to policy or programming for gifted students with other special needs related to their gender, ethnicity, or disability. Students completing the project will select a topic in consultation with the lecturer. The project may take the form of a case study, a curriculum plan or an evaluation study.

EDGT917 English Language: Learners Problems 6cp

Autumn Wollongong Flexible

Autumn/Spring Wollongong Distance

Subject Description: This subject is an introduction to the nature of the English language and the typical problems experienced by non-native speakers of English. It will canvass the basics of English grammar and vocabulary, from word classes (nouns, verbs, adjectives, etc) through to the structure of sentences. It is aimed primarily at those who are interested in becoming teachers of English to second language learners in Australia or abroad. It will assist participants in consolidating their own knowledge about English and in diagnosing learners' problems. It is not intended as a guide to teaching English grammar (see EDGT923 Teaching Grammar and Vocabulary) nor is it intended as a remedial English course for participants in the subject.

EDGT920	Practicum II	2cp
Autumn/Spring	Wollongong	Flexible
Autumn/Spring	Wollongong	Distance

EDGT921 Teaching Reading to Second Language Learners 2cp

Autumn	Wollongong	Flexible
Autumn/Spring	Wollongong	Distance

Subject Description: This subject explores the nature of reading process and examines the characteristics of ESL/EFL readers with a focus on instructional techniques and materials useful in improving the learners' reading proficiency. It provides guidance in the development and implementation of an interactive approach to teaching reading.

EDGT922 The English Sound System 2cp

Autumn	Wollongong	Flexible
Autumn	Wollongong	Distance

Subject Description: For those teaching English as a second language, a knowledge of how the English sound system works is essential, not only to help students' pronunciation but also to improve their listening, reading and writing skills. This subject will cover the pronunciation of individual sounds, combinations of sounds, stress patterns and intonation.

EDGT923 Teaching Grammar and Vocabulary 2cp

Autumn	Wollongong	Flexible
Spring	Wollongong	Distance

Subject Description: When teaching a second or foreign language, it is important to know a variety of techniques for teaching and assessing grammar and vocabulary. This subject will familiarise students with current views on how to teach grammar and vocabulary and how to select activities that are appropriate to the learning context and the learners' age and level of proficiency. The selection of relevant textbooks will also be considered.

EDGT924 Teaching Listening to Second Language Learners 2cp

Spring	Wollongong	Flexible
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Subject Description: This subject provides an introduction to knowledge and skills needed to teach listening. It aims to help students to develop a deeper understanding of listening as an interactive process and from this perspective to develop techniques and procedures for teaching effective listening strategies. The principles of designing various assessment listening tasks will be covered.

EDGT925 Teaching Writing to Second Language Learners 2cp

Spring	Wollongong	Flexible
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Subject Description: This subject focuses specifically on teaching ESL/EFL writing skills. It explores the process of second language writing as a foundation for work on the evaluation and development of curricula, methods and tests used in the teaching and assessment of writing skills.

EDGT926 Exploring Genres 2cp

Autumn	Wollongong	Flexible
Spring	Wollongong	Distance

Subject Description: In order to participate successfully in academic and social contexts, learners of English need to be able to argue, discuss, explain, recount, describe, persuade and so on. In learning to create and comprehend genres such as exposition, reviews and stories, students are learning to use English to achieve their purposes in a variety of situations. This subject will examine the social purposes for which we use language and how texts are structured in order to achieve these purposes.

EDGT927 Managing TESOL Programs 2cp

Spring	Wollongong	Distance
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Subject Description: TESOL professionals are often called upon to take a leadership role and manage programs of study coordinating ESL programs in schools, taking on the role of Director of Studies in ELICOS courses, providing professional development to colleagues, or even starting their own English tuition schools. This subject provides a brief introduction to the principles and practicalities of leadership and management in such situations.

EDGT928 Teaching English in International Contexts 2cp

Spring	Wollongong	Distance
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Subject Description: TESOL has grown into a flourishing profession where the teachers are continuously exposed to a variety of cultures. In the course of cultural contacts, misunderstandings and misconceptions often occur. This subject is designed to better prepare the future TESOL professional to teach English effectively in international contexts. It offers a deeper understanding of cultural, linguistic and educational differences so as to help future teachers become more sensitive to social-cultural issues involved in teaching English in an international context. Students will have opportunities to familiarise themselves with the employment prospect in various countries. However, the major focus of the subject will be on helping the students develop skills and strategies that will allow them to perform appropriately and professionally in international contexts.

EDGT929 Teaching Speaking to Second Language Learners 2cp

Autumn	Wollongong	Flexible
Spring	Wollongong	Distance

Subject Description: Oral fluency is regarded as key to the learning of a second language. This subject will look at the nature of oral interaction and how it fosters language learning. It will also consider the role of oral presentations and other uses of spoken language. Assessment of spoken language will also be canvassed.

EDGT940 Materials and Technology 6cp

Spring	Wollongong	Flexible
Autumn	Wollongong	Distance
Spring	Wollongong	Distance

Subject Descriptions

Subject Description: This subject is intended as a practical introduction to the selection, development, adaptation and evaluation of a range of materials and media for effective second language teaching. It will examine the nature of the materials/technologies, including their place in the curriculum, the assumptions underlying them, and the roles of teachers and learners implied by them.

EDGT976 Text and Context 6cp

Autumn Wollongong Flexible

Autumn/Spring Wollongong Distance

Subject Description: This subject introduces students to a functional approach to language, focusing on the functions that English plays in our lives and the language resources that students need to control in order to use English effectively in a range of situations. The model adopted is that of Halliday and colleagues - an approach that underpins several language syllabuses in Australia and internationally. This approach (Systemic Functional Linguistics) looks at the relationship between the texts that we use in our daily lives and the contexts in which these texts are produced.

EDGT983 Assessment in TESOL 6cp

Spring Wollongong Flexible

Autumn/Spring Wollongong Distance

Subject Description: This subject will prepare those involved in teaching English as a Second Language to assess learners language proficiency. Participants will be introduced to a variety of assessment approaches and techniques, ranging from informal, classroom based assessment through to high stakes formal tests. Principles of validity and reliability of assessment procedures will be addressed.

EDGT984 Theories of Second Language Learning 6cp

Autumn Wollongong Flexible

Autumn/Spring Wollongong Distance

Subject Description: Second language acquisition draws on theories from linguistics, cognitive psychology, psycholinguistics, sociolinguistics and education, and aims to account for processes of learning a second language. This subject is designed to provide students with a solid grounding in the issues and factors prevailing in second language acquisition. Its scope ranges from first language acquisition to different approaches to examining second language development including behaviourist, cognitive, functional, social-cultural and sociolinguistic approaches. These topics provide an appreciation of the complexity of second language learning and how successful learning may be promoted.

EDGT985 English in Specific Contexts 6cp

Spring Wollongong Flexible

Subject Description: This subject is designed to provide an overview of the recent developments in research on English for Specific Purposes (e.g. business, academic and medical etc). It will begin with a review of the emergence of ESP, its historical background and development, and current status in the context of ESL/EFL. This will then be followed by an introduction to discourse analysis and its relevance to ESP. Cross-cultural differences in discourse patterns will also be explored. Students will have opportunities to analyse written and spoken texts used in different ESP contexts. On the basis of the analysis, the subject will turn to a discussion of the implications for ESP course design and evaluation. Although the focus of the subject is on developing students ability to design an effective ESP program, their engagement with discourse analysis will help heighten their awareness of the genres which might facilitate their growth as writers in academic settings.

EDGZ900 Introduction to Research Methods in Education 8cp

Summer 2004/2005 Wollongong Flexible

Autumn/Spring Wollongong On Campus

Autumn/Spring Wollongong Distance

Spring Hong Kong On Campus

Exclusions: EDGA900

Subject Description: Topics to be studied will include principles and epistemology of educational research; descriptive and inferential techniques; case study and action research; problem identification; design and analysis; interpretation of findings; information and computer based technology in research; overview of research paradigms; ethics in education research. A self-study module is also available for students who have difficulty attending the Wollongong campus.

EDGZ901 Advanced Qualitative Research Methods 8cp *Not on offer in 2004*

Pre-requisites: EDGA900 or EDGZ900 or equivalent

Exclusions: EDGA901

Subject Description: The purpose of the subject is extend understandings of the qualitative research paradigm and provide opportunities for the systematic discussion and application of inquiry approaches relevant to individual participant needs and interests. An examination of the rationale and epistemological foundations for qualitative inquiry will precede discussion of the ethics and practice of data gathering and analysis, the role of the ethnographer and the communication of inquiry findings.

EDGZ902 Advanced Quantitative Research Methods 8cp *Not on offer in 2004*

Exclusions: EDGA902

Subject Description: The objective of the subject is to provide some of the practical statistical tools that can be used to carry out educational research. There is heavy emphasis on practical use of software to solve statistical problems, but this is done only after formal derivation of particular techniques.

EDGZ903 Minor Project in Education 8cp

Autumn/Spring Wollongong Distance

Autumn/Spring Wollongong Flexible

Autumn/Spring Hong Kong Flexible

Pre-requisites: At least 16 cp in specialisation**Exclusions:** EDGA903

Subject Description: This subject is part of the research orientation in the MEd program. It enables a student to explore a research issue in a sustained piece of writing, as preparation for higher degree studies. No project work should be commenced without approval from the Program Co-ordinator or the Head of the Graduate School.

EDGZ905 Major Honours Thesis 48cp*Now THES912 (part time) or THES924 (full time)*

Subject Description: This is the thesis subject for candidates enrolling in a Major Thesis in the MEd(Hons) course in the Faculty of Education. Candidates are required to submit a research thesis in line with the relevant University Rules. No thesis work should be commenced without approval from an appropriate academic supervisor and the Head of the Graduate School of Education.

EDGZ909 Doctoral Thesis 48cp*Now THES912 (part time) or THES924 (full time)*

Pre-requisites: Completion of required coursework at appropriate level.

Subject Description: This is the thesis subject for candidates enrolled in the Doctorate of Education, or a Ph.D supervised in the Faculty of Education. Candidates are required to submit a research thesis in line with the relevant University Rules. No thesis work should be commenced without the approval of the appropriate academic supervisor and the Head of the Graduate School of Education. Intending candidates should consult the information on admission and course requirements contained in the current Graduate School of Education Handbook and refer to the information provided for EDGZ904. Candidates in EDGZ904, EDGZ905 and EDGZ909 will be required as part of their candidature to participate in and present reports of their research to seminars and other appropriate forums at least once a year. Continuation of candidature will be subject to the satisfactory progress of the research, and to regular participation in such events as monitored through the Annual Progress Report. All candidates are required to be familiar with the current University of Wollongong Code of Practice-Supervision. Candidates enrolling with effect from Autumn Session, 1995 are required to present a review of their proposed research topic within the first session (full-time students) or two sessions (part-time students) of their candidature. The nature of this review should be discussed with the Head of the Graduate School and the Supervisor(s) in the first session of the candidature. Continuation of candidature will be conditional on the satisfactory presentation of the review and acceptance of the proposal by the appropriate Committee of the Graduate School of Education.

EDGZ912 Special Research Topic 8cp

Autumn/Spring Wollongong On Campus

Pre-requisites: EDGA900 or EDGZ900 or equivalent

Subject Description: The subject will allow students following a specific specialisation to appraise, extend and apply understanding and skills in their area of professional or academic concern. Students will be required to undertake a critical reading, review and reporting program. Some students may extend their investigation via a small field based inquiry project which will explore the related theory and program issues in a professional setting.

EDGZ921 Introduction To Research & Inquiry 6cp

Autumn/Spring Wollongong Flexible

Subject Description: This subject examines the nature of inquiry in Education and related areas. The subject will assist students in critically appraising reported research in academic contexts, in public contexts such as government reports, and popular contexts such as the media. It will also provide the tools to conduct small project and site-based research and evaluation studies. Specifically the subject will address questions such as: why conduct research? what constitutes good research? how are methodologies and theoretical frameworks for research determined? what are the ethical implications of conducting and reporting on research? These questions will be explored through tasks and inquiries suited to the backgrounds and interests of students undertaking the subject.

EDGZ922 Conducting Research & Inquiry 6cp

Autumn/Spring Wollongong Flexible

Subject Description: This subject is designed to provide students with the knowledge and skills to conduct research in the context of Education and related areas. It will examine the process of problem-setting, of generating questions and hypotheses. The underlying assumptions of a range of research designs and related methodologies and their practical applications as research technologies will be explored. Students will have opportunities to develop skills in statistical and qualitative data gathering techniques in the context of their particular backgrounds and research interests. A modular approach will allow students to follow areas of interest in greater depth.

EDGZ923 Advanced Research & Methodologies 6cp*Not on offer in 2004*

Subject Description: This subject will consist of a number of two credit point modules, each focusing on a particular methodology, site of practice or advanced development in particular research techniques. Modules will include: postmodern research; correlational design and analysis; experimental design and analysis; narrative research; evaluation in the work place; action research; survey and questionnaire design and analysis; biography and life history; textual analysis. Students will need to complete any three modules of their choice in consultation with subject coordinator to successfully complete the subject

Subject Descriptions

EDGZ924 Research Proposal 6cp

Autumn/Spring Wollongong Flexible

Summer 2004/2005 Wollongong Flexible

Subject Description: Students will complete a draft introduction, literature review and an outline of their research design for their proposed thesis topic. Opportunity will be given for peer and lecturer critique through draft writing, seminars and web-based discussion. All students will be encouraged to design and trial key data gathering and analysis methodologies that they envisage will be central to their thesis inquiry.

EDGZ925 Advanced Seminar 8cp

Autumn/Spring Wollongong On Campus

Pre-requisites: EDGA900 or EDGZ900 or equivalent

Exclusions: EDGA925

Subject Description: The Advanced Seminar will allow students to evaluate and extend knowledge in a specific area of education. Students will be required to undertake a critical reading program in this area and extend their work by applying their understanding in a school or community based project which integrates the theory and application. Regular seminars will be presented detailing issues, understandings, progress and final outcome.

EDGZ926 Professional Project 12cp

Annual Wollongong Flexible

Subject Description: This subject takes the form of a professional project which involves students identifying issues, researching the literature for recent information and presenting on current issues in their professional area; and the development and implementation of a project which would make a contribution to their local community of practice.

EDGZ951 Poststructuralist / Postmodernist Research 2cp

Autumn/Spring Wollongong Flexible

Subject Description: This module will examine the potentials of postmodern and poststructuralist research in the context of educational research. It will assist students in exploring the theoretical resources on which such research draws and provide opportunities to discuss issues, clarify concepts and apply understandings to research problems.

EDGZ952 Interviews As Research Method 2cp

Autumn/Spring Wollongong Flexible

Subject Description: This module will examine the ways in which interviews with one or more people can be used as a research tool to understand the way in which people construct meanings about themselves, their world and other people in it. The subject will examine the ethical and pragmatic issues associated with all stages of the process: that is in choosing participants, designing questions, conducting interviews, and interpreting them and representing these interpretations in research writing.

EDGZ953 Correlation Research 2cp

Autumn/Spring Wollongong Flexible

Subject Description: This module will assist students in developing skills in the answering of questions about data which are essentially correlational in nature. Questions suggesting correlational analysis are typically phrased as "Is there a relationship between self esteem and performance?" or "Can we predict (model) performance based on gender, self esteem and school type?". The primary techniques used for such analysis and covered in this module include correlation, regression, multiple regression and multi-level modelling. Students will be introduced to the process of fitting models including interaction terms, checking assumptions, selecting between models, interpretation of output and writing up results for publication.

EDGZ954 Evaluation Research 2cp

Autumn/Spring Wollongong Flexible

Subject Description: This module will examine the range of approaches in the broad area of evaluation research. The overview will examine what can be evaluated and the forms of evaluation available to undertaking evaluation activities in their own professional life, programs, in organisation they work or are contracted to investigate. The activities in the unit will include readings from the text, discussions on the web and a small hands-on project. The project could be located in a community, professional setting or related to your own professional practice.

EDGZ955 Developing Grounded Theory In Qualitative Research 2cp

Autumn/Spring Wollongong Flexible

Subject Description: This module will explore what the research literature claims grounded theory development is and the methodology used in order to develop it. It will examine the relationship between grounded theory development, reviewing of the literature in the field of study and the qualitative research methods used in the data collection and analysis. Finally it will examine when and why one might use grounded theory methodology.

EDGZ956 Research Methods In Language Education 2cp

Autumn/Spring Wollongong Flexible

Subject Description: This module will familiarise students with a range of research methodologies employed in the field of language education (in particular, TESOL and literacy studies). Students will be provided with a collection of readings dealing with research agendas for language education, current issues, the role of theory, and approaches to data collection and analysis (case study, observation, experiments, introspection, action research, statistical analysis, and so on). Students will also critically examine journal articles reporting on the results of different types of studies.

EDGZ957 Feminist Research 2cp**Autumn/Spring** Wollongong Flexible

Subject Description: This module is designed to provide students with an introduction to feminism and feminist scholarship. A variety of readings that focus on issues associated with feminist theory, research and methodology are provided as a basis for discussion and written assessment. The challenge for students is to develop an informed perspective in this area so that they can construct their own frameworks for defining the nature of feminist research.

EDGZ958 Discourse Analysis 2cp**Spring** Wollongong Flexible

Subject Description: This module will introduce discourse analysis and its application in educational research. The module will consider the range of approaches to discourse analysis and examine the influence of contemporary philosophical perspectives on interpretations of discourse. Students will be encouraged to apply their understandings of these perspectives to the conceptualisation of their research problem and the application of discourse analysis.

EDGZ959 Questionnaire Construction 2cp**Autumn/Spring** Wollongong Flexible

Subject Description: This module will examine the ways in which the questionnaire can be used as a research tool to understand the way in which people construct meanings about themselves, their world and other people in it. The subject will examine the ethical and pragmatic issues associated with all stages of the process: that is, in choosing participants, designing questions, administering the questionnaire, setting up the data for analysis and representing the analysis in research writing.

EDGZ960 Case Study Research 2cp**Autumn/Spring** Wollongong Flexible

Subject Description: This module will examine the rationale for selecting a case study approach to research, the various purposes for which a case study is appropriate, and the basic types of case studies. The latter includes, but is not limited to, historical case studies, ethnographic case studies, oral histories, and clinical cases. Multiple case study approach will also be considered. Finally, the module will explore the design of case studies and the associated data collection and analysis tools.

ENGINEERING SUBJECT DESCRIPTIONS

CIVL899 Advanced Topics In Engineering 48cp

Annual Wollongong On Campus

Subject Description: Students will normally take a selection of topics at advanced level from the following: computer aided analysis and design; computer methods; concrete design; civil engineering materials; finite element techniques; hydrology; hydraulics; numerical techniques; reliability; rock mechanics, soil mechanics; simulation; structural analysis and design; structural topology; town planning; traffic planning; traffic engineering; transportation; highway engineering; urban investigations; structural dynamics; continuum mechanics.

CIVL901 Project 6cp

Not on offer in 2004

Subject Description: First stage of a comprehensive study concerning a specific topic; formulation of problem and literature study, critical examination of current work; planning of solution methods; presentation of results.

CIVL902 Reliability In Geotechnical Engineering 6cp

Not on offer in 2004

Subject Description: Conventional safety factor and its limitations in representing safety or reliability; geotechnical predictions and associated degree of confidence; variability of soil and rock deposits; uncertainties in material parameters, geotechnical models and failure mechanisms; statistical data and probabilistic approaches; failure probabilistic approaches compared; reliability of geotechnical systems; recent developments in probability of failure propagation and initiation, most probable extent of embankment or slope failure.

CIVL903 Concrete Technology 6cp

Not on offer in 2004

Subject Description: Mix design theories; design of high performance and lightweight concrete, elastic behaviour; strength, creep, shrinkage; concreting operations; durability; significance of tests and properties of constituent materials; analysis of results; non-destructive tests; special concrete applications.

CIVL904 Highway Materials 6cp

Autumn Wollongong On Campus

Subject Description: Soil and roadmaking aggregate surveys; compaction of soil; road construction with soil and low-grade aggregates; mechanical, cement, bituminous, and resinous stabilisation; constructional methods in soil stabilisation. The origin, preparation, constitution and rheology of bituminous binders; mechanical and physical properties of bituminous materials. Close and open textured materials. Surface dressing. Plant. Sampling and testing. Maintenance. Concrete construction. Materials; mixing; laying; sampling and testing. Maintenance. Pavement design and evaluation - a review of current Australian, European and North American Practice.

CIVL905 Transportation Engineering 6cp

Not on offer in 2004

Subject Description: Transport problems; urban travel demands; the transport planning process; travel-demand forecasting; trip generation analysis; model split analysis; trip distribution analysis; route assignment analysis; economic analysis; employment and population forecasts; evaluation of transport plans; airport engineering; classification, design standards, layout and development, terminal facilities, city-airport transport systems; urban transportation; railroad engineering; light rail rapid transit; pipeline transportation; belt conveyors - freight and passengers.

CIVL907 Civil Engineering Computations 6cp

Autumn Wollongong On Campus

Subject Description: This subject will concentrate on software packages which are designed for application to a wide range of structural types, both two and three dimensional, including trusses, frames, plates and shells. Any combination of these components may be used with a variety of analysis and design procedures including linear elastic analysis, nonlinear optimization, steel frame member design, and design and checking of reinforced concrete building frames including beams, columns, slabs, steel quantity and location, material take-off etc.

CIVL908 Advanced Soil Mechanics 6cp

Not on offer in 2004

Subject Description: The principle of effective stress and its implications; stress paths in soil mechanics; problems of shear strength and failure; peak, residual and softened shear strengths for soil; pore pressure parameters A and B; the use of pore pressure parameters in practice; selected problems of stability and settlement; the analysis and performance of slopes; the factor of safety concept; stress analysis approaches; introduction to soil dynamics.

CIVL909 Advanced Foundation Engineering 6cp

Autumn Wollongong On Campus

Subject Description: General principles concerning selection of foundation type on different types of soil; Bearing capacity theory, shallow and deep footings, difficult ground conditions including collapsing and swelling soils; performance observations in geotechnical engineering; preventative and remedial measures against ground movement and slope failure; buoyancy rafts and basements; selected problems of foundation analysis and design; dam foundations; stress distribution and stress analysis; soil sampling and exploration; soil stabilisation including drainage.

CIVL910 Vibration of Structures 6cp

Not on offer in 2004

Subject Description: Static and dynamic stabilities of continuous systems. Analyses of lumped mass systems with various degrees of freedom. Vibration of beams and other continuous structures. Modal analysis of discrete and

Subject Descriptions

continuous systems. Vibrations of buildings and bridges. Earthquake, blast and wind loadings.

CIVL911 Finite Elements Methods 6cp *Not on offer in 2004*

Subject Description: Variational principles; element shape functions, "displacement" and "stress" formulations, curved and isoparametric elements; computer programming techniques; analysis of plates, shells and axisymmetric structures; analysis of slab- and box-type bridge superstructures.

CIVL912 Engineering Hydrology 6cp **Spring** Wollongong On Campus

Subject Description: Storm models, storm maximisation, extreme precipitation estimates, intensity-frequency duration analysis, design storms; rainfall losses, infiltration models, design losses; advanced unit - hydrograph theory, synthetic unit hydrographs; hydrograph synthesis by runoff - routing; design floods for rural and urban catchments.

CIVL914 Analysis and Design of Bridge Structures 6cp *Not on offer in 2004*

Subject Description: Types of bridges; similarities between bridges and some plate- and shell-type building structures; loadings; analytical methods: load distribution technique, orthotropic plate theory, grillage and space frame methods, finite element method; computer program suites; design codes; design of super-structures; design of foundations.

CIVL916 Research Topics in Civil Engineering 6cp **Autumn/Spring** Wollongong On Campus

Subject Description: Topics will be selected from those areas of Civil Engineering in which staff members or visiting staff members to the Faculty, are engaged in active research.

CIVL918 Steel Structures 6cp *Not on offer in 2004*

Subject Description: Steel behaviour. Hot rolled and cold-formed sections. Behaviour of hollow sections. Plastic design. Local and lateral buckling. Elastic and inelastic buckling of elements and frames.

CIVL919 Earth Structures 6cp *Not on offer in 2004*

Subject Description: Location of earth structures such as embankments and earth dams; basic design considerations; analytical procedures including limit equilibrium methods and stress analysis; soft ground tunnelling; problems associated with earth structures including settlement cracking and subsidence; prevention and control of sub-surface erosion and piping; risk studies; maintenance and improvement of earth structures.

CIVL920 Civil Engineering Hydraulics 6cp *Not on offer in 2004*

Subject Description: Uniform flow in rivers and flood plains; open channel roughness and flow resistance; non-uniform open channel flow; backwater curve computation; unsteady open channel flow. Flood wave routing; hydraulics of spillways; hydraulics of bridges and culverts; retarding basin hydraulics; urban stormwater drainage design; sediment transport in open channel flow.

CIVL923 Advanced Reinforced Concrete 6cp *Not on offer in 2004*

Subject Description: Strength and behaviour of reinforced concrete members in flexure, shear, torsion and compression; bond and anchorage; non-rectangular sections; numerical and semi-graphical methods. Short and long-term deflections of beams; effect of repeated loading and impact. Analysis and design of deep beams. Yield line method for slabs. Design code provisions.

CIVL980 Advanced Computer Applications 6cp **Spring** Wollongong On Campus

Assessment: Compulsory assignments (reports) Mid-session Exam (Parts A and B) Final Project (including Oral presentation)

Subject Description: The subject content will comprise a selection from the following topics: Finite element modelling and simulation, system analysis, optimal design of civil and environmental engineering systems, advanced statistical techniques, advanced spreadsheet applications, case studies selected from civil and environmental engineering practice, use of MATLAB, EXCEL and similar computer packages.

CIVL981 Special Topic A 6cp **Autumn/Spring** Wollongong On Campus

Subject Description: Specialist topic in civil engineering offered by members of staff, professional engineers or visitors to the Faculty.

CIVL982 Special Topic B 6cp **Autumn/Spring** Wollongong On Campus

Subject Description: Specialist topic in civil engineering offered by members of staff, professional engineers or visitors to the School.

ENVE899 Advanced Topics in Environmental Engineering 48cp

Annual Wollongong On Campus

Subject Description: One or more advanced topics taken from the following: computer aided analysis and design; computer methods; environmental hydraulics; pollution control; erosion and land rehabilitation; waste management; environmental impact assessment; environmental modelling processes; environmental geotechnology; transport and the environment; ground and mine-water.

ENGG901 Introduction to Welding and Joining Processes 3cp

CRC Intake Jan/ Wollongong Flexible
 March/ May/ July/
 Sept/ Nov

Assessment: Assignments and Examination

Subject Description: Classification of welding processes, applications; typical problems, health and safety issues. Introduction to fusion and pressure welding processes; adhesive bonding, soldering and brazing; joining process physics. Review of basic electrics and electronics; arc characteristics and control. Introduction to behaviour of metals during welding, mechanical testing and NDT. Basic joint design and testing. Quality assurance of joining techniques. Introduction to reclamation repair by welding, advanced welding technology and fracture mechanics.

ENGG902 Fusion Welding Processes Part 1 3cp

CRC Intake Jan/ Wollongong Flexible
 March/ May/ July/
 Sept/ Nov

Pre-requisites: ENGG901

Assessment: Assignments and Examination

Subject Description: Introduction to gas shielded welding; process principles of GTAW welding; shielding gases; effect of gases on arc characteristics; filler metals; standards; typical problems; health and safety issues. Tungsten inert gas (TIG) welding; power sources; process factors; joint design; specifications; applications and typical problems; health and safety factors. Plasma, electron beam, laser welding and cutting. Advanced TIG welding.

ENGG903 Other Joining Processes 3cp

CRC Intake Jan/ Wollongong Flexible
 March/ May/ July/
 Sept/ Nov

Pre-requisites: ENGG901, ENGG902

Assessment: Assignments and Examinations

Subject Description: Cold pressure, ultrasonic and explosive welding and diffusion bonding; stud welding and mechanical fasteners; resistance welding, weld-bonding, ERW and flash butt welding; oxy-fuel welding; cutting and other edge preparation processes; friction welding and friction stir welding; MIAB welding; brazing; soldering; and pre-heating, fuel gas, electric equipment and techniques.

ENGG904 Fusion Welding Processes Part 2 3cp

CRC Intake Jan/ Wollongong Flexible
 March/ May/ July/
 Sept/ Nov

Pre-requisites: ENGG901, ENGG902

Assessment: Assignments and Examination.

Subject Description: Gas metal arc welding (GMAW); metal inert gas (MIG) welding; metal active gas (MAG) welding; power sources; process factors; special techniques; joint design; specifications; applications; typical problems; health and safety issues. Metal transfer. Manual metal arc (MMA) welding; (SMAW, MMAW); power sources; process factors;

electrode coatings; joint design; specifications; applications and typical problems; health and safety factors. Submerged arc welding (SAW); power sources; process factors; joint design; specifications; applications; typical problems; health and safety issues. Advanced GMAW, FCAW. Electroslag welding; process factors; applications and limitations.

ENGG905 Behaviour of Metals During Welding - Part 1 3cp

CRC Intake Jan/ Wollongong Flexible
 March/ May/ July/
 Sept/ Nov

Pre-requisites: ENGG901

Assessment: Assignments and Examination

Subject Description: Structures and properties of metals; alloys and phase diagrams; iron-carbon alloys; heat-treatment of steels; microstructures of welded joints; embrittlement and cracking in steels. Structural steels; fine grained steels; thermomechanically processed steels.

ENGG906 Behaviour of Metals During Welding - Part 2 3cp

CRC Intake Jan/ Wollongong Flexible
 March/ May/ July/
 Sept/ Nov

Pre-requisites: ENGG905

Assessment: Assignments and Examination

Subject Description: High temperature creep resistant steels; high alloy stainless steels; cryogenic steels; low temperature steels; stainless steels; H/R steels; creep resistant steels; nickel-based alloys; other metals and alloys; welding of ferrous and non-ferrous castings; introduction to corrosion and wear; welding of castings.

ENGG907 Welding of Non Ferrous Metals and Non Metals 3cp

CRC Intake Jan/ Wollongong Flexible
 March/ May/ July/
 Sept/ Nov

Pre-requisites: ENGG906

Assessment: Assignments and Examination

Subject Description: Copper and copper-based alloys; aluminium and aluminium-based alloys; joining dissimilar alloys; structures and properties of non-metallic materials and composites; joining of polymers; joining of polymers to metals; joining of ceramics; ceramic-metal joints; methods used for joining of composites and composites to other materials.

ENGG908 Construction and Design - Part 1 3cp

CRC Intake Jan/ Wollongong Flexible
 March/ May/ July/
 Sept/ Nov

Pre-requisites: ENGG907

Assessment: Assignments and Examination

Subject Description: Fundamentals of the strength of materials; basics of weld design; design principles of welded structures; joint design; fracture mechanics.

ENGG909 Construction and Design - Part 2 3cp

CRC Intake Jan/ Wollongong Flexible
 March/ May/ July/
 Sept/ Nov

Pre-requisites: ENGG908

Assessment: Assignments and Examination

Subject Description: Behaviour of welded structures under load; design of welded structures for static loading; effects of dynamic loading; thermodynamically loaded welded structures; reinforced steel welded joints; design of welded aluminium alloy structures.

ENGG910 Fabrication/Applications Engineering - Part 1 3cp

CRC Intake Jan/ Wollongong Flexible
 March/ May/ July/
 Sept/ Nov

Pre-requisites: 901,902,903,904,905,906,907,908,909

Assessment: Assignments and Examination

Subject Description: Cutting and other edge preparation processes. Quality assurance in welded structures; quality control during manufacture; total quality management. Plant facilities; welding jigs and fixtures. Fume and radiation hazards from welding; health and safety issues.

ENGG911 Fabrication/Applications Engineering - Part 2 3cp

CRC Intake Jan/ Wollongong Flexible
 March/ May/ July/
 Sept/ Nov

Pre-requisites: ENGG910

Assessment: Assignments and Examination

Subject Description: Welding stresses and distortion; control of welding restraint; stress relieving of weldments. Repair welding; fitness for purpose considerations; economic aspects of weld fabrication; economic considerations of high productivity welding; automatic and robotic welding.

ENGG914 Fabrication/Applications Engineering - Part 3 3cp

CRC Intake Jan/ Wollongong Flexible
 March/ May/ July/
 Sept/ Nov

Pre-requisites: ENGG905, ENGG906, ENGG907

Assessment: Assignments and Examination

Subject Description: Practical exercises in weld defect testing using ultrasonics and radiography. Metallographic examination of commercially important metals and alloys, and the microstructures of steel and aluminium weldments. Measurement control and recording.

ENGG915 Design of Structures 3cp

CRC Intake Jan/ May Wollongong Flexible

Pre-requisites: ENGG908, ENGG909

Subject Description: Design case studies.

ENGG916 Fabrication Case Studies 3cp

CRC Intake Jan/ May Wollongong Flexible

Pre-requisites: ENGG910, ENGG911, ENGG914

Subject Description: NDT, practical, welding procedures, tutorials.

ENGG917 Processes, Equipment, Automation 3cp

CRC Intake Jan/ May Wollongong Flexible

Pre-requisites: ENGG901, ENGG902, ENGG903, ENGG904

Subject Description: Mechanisation and robotics, case studies and tutorials.

ENGG918 Weldability and Wear 3cp

CRC Intake Jan/ May Wollongong Flexible

Pre-requisites: ENGG905, ENGG906, ENGG907

Subject Description: Wear, hardfacing, metallography, surfacing, mechanical testing.

ENGG919 Dissertation 12cp

Annual Singapore On Campus

Spring 04/Aut 05 Wollongong Distance

Annual Wollongong Flexible

Autumn/Spring Wollongong On Campus

Spring 04/Aut 05 Wollongong On Campus

Assessment: Thesis

Subject Description: A thesis is required based on project work and/or an interpretative literature review on a topic.

ENGG923 Advanced Digital Sound and Imaging Techniques 6cp

Not on offer in 2004

Assessment: Final examination, Mid-session quizzes, Tutorial assessment and laboratory work on digital sound and imaging techniques

Subject Description: Physics of sound, propagation of sound in air, interference and resonances, harmonics and musical instruments, acoustics; frequency response, digital sound recording and playback, digital filters, digital audio data compression and extraction and audio streaming; sound system design, frequency response curves, sound cards, audio systems, microphones, amplifiers and speakers. Introduction to digital image fundamentals: resolution, bit depth, compression, colour, image enhancement and geometric manipulations; noise reduction; image compositing; time and temporal manipulations, image tracking and stabilization; file formats: quality and efficiency; case studies.

ENGG940 Dissertation 12cp

Annual Wollongong On Campus

Autumn/Spring Wollongong On Campus

Contact Hours: Annual 1 hour/week nominally, Autumn 1 hour/week nominally, Spring 1 hour/week nominally, Spring 2004/Autumn 2005 1 hour/week nominally

Assessment: Written dissertation report assessed against objectives 1-5

Subject Description: The dissertation is a project allowing you to pursue a particular area in depth and solve a specific practical engineering problem. Students complete a dissertation in their area of interest. The dissertation develops skills in information retrieval, project planning and organisation, analysis, problem solving and effective communication of results. Involves the undertaking of an individual supervised project focused on solving a problem relevant to the discipline area of the degree. The student would normally be required to do a literature survey, analysis, and develop suitable solutions to the selected problem. This will allow the students to apply the knowledge and skills acquired in the structured coursework and thus gain valuable confidence in their ability to practice engineering at a high professional standard. Two bound copies of the final report must be submitted for assessment, together with an electronic version.

ENGG945 Dissertation 24cp

Annual Wollongong On Campus

Autumn/Spring Wollongong On Campus

Assessment: Written dissertation report assessed against objectives 1-4

Subject Description: The dissertation typically requires rigorous research in a limited area - normally in the area of coursework components undertaken. It comprises a research project based on a problem in the discipline of the degree. The student would normally be required to do a detailed literature survey, analysis, modelling and develop suitable solutions to a selected problem. Students will be able to choose a suitable investigation within the current and relevant research activities associated with the Faculty of Engineering. The dissertation is individually supervised. Two bound copies of the final report must be submitted.

ENGG950 Innovation and Design 6cp

Autumn Wollongong On Campus

Assessment: Major design project, including individual and teamwork; Other assignments; Final examination

Subject Description: Topics will be selected from: The creative and innovative process, aesthetics in design, life cycle design and planning. Design for economy, maintenance, disassembly, recycling, repair and rehabilitation. Designing with materials. Durability of materials, components, systems and structures. Intellectual property, patents and technology transfer. The international marketplace. Constraints on design: standards, specifications and codes of practice. Feasibility studies and costing Teamwork in design. Case studies.

ENGG951 Engineering Project Management 6cp

Spring Wollongong On Campus

Assessment: Assignment 1 (Individual Assignment) 15%, Assignment 2 (Group Assignment), 35% (Including 10% for presentation), Final Examination (2 hours) 50%

Subject Description: Topics will cover: Scope Management, Time Management, Human Resource Management, Risk Management, Financial Management, Project Plans, Project

Quality Management and Procurement & Contract Management.

ENGG952 Engineering Computing 6cp

Spring Wollongong On Campus

Assessment: Computation exercises (six tasks) 60%, Final Examination 40%

Subject Description: Software applications, programming development environments, application areas, mathematical techniques, and approaches to problem solving are explored from a wide variety of possible areas. Topics will be selected from the following list: Windows-based compilers and software libraries such as C/C++, fortran, and visual basic; Numerical and mathematical libraries such as Matlab, Mathematica, and Mathcad; Advanced spreadsheet programming; Data acquisition techniques and software libraries such as NiDaq, LabTek, and LabView; 3D Graphics programming using OpenGL; Advanced engineering graphics using Autocad; Database principles and techniques; Principles of internetworking systems; Mesh Generation for finite element and finite difference modelling; Numerical solution of the equations of physical and engineering systems; Operations research, project management, and reliability simulation; Artificial neural networks.

ENGG953 Modelling of Engineering Management Systems 6cp

Spring Wollongong On Campus

Assessment: Projects, assignments and final examination.

Subject Description: Concentrating on the search of appropriate operations research techniques to assist in the solution of engineering management problems and basic experimental design. Topics include:- the basic principles of modelling, decision support models, modelling failure processes, search methods, scheduling models, queuing theory and its application, data collection and design, introduction to experimental design, principles of design, importance of randomisation, simple comparative experiments, experiments with a single factor, randomized blocks and related designs, introduction to factorial designs, Taguchi's philosophy of design.

ENGG955 Engineering Research Methods 6cp

Autumn/Spring Wollongong On Campus

Assessment: Presentation of a research report (orally and in a written research proposal). Undertaking of an experiment in a laboratory, after initial design.

Subject Description: The overall objective is to develop a structured approach to research in engineering. The focus is on the development of skills in framing a research problem, developing a research design, design of data collection analysis and interpretation frameworks. Literature research skills will be developed. An understanding of the selection and use of measurement sensors and engineering data collection and analysis tools will also be developed. Hands on experience in an engineering laboratory will be a feature. Ethical issues in research will be reviewed. Students will work on a selected project to develop a properly structured research proposal, including a research plan. The plan is to be presented orally and in written form.

ENVE901 Project 6cp*Not on offer in 2004*

Subject Description: First stage of a study on a selected topic, including formulation of the problem, literature study, development of study plan, and presentation of results.

ENVE916 Research Topics in Environmental Engineering 6cp*Not on offer in 2004*

Subject Description: Topics will be selected from the areas of environmental engineering in which staff members are engaged in research.

ENVE923 Industrial Waste Engineering and Cleaner Production 6cp

Spring Wollongong On Campus

Subject Description: Issues covered include industrial waste minimisation and treatment, industrial processes and control techniques. Waste auditing of an industry will be illustrated using a case study.

ENVE924 Solid and Hazardous Waste Management 6cp

Spring Wollongong On Campus

Subject Description: Two areas are covered: Generation, characterisation, collection and minimisation of solid waste; and classification, treatment and final disposal of hazardous waste.

ENVE925 Water Quality Engineering and Management 6cp

Spring Wollongong On Campus

Assessment: Mid session test, Tutorial assignments, Laboratory reports Final examination.

Subject Description: The main aim is to introduce concepts relating to water resources and global water problems, water quality characteristics, water quality processes and guidelines, water quality management, water supply and sanitation, natural treatment processes, various municipal water and wastewater treatment processes and wastewater reuse and recycling that will lead to sustainable development. The lecture components will be supplemented with relevant tutorials and weekly assignments. A number of laboratory classes will give students hands on exposure to determination.

ENVE926 Air and Noise Pollution Management 6cp

Spring Wollongong On Campus

Assessment: Mid session test, Tutorial assignments, Laboratory reports, Final examination

Subject Description: This subject covers the occurrence and consequence of air and noise pollution to modern society. The subject commences with an overview of the problem, identifies sources of pollution, deals with methods to measure and analyse the extent of the pollution, and concludes with methods to control the pollution.

ENVE927 Environmental Engineering Processes Design 6cp

Autumn Wollongong On Campus

Pre-requisites: ENVE925 Water Quality Engineering and Management

Assessment: Tutorial submissions, Design project, Exams, Field trip reports

Subject Description: This subject is designed to introduce system design using unit processes encountered in environmental engineering. The subject will cover design concepts, detailed and advanced design of water supply and treatment systems, advanced solid -liquid separation processes, design of wastewater collection systems, design of advanced wastewater treatment plant design, ocean outfall systems, design of land based systems, network design. The subject also includes design of air pollution and control systems. The lecture components will be complemented with design classes and field trips.

ENVE928 Design of Urban Water Systems 6cp

Spring Wollongong On Campus

Assessment: Design projects on urban stormwater drainage, urban and river water quality, and onsite systems.

Subject Description: This design subject will focus on several group design projects in urban storm water management in terms of quality and quantity, river water quality and onsite waste management systems. In urban drainage design, you will use rational design and DRAINS model. In stormwater quality, pollutant build up - washoff relationships will be developed, the river water quality using QUALIIE model and design of onsite systems using Australian standards.

ENVE929 Site Contamination and Remediation Technologies 6cp

Spring Wollongong On Campus

Assessment: Assignment, Field trip report, Session quizzes, Final examination

Subject Description: The course describes the chemistry of soils, interactions of pollutants with soils and organic matter and their fate in the environment. Saturation of soils with contaminants through various sources has led to groundwater contamination. Characterisation of such sites, monitoring parameters, decision making and regulation will be included in this subject. The remediation of such contaminated soils and groundwater will be described with selected technologies, options of site containment, which is currently the most common technique will also be covered. The course will give an overview of the options and tools to assess and select the appropriate technology. This will also involve the revision of chemical parameters and students without the expected pre requisites are required to revise chemical principles independently.

ENVE930 Coastal, River and Groundwater Engineering 6cp

Autumn Wollongong On Campus

Assessment: Tutorials, Assignments, Final examination

Subject Description: Coastal Engineering - wave forecasting; wave refraction; diffraction and breaking; wave forces on structures; beach erosion and beach protection. Water

Resources - the hydrologic cycle; distribution of the world's water resources; surface water resources; groundwater resources; computer models of catchment water balances; storage reservoir yield analysis. River Engineering - fluvial hydraulics; morphology of natural channels; soil erosion, sediment transport in streams; re-naturalising streams; Groundwater Hydraulics - groundwater quality and contaminants - reservoir sedimentation; hydraulic structures.

ENVE931 Membrane Processes and Applications 6cp

Autumn Wollongong On Campus

Assessment: Literature review and group presentation, System design group exercise, Oral presentation, Final examination

Subject Description: The subject intends to demonstrate to students how nature works (biological membranes) and how such principles (membrane processes) can be used for medical, water and wastewater, processing and other industries by engineering appropriate materials and systems. The subject hence leads from nature to material science and engineering, fundamental transport principles to applications and process design with immediate relevance to the water and wastewater treatment industry where membranes are becoming a predominant process choice worldwide. The subject aims to bring science and engineering together on a number of levels such as in terms of learning from nature, applying engineering solutions to medical applications and using scientific principles to obtain engineering solutions. Both engineering and science students will be exposed to the thinking in the other discipline.

ENVE981 Special Topic A 6cp

Autumn/Spring Wollongong On Campus

Subject Description: Specialist topic in environmental engineering offered by members of staff, professional engineers or visitors to the department.

ENVE982 Special Topic B 6cp

Autumn/Spring Wollongong On Campus

Subject Description: Specialist topic in environmental engineering offered by members of staff, professional engineers or visitors to the department.

MATL899 Advanced Topics in Materials Engineering 48cp

Annual Wollongong On Campus

Subject Description: A program approved by the Discipline Adviser of project work and studies of advanced topics in materials selected from the fields of processing, physical and mechanical behaviour, microstructure and observational methods.

MATL901 Special Topic in Materials 1 6cp

Autumn/Spring Wollongong On Campus

Subject Description: There are no set syllabi for these subjects. It is intended that they will be offered on a specialised materials engineering topic.

MATL902 Special Topic B 6cp

Autumn/Spring Wollongong On Campus

Subject Description: There are no set syllabi for these subjects. It is intended that they will be offered on a specialised materials engineering topic by members of the School, or visitors to the School.

MATL903 Recent Developments in Materials 6cp

Autumn Wollongong On Campus

Subject Description: Considerations of the structures, properties, technology and applications of advanced materials with emphasis on materials important to the Australian economy.

MATL905 Metallic Materials 6cp

Autumn Wollongong On Campus

Subject Description: Commercial metals and alloys. Relationships between structure and industrially significant properties. Control of structure by processing. Thermal and mechanical treatment. Recovery and recrystallization. Metal-matrix composites.

MATL906 Ceramic Materials 6cp

Spring Wollongong On Campus

Subject Description: Ceramics - traditional and advanced. Microstructure-property relationships. Processing, solid state and liquid phase sintering. Applications. Ceramic matrix composites.

MATL907 Polymeric Materials 6cp

Autumn Wollongong On Campus

Subject Description: Polymers, formation and classification. Effects of structure and additives on properties. Composite materials with polymeric matrices.

MATL908 Phase Transformations 6cp

Spring Wollongong On Campus

Subject Description: Analysis and theories of solid state phase transformations, nucleation phenomena, diffusional and diffusionless growth; application to precipitation, eutectoid, proeutectoid, martensitic and other processes.

MATL911 Mechanical Behaviour of Materials 6cp

Spring Wollongong On Campus

Subject Description: Behaviour of ceramics, metals and polymers under stress, stress-strain relationships, time and temperature dependent phenomena.

MATL921 Formability of Sheet Materials 6cp

Not on offer in 2004

Subject Description: Flow behaviour of sheet materials under uniaxial and biaxial stress; analyses of industrial forming processes.

MATL932 Surface Engineering of Materials 6cp*Not on offer in 2004*

Subject Description: Surface coating processes, coating of materials with ceramics, metals and polymers; quality and performance of the product; surface heat treatment processes.

MATL936 Chemical Reaction Engineering 6cp*Not on offer in 2004***Co-requisites:** MATH188**MATL937 Process Metallurgy 6cp***Not on offer in 2004*

Subject Description: Ironmaking. Sintering and pelletising; time-temperature effects; phase composition; strength-reducibility relationships; mix selection; cokemaking; fundamental relations; coke strength and reactivity; blast furnace process; Rist and Reichert diagrams; burden design and distribution; stack, bosh and hearth processes; DRI.

MATL951 Performance of Materials A 6cp*Not on offer in 2004*

Subject Description: Mechanical behaviour. Elastic, plastic, anelastic and viscoelastic responses. Fracture-brittle and ductile. Fracture toughness and crack growth. Effects of temperature, strain rate and geometry. Griffith equation and fracture mechanics. Creep and stress relaxation. Fatigue.

MATL952 Performance of Materials B 6cp

Spring Wollongong On Campus

Subject Description: Environmental behaviour. Thermodynamic aspects. Oxidation, processes and kinetics. Oxidation resistance. Aqueous corrosion, types of reaction, avoidance and restraint. Degradation of polymers and ceramics. Wear and abrasion. Stress corrosion and corrosion fatigue.

MATL961 Materials Analysis A 6cp*Not on offer in 2004*

Subject Description: Advanced techniques. Theory and practice of X-ray, neutron and electron diffraction. Compositional analysis by X-ray fluorescence at macro and micro levels. Image contrast in electron microscopy. Field ion microscopy. Auger and Mossbauer spectroscopy.

MATL972 Selection and Design of Materials 6cp

Autumn Wollongong On Campus

Subject Description: General classifications and properties of materials. Standards, codes and specifications. Property requirements for specific applications. Bases for choice of materials, testing and evaluation. Constraints imposed by environmental, manufacturing and economic considerations. Use of computers and data banks. Case studies.

MATL988 Metallurgical Processing 2 6cp*Not on offer in 2004***Pre-requisites:** MATH202 and MATH203**MATL999 Advanced Topics in Materials 48cp***Not on offer in 2004***Pre-requisites:** MATH202 and MATH203**MECH899 Advanced Topics in Engineering 48cp**

Annual Wollongong On Campus

Subject Description: Students will normally take a selection of topics at advanced level. The selection of the topics will be subject to the approval of the Head of the Department in which the student wishes to enrol and subsequently specialise.

MECH903 Biomechanical Engineering 6cp*Not on offer in 2004*

Subject Description: This subject introduces a selection of advanced quantitative methods used in biomechanical assessment of human movements. Topics include three-dimensional dynamics, modelling techniques (including finite element, simulation and optimisation).

MECH913 Pneumatic Transport of Bulk Solids 6cp

Autumn Wollongong On Campus

Subject Description: Classification and selection of transport systems; flow patterns; pressure drop, minimum transport velocities; design parameters and examples; feeding and disengaging methods.

MECH918 Sustainable Energy in Buildings 6cp*Not on offer in 2004*

Subject Description: Advanced topics in: performance of buildings with particular regard to thermal comfort and ventilation; analysis and design of conventional air conditioning systems to appropriate standards; passive solar design of buildings; energy conservation in buildings; embodied energy in buildings; natural ventilation systems; and refrigeration systems.

MECH919 Advanced Topics in Mechanical Engineering 1 6cp

Autumn/Spring Wollongong On Campus

Subject Description: There is no set syllabus for this subject. It is intended that it normally be offered on a specialised mechanical engineering topic given by members of the Department, visiting academic staff or engineering consultants.

MECH920 Numerical Methods in Mechanical Engineering 6cp*Not on offer in 2004***Assessment:** Final examination and Assignments

Subject Description: The subject consists of two main areas: a. Computational fluid dynamics which includes a selection of computer techniques applied to aerodynamics and hydrodynamics; and b. A study of industrial fluid mechanics which includes a selection of the following topics; principles of turbo machinery; pipe networks; control and suppression of pressure surges in pipelines; causes and avoidance of flow induced vibration in engineering systems.

MECH925 Advanced Fluid Power 6cp
Spring Wollongong On Campus
Subject Description: Fluid power components; circuit design; analysis of transmission, valve-controlled and feedback systems; electronic controls; vibration and transient response.

MECH926 Applied Fluid Mechanics 6cp
Not on offer in 2004
Subject Description: A study of applied fluid mechanics which will include the analysis, design and control of a selection of fluid flow systems in industry.

MECH927 Physical Processing of Bulk Solids 6cp
Not on offer in 2004
Subject Description: Bulk solids description and characterisation; crushing, grinding, thickening, separation, precipitation, filtration, blending, tableting, briquetting and agglomeration, sizing and classification; introduction to beneficiation; drying; intermediate processing and handling; control and instrumentation; dust generation and abatement.

MECH928 Finite Element Techniques in Mechanical Engineering 6cp
Autumn Wollongong On Campus
Subject Description: Introduction to finite element method. Application of finite element technique to stress analysis, fluid mechanics, heat transfer, vibration. Computer packages.

MECH929 Advanced Topics in Mechanical Engineering 2 6cp
Autumn Wollongong On Campus
Subject Description: As for MECH919.

MECH930 Mechanical Vibration and Condition Monitoring 6cp
Not on offer in 2004
Subject Description: Balancing of machinery. Vibrations, Energy Method and Rayleigh Principle. Two degrees of freedom system, free vibration, transient response, steady state response, damping. Multimass system, free vibration, forced vibration, damping. Vibration of beams. Torsional vibration in rotating machinery. Conditions monitoring of machinery: vibration measurement and analysis.

MECH931 Friction Lubrication and Wear 6cp
Spring Wollongong On Campus
Subject Description: Navier-Stokes and Energy equation of viscous fluid flow and their application to hydrodynamic journal and thrust bearings. Characteristics of hydrodynamic and hydrostatic bearings. Bearings selection and design. Rolling bearings and Elasto-hydrodynamic lubrication. Friction and wear processes. Boundary lubrication. Properties of lubricants and bearing materials and their interaction. Application in industry.

MECH933 Solar Energy 6cp
Not on offer in 2004
Subject Description: Principles and techniques applicable to the analysis and design of solar thermal energy systems. Solar radiation; transmission and absorption by collectors; analysis and design of collectors; energy storage; system thermal calculations; solar process economics.

MECH934 Advanced Manufacturing Processes 6cp
Autumn Wollongong On Campus
Subject Description: Modelling of advanced manufacturing processes; manufacturing cost analysis; productivity and quality methods and measurements in manufacture; computer-assisted process planning; manufacturing optimisation; trends in advanced manufacturing processes, recycling aspects.

MECH935 Integrated Manufacturing Systems 6cp
Spring Wollongong On Campus
Assessment: Assignments and Final examination
Subject Description: Concurrent engineering, its application and benefits; computer integrated manufacturing concepts and applications; CAD/CAM, CNC programming, FMC, FMS; computer-process interfacing; process and tool condition monitoring; computer-aided quality control; assembly systems, assembly lines, assembly line balancing; design for manufacture - casting, forming, machining and selected examples; human interface in manufacturing systems; future trends.

MECH939 Advanced Topics in Mechatronic Engineering 6cp
Autumn/Spring Wollongong On Campus
Subject Description: There is no set syllabus for this subject. It is intended that it normally be offered on a specialised mechatronic engineering topic given by members of the Faculty, visiting academic staff or engineering consultants.

MECH948 Sustainable Energy Technologies 6cp
Spring Wollongong On Campus
Assessment: Case study or laboratory work
Analytical/descriptive written assignment Oral presentation Final exam
Subject Description: This subject covers a number of Sustainable Energy Technologies including the following: solar thermal systems; photovoltaics; wind energy; hydroelectricity generation; wave power systems; biomass; remote area power supplies; energy conservation/auditing. The environmental and social impact of these technologies as compared to conventional energy sources will be considered. Students will undertake a laboratory/field experiment or project, and/or carry out a case study.

MECH949 Advanced Computer Control of Machines and Processes 6cp
Autumn Wollongong On Campus
Subject Description: Advanced modelling and control of multivariable systems: performance of multivariable control

Subject Descriptions

systems; optimal control theory; robust control systems; design, implementation and evaluation of digital control systems.

MECH950 Advanced Robotics 6cp

Spring Wollongong On Campus

Assessment: Project reports, Mid session examination, Laboratory report, Final examination

Subject Description: The subject provides the knowledge and skills required to design appropriate robotic systems. Topics covered include: industrial robots as a component of automation, mathematical modelling of a robotics arm, direct and inverse kinematics model, direct and inverse dynamics model, trajectory planning, robot control, design and selection of drives and motors, industrial vision systems, position sensors, force sensors, ultrasonic sensors and other sensors

MECH970 Maintenance Management 6cp

Not on offer in 2004

Subject Description: 1. Approaches to maintenance, 2. The Systems Approach, Life cycle considerations for systems, 3. Finish maintenance-A maintenance model, 4. Analysing Maintenance Requirements: The Process, 5. The Business Environment, 6. Safety and Quality Standards, 7. System Analysis, 8. Failure Behaviour, Condition Monitoring, 9. Maintenance Planning & Control, 10. Inventory selection and control, 11. Human factors and organisational aspects for maintenance, 12. The information flows, documentation & computer control in maintenance

MECH971 Systems Analysis For Maintenance 6cp

Intake B Wollongong On Campus

Subject Description: Maintenance Concept Design Methodology, Reliability Theory, Data Recordings and Analysis, Identification and Analysis of Failure Modes, Maintenance Rule Selection, Preventative Replacement Policies, Optimisation of Inspection Frequencies, Clustering of Tasks, Opportunity Maintenance, Specification of Resource Requirements.

MECH972 Condition Based Maintenance 6cp

Intake D Wollongong On Campus

Assessment: Assignments and Final examination assessing all of the objectives

Subject Description: Overview of fault diagnosis techniques (electrical-mechanical-computer); Identification of critical plant, failure types-modes. Diagnosis documentation; Maintenance strategies; Target areas for successful applications; Sensor technology overview; Condition monitoring strategy, techniques and organisation; Automation aspects in condition monitoring; Expert-AI systems; Costs and problems; Decisions on the periodicity of condition monitoring; Case studies.

MECH973 Systems Engineering and Life Cycle Management 6cp

Intake D Wollongong On Campus

Subject Description: Phases of the Life Cycle of Products and Industrial Equipment, Life Cycle Costing, Economics and Models, Cost Estimation, Analysis on Design, Logistic Support, Maintainability, Availability, Interface Control, System Integration. Testing and Performance Evaluation, Installation Procedures, Asset Management, Disposal, Asset Purchase/Replacement Policies and Decision-making.

MECH976 Maintenance System Design and Management 6cp

Intake C Wollongong On Campus

Subject Description: This subject introduces participants to typical problems encountered in designing and in managing what may be termed the 'maintenance system; in doing so participants will have the opportunity to explore some of the following areas of knowledge: Human aspects of maintenance and reliability; ergonomics; work measurement, methods engineering and activity sampling applied to maintenance activities; estimation of maintenance times; maintenance facilities layout. Planning for shutdowns and overhauls; inventory control for maintenance, inventory control systems, configuration management, warehouse control, evaluation of maintenance performance, improving maintenance performance, TPM.

MECH977 Advanced Topics in Maintenance 1 6cp

Not on offer in 2004

Subject Description: There is no set syllabus for this subject. It is intended that it normally be offered on a specialised maintenance topic given by members of the Department, visiting academic staff or engineering consultants.

MECH979 Sustainable Transport and Engine Technology 6cp

Autumn Wollongong On Campus

Contact Hours: 4 hours per week

Assessment: Assignment 1, Assignment 2, Seminar/Report, Engine Lab, Final Examination

Subject Description: Advanced topics in: human powered transport, conventional and novel engine technology and design; strategies for reducing emissions; alternative fuels; solar vehicles; fuel cells and hybrid vehicles.

MECH980 Functional Analysis and Risk Management 6cp

Not on offer in 2004

Subject Description: Requirement analysis of systems and components: functional requirements and constraints analysis. Functional analysis and allocation. Parametric analysis and decision trees. Sensitivity analysis and control. Risk trade-offs.

MECH981 Concurrent Design Management 6cp
Not on offer in 2004

Subject Description: System integration from the functional to the physical stage. Project planning. Risk management. Management of configuration, interface. Human engineering: task, operational sequencing, personnel requirements, error and safety analysis.

MECH982 Bulk Solids Characterisation and Particulate Mechanics 6cp
Not on offer in 2004

Subject Description: Concepts of particle mechanics (failure criteria, models to represent such criteria as particle size and distributions, particle shape, compressibility, permeability, internal friction, cohesion, adhesion, wall friction); concepts of flow properties of bulk solids for equipment design; flow property measurement techniques; use of computer software to analyse and present experimental data for use in design.

MECH983 Bulk Solids Handling(Storage and Flow) 6cp
Not on offer in 2004

Subject Description: Basic concepts of storage; flow and feeding of bulk solids; use of flow properties to determine hopper geometrics; bin wall loads; feeding and discharge systems, feeder loads; chute design; flowrate prediction; segregation and blending; dust suppression systems; stock pile systems; case studies.

MECH984 Belt Conveying 6cp
Not on offer in 2004

Subject Description: Belt conveying systems; properties of conveyor belting; tension analyses (static and dynamic); drive systems; loading and unloading belts; trajectory prediction; transfer chute design novel belt systems; economic analyses.

MECH985 Dust and Fume Systems 6cp
Not on offer in 2004

Subject Description: Basic concepts; terminology and problems; health and safety regulations; dust characterisation; fan performance characteristics; capture velocities and minimum transport velocities; hood and enclosure design; duct design; dust generation and its minimisation; filtration systems; design of dust handling and disposal systems; occupational health and safety; dust explosion; case studies.

MECH986 Instrumentation and Control Systems For Bulk Solids 6cp
Not on offer in 2004

Subject Description: Transducer types and their specification and applications; dynamic response of systems; speed measurement and control; mass flow rate measurement; belt weighing; weigh belt feeders; continuous and batch weighing systems; bin weighing systems and structural implications; system accuracy; interfacing with PLC's and computers; case studies.

MECH987 Advanced Topics in Bulk Solids and Particulate Technologies 1 6cp
Not on offer in 2004

Subject Description: There is no set syllabus for this subject. It is intended that it normally be offered on a specialised topic relating to some aspect of modern technologies relating to bulk solids and/or particulate technologies by staff members/visiting specialists and/or engineering practitioners.

MECH988 Advanced Topics in Bulk Solids and Particulate Technologies 2 6cp
Not on offer in 2004

Subject Description: There is no set syllabus for this subject. It is intended that it normally be offered on a specialised topic relating to some aspect of modern technologies relating to bulk solids and/or particulate technologies by staff members/visiting specialists and/or engineering practitioners.

MECH989 Advanced Topics in Bulk Solids and Particulate Technologies 3 6cp
Not on offer in 2004

Subject Description: There is no set syllabus for this subject. It is intended that it normally be offered on a specialised topic relating to some aspect of modern technologies relating to bulk solids and/or particulate technologies by staff members/visiting specialists and/or engineering practitioners.

MECH990 Bulk Solids and Particulate Technologies Project 12cp
Not on offer in 2004

Subject Description: Prepare a thesis on an approved topic related to bulk solids and/or particulate technologies. Normally the thesis will cover work performed in the workplace and additional supervision by an industry representative.

MECH993 Maintenance Management of Bulk Handling Systems 6cp
Not on offer in 2004

Subject Description: Maintenance function principles and objectives; reliability and maintainability; maintenance planning; maintenance strategy for plant - a systems approach; maintenance and information support; failure analysis; maintenance organisation; maintenance control and documentation; human resource management; total production maintenance; auditing industrial maintenance systems.

MECH994 Mechanical Handling Systems 6cp
 Spring Wollongong On Campus

Subject Description: Loss factor of transport; economic analysis of conveying and transportation systems; aspects of particulate mechanics in relation to mechanical handling systems; design concepts and performance criteria of mechanical conveying and feeding equipment employed in process plants. Performance analysis and evaluation of mechanical loading and unloading systems such as used in ship transport.

MECH995 Bulk Solids Handling (Systems and Design) 6cp

Not on offer in 2004

Subject Description: Bin wall loads for symmetric and eccentric discharge; analysis of dynamic effects, the 'silo quaking' problem; wall roughness, friction and wear; feeder design principles; performance analysis of a range of feeders for bulk solids; flow promotion; blending and mixing; flow of fine powders; transfer chutes; vibration of bulk solids.

MINE899 Advanced Topics in Mining Engineering 48cp

Annual Wollongong On Campus

Subject Description: Computer aided analysis and design; computer methods; ore reserve estimation finite element techniques; hydrology; hydraulics; numerical techniques; reliability; rock mechanics; simulation; structural analysis and design; structural topology; mine planning.

MINE901 Transportation of Minerals and Personnel 6cp

Not on offer in 2004

Subject Description: Transport of minerals from initial winning to stockpile and to distribution points; safety problems, hygiene, the environment; transport of personnel, equipment, safety, regulations; cost involved; current research.

MINE902 Advanced Studies in Mining Engineering 6cp

Not on offer in 2004

Subject Description: Topics will be selected from those areas of Mining Engineering in which staff members or visiting staff members to the Department are engaged in active research.

MINE903 Simulation of Mining Operations and Problems 6cp

Not on offer in 2004

Subject Description: Including coal reserves, mining dimensions, surface effects, cost benefit effects of operation and management and economic evaluation and feasibility of a mining enterprise.

MINE904 Rock Mechanics 6cp

Not on offer in 2004

Subject Description: Fundamentals of strata mechanics together with advanced topics including engineering technology and rock mechanics aspects of coal mining strata control. Design aspects of mine structures, such as mine pillars, gate roads and longwall mining. Instrumentation in providing for the safe design of the mine opening. Rock and cable bolting techniques and powered support design.

MINE905 Environmental Control in Mines 6cp

Not on offer in 2004

Subject Description: Mine climate and its control, ventilation planning, ventilation network analysis and simulation; fan selection, booster fans; ventilation of long headings,

recirculation; exhaust from diesel engines and their control; methane and its control in underground coal mines, dust in mine air and its control.

MINE906 Mining Engineering Techniques 6cp

Not on offer in 2004

Subject Description: A selection of advanced laboratory and field exercises in mine support, temporary and long term; in situ testing, laboratory testing, rock properties and parameters; mine design and plant related to extraction areas.

MINE908 Fires, Explosions & Mine Gases 6cp

Not on offer in 2004

Subject Description: Formation of coal dust; explosibility of coal dust; initiation of explosions; methane accumulation; development and propagation of explosion wave front; pressure pulse and flame front; prevention and control of coal dust formation; barriers, active and passive; experimental galleries; rescue and recovery of both mine and personnel; resultant fires; computer modelling of resulting crisis situations in ventilation; current research; relevant legislation.

MINE909 Mine Subsidence 6cp

Not on offer in 2004

Subject Description: Causes of mine subsidence; continuum mechanics theories; determination of trough subsidence; subsidence calculations and prediction; measurement techniques; design of structures in mine subsidence active area; methods of reducing subsidence damage; application of computers for subsidence modelling; relevant legislation.

MINE953 Mine Water-Origin, Inflow Predictions and Control 6cp

Not on offer in 2004

Subject Description: Water problems in surface and underground mining; hydro geological factors affecting mine water inflow; hydrological considerations in origin of mine water; hydro geological characterisation of rock mass and pumping tests; pumping test calculations; effects of ground water on surface mining stability; ground water control in surface mining; calculation of mine water inflow to surface mining; water problems in underground mining; under-ground mine dewatering techniques; pumps and pumping systems; underground pumping stations and pump design; mine inundation; working under the body of water; inflow prediction by chemical analysis method; mine water pollution control; treatment of mine water pollution; biotechnical approach; constructed wetlands and lagoons.

PHYS910 Advanced Project in Physics A 6cp

Autumn Wollongong On Campus

Assessment: Satisfactory operation and written descriptions of completed experiments

Subject Description: The student will be required to design and construct several self-contained experiments at the level of those encountered in Advanced Experimental Physics. OR After successfully completing this subject, the student will * have gained experience in contributing to the work of a small research group * be able to keep detailed working records of

the progress of experiments * have gained a variety of intermediate practical and analytical level skills related to the specific area of research in which they have been involved * be able to present a short seminar on the research in which they were engaged.

PHYS946 Advanced Solid State Physics 6cp

Autumn Wollongong On Campus

Assessment: Assignment problems, Tests and sessional examinations

Subject Description: Crystal Symmetries; Groups of Linear Transformation; Abstract Groups; Theory of Group Representations; Group of the Schrodinger Equation; Selection Rule Theorem; Groups of Physical Interest; Rotation Operations; Double-Valued Representations; Direct Products; Crystal Fields; Adiabatic Approximations; Bloch's Theorem; The Effective Mass Expansion; Spin-Orbit Interaction; Time-reversal Symmetry; Symmetry Properties of Wave Vectors; Band Theory; Impurities in Semiconductors.

PHYS947 Special Topics in Physics A 6cp

Autumn Wollongong On Campus

Assessment: Project Work and Seminar

Subject Description: A special topic to be selected from any area of Physics. The selection to be made by the Physics Academic Adviser.

PHYS948 Physics of Imaging 6cp

Autumn Wollongong On Campus

Subject Description: Photographic processes and interpretation; Optical and infrared arrays; Image digitising systems; Radio synthesis imaging and fourier optics; Image analysis; Applications in industry, medicine and astrophysics.

PHYS951 Medical Physics Research Project 18cp

Annual Wollongong On Campus

Assessment: Substantial report and Seminar

Subject Description: The student will be required to undertake an applied research project on a topics of medical radiation physics under the supervision of one of the staff members working in the area of medical radiation physics. The area of research will be selected from the following fields: Nuclear Medicine, Medical Imaging, Radiobiology, Radiation Protection, Diagnostic Radiology, Radiotherapy, Instrumentation and Imaging Physics. All the above research topics may not be available every year.

PHYS952 Radiation and Radiotherapy Physics 8cp

Autumn Wollongong On Campus

Assessment: Written examinations, Assignments, Practical

Subject Description: This subject is intended to lead to an understanding of the instrumentation and techniques involved in diagnostic and therapeutic uses of radiation in medicine. Topics covered will include Interactions of Radiation with Matter, Sources of Radiation, Detecting Radiation, Nuclear Electronics and data acquisition system, Nuclear Reactions

and Production of Radioisotopes, Neutron Physics, Dosimetry of photons, electrons and neutrons, Solid State Dosimetry, TLD and film dosimetry, Introduction to Radiation Therapy, Medical Linear Accelerators, X-ray Modeling Methods, Brachytherapy and Radiosurgery, Clinical Radiotherapy, Linear Accelerators X-ray and Electron Beam Properties.

PHYS953 Medical Imaging and Nuclear Medicine 8cp

Annual Wollongong On Campus

Assessment: Written examinations, Assignments, Presentation and practical pass/fail. Students are required to pass the practical.

Subject Description: This subject is intended to lead to an understanding of the instrumentation and techniques involved in medical imaging and an appreciation of the part played by image analysis in medical physics specifically. Topics covered will include - the photographic process, solids state detectors and CCDs, the hardware of image processing; film digitisers and plate scanners, software techniques, histograms, enhancements, convolution, edge enhancement, fourier techniques and operation synthesis, nuclear magnetic resonances, Larmor frequency, basic imaging, slice selection, 3D data acquisition, chemical shift imaging, contrast agents, image artefacts and distortion. The evolution and basic physics of radionuclide imaging, the tracer principle in Nuclear Medicine, the ideal properties for radioactive agents for diagnostic studies, the ideal properties for therapeutic radioactive agents, basic physiology of body organs pertinent of Nuclear Medicine,

PHYS954 Radiobiology and Radiation Protection 8cp

Spring Wollongong On Campus

Assessment: Written examinations, Assignments, Practical

Subject Description: Topics covered in this subject include - Interaction of radiation with living cells and tissue; clinical fractionation; clinical radiation syndromes; radiobiological modelling; experimental radiation oncology; local control vs system control; radionuclide therapy; binary therapy; new radiotherapy modalities and their radiobiology; dosimetry; natural background radiation; principles of radiation protection; instrumentation for radiation protection; Radiation protection in radiation therapy and diagnostic

PHYS960 Advanced Project in Physics B 6cp

Spring Wollongong On Campus

Assessment: Satisfactory operation and written descriptions of completed experiments

Subject Description: The student will be required to design and construct several self-contained experiments at the level of those encountered in Advanced Experimental Physics. OR After successfully completing this subject, the student will * have gained experience in contributing to the work of a small research group * be able to keep detailed working records of the progress of experiments * have gained a variety of intermediate practical and analytical level skills related to the specific area of research in which they have been involved * be able to present a short seminar on the research in which they were engaged.

PHYS990 Applied Physics Project 24cp

Not on offer in 2004

Assessment: Minor Thesis

Subject Description: The student will undertake a research project and present a minor thesis and seminar on an applied physics topic selected after discussion with the Department Head.

PHYS997 Special Topic in Physics B 6cp

Spring Wollongong On Campus

Contact Hours: 28

Assessment: Project work and Seminar

Subject Description: A special topic to be selected from any area of physics. The selection to be made by the Physics Academic Adviser.

HEALTH & BEHAVIOURAL SCIENCES SUBJECT DESCRIPTIONS

GHMD903 Public Health Communication and Data Skills 6cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 2 hours per week

Assessment: Each module will be assessment separately on a pass/fail basis.

Subject Description: The aim is to acquire and practise a number of skills using public health examples. With the agreement of the coordinator, the student selects three modules. Modules include: 1) Epi-Info including small case studies; 2) Communication in public health including written and oral presentation; 3) Information sources including library and Internet searches with presentation of results; 4) project management for public health.

GHMD904 Epidemiology 6cp

Spring Wollongong On Campus

Spring Wollongong Distance

Contact Hours: 2 hours per week

Pre-requisites: GHMD983 - Statistics in Health Research

Assessment: Two assignments - 25% each, Examination - 50%

Subject Description: This subject addresses principles and methods of epidemiological investigation including analytic and experimental epidemiology. Topics to be covered are: measurement in epidemiology, screening, design of ecological studies, surveys, case control and cohort studies, clinical trial design, analysis of studies, critical appraisal of the literature, biological inference and causality. These methodological issues will be applied to a wide range of content areas such as occupation, cancer, health services and infectious diseases.

GHMD905 Social Foundations of Public Health 6cp

Autumn Wollongong On Campus

Autumn Wollongong Distance

Contact Hours: 2 hours seminar

Assessment: Two assignments - 60%, Final examination - 40%

Subject Description: This subject introduces students to theories and concepts from the social sciences necessary for the understanding and analysis of public health issues. Topics include: trends in public health; socio-economic and environmental influences on health and health inequities; biomedical and anthropological models of health and illness; the role of culture in health; and health behaviour and the political economy of health.

GHMD906 Quality Management for Health Services 6cp

Spring Wollongong On Campus

Spring Wollongong Distance

Contact Hours: 2 hours per week

Assessment: Two assignments 25% each, One assignment 50%.

Subject Description: Develops knowledge and skills in the application of contemporary quality management theories and concepts. Examines the forces driving change in the organisation and management of health care organisations and the implications for health care managers. Traditional approaches are contrasted with contemporary approaches. Quality management is considered an essential component of good management practice. It is still developing as an "accepted" management concept for implementation.

GHMD907 Independent Study in Public Health 6cp

Autumn/ Spring Wollongong On Campus

Autumn/ Spring Wollongong Distance

Assessment: Will reflect on the learning contract.

Subject Description: The program for this subject may vary. A supervisor will be appointed by the Head of the Graduate School of Public Health and a learning contract will be drawn up between the supervisor and student. Students may enrol only if a supervisor is available. The time commitment for an independent study is the same as that for any subject of equivalent credit points. Assessment is usually based on a research proposal or a written report.

GHMD908 Health Services Planning and Evaluation 6cp

Spring Wollongong On Campus

Spring Wollongong Distance

Contact Hours: 2 hours seminar

Assessment: One assignment 20%, one assignment 30%, one assignment 50%.

Subject Description: This subject covers the theory and practice of health planning. Topics include: Needs analysis, planning approaches, strategy analysis and formulation, setting goals and objectives, performance measurement and evaluation. Students will develop skills in service planning for population/public health programs and institutional services.

GHMD909 Comparative Health Systems: Policies and Politics 6cp

Autumn Wollongong On Campus

Autumn Wollongong Distance

Contact Hours: 2 hours per week

Assessment: One assignment - 30%, One assignment - 40%, Final examination - 30%

Subject Description: This subject examines how ideologies and political processes influence health policy development and health service delivery. The impact of broad socio-economic forces on health status and health policy development are emphasised. The subject is designed to assist individuals to develop analytical and strategic skills.

GHMD912 Health Promotion 6cp

Spring Wollongong On Campus

Spring Wollongong Distance

Contact Hours: 2 hours per week

Assessment: Assignments and an examination.

Subject Description: This subject will introduce students to the concept of health promotion and how it has been applied in particular settings - health services, worksites, schools and communities. Theoretical perspectives of behaviour change and public policy, as they are applied within the field of health promotion, will be critically reviewed. Subject involves on-line student discussions.

GHMD913 Alcohol and other drug studies 6cp

Autumn	Wollongong	On Campus
Autumn	Wollongong	Distance

Contact Hours: 2 hours lecture per week

Assessment: To be advised

Subject Description: This subject will provide an understanding of the pharmacological, psychological and sociological basis of alcohol and other drug (AOD) use and dependence. It will focus on government, intersectoral and community approaches to inform, minimise and treat the harm caused by the use of alcohol and other drugs. Contemporary issues, perspectives and approaches, which impact on both national and global policies, will be explored.

GHMD924 Health Information Systems 6cp

Autumn	Wollongong	On Campus
Autumn	Wollongong	Distance

Contact Hours: 2 hours per week

Assessment: Case analyses 30%, Major assignment 40%, Database assignment 30%.

Subject Description: This subject will introduce information systems in health and health informatics to students. Topics will include: clinical systems development, systems management, electronic health record, clinical decision support, classification and coding, privacy and confidentiality and IT risk assessment. Current and future computer applications in health (e.g. PAS, order management, tele health) will be discussed.

GHMD925 Aboriginal Health Issues 6cp

Autumn	Wollongong	On Campus
Autumn	Wollongong	Distance

Contact Hours: 2 hours seminar

Assessment: Three assignments.

Subject Description: Examines the health status of Aboriginal Australians from a historical perspective, using relevant insights from the experiences of other indigenous populations. Explores the causes of Aboriginal health problems, the political and economic context of health, the role of culture, and access to health services. Critiques current strategies to improve health.

GHMD930 Mass Media and Population Health 6cp

Autumn	Wollongong	On Campus
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Contact Hours: 2 hours lecture, 1 hour tutorial

Assessment: Two essays, written project, oral presentation.

Subject Description: This unit examines the effects of media on population health - from the negative impact of advertisements for cigarettes, alcohol and junk food to the

(hopefully) positive impact of public health campaigns. The subject covers commercial and social advertising, program and editorial content, media advocacy, and social marketing; and presents case studies of current media coverage and advertising campaigns to demonstrate the effects of media on health and social behaviour. Students will develop skills in media analysis, the development of communication campaigns, and dealing with the media.

GHMD936 Public Health Nutrition 6cp

Autumn	Wollongong	On Campus
Autumn	Wollongong	Distance

Contact Hours: 2 hours per week

Assessment: To be advised.

Subject Description: This subject will introduce the student to the food and nutrition system in Australia. Key areas of public health nutrition discussed include food and nutrition surveillance, food policy, programme planning and nutrition promotion. Subject involves on-line student discussions.

GHMD937 Food Inspection for Public Health 6cp

Not on offer in 2004

Assessment: To be advised.

Subject Description: This subject will contain a mix of practical food inspection skills and the principles of systematic food inspection. It will also cover responses to food-borne outbreaks and options of monitoring, investigation and prevention of such outbreaks. Both Australian and overseas practices and requirements will be addressed depending on the student needs.

GHMD965 Principles and Practices of Psychosocial Rehabilitation 6cp

Autumn	Wollongong	Distance
Autumn	Wollongong	On Campus

Contact Hours: Refer to Graduate School of Public Health

Assessment: One assignment 20%, one assignment 30%, one assignment 50%.

Subject Description: This subject provides students with a contemporary framework for understanding the rehabilitation and recovery process for people with a mental illness. It provides students with a set of knowledge and skills that can be applied in a range of contexts including case management and psychosocial rehabilitation services in both government and non-government sectors located in metropolitan, rural and remote areas. The subject examines theoretical and empirical issues associated with change enhancement, needs identification, collaborative goal setting, and collaborative task setting and monitoring outcomes. The skills component focuses on an understanding of the relationship between the clinician and the consumer (working alliance) and the process of recovery from mental illness undertaken by an individual consumer.

GHMD970 Comprehensive Systems of Mental Health Care 6cp

Spring	Wollongong	Distance
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Assessment: A variety of methods including service review, case reports, and essays.

Subject Description: This subject provides an overview of basic theoretical models used to explain psychiatric disorder and presents a historical overview of mental health services. It examines the impact of the National Mental Health Strategy on the development of an integrated, comprehensive mental health service. Students are provided with an understanding of each component of a community service network, including the role and function of crisis intervention services, residential services, hospital based services, and multidisciplinary mental health structures. The role of consumer and carer advocacy organisations is examined.

GHMD971 Assessment and Diagnosis in Mental Health 6cp

Autumn Wollongong On Campus
Autumn Wollongong Distance

Contact Hours: Refer to Graduate School of Public Health

Assessment: Two case vignettes 15% each, literature review 20%, clinical study 50%.

Subject Description: This subject examines the definitions and classification systems widely used to identify, describe and communicate about mental illness. The history and philosophical models which underpin DSM IV and ICD 10 are examined and analysed. The approaches and methods of assessment are outlined and subjected to analysis, including the assessment interview, the psychiatric history, symptom descriptions, functional assessment and family assessment. Ongoing assessment, uses and abuses of diagnosis, uses of assessment for management and research and ethics of assessment are also considered.

GHMD973 Case Management in Mental Health 6cp

Spring Wollongong On Campus
Spring Wollongong Distance

Contact Hours: Refer to Graduate School of Public Health

Assessment: Essay 40%, literature review 20%, case study 40%.

Subject Description: This subject provides an overview of the application of different models of case management in the context of mental health. It addresses both the evidence-base for case management and the question of who should be case managed. The principles and practices of clinical case management are examined in detail with a focus on the skills required of case managers in working with the client, carers and the broader social environment.

GHMD976 Supervised Clinical Practice 6cp

Autumn/ Spring Wollongong On Campus

Subject Description: A range of clinical placement opportunities are available within Mental Health Services. However, before enrolling in this subject students must negotiate details of their proposed placement with the course coordinator and nominated clinical supervisor. Students must develop and submit an outline of the program including a description of the nature of the clinical work, specific competencies to be developed, and how the development of competencies will be monitored and evaluated by the clinical supervisor.

GHMD981 Maternal and Child Health in Developing Countries 6cp

Spring Wollongong On Campus

Contact Hours: 2 hours per week

Pre-requisites:

Assessment: MCH service analysis 30%, Exam 30%, Project plan 40%.

Subject Description: Students will critically examine the 'safe motherhood' and 'reproductive health' programs in developing countries. They will develop skills in obtaining and assessing evidence based practices in Maternal Health and Child Health. They will develop a project for a MCH intervention in a selected developing country.

GHMD984 Health Research Methodology 6cp

Spring Wollongong On Campus

Spring Wollongong Distance

Contact Hours: 2 hours seminar

Pre-requisites: GHMD983 - Statistics in Health Research or equivalent.

Assessment: Three written assignments.

Subject Description: This subject introduces students to health research methodology. Topics include formulating a research question, conducting a literature review and writing a research proposal. Students will acquire skills in interviewing, survey design, and appropriate methods of qualitative and quantitative analysis. Ethical issues such as informed consent and confidentiality will be addressed.

GHMD985 Applied Epidemiology 6cp

Autumn Wollongong On Campus

Contact Hours: 3 hours per week

Pre-requisites: GHMD904 - Epidemiology

Assessment: One assignment - 10%, 3 assignments - 15%, 1 assignment - 20%, 1 assignment - 25%

Subject Description: The subject consists of a self directed computer based case study to be conducted in teams of 2 students. The case study concerns an environmental contamination and the methods to investigate the situation and its health effects. The students are placed in the situation of a public health official with a limited financial budget and many options for research. Primary investigation, risk evaluation, potential study designs and actual study analysis will be covered. Presenting the results to a critical audience will be simulated in class presentations.

GHMD986 Environmental Health 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hours per week

Assessment: 4 assignments

Subject Description: This subject covers various case studies in environmental health such as air pollution, soil contamination, climate change, water availability and contamination, waste problems and urbanisation. The lectures present the theories and internationally relevant cases. The students will present their own case studies in class and critique another in writing.

GHMD995 Minor Project 12cp

Autumn/ Spring	Wollongong	On Campus
	Wollongong	On Campus

Pre-requisites: 24 cp**Assessment:** Examination of report

Subject Description: Students are normally required to present a report which deals with an agreed health problem to agreed guidelines and to a maximum length of 10,000 words.

GHMD997 Major Project 24cp

Annual	Wollongong	On Campus
Autumn/ Spring	Wollongong	On Campus

Pre-requisites: GHMD984 - Health Research Methodology**Assessment:** Examination of report

Subject Description: The major project is an individual research endeavour under supervision. The candidate is encouraged to research a contemporary issue in their area of specialisation within the research areas of members of the Graduate School of Public Health. It is expected that there be both a theoretical and empirical content to the project. Students must have the permission of the Coordinator to undertake this subject. Guidelines for this subject are available from the Coordinator. The student is required to pass an examination of the detailed research proposal before about one third of the research time has passed. The final assessment of the subject is based on the written report but oral presentations are required at various times.

GHMA906 Research Projects 8cp

Autumn/ Spring	Wollongong	On Campus
Annual	Wollongong	On Campus

Contact Hours: 5 hrs per week minimum**Assessment:** Research report and performance

Subject Description: A one semester research project designed to develop an understanding of the scientific process through the experience of research. Students will design, propose, conduct, analyse, interpret and then present the results of a research project which can be related to the topic of their Major Thesis.

GHMA909 Practicum 8cp

Autumn/ Spring	Wollongong	On Campus
Annual	Wollongong	On Campus

Contact Hours: 5hrs per week minimum**Assessment:** Report, Seminars, Research Performance

Subject Description: A subject which introduces students to their supervisor's laboratory and allows for the development of technical skills and procedures critical to the success of their Major Project. If the student is undertaking a non-laboratory based thesis, another relevant subject may be substituted for GHMA909 with the approval of the HOD.

GHMA913 Special Topics 8cp

Autumn/ Spring	Wollongong	On Campus
Annual	Wollongong	On Campus

Contact Hours: 5hrs per week minimum**Assessment:** Literature critique in specified research area.

Subject Description: A subject which develops the students' ability to examine, access, interpret and evaluate primary and secondary source research data and ideas. Students will write an extensive critical literature review in the scientific style in the area related to their Major Thesis.

GHMA914 Ergonomics 8cp

Autumn	Wollongong	On Campus
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Contact Hours: 3hrs lectures per week**Assessment:** Major Assignment 30%; Presentation 20%; Minor Assignment 10%; Exam 40%

Subject Description: This subject will analyse the relationship between the nature of work and the environment. Topics covered will include the design of work stations and jobs and the capacities and limitations of the human body.

GHMA920 Behavioural Change: Human Factors in OH&S 6cp

Autumn	Wollongong	On Campus
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Contact Hours: 3 hrs lectures per week**Assessment:** Reflective Journal 20%; 2 x Assignments worth 25% each (total 50%); Seminar Presentation 15% and Report 15% (total 30%)

Subject Description: Introduces the concept of the Accident Phenomenon and how individual behaviour relates. Behavioural modification techniques will be examined and demonstrated by experienced practitioners. The students gain skills in behavioural identification, understanding activators and promoting effective behaviour in OH&S. Students will research behavioural aspects of major accidents so as to develop programs that influence behaviour at work.

GHMA921 Workplace Injury Management 6cp

Autumn	Wollongong	On Campus
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Contact Hours: 3 hrs lectures per week**Assessment:** Reflective Journal 20%; Seminar Presentation 15% and Report 15% (total 30%); Assignment 20%; Final Exam 30% (must pass exam to pass the subject as a whole)

Subject Description: Topics include the history and development of occupational health and safety, legislation, accident investigation, workplace injury management, and roles and responsibilities, functions and activities.

GHMA922 Occupational Hygiene and Toxicology 6cp

Spring	Wollongong	On Campus
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Contact Hours: 3 hrs lectures per week**Assessment:** Test Paper 10%; 3 x Field Exercise & Reports 20% each (total 60%); Final Exam 30% (must pass exam to pass subject as a whole)

Subject Description: Introduces the fundamental of basic anatomy and toxicology, routes of entry into human body, target organs, dose effect, threshold values and mechanisms of disease. Workplace exposure standards will be explored and the Hierarchy of Control to eliminate the hazard or reduce the level risk associated with exposure. Techniques for measuring dusts, gases, vapours, microbiological hazards and physical agents will be explored with practical demonstrations held.

GHMA923 OH&S Risk Management 6cp**Spring** Wollongong On Campus**Contact Hours:** 2 hrs lectures per week**Assessment:** Seminar Presentation 15% and Report 15% (total 30%); 2 x Field Exercises & Reports 20% each (total 40%); Assignment 30%**Subject Description:** This subject will explore the nature of risk, hazard identification, risk assessment and control. Suitable hazard studies (Hazpac & Job Safety Analysis) and risk modeling techniques (HAZOP, HAZAN & PHA) will be introduced to allow for the prediction of risk and the development of risk management strategies.**GHMA925 Manual Handling 6cp****Spring** Wollongong On Campus**Contact Hours:** 3 hrs Lectures**Pre-requisites:** GHMA923**Assessment:** Biomechanics Lab Report (20%); Class Test (10%); Report (40%); Presentation (10%); Report (20%)**Subject Description:** Manual Handling remains the most common mechanism of workplace injury in New South Wales, accounting for \$226.2 million in cost, and almost 127,000 weeks in lost time during the 1998/9 period (Workcover Annual Report 1998/9). The rate of manual handling injuries remains constant, and as such, continues to be one of the major areas of focus for Occupational Health and Safety professionals. This course will provide students with the knowledge and skills to identify, assess, control and monitor a range of manual handling risks in the occupational setting. In addition, training strategies for manual handling will be explored.**GHMA926 Conducting Workplace Assessments 6cp****Summer 2004/2005** Wollongong On Campus**Contact Hours:** 3 days/week over 2 weeks during summer session**Pre-requisites:** GHMA921**Assessment:** Class Test (10%); Assignment (10%); Report and Presentation (20%); Class Report (20%); Placement Report and Presentation (40%).**Subject Description:** This course will enable students to conduct workplace assessments in a variety of settings. An overview of the process of injury management will provide students with the context and rationale for assessment. Students will gain practical skills and experience in workplace assessment through the use of case studies and industry placements, with the emphasis on effective injury management - maintaining an injured worker in the workplace through appropriate workplace assessment, reducing the risk of re-injury, and promoting the return to full duties.**GHMA929 Exercise Psychology and Dietary Counselling 8cp****Autumn** Wollongong On Campus**Contact Hours:** 4hrs Lectures/Seminars per week**Assessment:** Counselling Practical Assessment 40%; Class Learning Activities 10%; Completed by Psychology Department 50%**Subject Description:** The subject will combine an understanding of the central features of sports psychology with basic skills in dietary counselling and small group education in the context of diet and exercise. Students will study personality and situational factors influencing participation in sport, and cognitive and behavioural influences on the promotion of healthy lifestyles. They will counsel individuals in dietary change and conduct small group education programs for community members.**GHMA930 Community and Public Health Nutrition 8cp****Autumn** Wollongong On Campus**Autumn** Wollongong Distance**Contact Hours:** 2hrs Lectures/Seminars per week**Pre-requisites:** PHN203 or POP222**Assessment:** Activity Journal 20%; Essay 40%; Case Study 40%**Subject Description:** Key areas of community and public health nutrition include nutrition surveillance, food policy, program planning and health promotion. There will be a focus on community nutrition practice, covering such topics as maternal and infant nutrition, school based nutrition programs, diabetes education and the health of older people in the community. Submission of some assignment work via webct.**GHMA931 Nutrients and Metabolism 8cp****Autumn** Wollongong On Campus**Contact Hours:** 4hrs Lectures, 2hrs Practicals per week**Pre-requisites:** BIOL214 and BMS202; or equivalent**Assessment:** Examination 30%, Practical Assessment 40%, Presentations 10%; Reports 20%**Subject Description:** This subject covers the need for nutrients and how the human body metabolizes these nutrients. It begins with basic concepts such as bioavailability of nutrients from food. It then focuses on specific nutrients, namely carbohydrates, folate, plant sterols, phytoestrogens and fats, of which there is no recommended dietary intake (RDI). The overall aims are 1) to understand the relationships between intake of nutrients and health status and 2) to develop an appreciation for the development of an RDI for a nutrient. Please note that this is a core subject for all of the University of Wollongong's nutrition degrees and hence it is tailored for nutrition students.**GHMA932 Research in Human Nutrition 8cp****Autumn** Wollongong On Campus**Annual** Wollongong On Campus**Contact Hours:** 8 x 4 hr workshops**Pre-requisites:** STAT151 or STAT252 or equivalent**Assessment:** Literature review 20%; Scientific report 40%; Presentation of proposal 20%; Research proposal 20%**Subject Description:** The subject will introduce students to a range of key areas of research in human nutrition. Beginning with an overview of nutrition research and the development of literature reviews, topics will include diet intake methodology, the use of nutrient databases, biomedical assays and indicators, epidemiological and ethnographic approaches as they relate to nutrition.

GHMA933 Communication in Healthcare Practice 8cp**Autumn** Wollongong On Campus**Contact Hours:** 4hrs Lectures/Seminars per week**Assessment:** Assessment in Small Group 35%; Assessment in Counselling 35%; Assessment in Team Activities and Reflective Learning 30%**Subject Description:** The subject will introduce you to the theory and practice of communication in the professional work environment, emphasising successful communication in a range of contexts. These include client counselling, small group education, community consultation, participation in meetings, working with the media and conflict resolution. In order to promote teamwork and group skills, the subject is taught on a small group basis, and you should prepare for each activity. In order to promote an understanding of how people learn in small groups, you are asked to keep a reflective journal and to critique the process at the completion of the subject.**GHMA934 Dietetics 8cp****Autumn** Wollongong On Campus**Contact Hours:** 6hrs Lectures/Seminars per week**Pre-requisites:** GHMA931 and GHMA932**Assessment:** Ready Reckoner Assignment 10%; Food Group Assignment 15%; Case Studies 30%; Final Exam 45%**Subject Description:** Dietetics concerns the manipulation of food and dietary data with the aim of supporting nutritional health. This subject focuses attention on the nutritional needs of individuals, in clinical and community health settings, where nutritional intervention will improve or support the quality of life. This subject will draw upon much of your undergraduate and postgraduate studies. In particular you should revise your understanding of nutrition through the life cycle, human physiology and metabolic biochemistry.**GHMA935 Food Service and Dietetics Management 8cp****Autumn** Wollongong On Campus**Contact Hours:** Refer Department**Pre-requisites:** GHMA930 or GHMA931 or GHMA932**Assessment:** Menu Planning Assignment 25%; Multiple Choice Quiz 10%; Group Consultancy 25%; Management Assignment 15%; TAFE Assignments 25%**Subject Description:** The subject is an introduction to the management of food service operations and hospital dietetic departments. It will focus on the development of small and large scale cooking skills, menu planning and standard recipe manipulation in keeping with dietetic modifications. It will also develop the necessary skills and knowledge base to assist in and/or manage the provision of meals via an institutional food service. Aspects of organisational design, leadership, motivation, negotiation, resource management, decision making and power will be explored.**GHMA937 Practical Studies in Nutrition and Dietetics 24cp****Autumn/Spring** Wollongong On Campus**Annual** Wollongong On Campus**Contact Hours:** Off Campus placement - min.16 wks full time (5 days x 8 hours).**Pre-requisites:** GHMA933 or GHMA929; and GHMA934 and GHMA935**Assessment:** 100% practical experience. Grade of Satisfactory or Unsatisfactory given.**Subject Description:** This subject comprises a practicum of at least 16 weeks duration which is spent in hospitals, community health centres, and other food-related organisations. Students will be under the supervision of experienced practitioners appropriate to the placement requirements. This placement is designed to develop the student's skills and competencies in a range of areas including specialised therapeutic diets and the provision of community nutrition programs. It also provides the students with opportunities to rehearse and demonstrate both interviewing and counselling skills, as well as information and behaviours required to allow the Dietitian to operate as an independent professional. Awareness of, and behaviours consistent with the knowledge of ethics requirements, confidentiality, accountability and other responsibilities of the autonomous professional operating either independently or as a member of a multidisciplinary team should be demonstrated by the student.**GHMA938 Practicum in Dietetics and Exercise Science A 16cp***Not on offer in 2004***Pre-requisites:** GHMA934 and BEXS402 or GHMA929**Assessment:** 100% practical experience. Grade of Satisfactory or Unsatisfactory given.**Subject Description:** This subject comprises a practicum of at least 10 weeks duration which is spent in community health/fitness centres, hospitals and other food-related organisations. The students will be under the supervision of experienced practitioners appropriate to the placement requirements ie dietitians and exercise scientists. This placement is designed to develop the student's skills and competencies in a range of areas including provision of community nutrition programs and the design and delivery of exercise interventions for the general community. It also provides the students with opportunities to rehearse and demonstrate both interviewing and counselling skills, as well as information and behaviours required to allow the Dietitian /Exercise Scientist to operate as an independent professional. Awareness of, and behaviours consistent with the knowledge of ethics requirements, confidentiality, accountability and other responsibilities of the autonomous professional operating either independently or as a member of a multidisciplinary team should be demonstrated by the student. This placement also partly meets requirements of the Dietitians Association of Australia, the balance of those requirements being met through the second placement program conducted in the final year of the MSc(Dietetics and Exercise Science) course.**GHMA939 Practicum in Dietetics and Exercise Science B 16cp***Not on offer in 2004***Pre-requisites:** GHMA934 and BEXS402 and GHMA933**Assessment:** 100% practical experience. Grade of Satisfactory or Unsatisfactory given.

Subject Description: This subject comprises a practicum of at least 10 weeks duration which is spent in the health care system or within organisations providing services for people with pathology. The students undertaking this subject will be under the supervision of experienced practitioners appropriate to the placement requirements ie nutritionists, dietitians and exercise scientists. This placement is designed to develop the student's skills and competencies including provision of hospital-based nutrition and food service programs and the design and delivery of nutritional and exercise interventions for clients with pathology such as post-coronary patients, patients attending impatient obesity clinics and those people experiencing musculoskeletal pathology. This subject completes placement requirements of the Dietitians Australian Association of Australia and Australian Association for Exercise and Sports Science.

GHMA951 Exercise Rehabilitation I: Musculoskeletal 8cp

Autumn Wollongong On Campus

Contact Hours: 2hrs Lectures, 3hrs Practicals per week

Pre-requisites: BEXS351 and BMS203

Assessment: Assessment Assignment 20%, Interview exam 25%, Professional Report 25%, Clinical Exam 30%

Subject Description: This subject extends the study of exercise rehabilitation providing revision related to the structure and function of major joints and introduces common pathologies - mechanisms and outcomes. The subject covers information related to evaluation of the injured site and the design and management of appropriate exercise rehabilitative techniques designed to improve functional capabilities and prevent reinjury. It is essential for students undertaking this subject to have excellent knowledge in Functional Musculoskeletal Anatomy and Exercise Physiology and Prescription. Students without this requisite knowledge will have difficulty completing this subject.

GHMA952 Exercise Rehabilitation II: Cardiorespiratory & Neurological 8cp

Autumn Wollongong On Campus

Contact Hours: 2 hour lecture, 3 hour practical per week

Pre-requisites: BMS344 and BMS346 and BEXS352

Assessment: Theory Examinations (2) 50%; Assignments (4) 50%

Subject Description: This subject investigates the use of exercise as a clinical rehabilitative tool for patients with cardiovascular or neurological pathologies. The subject covers information related to evaluation of the pathology site and the design and management of appropriate exercise rehabilitative techniques to improve functional capabilities and enhance quality of life.

GHMA997 Major Project 24cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 2 hour tutorial weeks 1-2; 5; 11-13

Pre-requisites: Satisfactory prior knowledge of research methods. Consult academic adviser.

Assessment: Report 80%; Poster 10%; Presentation 10%

Subject Description: Group or individual research project designed to give students an intensive one session research experience under the guidance of an academic supervisor. By

the end of the session students will be able to - 1) Prepare a research proposal; 2) Present proposal in concise manner; 3) Prepare scientific report on research; 4) Present report at a research seminar; 5) Develop a poster.

SFC 901 Contemporary Issues in Food and Nutrition 6cp

Spring Wollongong Flexible

Contact Hours: 48 hours per session

Pre-requisites: As per course entry requirements

Assessment: Written Assignments 70%; Presentations 30%

Subject Description: This subject introduces students to ideas on the causes, nature, and effect of a number of current food and nutrition issues. This includes but will be not limited to, the alteration of nutrient composition in the development of foods to meet specific needs and the food regulatory environment including consideration of labelling requirements that must be addressed. Examples will be drawn from Australia and overseas. Students will critically discuss the role of influential factors, including interaction of biological, lifestyle and sociocultural aspects of human behaviour; changes in the nature of the food system; role of government and professional groups; and consumer interests.

SFC 902 Food Regulation and Policy in Australia 6cp

Autumn Wollongong Flexible

Contact Hours: 48 hours per session

Assessment: Written Assignments 70%; Presentations 30%

Subject Description: This subject describes and analyses aspects of the Australian food regulatory system and its relationship with the production and promotion of foods. Issues are discussed within 3 modules: food regulatory system and the legal framework; food policy: development, organisational structures and analysis; and food and nutrition system - examples of food regulation and policy issues.

SFC 903 Nutrition Research 6cp

Autumn Wollongong Flexible

Contact Hours: 48 hours per session

Assessment: Written assignments 70%; Presentations 30%

Subject Description: The subject introduces students to the critical interpretation of research findings in nutrition and to the evaluation of primary and other source material as a foundation for evidence based nutrition. It will provide a series of research edge seminars based on activities of the Smart Foods Centre and collaborators. This will initially focus on identification, development and scientific evaluation of key nutrients in foods optimising carbohydrate and fat balance in the diet, and consumer evaluation of nutrients and foods. Students will complete a critique of current research and report on learning outcomes as they relate to their work environment.

SFC 904 Nutrition and Food Innovation 6cp

Autumn Wollongong Flexible

Spring Wollongong Flexible

Contact Hours: 48 hours per session

Assessment: Written assignments 70%; Presentations 30%

Subject Description: The subject introduces students to the use of technologies which underpin the development of the contemporary Australian food supply. These include but are not limited to genetic modification and its applications in food production, the impact of feeding programs on livestock, issues concerning trends to home replacement or ready to eat meals, use of risk assessment frameworks and an overall critique of biotechnology in food production.

GHMB902 Nursing Management 6cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 3 hours per week

Subject Description: The basic concept of nursing administration at the ward, middle management, and at senior levels will be introduced. Differences in management style, ward design and its impact on care delivery, nursing care delivery assignments, and nursing involvement in the public and private sector will be examined.

GHMB903 Scientific and Qualitative Developments 6cp In Acute Care Nursing

Autumn/ Spring Wollongong On Campus

Contact Hours: 3 hours per week

Subject Description: Investigates technological, biological, psychological and sociological developments that have created an impact in acute care nursing in recent times. Insights into specific technology and pharmacology used for diagnostic or therapeutic purposes by nurses and the Health team will be targeted, including their characteristics, uses and efficacies within an holistic nursing care framework.

GHMB905 Special Topic in Nursing 12cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 3 hours per week

Subject Description: This is a combined program of research and coursework leading to the completion of a minor project. Students will be expected to work closely with a supervisor on a project where a common interest exists.

GHMB906 Acute Care Nursing: Reflections on Practice 6cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 3 hours per week

Subject Description: Focuses on relevant theories, themes and issues that have a practical bearing upon acute care nursing, and on models of acute care nursing that address evidence based practice. Practical aspects include pathophysiology of the Cardiovascular, Respiratory, Nervous and Alimentary systems and Acid Base balance; and Introduction to Electrocardiograph Interpretation.

GHMB907 Fundamental Concepts in Developmental Disability 6cp

Autumn Wollongong Flexible

Contact Hours: Average of three hours per week

Subject Description: Provides the basic scientific knowledge on which developmental disability practice is based. Emphasis upon the student gaining sound understanding of the nature of developmental disability within a broad social context. The body of knowledge which defines and identifies the nature of the group and the philosophical, ethical and legal foundations for practice will be addressed in this course.

GHMB908 Applied Behavioural Science for Developmental Disability Practice 6cp

Spring Wollongong Flexible

Contact Hours: Average of three hours per week

Pre-requisites: GHMB907 Fundamental Concepts in Developmental Disability

Subject Description: Developmental disability practice makes extensive use of such skills and roles as assessment, programming, teaching, behaviour management and supportive counselling. To use these skills effectively, the student requires a knowledge of selected principles drawn from the behavioural sciences. This subject will provide the necessary theoretical framework, together with an emphasis on practical application and problem-solving skills.

GHMB910 Contemporary Issues in Developmental Disability 6cp

Spring Wollongong Flexible

Contact Hours: Average of three hours per week

Pre-requisites: GHMB907 Fundamental Concepts in Developmental Disability

Subject Description: It is vitally important that practitioners in the field of developmental disability are willing to critically assess current practice and to objectively consider other service options. There are also a number of controversial issues in relation to the rights and responsibilities of people with developmental disabilities that must be addressed. This course will require independent and thoughtful analysis of such issues and critical assessment of current practice.

GHMB911 Midwifery Practice 1 4cp

Autumn Wollongong On Campus

Pre-requisites: GHMB916 (Part-time students)

Assessment: Longitudinal Case Study - Models of Care (75%); Mastery of Viva appropriate to area of clinical practice (25%); satisfactory progress of Clinical Competence Profile (a minimum of 30% of the clinical requirements for the designated clinical areas will be successfully completed).

Subject Description: This subject is the first of three subjects that allows the student to acquire the necessary clinical experiences as designated by the Nurses Registration Board of NSW. Midwifery Practice 1 is designed to introduce the student in the provision of care of the woman and her family throughout pregnancy, parturition and the puerperium. Special emphasis is on the well woman, pregnancy, fetus, parturition, puerperium and the neonate. Potential complications during childbearing and management of high-risk women are examined. There will be an emphasis on evidence-based practice, critical appraisal and professional issues for midwives. The practical application of different models of care is also explored. Clinical practice will consist of the experiences suggested by the Nurses Registration Board of

NSW. As required by the Nurses Registration Board of NSW, students should complete Midwifery Practice 1, 2 & 3 in a time period not exceeding four consecutive academic semesters.

GHMB912 Midwifery Practice 2 4cp

Spring Wollongong On Campus

Pre-requisites: GHMB911, GHMB914, GHMB916

Assessment: Longitudinal Case Study - Discussion based on current evidence (50%); 2 x Mastery of Viva appropriate to area of clinical practice (50%); satisfactory progress of Clinical Competence Profile (a minimum of 70% of the clinical requirements for the designated clinical areas will be successfully completed).

Subject Description: This subject is the second of three subjects that allows the student to acquire the necessary clinical experiences as designated by the Nurses Registration Board of NSW. The student progresses along a continuum, developing and consolidating skills and knowledge in the provision of care of the woman and her family learnt in the first clinical rotation.

GHMB913 Midwifery Practice 3 4cp

Summer 2004/2005 Wollongong On Campus

Contact Hours: To be advised.

Pre-requisites: GHMB912, GHMB915

Assessment: Longitudinal Case Study - 30 minute presentation (25%); Longitudinal Case Study - Reflection on Continuity of Care (50%); Mastery of Viva appropriate to area of clinical practice (25%); satisfactory progress of Clinical Competence Profile (100% of the clinical requirements for the designated clinical areas will be successfully completed.)

Subject Description: This subject is the third of three subjects that allows the student to acquire the necessary clinical experiences as designated by the Nurses Registration Board of NSW. Midwifery Practice 3 is designed for the student to continue, and finally complete, the provision of care of the woman and her family and to build on skills acquired whilst undertaking Midwifery Practice 1 & 2.

GHMB914 Midwifery Management 1 6cp

Autumn Wollongong On Campus

Contact Hours: To be advised

Pre-requisites: GHMB916 (Part-time students)

Assessment: Critical Analysis of Papers (20%), Essay (40%), Examination (40%).

Subject Description: This subject is designed to be taken in conjunction with the clinical subject, GHMB911 Midwifery Practice 1. The subject provides the theoretical framework for the student to function as a safe beginning midwifery student caring for women throughout the antenatal and intrapartum period. An ability to review literature is an essential component of this subject. Students are expected to facilitate their own learning by utilising the Library Database Workshops and the IT services available at the University. They are expected to achieve a high level of learning that is evidenced by the quality of analysis, synthesis and evaluation of evidence based research and its application to midwifery practice.

GHMB915 Midwifery Management 2 6cp

Spring Wollongong On Campus

Contact Hours: To be advised.

Pre-requisites: GHMB911, GHMB914, GHMB916, GHMB923

Assessment: Tutorial Presentation(20%), Essay (40%), Examination (40%).

Subject Description: This subject is designed to be taken in conjunction with the clinical subject, GHMB912 Midwifery Practice 2. Midwifery Management 2 is designed for the student to continue to learn and understand the theoretical midwifery framework underpinning midwifery practice. This subject continues the theoretical component relating to intrapartum, maternal, postnatal and neonatal care for the well mother and healthy baby. Potential complications will then be examined. An ability to review literature remains an integral component of this subject. Students are expected to continue to facilitate their own learning by utilising the Library Database Workshops and the IT services available at the University. They are expected to demonstrate a high level of learning that is evidenced by the quality of analysis, synthesis and evaluation of evidence based research and its application to midwifery practice.

GHMB916 Human Reproduction 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hours lecture, 1 hour tutorial/lab per week

Assessment: Minor Essay (25%), Major Essay (30%), Examination (45%).

Subject Description: This course is designed to provide students with advanced knowledge of anatomy and physiology related to conception, pregnancy and parturition. Biochemical, nutritional, and genetic influences on conception and embryonic, foetal, neonatal development and maternal responses will be addressed. Technology used in assessment, diagnosis and intervention at all stages of the reproductive process will be explained in terms of scientific principles. The knowledge gained from this course provides midwives with an important component of a scientific knowledge base from which to plan and provide midwifery practice for their clients.

GHMB917 Midwifery in the Social Context 6cp

Spring Wollongong On Campus

Contact Hours: 2 hrs lecture, 1 hr tutorial per week

Assessment: Tutorial Presentation (30%), Minor Essay (30%), Major Essay (40%).

Subject Description: This subject will provide the student with an in depth knowledge of theory and research, on psychological, sociological and cultural influences throughout the period of pregnancy, childbirth, and parenting. Evidenced based research, and knowledge of national guidelines and community resources are utilised to equip the student to assist the contemporary family throughout this transition to parenthood. Students are challenged to explore their own values and belief systems. They are encouraged to develop an appreciation for cultural and social diversity and differing perspectives they encounter in the clinical setting. Advocacy for womens choices and development of the midwifery profession is also explored. The implications of the content of this subject is to reiterate the primary health care role of the midwife.

GHMB920 Applied Midwifery Studies 12cp**Annual** Wollongong On Campus**Contact Hours:** To be advised.**Pre-requisites:** GHMB921 and GHMB922 (Part-time students)

Subject Description: This subject is designed to prepare the student as a safe beginning midwifery practitioner to care for the family throughout pregnancy, parturition and the puerperium. Clinical practice will consist of the experiences suggested by the NSW Nurses' Registration Board.

GHMB923 Legal and Professional Issues 6cp**Autumn** Wollongong On Campus**Contact Hours:** 3 hours per week

Assessment: Combination of seminar presentation and written assessment.

Subject Description: This subject is designed to provide students with a knowledge of legal and professional issues in relation to their area of clinical practice. Relevant Australian legislation, appropriate case law and examples of moral reasoning will be used to provide a framework for clinical decision-making.

GHMB924 Midwifery Studies 8cp**Annual** Wollongong On Campus**Contact Hours:** 3 hours per week

Subject Description: This subject provides the theoretical framework for the student to function as a safe beginning practitioner caring for childbearing women and families through pregnancy, labour and the puerperium. An evidence-based approach to clinical practice and an ability to review literature critically will be encouraged.

GHMB927 An Introduction to Human Anatomy and Physiology 6cp**Autumn** Wollongong On Campus**Contact Hours:** 4 hours lecture, 3 hours lab per week

Subject Description: This subject is designed to give the student an understanding of the structure and functioning of the human body. As this is a course designed for non-medical health professionals the major emphasis is on physiology rather than anatomy. All the organ systems of the human body are studied and appropriate links are made with both pathophysiology and human development. The laboratory sessions form an integral part of the course, expanding on and complementing the lectures. They allow time for more in-depth study of structure and illustrate functioning through a series of carefully designed experimental procedures.

GHMB940 Indigenous Family Studies 6cp**Autumn** Wollongong Distance

Subject Description: This subject examines traditional Aboriginal family structures, kinship systems, child-rearing practices, the role of women within the Aboriginal family and the health related situations in town-camps.

GHMB941 Indigenous Health Patterns 6cp**Spring** Wollongong Distance

Subject Description: This subject examines different approaches to the study of Aboriginal health, contemporary patterns of morbidity and mortality, various health services and the related needs and community empowerment.

GHMB942 Special Topic 12cp**Autumn/ Spring** Wollongong Distance**Contact Hours:** To be advised.

Subject Description: The subject examines the factors affecting illness patterns, health area analysis, epidemiological considerations and health program delivery patterns about the topic under consideration in an Indigenous context. In addition, health audit procedures, service efficiency, service appropriateness and interagency coordination will be scrutinised in an Indigenous context.

GHMB943 Health and Human Ecology 6cp**Autumn** Wollongong Distance**Contact Hours:** To be advised

Subject Description: This subject examines global health care issues that impact upon society, with particular emphasis upon Indigenous communities. Pathogenic, social, political and economic processes that underlie health and health care are discussed.

GHMB944 Community Resource Planning 6cp**Spring** Wollongong Distance

Subject Description: In this subject students will apply the principles of primary health care to design and develop a project for an Indigenous community. Content includes: Theoretical frameworks for community development. Application of these to community controlled organisations. Health promotion - a theoretical framework. Health promotion - application of theoretical perspectives to community controlled organisations. Needs assessment in a community controlled context. Differentiation of needs assessment strategies between mainstream health services and community controlled organisations.

GHMB945 Contemporary Indigenous Health Issues 6cp
Not on offer in 2004

Subject Description: This subject examines health issues of importance to Aboriginal families from an historical perspective. The impact of changing policy directions upon health service provision and morbidity and mortality is also examined.

GHMB946 Functional Community Structures 6cp*Not on offer in 2004*

Subject Description: This subject focuses on needs assessment techniques. Involves the analysis and planning of local program development, relevant health promotion strategies and program evaluation.

GHMB950 Reflective Practice 1 6cp

Autumn Wollongong On Campus
Spring Wollongong On Campus

Contact Hours: 3 hours per week

Subject Description: This Reflective Practice subject develops (or enhances existing) personal conceptual frameworks and skills of reflectivity applicable to practice, so as to enable participants to 'stand back' from situations, to see the 'whole of the moon' rather than just 'the crescent'. The subject promotes reflection upon theory and research which underpins practice, so as to enable participants to identify potential areas for practice development and meaningful research.

GHMB951 Reflective Practice 2 6cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 3 hours per week

Pre-requisites: GHMB950

Subject Description: This subject will build on the objectives for GHMB950 (its pre-requisite) in that it will enable students to further develop skills in writing literature reviews, as the rhetoric of literature searching and analysis. The particular focus of how these skills are utilised will be very much the domain of the student. He/she will be able to decide whether they wish to develop skills of: sustaining argument(s) through an extended piece of written work; writing for publication; or, developing an evidence base for planned innovation. There will also be an opportunity for students to consider skills related to framing research questions and writing research proposals from the basis of their reflections on practice.

GHMB953 Special Topic in Nursing 6cp

Autumn/ Spring Wollongong On Campus

Pre-requisites: GHMB950

Subject Description: This subject is designed for students to develop a proposal for a research study towards a Master Of Nursing - Research, and for non research students wishing to complete a minor project in a specific content area. The research students will be supervised by a lecturer who has expertise in research and chosen the field of study. The techniques of study will include library searches, an oral presentation of the proposal, and a written proposal. For non-research students the content will reflect the content area of the specified topic being studied under a supervisor. The techniques of study will include library, an oral presentation of the proposal, and a written minor project.

GHMB954 Studies In Alcohol and Other Drugs 6cp

Autumn Wollongong Flexible

Contact Hours: 2 hrs lecture, 2 x 4 hrs skill-based workshop/tutorials per week

Assessment: Essay 30%, Essay 50%, Skill-based tutorial activities 20%

Subject Description: This subject will provide an understanding of the pharmacological, psychological and sociological basis of alcohol and other drug (AOD) use and dependence. It will focus on government, intersectoral and community approaches to inform, minimise and treat the harm caused by the use of alcohol and other drugs. Contemporary

issues, perspectives and approaches, which impact on both national and global policies, will be explored.

GHMB989 Mental Health Nursing: Clinical Principles and Practice 12cp

Annual Wollongong Flexible

Subject Description: Students will combine theoretical underpinnings of mental health with a supervised clinical practice that will provide the opportunity to develop and refine clinical skills and interventions for people seriously affected by mental illness. Requirements for the clinical practice component will be based on best practice guidelines and students will utilise a reflective model to identify areas of professional development.

GHMB997 Major Project 24cp

Autumn/ Spring Wollongong On Campus

Annual Wollongong On Campus

Assessment: Major Project

Subject Description: This is a combined program of research and coursework leading to the completion of a major project. Students will be expected to work closely with a supervisor on a project where a common interest exists.

GHMB998 Minor Thesis 24cp

Autumn/ Spring Wollongong On Campus

Annual Wollongong On Campus

Assessment: Minor Thesis

Subject Description: This is a major component of a combined coursework/thesis program in the Masters of Nursing undertaken by candidates enrolled in the Department of Nursing. A thesis must be submitted and assessment according to the Course Rules for Masters' Candidates. Thesis work is only commenced with the approval from the co-ordinator of the subject and the Head of the Nursing Department. Students will be required to present a seminar on their chosen thesis topic prior to completion of the thesis.

GHMC908 Professional Issues in Psychology 4cp

Autumn Wollongong On Campus

Contact Hours: 3 hours block mode

Assessment: Class presentation (25%), Test (25%), Final Exam (50%)

Subject Description: Focuses on ethical and legal issues relevant to clinical psychologists. Other areas of professional practice covered include: communication, the NSW Mental Health Act, Supervision, quality assurance and burn-out and self care.

GHMC910 Child and Family Psychology 4cp

Autumn Wollongong On Campus

Contact Hours 1.5 hrs seminar per week

Assessment: Reports on video observations, in class exam, report on child.

Subject Description: The subject examines a range of common childhood issues and focusses on the nature of intervention within the context of typical and atypical child development

Subject Descriptions

from a Scientist practitioner framework. Topics will include work with children, parents and families concerned with emotional and behavioural disorders, learning difficulties, ADHD problems, anxiety disorders, and depression.

GHMC914 Thesis 48cp

Annual Wollongong On Campus

Subject Description: Thesis for the Doctor of Psychology (Clinical). This subject, in conjunction with Research Project A and Research Project C, comprises the research component of the DPsych degree.

GHMC919 Clinical Applications of Health Psychology 4cp

Autumn Wollongong On Campus

Contact Hours: 1.5 hrs seminar per week

Assessment: Class presentation 25%, in class test 30%, case study treatment plan 45%

Subject Description: This subject examines models of intervention for individual, groups and larger populations. The origins of stress, coping, issues with pain management and disability as well as an understanding of the conceptual models of behaviour change in health related areas are examined within a health and well being focus as well as from an illness perspective. Focus will be on applications where a clinical psychologist in practice may be active, including pain, cancer, cardiovascular disease and living with chronic and terminal illness, drug and alcohol problems and individual and population interventions.

GHMC926 Counselling Skills 4cp

Autumn Wollongong On Campus

Contact Hours: 1.5 hrs seminar per week

Assessment: Transcript analysis, video/audio tape evaluation of applied counselling skills and participation.

Subject Description: The subject focuses on the development of counselling skills from a client-centred and cognitive behavioural therapy (CBT) perspective. A workshop format involving roleplay, observation, feedback and discussion will be used. The subject will examine concepts and procedures of cognitive therapy, and its application to a range of problems.

GHMC931 Clinical Neuropsychology 4cp

Autumn Wollongong On Campus

Contact Hours: 2 hours lecture and seminar per week

Assessment: Seminar presentation, assignments, examinations.

Subject Description: This subject aims to introduce students to neuroanatomy and theories of neuropsychological assessment and approaches to rehabilitation. The subject will deal with: basic brain anatomy; principles of neuropsychological assessment; administration and interpretation of neuropsychological tests; neuropsychological report writing; neuropsychological disorders.

GHMC932 Sociocultural Aspects of Applied Psychology 4cp

Spring Wollongong On Campus

Contact Hours: 1.5 hrs seminar per week

Assessment: Seminar presentations, tests in class.

Subject Description: This subject deals with the sociocultural nature of, and the various sociocultural influences on, psychological theory and practice. This includes sociocultural influences on psychologists and their values, and the sociocultural factors that affect concepts of the person, and which shape theories and modes of psychological intervention. The subject also deals with the impact of sociocultural factors upon the expectations, attitudes and values of both psychologists and their clients in psychological interventions.

GHMC933 Professional Workshop Series A 4cp

Autumn Wollongong On Campus

Contact Hours: 26 hrs lect. per year

Assessment: Case work and/or essay based on specified workshops.

Subject Description: The subject aims to orient students to a wide variety of approaches and skills pertinent to specialised areas in professional psychology, and to develop skills in one or more designated areas. The subject includes a number of workshop sessions relevant to the practice of professional psychology and conducted by qualified persons from both within the university and from external agencies who have expertise in an area of professional practice.

GHMC934 Advanced Professional Workshop 4cp *Not on offer in 2004*

Assessment: Case work and/or essay based on specified workshops, final examination.

Subject Description: The subject aims to orient students to a wide variety of approaches and skills pertinent to specialised areas in professional psychology, and to develop skills in one or more designated areas. The subject includes a number of workshop sessions relevant to the practice of professional psychology and conducted by qualified persons from both within the University and from external agencies who have expertise in an area of professional practice.

GHMC938 Practicum 1A 4cp

Autumn/ Spring Wollongong On Campus

Annual Wollongong On Campus

Contact Hours: 1.5 hrs seminar per week

Pre-requisites: None

Assessment: Assessment and/or therapy reports, field placement notebooks.

Subject Description: The lecture/demonstration sessions are intended to prepare students for client contact under supervision. The practicum is composed of 150 hours of supervised case-work from the Northfields/other specified clinics, and should include adult and child case-work. The student will be required to attend group and individual supervision sessions as well as have assessment/therapy sessions taped for discussion and feedback.

GHMC939 Introduction to Cognitive Behavioural Therapy 4cp**Autumn** Wollongong On Campus**Contact Hours:** 2 hrs seminar per week**Assessment:** Written examination and video of counselling skills.

Subject Description: The subject aims to provide students with an understanding of the theoretical principles underlying cognitive behavioural therapy (CBT), the theoretical rationale for cognitive-behavioural techniques, an overview of outcome research on and the practical applications of CBT in clinical and non-clinical settings. Preliminary skills with regard to conduct of behavioural assessments, relaxation and systematic-desensitisation therapies will be demonstrated.

GHMC942 Practicum 1B 4cp**Autumn** Wollongong On Campus**Pre-requisites:** GHMC938 Practicum 1A**Assessment:** Psychological assessment and/or therapy reports, field placement notebooks, reports from external supervisors.

Subject Description: The practicum is composed of 300 hours of supervised case-work from the Northfields Clinic and/or an external agency. The student will be required to attend group and individual supervision sessions as well as have assessment/therapy sessions taped for discussion and feedback. The placement may occur with agencies providing either child or adult services, however when considered together with GHMC943 and GHMC944, exposure to a wide range of clinical/applied contexts will be required.

GHMC943 Practicum 2A 4cp**Autumn** Wollongong On Campus**Pre-requisites:** GHMC938 Practicum 1A**Assessment:** Case presentation, field placement notebooks, reports from external supervisors, assessment and/or therapy reports

Subject Description: The practicum is composed of 300 hours of case-work from the Northfields Clinic and/or external agencies providing psychological services. The student might be required to attend group and individual supervision sessions as well as have assessment/therapy sessions taped for discussion and feedback. The placement may occur with agencies providing either child or adult services, however when considered together with GHMC942 and GHMC944, exposure to a wide range of clinical/applied contexts (specified elsewhere) will be required.

GHMC944 Practicum 2B 4cp**Autumn/ Spring** Wollongong On Campus**Summer 2004/2005** Wollongong On Campus**Annual** Wollongong On Campus**Assessment:** Psychological assessment and/or therapy reports, field placement notebooks, reports from external supervisors, audio tape of therapy session.

Subject Description: The practicum is composed of 250 hours of case-work from Northfields clinic and/or external agencies. The student might be required to attend group and individual supervision sessions as well as have assessment/therapy sessions taped for discussion and feedback. The placement

may occur with agencies providing either child or adult services, however when considered together with GHMC938, and GHMC943, exposure to a wide range of clinical/applied contexts will be required.

GHMC946 Research Project A 8cp**Spring** Wollongong On Campus**Contact Hours:** 1 hr seminar**Assessment:** literature review, thesis

Subject Description: Research Project A aims to equip students with a wide variety of research skills required for professional psychology. The content will begin by covering the conceptual bases, aims, context, sampling, designs, methods of data collection, followed by discussion of principles and procedures governing selection and implementation of data analyses. Ethical issues in conducting research are reviewed. Students will develop skills to evaluate research critically and interpret data. Students will develop and conduct a research project in a relevant area of professional psychology and submit a comprehensive literature review. Students completing the MPsych program will also complete Research Project B and a project report in the format of a journal article. Students completing the DPsych program will also complete Research Project C and the Thesis (GHMC914).

GHMC947 Research Project B 16cp**Spring** Wollongong On Campus**Contact Hours:** 1 hr seminar**Assessment:** empirical thesis

Subject Description: Research Project B in combination with Research Project A, aims to equip MPsych (Clinical) students with a wide variety of research skills required for professional psychology. The context will begin by covering the conceptual bases, aims, context, sampling, designs, methods of data collection, followed by discussion of principles and procedures governing selection and implementation of data analyses. Ethical issues in conducting research are reviewed. Students will develop skills to evaluate research critically and interpret data. Students will develop and conduct a research project in a relevant area of professional psychology and submit a comprehensive literature review and a project report in the form of a journal article.

GHMC967 Models of the Human Brain and their Applications 8cp**Autumn** Wollongong On Campus**Contact Hours:** 1 hr seminar**Assessment:** essay, exam, participation

Subject Description: The biophysics of human brain function is the frame of reference for all subject content. It explores a broad range of approaches, including evolutionary and anatomical models of the brain, models of electrical and metabolic brain function, psychological models of the brain, artificial neural networks and artificial intelligence models, the mind/body problem, psychoanalytic and psychotherapy models, brain imaging technologies, application of brain models to psychology, medicine, artificial neural networks and artificial intelligence, and human-computer interactions.

GHMC969 Advanced Cognitive Behavioural Therapy 8cp**Spring** Wollongong On Campus**Contact Hours:** 4 hrs lectures and workshops**Pre-requisites:** GHMC939 Introduction to CBT**Assessment:** Audio-tape of therapy conducted by student, examination.

Subject Description: The subject aims to provide students with theoretical knowledge underpinning, and skills training in the practice of cognitive behavioural therapy. Cognitive behavioural interventions for a large number of psychological disorders in adults will be covered including anxiety, mood, eating, somatoform, substance abuse, and chronic psychiatric disorders. The principles underlying intervention choice, procedural details associated with conduction of therapy and outcome research will be covered. Common pharmacological agents used to treat the disorders will also be briefly discussed. In addition to lectures that will address objectives governing knowledge acquisition, methods such as therapy demonstrations, video review and role play will be used to enhance skills-building and generalisation.

GHMC970 Assessment and Psychopathology A 8cp**Autumn** Wollongong On Campus**Contact Hours:** 4 hrs seminar**Assessment:** Psychological test reports and exam.

Subject Description: The subject aims to provide students with an overview of descriptive psychopathology. Issues surrounding models of abnormal behaviour and the classification of mental disorders will be examined. The signs and symptoms associated with less severe psychological disorders and the assessment of these conditions by clinical interview and psychological tests will be covered. The subject also covers the theoretical rationale and procedures for administration, scoring and interpretation of core psychological tests. Ethical issues will also be examined.

GHMC971 Assessment and Psychopathology B 8cp**Spring** Wollongong On Campus**Contact Hours:** 2 x 2hrs seminar**Pre-requisites:** GHMC970 Assessment and Psychopathology A**Assessment:** Seminar presentations, exam.

Subject Description: The subject aims to provide students with an overview of descriptive psychopathology. Issues surrounding models of abnormal behaviour and the classification of mental disorders will be examined. The signs and symptoms associated with severe disorders and the assessment of these conditions by clinical interview and by psychological tests will be covered. The subject also covers the theoretical rationale and procedures for administration, scoring and interpretation of psychological tests.

GHMC978 Child and Adolescent Psychology 6cp**Autumn** Wollongong On Campus**Contact Hours:** 2 hrs seminar**Assessment:** Child case reports (x2), Final Examination.

Subject Description: This subject will review a number of topics essential to understanding the nature of Child and Adolescent development and threats to normal functioning. For example, the subject covers advanced conceptual and

theoretical discussion and knowledge concerned with what constitutes the nature of self control, information processing, the structure of memory and the acquisition of reading skills in relation to developmental progression in children's development. This subject will also develop an understanding of the factors and conceptual underpinnings of the nature of at-risk behaviour in childhood and adolescence. The focus of this subject will be on further developing a wider theoretical understanding of some of the most important issues in relation to threats to normal child and adolescent development.

GHMC979 Major Research Project 18cp**Annual** Wollongong On Campus**Contact Hours:** 1 hr seminar**Assessment:** empirical study report of between 6,000 and 8,000 words

Subject Description: Students complete an empirical study on a research topic chosen from given areas of staff expertise. Projects may be conducted in small groups, however, write-ups will be completed and assessment individually. Weekly research seminars consist of discussion of the research process, selecting a topic, and enhancing writing and oral presentation skills.

GHMC981 Research Project C 16cp**Spring** Wollongong On Campus**Contact Hours:** 1 hr seminar per week**Pre-requisites:** GHMC946 Research Project A**Assessment:** Thesis

Subject Description: Research Project C in combination with Research Project A, aims to equip students with a wide variety of research skills required for professional psychology. The subject covers ethical issues in research, the importance of conceptual and theoretical foundations in research, how to critically evaluate research, establishing aims, sampling, design, methods of data collection, principles and procedures governing selection and implementation of data analyses. Students will receive assistance in data entry, screening, and analysis using SPSS. Students will learn the stylistic requirements of scientific writing for research publication. Research Project A, C and the Major Thesis comprise the research component of the Doctor of Psychology (Clinical) degree.

GHMC982 Research Project D 24cp**Annual** Wollongong On Campus**Assessment:** Thesis

Subject Description: This subject focuses on advancement of research skills particularly within the areas of data analyses and thesis writing. The candidate will be required to attend regular sessions with the research supervisor. In certain cases, attendance at specified research lectures, seminars and other workshops might be required. The project culminates in the submission of a research thesis.

GHMC983 Research Project E 12cp**Spring** Wollongong On Campus**Assessment:** Research proposal

Subject Description: This subject focuses on research skills appropriate for practising professionals, including setting up systems for data collection and management in agencies, analyses of clinical data, and reporting of results. If data collection is involved, this will be a minor component. In certain cases, attendance at specified research seminars and workshops might be required. The project will culminate in a) a research proposal describing research aims, procedures for collection, management and analyses of routinely collected data, or b) analyses of archival data and preparation of a manuscript for submission to a scientific journal. Occasionally the report may also take the form of a comprehensive review of literature on a clinical topic.

GHMC984 Social Psychology and Health 6cp**Spring** Wollongong On Campus**Contact Hours:** 2 hrs seminar**Assessment:** Feature article 25%, Health promoting program report 30%, Exam 25%, Reflective write-up 10%.

Subject Description: This subject addresses key theoretical and empirical issues in the area of Social Psychology and explains their implications for health behaviours. The focus is on the joint effects of internal and external processes in the causation and maintenance of human behaviours. Emphasis is placed on elaborating social psychological models of health behaviours, the roles of attitudes, values and beliefs in shaping different behaviours and the effects of conformity, compliance and life events on behaviour. A range of psychological and health principles will be examined within the context of formulating treatment and evaluation proposals or prevention programs designed to change social behaviours in relation to health issues, such as stress and coping strategies, drug and alcohol abuse, sexual behaviours, exercise and nutrition, and aged care. The applicability of major research findings across cultures will also be addressed.

GHMC985 Principles and Practices of Psychological Assessment 6cp**Spring** Wollongong On Campus**Assessment:** Essay 30%, Assessment report 50%, Test report 20%

Subject Description: The aim of this subject is to examine the principles underpinning psychological assessment and introduce students to the practices of psychological assessment. The subject is designed to integrate learning in previous years including theories of personality, intelligence combined with statistical theory and then examine how these issues are used in practice. Criteria to understand and evaluate psychological tests will be used as a common theme throughout the subject, including examination of their construct validity. The general ethical issues of psychological assessment will be compared to the specific Australian Psychological Society guidelines for psychological assessment. After examination of the theoretical principles, students will have the opportunity to administer, score and interpret commonly used assessment tools used to assess general intelligence, emotional intelligence, personality and vocational preference and psychological well-being.

GHMC988 Contemporary Issues for Professional and Research Psychologists 6cp**Autumn** Wollongong On Campus**Contact Hours:** 1 hr lecture and 1 hr tutorial**Assessment:** Ethical dilemmas essay 30%, Research proposal 30%, Progress report 10%, Exam 30%

Subject Description: The first part of this subject draws together key issues in ethics, research and professional practices in psychology. Ethics theory will be addressed and ethical and legal issues will be explored in research, therapeutic and professional settings. The second part deals with contemporary issues in experimental psychology including, for instance, memory, reading disorders, emotional intelligence, etc.

GHMC989 Advanced Abnormal Psychology 6cp**Autumn** Wollongong On Campus**Assessment:** Essay 35%, Mid session test 15%, Final exam 50%

Subject Description: This subject builds upon previous study in core areas of abnormal psychology, with contributions from personality, learning, and developmental psychology to consider the way theories of human behaviour are translated into tools for understanding and responding to psychopathology. Students will be expected to develop a critical and analytical understanding of the conceptual frameworks and assumptions of a number of major schools of abnormal psychology. Students will actively critique the types of evidence put forward to substantiate the benefits of psychological interventions developed to ameliorate psychopathology. Cognitive, psychoanalytic, behavioural and developmental approaches to understanding the etiology and maintenance of clinical disorders will be covered.

GHMC990 Advanced Clinical Issues A 4cp**Autumn/ Spring** Wollongong On Campus**Contact Hours:** 2 hrs per week**Assessment:** Research proposal

Subject Description: This subject refers to an in-depth coverage of any specific topic of assessment or therapy determined by the Clinical Programs Director to be of relevance for the student's unique set of circumstances. The topic can relate to a specific disorder or a specific assessment or therapeutic intervention. Coverage will include a intensive review of current literature including current controversies, a critical evaluation of theoretical bases and practical applications. Teaching and assessment methods will depend on the topic chosen.

GHMC991 Advanced Practicum A 4cp**Autumn** Wollongong On Campus**Assessment:** Case presentation; clinical supervisor's report; therapy case submission.

Subject Description: The practicum is composed of at least 200 hours of supervised casework from the Northfields Clinic or other specified agencies that provide psychological services. Casework will include assessment and treatment of difficult psychological problems. The student will be required to attend group and individual supervision sessions.

GHMC992 Advanced Practicum B 4cp**Autumn/ Spring** Wollongong On Campus**Summer 2004/2005** Wollongong On Campus**Annual** Wollongong On Campus**Assessment:** Case presentation; clinical supervisor's report; therapy case submission.**Subject Description:** The practicum is composed of at least 200 hours of supervised casework from the Northfields Clinic or other specified agencies that provide psychological services. Casework will include assessment and treatment of difficult psychological problems. The student will be required to attend group and individual supervision sessions.**GHMC993 Advanced Training in Personality Disorders A 4cp****Autumn** Wollongong On Campus**Contact Hours:** 1.5 hr seminar per week**Assessment:** Exam (50%) Clinical logbook of supervision and casework (50%)**Subject Description:** This subject focuses on advanced training in the treatment of personality disorders. Classification, etiology, clinical features, and treatment models and methods will be addressed through workshops, clinical presentations, supervision and 20 hours of practicum placement. Part A of this series will focus on the basics of working with people with personality disorders, with emphasis on team approach, setting goals, problem solving, and strategies for dealing with crises. The clinical emphasis will be on conducting a skills based approach for enhancing a client's interpersonal effectiveness, emotion regulation, and distress tolerance based on principles of Dialectical Behaviour Therapy.**GHMC994 Advanced Training in Personality Disorders B 4cp****Autumn** Wollongong On Campus**Assessment:** Case presentation and essay (45%) Clinical logbook of supervision and casework (55%)**Subject Description:** This subject focuses on advanced training in the treatment of personality disorders (PD). Clinical features and treatment models and methods will be addressed through workshops, clinical presentations, supervision and 30 hours of practicum placement. Part B of this series will focus on advanced techniques for dealing with more complex difficulties that can arise within treatment. Emphasis will be on developing skills to deal with therapeutic stalemates, comorbid psychopathology, self-harm behaviours, hospitalisations, adolescent clients and termination issues. Consideration will be given to dealing with therapist responses to working with people with PD and building effective supervision and case management teams.**GHMC995 Advanced Training – Clinical Supervision A 4cp****Autumn** Wollongong On Campus**Contact Hours:** 1.5 hrs per week lecture and workshop**Assessment:** Final examination, Videotapes of therapy and supervision**Subject Description:** This subject covers theories and models of clinical supervision, discusses rationale and procedures for setting up programs for clinical supervision, and analyses

theoretical and practical issues surrounding the various components including objectives, methods, assessment and evaluation of clinical supervision. Ethical issues and common difficulties arising within supervision are also addressed. The trainee will be required to record videos of therapy sessions, provide supervisory comments on taped therapy sessions, and formulate supervision plans for psychologists in training. In addition to lectures and seminars, skills training methods including demonstration, video tapes and role play are used.

GHMC996 Advanced Training – Clinical Supervision B 4cp**Spring** Wollongong On Campus**Contact Hours:** 1 hr seminar per week**Assessment:** Video tape of actual supervision sessions, assignment**Subject Description:** This subject focuses on the supervised practice of clinical supervision. The student will be required to formulate supervision plans and supervise trainee psychologists, so an investment of 40-60 hours in supervision work should be expected. The trainee supervisor will also receive supervision during this period. The subject will also cover a critical analysis of theoretical and practical issues surrounding the various components, including objectives, methods, assessment and evaluation of clinical supervision. In addition to lectures and seminars, skills training methods including demonstration, video tape feedback, and role play are used.**PSYC966 Professional Practice Group Supervision A 8cp****Autumn/ Spring** Wollongong On Campus**Contact Hours:** 1 hour group supervision per week**Pre-requisites:** 4th year in Psychology**Assessment:** Written case assessment and intervention plan (40%), written and oral case presentation (30%), reflective journal on (a) ethical and cultural issues covered during supervision and (b) skills modified and applied as a result of supervision (30%).**Subject Description:** This subject will assist students to fulfil 50% of the NSW Psychologists Registration Board requirements for Supervision. It consists of weekly meetings of up to 5 students and a clinical supervisor to discuss applications of psychological skills to practice. While this subject is independent from GHMC967 (Professional Practice Workshops A), students enrolled in both subjects will have an opportunity to use the group supervision to further develop skills learned in workshops.**PSYC967 Professional Practice Workshop A 8cp****Autumn/ Spring** Wollongong On Campus**Contact Hours:** 8 and 4 hour workshop**Pre-requisites:** 4th year in Psychology**Assessment:** Videotaped role play of interviewing and counselling application (30%), written report on ethics vignette and recommendation for action (20%), live/video in class application of 2 psychological tests covered in the workshop (30%), reflective exercise on career plan and knowledge/skills needed to enable the plan (20%).

Subject Description: This subject will assist students to fulfil 50% of the NSW Psychologists Registration Board requirements for Approved Workshops and Seminars. It consists of 8 workshops on four board required certificate subjects: Introduction to Psychological Practice; Ethical, Legal and Professional Matters; Psychological Testing; and Interviewing, Counselling and Consulting. Workshops will be delivered by specialist professionals and/or academics with specific skills and knowledge in the identified areas, will be skills based and will be delivered in block workshop formats. While this subject is independent from PSYC966 (Professional Practice Group Supervision A), students enrolled in both subjects will have an opportunity to use the group supervision to further develop workshop skills.

PSYC968 Professional Practice Group Supervision B 8cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 1 hour group supervision per week

Pre-requisites: 4 year degree in Psychology

Assessment: Written and oral case presentation of assessment (30%), written and oral case presentation of intervention (30%), oral examination of relationship issues (40%).

Subject Description: This subject will assist students to fulfil 50% of the NSW Psychologists Registration Board requirements for Supervision. It consists of weekly meetings of up to 5 students and a clinical supervisor to discuss applications of psychological skills to practice. While this subject is independent from GHMC969 (Professional Practice Workshops B), students enrolled in both subjects will have an opportunity to use the group supervision to further develop skills learned in workshops. This subject will build on the skills and experiences of Professional Practice Group Supervision A.

PSYC969 Professional Practice Workshop B 8cp

Autumn/ Spring Wollongong On Campus

Contact Hours: 8 and 4 hour workshops

Pre-requisites: 4 year degree in Psychology

Assessment: Videotaped role play of therapy application (50%), written single case analysis and report, case note documentation (50%).

Subject Description: This subject will assist students to fulfil 50% of the NSW Psychologists Registration Board requirements for Approved Workshops and Seminars. It consists of 8 workshops on four board required certificate subjects: Intervention Strategies; Record Keeping; Development and Maintenance of Psychological Skills; and Data Collection and Evaluation. Workshops will be delivered by specialist professionals and/or academics with specific skills and knowledge in the identified areas, will be skills based and will be delivered in block workshop formats. While this subject is independent from GHMC968 (Professional Practice Group Supervision B), students enrolled in both subjects will have an opportunity to use the group supervision to further develop workshop skills.

INFORMATICS SUBJECT DESCRIPTIONS

CSCI907 Corba and Enterprise Java 6cp

Spring Wollongong On Campus

Contact Hours: 2 hr Lecture per week

Exclusions: CSCI407

Assessment: A series of assignments totalling 100% with no one assignment exceeding 50% in value.

Subject Description: This subject introduces students to the "enterprise level" computing environments - Corba, and Enterprise Java Beans. It will also provide a more limited overview of general "web services" and related technologies. The emphasis is practical with students developing Corba applications with Java clients and C++ servers, and later creating and deploying complete EJB systems.

CSCI908 Distributed Java 6cp

Not on offer in 2004

Assessment: A series of assignments totalling 100% with no one assignment exceeding 50% in value.

Subject Description: This subject provides students with a strong grounding in distributed object systems, using the inter-related Java based RMI, Jini, Javaspaces, and JXTA technologies as illustrations. The content will include an exploration of how to "objectify" a client-server distributed system, a reasonably detailed study of Java Remote Method Invocation, exploration of the Jini technology with emphasis on applications such as Javaspaces distributed computing, and an introduction to the latest Java based peer-to-peer systems.

CSCI925 Topics in Software Engineering 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hr Lecture per week

Exclusions: CSCI425

Assessment: Project Planning & Requirement Specifications 20% Project Architecture & Design 10% Project Testing 20% Version Control 10% Final Exam 40%

Subject Description: This subject examines the current state of software engineering both as an academic discipline and as a profession. The subject focuses on issues of requirements engineering, system procurement, and professional practice, and through case studies, the subject considers reasons for the failure and success of various software engineering projects.

CSCI941 Advanced Topics in Computer Science A 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hr Lecture per week

Subject Description: Topics will be selected from those areas of computing science in which visiting staff members of the School are engaged in active research.

CSCI942 Advanced Topics in Computer Science B 6cp

Not on offer in 2004

Subject Description: Topics will be selected from those areas of computing science in which visiting staff members of the School are engaged in active research.

CSCI943 Advanced Topics in Computer Science C 6cp

Not on offer in 2004

Subject Description: Topics will be selected from those areas of computing science in which visiting staff members of the School are engaged in active research.

CSCI944 Perception and Planning 6cp

Spring Wollongong On Campus

Contact Hours: 2 hr Lecture per week

Assessment: Assignments 100%

Subject Description: This subject explores ways in which a robot can combine data from variety of sensors to create or update a model of its environment, and then use this model to infer the consequences of proposed actions. The subject will cover the use of internal sensors, such as those measuring odometry and location, and external sensors including those for touch, vision, and range finding.

CSCI945 Parallel Computing 6cp

Not on offer in 2004

Subject Description: This subject presents different approaches to the construction of parallel algorithms and computer architectures. Both theoretical and practical aspects are covered, emphasis is placed on identifying the suitability of the approaches for specific applications.

CSCI946 Multimedia Studies 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hr Lecture per week

Assessment: Assignments 40% Exam 60%

Subject Description: This subject studies the creation and programming of digital media for multimedia applications. Multimedia systems combine images, graphics, sound and text to interactively communicate information. Each of these media has its own standards, algorithms and file formats. The foundations strand examines the principles of how media is created. The programming strand explores the programming of multimedia applications, using a multimedia applications such as QuickTime for Java. The practical strand explores the acquisition, encoding and editing of digital video and audio with professional tools, such as Final Cut Pro.

CSCI957 Advanced Topics in Database Management 6cp

Spring Wollongong On Campus

Contact Hours: 3 hrs Lecture, 1 hr Seminar per week

Assessment: Implementation project (20%) mini research project (30%) final examination (50%)

Subject Description: This subject covers two advanced topics from modern database management systems: object-oriented databases and transaction management in database systems. The topics include the details such as design and implementation of object-oriented database systems, hybrid transaction management, optimistic transaction management,

nested transactions, management of long transactions, and management of transaction in distributed systems.

CSCI963 Advanced Computer Graphics 6cp
Not on offer in 2004

Assessment: Assignment 60% Examination 40% (form of assessment to be confirmed with class)

Subject Description: In this subject students will learn how to use graphics techniques such as ray tracing and radiosity to produce highly realistic images with features such as shadows, reflection, refraction, texturing, penumbras and motion blur. The rendering algorithms and their underlying mathematics are covered with a practical component being the implementation of a ray tracer. Applications including scientific visualisation are also covered.

CSCI964 Neural Computing 6cp
Autumn Wollongong On Campus

Contact Hours: 2 hrs lecture per week

Pre-requisites: nil

Assessment: Exam 60% Assignment 40%

Subject Description: This subject introduces students to the basics of "soft" computing. Primary focus will be on artificial neural networks, with some attention also given to genetic algorithms, (evolutionary computing), fuzzy logic and neurofuzzy expert systems. These approaches will be compared and contrasted with heuristic, rules-based artificial intelligence methods, such as decision trees and case-based reasoning. Several application areas will be discussed, primarily pattern recognition and/or classification.

CSCI965 Design and Analysis of Algorithms 6cp
Not on offer in 2004

Assessment: 50% assessment 50% exam

Subject Description: The objective of this subject is to develop the knowledge, skills and techniques for designing and analysing algorithms. Topics to be studied include: review of standard algorithm designs including divide and conquer, the greedy method, etc; complexity analysis and comparison of algorithms, number theoretical algorithms

CSCI966 Coding for Secure Communication 6cp
Not on offer in 2004

Assessment: Assignment 50% Exam 50%

Subject Description: This subject provides a fundamental understanding of information protection and efficient coding strategies that can be used to ensure correctness, security and authenticity of data. It uses entropy as the universal measure of information to analyse and explore fundamental bounds on the performance of secure and reliable storage and communication systems, and examine a range of coding schemes that form the main building blocks of such systems. It will include the following topics. i) redundancy in data and compression algorithms ii) efficient error control strategies for secure and reliable communication and storage systems; iii) coding methods for secrecy and authenticity.

CSCI967 Complexity Theory 6cp
Not on offer in 2004

Assessment: Assignment 50% Exam 50%

Subject Description: The subject introduces basic concepts of complexity theory. Topics include NP-completeness and NP-hardness, Cook's theorem and its implications concepts of indistinguishability and pseudorandomness, interactive proof systems and zero-knowledge protocols.

CSCI968 Network Security 6cp
Spring Wollongong On Campus

Contact Hours: 2 hrs Lecture per week

Pre-requisites: nil

Assessment: Assignment 50% Exam 50%

Subject Description: This subject provides a survey of network security technologies and explores them in practice. This includes but not limited to, network-based threats, security failure in cryptographic and network protocols, authentication servers, certificates and public-key infrastructure, security provisions in communication protocols and standards, electronic mail security, firewalls and intrusion detection systems.

CSCI971 Computer Security 6cp
Spring Wollongong On Campus

Contact Hours: 2hrs Lecture per week

Assessment: 50% assessment 50% exam

Subject Description: This subject provides a review of computer security. Topics include: digital signatures, elliptic curve cryptography, El Gamal public key methods, the Advanced Encryption Standard (AES), Security Standards, Security Evaluation Standards, Linear Cryptanalysis, Differential Cryptanalysis.

CSCI974 Systems Analysis 6cp
Not on offer in 2004

Subject Description: This subject concentrates on the analysis and design stages of the software implementation process. It provides students with an understanding of the engineering issues related to the initial implementation of a specified system and to the problems of long term maintenance and evolution. Dataflow, entity-relationship, object models and other design approaches are reviewed. Case studies include projects in the real time area.

CSCI981 Preliminary Topics in Computer Science B 6cp

Not on offer in 2004

Subject Description: A selection of topics will be available from time to time to serve as preliminary material in the Master of Computer Science.

CSCI982 Preliminary Topics in Computer Science C 6cp

Not on offer in 2004

Subject Description: A selection of topics will be available from time to time to serve as preliminary material in the Master of Computer Science.

CSCI983 Preliminary Topics in Computer Science D 6cp

Not on offer in 2004

Subject Description: A selection of topics will be available from time to time to serve as preliminary material in the Master of Computer Science.

CSCI991 Project 12cp

Annual Wollongong On Campus

Spring 04/Aut 05 Wollongong On Campus

Contact Hours: 2 hrs per week

Subject Description: This subject involves undertaking a project. Where possible the projects are related to the research interests of the School and/or staff and are chosen to develop the student's research skills.

ECTE901 Fast Signal Processing Algorithms 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hr Lecture/2hr Practical per week - Wks 1-7

Exclusions: ELEC901/ECTE401

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: The aim of this subject is to extend the digital signal processing knowledge gained in undergraduate courses. It forms a useful basis for subsequent DSP applications subjects. Topics covered will include: Discrete Transforms, including: FFT, DFT, DCT, etc.; Wavelet transforms; Filter Design and Structures and Multirate Signal Processing (Interpolation, Decimation ,etc.); and current research developments.

ECTE902 Stochastic Signal Processing 6cp

Not on offer in 2004

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: The aim of this subject is to extend the digital signal processing knowledge gained in undergraduate courses. It forms a useful basis for subsequent DSP applications subjects. The contents will consist of: stochastic signals; least squares analysis, including optimal linear filters; spectral analysis, including linear predictive analysis; and basic scalar quantisation schemes (e.g., PCM, DPCM, ADPCM).

ECTE903 Image and Video Processing 6cp

Spring Wollongong On Campus

Contact Hours: 2hr Lecture/ 2hr Practical per week - Wks 8-13

Exclusions: ECTE403

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: The aim of this subject is to extend digital signal processing knowledge gained in undergraduate courses. The contents will consist of: applying digital signal processing in image and video processing applications, including current research developments.

ECTE904 Adaptive Signal Processing 6cp

Autumn Wollongong On Campus

Contact Hours: 2hr Lecture / 1hr Tutorial per week - Wks 8-13

Exclusions: ELEC907/ECTE404

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: The aim of this subject is to extend digital signal processing knowledge gained in undergraduate courses. The contents will consist of: applying digital signal processing in adaptive signal processing (echo cancellation, channel equalisation, etc.) applications, including current research developments.

ECTE905 Speech and Audio Processing 6cp

Spring Wollongong On Campus

Contact Hours: 2hr Lecture /2hr Practical per week - Wks 1-7

Exclusions: ELEC908/ECTE405

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: The aim of this subject is to extend the digital signal processing knowledge gained in undergraduate courses. The contents will consist of: applying digital signal processing in speech and audio processing applications, including current research developments.

ECTE911 AC-Sourced Power Electronics 6cp

Not on offer in 2004

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: Topics covered in this subject include: ac-sourced power electronics devices and their main applications, ac to dc power conversion and its industrial applications, ac voltage controllers, high power conversion in electric power utilities, harmonics and current research developments.

ECTE912 DC-Sourced Power Electronics 6cp

Autumn Wollongong On Campus

Contact Hours: 2hr Lecture /1hr Tutorial per week - Wks 1-7

Exclusions: ELEC911/ECTE412

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: This subject will study power conversion circuits with dc-supplies and using modern power switching devices. Topics covered include: power switching devices and their application (diode, MOSFET, IGBT, gto), dc-dc conversion (choppers), including switch-mode power supplies, dc-ac conversion using inverters, including methods of pulse width modulation and current research developments.

ECTE913 Micro-Electronics 6cp

Not on offer in 2004

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: The aim of this subject is to extend the electronics knowledge gained in undergraduate courses. Topics covered will include: theory of operation of BJT and FET devices; the use of FET devices in analogue and digital circuits; CMOS logic family; oscillators; high frequency amplifiers; VLSI design techniques; gate arrays; programmable logic devices; memory cells and current research developments. The practical component will consist of using Electronics Simulation Packages to (a) model circuits and examine their behaviour; (b) perform a logical design, (c) program the design into a programmable device and test its performance.

ECTE921 Power Quality 6cp

Spring Wollongong On Campus

Contact Hours: 2hr Lecture/ 1hr Tutorial per week - Wks 8-13

Exclusions: ELEC970/ECTE421

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: This subject will study the different types of systems which can propagate in the electric power supply, their origins and their effects on sensitive equipment such as computers, telecommunications systems, PLCs and variable speed drives. The disturbances include harmonics, voltage sags, capacity switching transients, voltage unbalance, etc. Topics discussed will include: the ability of equipment to emit disturbances, its susceptibility, industry standards; design techniques to ensure standards are met; and current research developments.

ECTE922 Power Quality Monitoring 6cp

Not on offer in 2004

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: This subject will treat measurement techniques and waveform interpretation relevant to the operation of sensitive equipment with a non-ideal power supply. The different types of waveform disturbances and their characterisation will be discussed, such as harmonics, inter-harmonics, flicker and voltage sag. Relevant standards for signal analysis will be examined and their approach justified. There will also be a treatment of transducers and current research developments will be included.

ECTE923 Power Systems 6cp

Autumn Wollongong On Campus

Contact Hours: 2hr Lecture/ 1hr Tutorial per week - Weeks 1-7

Exclusions: ELEC920/ECTE423

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: Topics covered in this subject include: an introduction to power systems comprising thermal and hydro power stations, transmission lines and distribution systems, renewable energy, other energy sources such as solar energy, windmills, sea waves and geothermal, computer applications in power systems planning, design, control and operation, review of basic analysis tools, reactive power management, load flow and fault analysis and flexible ac transmission technology, environmental considerations and current research developments.

ECTE924 Power System Abnormalities 6cp

Not on offer in 2004

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: Topics covered include: reliability concerns, insulation requirements and protection methods of energy systems. The design aspect of energy systems for reliable and economical energy supply, internal and external overvoltage protection of energy systems and terminal equipment, stability limits of energy systems; the application of electromagnetic transient programmes (EMTP) for insulation co-ordination and current research developments will be discussed.

ECTE925 Industrial Drives and Actuators 6cp

Autumn Wollongong On Campus

Contact Hours: 2hr Lecture/ 1hr Tutorial per week - Wks 8-13

Exclusions: ELEC928/ECTE425

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: Topics covered in this subject include: selection of dc, ac motors (induction and/or permanent magnet) and actuators for industrial applications and the design of closed loop speed control systems for dc and ac motors, including current research developments. In ac motor control, field orientation will be given particular emphasis.

ECTE926 Power Equipment Design 6cp

Spring Wollongong On Campus

Contact Hours: 2hr Lecture/ 1hr Tutorial per week - Weeks 1-7

Exclusions: ECTE426

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: Topics covered in this subject include: design aspects of transformers, ac motors and generators and industrial actuators for motion control. The design and analysis of magnetic circuits to meet requirements such as: torque/weight ratio, losses, heating and cooling will be addressed. Essentials of electromagnetic analysis using simulation software (e.g., finite element methods) and current research developments will be covered.

ECTE931 Real-Time Computing 6cp
Autumn Wollongong On Campus
Contact Hours: 2hr Lecture/ 2hr Practical per week - Wks 8-13
Exclusions: ECTE431

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: The aim of this subject is to extend the digital hardware knowledge gained in undergraduate courses. Topics covered will include: real-time operating systems; interrupts; interfacing to real world signals; use of A/D and D/A converters; multi-tasking, multi-threading; clocks and timers; direct digital control; and current research developments. The practical component will consist of writing real-time programs on DSP and micro-controller computer systems.

ECTE932 Computer Systems 6cp
Autumn Wollongong On Campus
Contact Hours: 24hrs Lecture/Tutorial/Practical - Weeks 1-7
Exclusions: ELEC932/ECTE432

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: The aim of this subject is to extend the digital hardware knowledge gained in undergraduate courses. Topics covered will include: CPU organisation; complex instruction sets; reduced instruction sets; I/O structures; interrupts; direct memory access; intelligent peripherals; interfacing to real world signals; use of A/D and D/A converters; multi-processors; parallel DSP architectures and current research developments. The practical component will consist of writing programs on micro-controller computer systems.

ECTE941 Intelligent Control 6cp
Spring Wollongong On Campus
Contact Hours: 2hr Lecture/1hr Tutorial per week - Wks 8-13
Exclusions: ELEC943/ECTE441

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: The subject provides the knowledge and skills required to model, analyse and design a system using intelligent methods. The contents will consist of: introduction to fuzzy systems, introduction to artificial neural network, crisp fuzzy control systems, adaptive fuzzy control systems, neuro-fuzzy control systems and current research developments.

ECTE942 Computer Controlled Systems 6cp
Not on offer in 2004

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: This subject provides the knowledge and skills required to model, analyse and design computer controlled systems in the z-domain. The contents will consist of: Discrete time state space modelling of system, stability analysis in state space, controllability and observability, pole

placement design and state feedback, state observer design and current research developments.

ECTE943 Digital Control 6cp
Not on offer in 2004

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: This subject provides the knowledge and skills required to model, analyse and design computer controlled systems in the z-domain. The contents will consist of: Impulse sampling, stability analysis in the Z-domain, root locus analysis and design in the Z-domain, W-transformation, frequency response analysis and design in the Z-domain and current research developments.

ECTE944 Identification and Optimal Control 6cp
Not on offer in 2004

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: The subject provides the knowledge and skills required to identify the model of a system and optimise its performance. The contents will consist of: system identification using the least square method and quadratic performance index; quadratic optimal control; Kalman filters; and applications of genetic algorithms in system identification and optimal control, including current research developments.

ECTE945 Advanced Intelligent Control 6cp
Not on offer in 2004

Assessment: See Subject Information Sheet those presented here are only a guide. Final examination - 60% Individual and/or group assignments (involving theoretical and practical/laboratory projects) - 30% Oral presentation - 10%

Subject Description: The aim of this subject is to provide students with the knowledge and skills required to model, analyse and design a system using intelligent methods. The contents will consist of: introduction to fuzzy systems, introduction to artificial neural network, crisp fuzzy control systems, adaptive fuzzy control systems, and neuro-fuzzy control systems. Students will be required to undertake an advanced project involving current research developments.

ECTE946 Advanced Computer Controlled Systems 6cp
Not on offer in 2004

Assessment: See Subject Information Sheet those presented here are only a guide. Final examination - 60% Individual and/or group assignments (involving theoretical and practical/laboratory projects) - 30% Oral presentation - 10%

Subject Description: The aim of this subject is to provide students with the knowledge and skills required to model, analyse and design computer controlled systems in the z-domain. The contents will consist of: Discrete time state space modelling of system, stability analysis in state space, controllability and observability, pole placement design and state feedback, state observer design. Students will be required to undertake an advanced project involving current research developments.

ECTE953 Report 12cp**Autumn/Spring** Wollongong On Campus**Contact Hours:** 13h rs Tutorial**Pre-requisites:** ECTE955**Co-requisites:** 36 credit points at 900-level**Exclusions:** ELEC953

Assessment: A final report marked (Supervisor - 60%, and Examiner - 40% report). The Supervisor's mark includes both the project and report component.

Subject Description: Projects may involve a hardware project; a software project; or an extensive literature survey; or a combination of any of these. Where possible the projects are related to the research programs of the School and are chosen to develop the student's initiative. Each student is required to deliver an oral seminar and to prepare a final thesis on the result of the work undertaken.

ECTE955 Advanced Laboratory 6cp**Autumn/Spring** Wollongong On Campus**Contact Hours:** 39h rs Practical**Exclusions:** ELEC955

Assessment: See Subject Information Sheet those presented here are only a guide. Reports 40%; Examination 60%.

Subject Description: The aim of this subject is to provide students with an opportunity to apply and verify theory in areas associated with the postgraduate programs through laboratory experiments and computer studies. Students will be expected to design, and perform experiments; analyse results; and write reports on projects selected to illustrate practical issues selected from the two postgraduate programs.

ECTE956 Internet Technology Laboratory 6cp**Autumn/Spring** Wollongong On Campus**Contact Hours:** 2 hour tutorial per week**Co-requisites:** ECTE991

Restrictions: For students not enrolled in the MIT, approval from the MIT Course Co-ordinator is required for enrolment in this subject.

Assessment: See Subject Information Sheet those presented here are only a guide - 30% - two reports; 20% - progress; 50% laboratory test.

Subject Description: This subject consists of a series of experiments, during which the students (working individually or in small groups) become familiar with recent technological developments related to the Internet and its applications. Because the experiments are current hot topics in Internet technology, they will be updated regularly to include recent developments. These will include wireless networking, multimedia applications, remote control and operation, etc.

ECTE957 Advanced Internet Project 12cp**Autumn/Spring** Wollongong On Campus**Contact Hours:** 2 hour tutorial per week

Pre-requisites: A WAM of 72.5% for the full-time first session load (i.e., four six credit point subjects, including ECTE956 Internet Project and ECTE991 Internet Fundamentals).

Co-requisites: ECTE991

Restrictions: For students not enrolled in the MIT, approval from the MIT Course Co-ordinator is required for enrolment in this subject.

Assessment: See Subject Information Sheet those presented here are only a guide. Technical report Oral presentation and project demonstration

Subject Description: This subject involves students working on a major 12 credit point project. The project can be either undertaken by an individual or a group of students. It may be a project that involves hardware and or software development associated with Internet technology. It may also take the form of an extensive literature survey or market evaluation of various internet related technologies and associated aspect including specific applications. Each student is required to deliver an oral presentation and demonstration of the results obtained. A final thesis report will provided by the student detailing the work undertaken and results achieved.

ECTE958 Advanced Mechatronics Laboratory 6cp*Not on offer in 2004*

Assessment: See Subject Information Sheet those presented here are only a guide. Final examination - 60% Individual and/or group assignments (involving theoretical and practical/laboratory projects) - 40%

Subject Description: The aim of this subject is to provide students with an opportunity to apply and verify theory through mechatronics laboratory experiments and computer studies. Students will be expected to design, and perform experiments; analyse results; and write reports on projects related to mechatronics activities within the research programs.

ECTE961 Telecommunications Queueing Theory 6cp**Autumn** Wollongong On Campus**Contact Hours:** 24hrs Lecture/Tutorial/Practical - Weeks 1-7**Exclusions:** ELEC960/ECTE461

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: The aim of this subject is to provide students with telecommunication engineering skills including analysis of delay and loss queueing systems, undertake Markov modelling and analysis, and calculate blocking probabilities of telephone switching equipment. Topics covered will include: queueing theory, Markov chain analysis, throughput and congestion analysis, Erlang and Engset distributions, blocking probability, overflow traffic and current research developments.

ECTE962 Telecommunications System Modelling 6cp**Autumn** Wollongong On Campus**Contact Hours:** 24hr Lecture/Tutorial/Practical - Weeks 8-13**Exclusions:** ELEC960/ECTE462

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: The aim of this subject is to provide students with telecommunication engineering skills including

skills to analyse and dimension telephone exchanges, trunk lines, Internet switches and circuit and packet switched networks. Topics covered will include: telephone and data networks and systems, mixed voice and data queueing systems, optimal capacity allocation, direct and alternate routing and current research developments.

ECTE963 Transmission Systems 6cp

Not on offer in 2004

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: Topics covered include: Maxwell's equations, wave propagation in transmission lines, the Smith chart, wave guides, optical fibres and current research developments. The aim of this subject is to provide methods of characterising distributed passive transmission media such as transmission lines, wave guides, and fibre optics.

ECTE964 Antennas and Propagation 6cp

Not on offer in 2004

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: Topics covered include: wave propagation in the air, signal radiation, antennas and current research developments. The aim of this subject is to provide methods of characterising antenna systems for use in communications.

ECTE965 Wireless Communications 6cp

Not on offer in 2004

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: The aim of this subject is to introduce wireless communication systems, including cellular telephony, personal communications, and wireless local area networks. The contents will consist of: mobile radio channel characterisation, channel access techniques used in wireless systems, error control coding and current research developments. The taught concepts will be illustrated by examples of existing wireless communication systems and those being developed.

ECTE966 Spread Spectrum Communications 6cp

Not on offer in 2004

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: The aim of this subject is to teach students the theory and highlight the major problems involved in application of spread-spectrum communications. The contents will consist of: basic spread-spectrum techniques, principles of code division multiple access (CDMA), design of spreading sequences, detection techniques for CDMA and current research developments. The taught concepts will be illustrated by examples of existing spread-spectrum communication systems.

ECTE967 Mobile Networks 6cp

Not on offer in 2004

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: The aim of this subject is to provide students with the knowledge to evaluate current and emerging mobile networks. Topics covered will include: analogue and digital mobile networks, roaming in mobile networks, GSM standards and principles, GSM network structure, call hand-over analysis, mobility in the Internet, emerging third generation mobile networks and current research developments.

ECTE968 Error Control Coding 6cp

Not on offer in 2004

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: The subject includes general concepts of information transmission and covers error-correction techniques applied to data transmission over error-prone (noisy) channels. Topics covered are forward error correction schemes like linear codes, cyclic codes, block codes (e.g. BCH and Reed-Solomon codes), and convolutional codes, as well as error control for channels with feedback, e.g. automatic repeat request (ARQ) coding and current research developments.

ECTE970 Advanced Topics in Engineering 6cp

Not on offer in 2004

Assessment: See Subject Information Sheet.

Subject Description: The aim of ECTE970 is to enable students to further their knowledge and abilities in topics selected from the advanced technical subject areas in the relevant postgraduate program areas. Topics will be selected from the fields of computer and telecommunications engineering or automation and power engineering and will include current research developments.

ECTE971 Robotics Manipulators 6cp

Spring Wollongong On Campus

Contact Hours: 24hrs Lecture/Tutorial/Practical - Weeks 1-7

Exclusions: ELEC973/ECTE471

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: The subject provides the knowledge and skills required to model, analyse, design and employ a robotics manipulator. The contents will consist of: Industrial robots as a component of automation, mathematical modelling of a robotics arm, direct and inverse kinematics model, direct and inverse dynamics model, trajectory planning, robot control and current research developments.

ECTE972 Robotics Sensory Control 6cp

Spring Wollongong On Campus

Contact Hours: 24hr Lecture/Tutorial/Practical - Weeks 8-13

Exclusions: ELEC973/ECTE472

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: This subject provides the knowledge and skills required to design appropriate sensors for the intelligent operation of robotics systems. Topics covered include: intelligent operation of robots, industrial vision, hand-eye control of a robot, tactile sensors, force sensors, ultrasound and other sensors, and current research developments.

ECTE973 Advanced Robotics Manipulators 6cp
Not on offer in 2004

Assessment: See Subject Information Sheet those presented here are only a guide. Final examination - 60% Individual and/or group assignments (involving theoretical and practical/laboratory projects) - 30% Oral presentation - 10%

Subject Description: The aim of this subject is to provide students with the knowledge and skills required to model, analyse, design and employ a robotics manipulator. The contents will consist of: Industrial robots as a component of automation, mathematical modelling of a robotics arm, direct and inverse kinematics model, direct and inverse dynamics model, trajectory planning, robot control. Students will be required to undertake an advanced project involving current research developments.

ECTE974 Advanced Robotics Sensory Control 6cp
Not on offer in 2004

Assessment: See Subject Information Sheet those presented here are only a guide. Final examination - 60% Individual and/or group assignments (involving theoretical and practical/laboratory projects) - 30% Oral presentation - 10%

Subject Description: The aim of this subject is to provide students with the knowledge and skills required to design appropriate sensors for the intelligent operation of a robotics systems. Topics covered include: intelligent operation of robots, industrial vision, hand-eye control of a robot, tactile sensors, force sensors, ultrasound sensors, and other sensors. Students will be required to undertake an advanced project involving current research developments.

ECTE981 Internet Protocols 6cp
Not on offer in 2004

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: This subject will provide students with an understanding of protocols used in computer networks. Examples will be drawn from existing networks including the Internet. Students will learn what computer network protocols are and how they work today, and how they are likely to evolve in the future. Topics to be studied will include: LAN medium access control protocols, congestion/flow/error control, routing, addressing, internetworking and current research developments. There will be both written and programming assignments, including a project involving the design and implementation of an exemplar protocol.

ECTE982 Internet Engineering 6cp
Spring Wollongong On Campus

Contact Hours: 2hr Lecture/1hr Tutorial per week - Wks 8-13

Exclusions: ECTE482

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: This subject will provide students with an understanding of the design and operation of computer networks, with emphasis on the Internet. Students will learn what networks are and how they work today, and how they are likely to evolve in the future. Topics to be studied will include: design and operation of the Internet (including IPv4, OSPF, BGP, Mobile IP, CIDR, mobile IP, IPv6, TCP, and UDP), the role of ATM in the Internet (including the use of MPOA and MPLS), and mechanisms for engineering networks to provide QoS (such as RSVP, RTP, ATM service classes, and IETF DiffServ). There will be both written and programming assignments.

ECTE983 Computer Networking 6cp
Not on offer in 2004

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: The aim of this subject is to provide students with an understanding of the techniques that are used to provide communication between computer systems. Topics covered will include: modems, addressing, routing, interworking, congestion control in computer networks and current research developments.

ECTE984 Network Design and Analysis 6cp
Not on offer in 2004

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: The aim of this subject is to provide students with the engineering skills to analyse multi-service packet switched networks and systems. Topics covered will include: simulation and numerical techniques in queueing, software tools for analysis of queueing systems and networks, queueing performance analysis of Internet, ATM and mobile multi-service networks, and current research developments.

ECTE985 Internet Communications 6cp
Spring Wollongong On Campus

Contact Hours: 2hr Lecture/1hr Tutorial per week - Weeks 1-7

Exclusions: ELEC969/ECTE485

Assessment: See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.

Subject Description: The aim of this subject is to provide students with an understanding of the techniques that are used to provide communication between computer systems. Topics covered will include: layered protocol architectures, circuit and packet switching, asynchronous and synchronous transmission, coding, error detection and correction, flow control and current research developments.

ECTE986 Telecommunications Network Management 6cp**Spring** Wollongong On Campus**Contact Hours:** 1.5hr Lecture/1hr Tutorial/1hr Practical per week - Weeks 1-7**Exclusions:** ELEC965/ECTE486**Assessment:** See Subject Information Sheet those presented here are only a guide. Written examinations 70%; Assignments 30%.**Subject Description:** The aims of this subject are to provide students with an understanding of the technical issues of telecommunications management, to provide practical hands-on experience of network configuration and management systems and to make students aware of economic, management and political issues in telecommunications management. Topics covered will include: private and public communications systems; LANs and SNMP; integration of voice, data and video in networks; general management issues; international standards; and current research developments.**ECTE991 Internet Fundamentals 6cp****Autumn/Spring** Wollongong On Campus**Contact Hours:** 3 hours Lecture/Tutorial/Practical per week**Restrictions:** For students not enrolled in the MIT, approval from the MIT Course Co-ordinator is required for enrolment in this subject.**Assessment:** See Subject Information Sheet those presented here are only a guide. Final examination Individual and group assignments (involving theoretical and practical/laboratory projects) Oral presentation**Subject Description:** The aim of this subject is to provide an overview of the Internet at a system level. In other words, the subject will provide an operational description of the Internet and its main components. The following topics will be covered: Internet evolution and current status, generic network infrastructure and configuration, layered communication architectures and protocols, access technologies, Internet security and management, case studies of Internet applications.**ECTE992 Internet Networking Protocols 6cp****Autumn/Spring** Wollongong On Campus**Contact Hours:** 2hr Lecture/1hr Tutorial per week**Co-requisites:** ECTE991**Restrictions:** For students not enrolled in the MIT, approval from the MIT Course Co-ordinator is required for enrolment in this subject.**Assessment:** See Subject Information Sheet those presented here are only a guide. Final examination Individual and group assignments (involving theoretical and practical/laboratory projects) Oral presentation**Subject Description:** This subject will provide students with an understanding of protocols used in computer networks with a particular focus on Internet networks. Topics to be studied will include: LAN medium access control protocols, congestion/flow/error control, routing, addressing, internetworking; design and operation of the Internet (including IPv4 & 6, OSPF, BGP, Mobile IP, CIDR, TCP and UDP, MPOA, and MPLS) quality of service provisioning (such as RSVP, RTP, IETF DiffServ) and current research developments.**ECTE993 Wireline and Optical Communications 6cp****Spring** Wollongong On Campus**Contact Hours:** 2hr Lecture/1hr Tutorial per week**Co-requisites:** ECTE991**Restrictions:** For students not enrolled in the MIT, approval from the MIT Course Co-ordinator is required for enrolment in this subject.**Assessment:** See Subject Information Sheet those presented here are only a guide. Final examination Individual and group assignments (involving theoretical and practical/laboratory projects) Oral presentation**Subject Description:** This subject will provide a detailed overview of wireline internet access networks and fibre optic techniques. The following topics will be covered: wireline access technologies, high speed modems, xDSL technology for broadband internet access using existing copper loop, cable modem technology, optical fibre technology (including fibre to the home and curb options), optical fibre link design considerations, WDM, optical standards and optical switching techniques.**ECTE994 Wireless and Mobile Communication Systems 6cp****Autumn** Wollongong On Campus**Contact Hours:** 2hr Lecture/1hr Tutorial per week**Co-requisites:** ECTE991**Restrictions:** For students not enrolled in the MIT, approval from the MIT Course Co-ordinator is required for enrolment in this subject.**Assessment:** See Subject Information Sheet those presented here are only a guide. Final examination Individual and group assignments (involving theoretical and practical/laboratory projects) Oral presentation**Subject Description:** The aim of this subject is to provide a detailed overview of wireless and mobile communication systems. The following topics will be covered: mobile radio channel characterisation, channel access techniques, basic spread-spectrum techniques, principles of code division multiple access (CDMA), digital mobile networks (including, GSM and third generation mobile networks). As a special case study, this subject will cover in detail the IEEE 802.11 wireless data network standard and its effective use in a campus environment for Internet access.**ECTE995 Content Servers and Caching Technologies 6cp****Spring** Wollongong On Campus**Contact Hours:** 2hr Lecture/1hr Tutorial per week**Co-requisites:** ECTE991**Restrictions:** For students not enrolled in the MIT, approval from the MIT Course Co-ordinator is required for enrolment in this subject.**Assessment:** See Subject Information Sheet those presented here are only a guide. Final examination Individual and group assignments (involving theoretical and practical/laboratory projects) Oral presentation**Subject Description:** The aim of this subject is to provide a detailed overview of content servers and cache technology. The following topics will be covered: content server technology (including the different classes RADE systems) and their

Subject Descriptions

comparative performance in terms of functionality, cost and reliability; analyse selection criteria for content servers given a functional specification; caching technology, analyse best practice cache dimensioning and selection guidelines.

ECTE996 Multimedia Communications 6cp

Autumn/Spring Wollongong On Campus

Contact Hours: 2hr Lecture/1hr Tutorial/1hr Practical per week

Co-requisites: ECTE991

Restrictions: For students not enrolled in the MIT, approval from the MIT Course Co-ordinator is required for enrolment in this subject.

Assessment: See Subject Information Sheet those presented here are only a guide. Final examination Individual and group assignments (involving theoretical and practical/laboratory projects) Oral presentation

Subject Description: The aim of this subject is to provide a detailed overview of multimedia communication systems. The following topics will be covered: image and video coding, motion picture expert group (MPEG) and JPEG standards and their functionality, speech and audio coding, speech and audio coding standards for internet applications (Internet telephony), universal multimedia access (UMA) and MPEG 7.

ECTE997 Web Technology and Applications 6cp

Autumn Wollongong On Campus

Contact Hours: 2hr Lecture/1hr Tutorial/Practical per week

Co-requisites: ECTE991

Restrictions: For students not enrolled in the MIT, approval from the MIT Course Co-ordinator is required for enrolment in this subject.

Assessment: See Subject Information Sheet those presented here are only a guide. Final examination Individual and group assignments (involving theoretical and practical/laboratory projects) Oral presentation

Subject Description: The aim of this subject is to provide a detailed overview of web technologies and applications. The following topics will be covered: real-time streaming technologies, embedded Internet devices, web-based intelligent agent technology, web-application case studies (such as distance and flexible delivery of multimedia education, meta catalogue services etc).

GHMD983 Statistics in Health Research 6cp

Autumn Wollongong On Campus

Autumn Wollongong Distance

Contact Hours: 3 hrs per week

Subject Description: Introduces basic statistical concepts and methods. Topics covered: collecting data, designing statistical studies, principles of data presentation; exploratory data analysis, probability and statistical models emphasising binomial and normal distributions; categorical data, contingency tables and the Chi-squared distribution; sampling, sample means and the central limit theorem; inference - point estimation, confidence intervals, testing hypotheses; inference about single parameters; comparing means and proportions, analysis of variance, demography.

IACT901 IT Strategic Planning 6cp

Spring Wollongong On Campus

Intake D Sydney On Campus

Contact Hours: Wollongong 1hr Lecutre, 2 hr Tutorial; Intake D Saturdays 9.30am-4.30pm

Exclusions: BUSS907

Subject Description: The subject is essentially about the application of technology for competitive advantage. Throughout the subject, the spotlight will be trained on techniques and frameworks for "thinking strategically about a company's technological orientation". A wide spectrum of business and technology issues will be covered that address the problems and issues surrounding the analysis and development of an IT strategic plan.

IACT902 Applied Project Management 6cp

Autumn Wollongong On Campus

Contact Hours: Autumn 1 hr Lecture, 2 hr Tutorial per week

Pre-requisites:

Assessment:

Subject Description: This subject deals with the efficient management of a medium size project to ensure that a project meets deadlines and is within its budget. It covers the process of planning, directing and controlling the development of an IT project. Topics covered will include project management tools, software and techniques; expectations management matrices; and use of people management (the subtle art of delegation and accountability). Students will test the principles on the plan, design and implementation of a medium size project.

IACT904 International Telecommunications Policy Issues 6cp

Not on offer in 2004

Subject Description: IACT 904 provides students with an understanding of the policy issues relating to the emergence of political, economic and technological change in international telecommunications. The interdisciplinary foundations of telecommunications policy are examined. Issues in the development of telecommunications policy in Australia and overseas are reviewed as well as the regulatory frameworks adopted by different countries (eg. Australia and the United States) and regions (eg. European Union and South East Asia).

IACT905 Information Technology and Innovation 6cp

Autumn Wollongong On Campus

Intake B Sydney On Campus

Contact Hours: Wollongong 1 hr Lecture, 2 hrs Tutorial; Intake B Saturdays 9.30am-4.30pm

Subject Description: IACT 905 provides students with an understanding of the various political, economic, social and technical factors surrounding information technology and the innovation process. This subject addresses key themes such as: the importance of innovation to the economy and the firm; the links between information, information technology and innovation; and, the development of effective national policies to promote industrial innovation.

IACT906 Business On-Line 6cp**Spring** Wollongong On Campus**Contact Hours:** 1 hr Lecture, 2hrs Tutorial per week**Assessment:** Group Assignment 25% Tutorial Tests x 5 15% Case Studies x 5 20% Exam 40%

Subject Description: This subject aims to provide students with an understanding of e-business in the context of to-days global business environment. Today most businesses compete in a global environment; a sound business strategy for on-line business is essential to facilitate this. This subject covers key areas of e-business, including: Strategy formulation and implementation; e-branding; service leadership; economics and industry impacts of e-business and Internet effectiveness.

IACT916 Organisational Issues in Information Technology 6cp*Not on offer in 2004*

Subject Description: Effect on organisational information flows of growth in size and complexity; the management and technological response; information technology as a catalyst in codifying work procedures and creating new organisational structures; hierarchical versus horizontal approaches to information management; implications of broad-band networks for traffic integration.

IACT917 Information Management 6cp**Autumn** Wollongong On Campus**Contact Hours:** 1hr Lecture, 2hrs Tutorial per week**Pre-requisites:** nil

Assessment: Project Proposal - 5%; Seminar Presentation - 10%; Seminar Report - 10%; Participation - 10%; Major Report/Project - 25%; Exam - 40%.

Subject Description: This subject focuses on the importance of information as a resource, on which the knowledge base of successful organisations is dependent. While the main focus of the subject is information management within the organisation, a broader context is important. National and international issues relating to information access will be addressed. These include: standards relating to electronic storage and retrieval of electronic documents (digital archiving); legal protection for information as an economic good (for example as patents, copyright and other forms of intellectual property); and social and ethical issues (eg privacy and security) relating to information management.

IACT918 Corporate Network Management 6cp**Autumn** Wollongong On Campus**Intake A** Sydney On Campus**Contact Hours:** 1hr Lecture, 2hrs Tutorial per week; Intake A Saturdays 9.30am-4.30pm

Subject Description: The subject investigates the documentation and management of telecommunications networks. Topics to be covered include 1. Documenting the Network: requirements capture and specification, functional specification, design specification, documenting the network configuration 2. Managing the Network: influences on the network, management architectures and standards, performance management, fault management, disaster management, managing changes in a network, cost minimisation management 3. Corporate and Regulatory

Requirements: management teams, operations and support, standards and protocols.

IACT919 Online Information Services 6cp**Spring** Wollongong On Campus**Contact Hours:** 1hr Lecture, 2hrs Tutorial per week

Subject Description: This subject examines the emergence of electronic information supermarkets and the changes within the online information industry as mass media conglomerates have entered the field. Other aspects covered include: the role of government in online services development; the future of public information sources such as libraries; and the potential of the Internet and the world wide web in online information delivery. Some practical experience in the use of electronic information services is provided.

IACT922 Case Studies in Information Technology Applications 6cp**Spring** Wollongong On Campus**Contact Hours:** 1hr Lecture, 2hrs Tutorial per week

Subject Description: IACT922 examines leading edge technological developments and the issues arising from the innovative uses of such technology. This subject covers innovative and new applications of information technology to create services and systems, eg electronic banking, video conferencing, multimedia, EDI and CD-ROM. In order to provide a thorough background and understanding of an application, normally only one case will be studied in the subject in any one semester. Cases that may be covered include, multimedia, EDI and EFTPOS.

IACT924 Corporate Network Design & Implementation 6cp**Spring** Wollongong On Campus**Contact Hours:** 1hr Lecture, 2hr Tutorial per week

Subject Description: The subject investigates the design and implementation of a telecommunications network plan. Topics to be covered include (1) The Need for Planning and the Planning Process: planning teams, strategic planning, the network plan, security planning and implementation planning. (2) The Design Process: design teams, translating the plan into design criteria, requirements capture and specification, design requirements and criteria, choosing topographies and architectures, evaluating plans (3) The Implementation Process: implementation teams, validating implementation plans, managing people and technology, managing the implementation process. .

IACT926 Information Society, Knowledge Work and Information Technology 6cp*Not on offer in 2004*

Assessment: Examination 30% Seminar presentation 10% Seminar paper 10% Essay 25% Project 25%

Subject Description: The subject examines the concept of 'information society' and its measurement. It also examines the changing structure of the workforce with an investigation of the place and role of knowledge workers in the labour force being a core element. An examination of the trends affecting knowledge workers in Australia, and internationally, with

respect to increasing credentialism, life-long learning and issues relating to their education and training will be undertaken. The introduction and application of IT affects each of these areas is therefore another critical component of study.

IACT927 Research Report Part 1 6cp
Not on offer in 2004

Subject Description: This subject involves undertaking a project. Where possible the projects are related to the research interests of the School and/or staff and are chosen to develop the student's research skills. Each student is required to deliver an oral seminar and to prepare a final thesis on the result of the work undertaken.

IACT928 Research Report Part 2 6cp
Not on offer in 2004

Pre-requisites: IACT927

Subject Description: This subject involves undertaking a project. Where possible the projects are related to the research interests of the School and/or staff and are chosen to develop the student's research skills. Each student is required to deliver an oral seminar and to prepare a final thesis on the result of the work undertaken.

IACT930 Special Topics in Information and Communication Technology 6cp

Autumn Wollongong On Campus

Contact Hours: 1 hr Lecture, 2 hr Tutorial per week

Subject Description: This subject aims to provide the student with an understanding of topics at the forefront of the discipline. Topics will be selected from areas of interest of staff members or visiting staff members to the Department. These will include topics in the application of information and communication technology.

IACT931 Special Topics in Information and Communication Technology A 6cp

Spring Wollongong On Campus

Contact Hours: 2 hr Lecture, 1 hr Tutorial per week

Exclusions: IACT403, CSC1324

Subject Description: Topics will be selected from areas of interest of staff members or visiting staff members to the School. These will include topics in the application of information and communication technology. IT is a rapidly changing area. This subject will allow investigation into topics at the forefront of the discipline.

IACT932 Special Topics in Information and Communication Technology B 6cp

Not on offer in 2004

Subject Description: Topics will be selected from areas of interest of staff members or visiting staff members to the Department. These will include topics in the application of information and communication technology. IT is a rapidly changing area. This subject will allow investigation into topics at the forefront of the discipline.

IACT940 Research Methodology 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hrs lecture per week

Subject Description: This subject introduces the MInfoTech students to research methodology. Topics include the purpose of research, formulating a research question, conducting a literature review and writing a research proposal. Students will gain an understanding of the different research methodologies, including quantitative and qualitative analysis. Students will learn how to design an appropriate research plan. Requirements for scholarly writing will also be discussed and the process of undertaking a research project will be analysed.

IACT950 Research Report 12cp

Spring Wollongong On Campus

Contact Hours: 1 hr per week

Pre-requisites: IACT940

Assessment: Research report of 12,000 words (90%) and seminar presentation (10%)

Subject Description: This subject involves undertaking a project. Where possible the projects are related to the research interests of the School and/or staff and are chosen to develop the student's research skills. Each student is required to deliver an oral seminar and to prepare a final thesis on the result of the work undertaken.

INFO911 Data Mining and Knowledge Discovery 6cp

Spring Wollongong On Campus

Contact Hours: 2 hrs per week

Pre-requisites: 36 cp

Subject Description: Introduction to Data Mining and Knowledge Discovery, Data Bases and Warehouses, Data Structures, Exploratory Data Analysis Techniques, Association Rules, Artificial Neural Networks, Tree Based Methods, Clustering and Classification Methods, Regression Methods, Overfitting and Inferential Issues, Use of Data Mining packages

INFO912 Mathematics for Cryptography 6cp

Autumn Wollongong On Campus

Contact Hours: 6 hr per week

Assessment: Final exam 85%, Assignments 15%

Subject Description: Logic: informal propositional logic, circuit theory. Natural Deduction style proofs in propositional & predicate logic. Interpretations & Models. Nonclassical logics. Number Theory: elementary number theory, modular exponentiation, discrete logarithms, Galois arithmetic & polynomials, error correcting codes & cryptography. Elliptic curves, groups for cryptography. Combinatorics: combinatorial probability, Knapsack problem, network and graph theory, combinatorial designs, game theory & linear programming applied to cryptography.

INFO913 Information Theory 6cp
Spring Wollongong On Campus
Pre-requisites: MATH121 or MATH122 or (MATH187 and MATH188), or (MATH141 and MATH142).

Assessment: Assignments 16%, test 20%, final examination 64%

Subject Description: The following is a selection of topics which may vary. The idea of probability, entropy, inequalities involving entropy, data compression, Huffman and Fano codes, information sources, McMillan's theorem, communication and capacity, block codes, Shannon's theorems, applications to other areas which may include communication, linguistics, genetics and financial investment.

ITCS905 Systems 6cp
Spring Wollongong On Campus
Contact Hours: 2hrs Lecture, 2hrs comp lab per week
Exclusions: MCS9102

Assessment: Assignments (40%) Examinations (60%)
 Presentation of Project - 10%

Subject Description: This subject establishes the position of Computer Science and Information Technology in a non-programming context. Areas introduced include Human-Computer Interface, Information Modelling, Intelligent Systems, Networks, Operating Systems, Software Design and Development and Professional ethics, rights and responsibilities.

ITCS907 Java Programming & the Internet 6cp
Autumn/Spring Wollongong On Campus
Contact Hours: 3hrs Lecture, 2hrs Comp Lab per week
Pre-requisites: ITCS902
Exclusions: MCS9213

Assessment: Assignments - 50% Final examination - 50%

Subject Description: This subject provides: 1. an introduction to the Java language and some of its standard class libraries 2. experience with object oriented design and implementation techniques 3. an understanding of the Internet and its importance to modern software systems. Topics will include: Java language, subset of Java class libraries (windowing, graphics, networking, threads), object oriented design and implementation, Internet issues, basics of TCP/IP protocols, Web technologies, HTML and Javascript, CGI programming, introduction to security issues.

ITCS908 Citizens' Rights in the Information Society 6cp
Autumn Wollongong On Campus
Contact Hours: 1hr Lecture, 2 hrs Tutorial per week
Exclusions: MCS9201

Assessment: 1. 2x Mini report 30% 2. 2x On-line Discussion groups 20% 3. Group report 30% 4. Final report 20%

Subject Description: This subject will examine the information technology industry which encompasses: telecommunications; computing; broadcasting and publishing. It will analyse the encroachment of industry activities that use electronic media on: citizens' rights in matters of data surveillance; freedom of access to information and ownership of intellectual property.

The extent to which technical solutions to these problems can and cannot be provided will be discussed and alternative non-technical (eg administrative or regulatory) solutions will also be treated. An investigation of the current legal safeguards, their legislative histories and the need for new legislation will be covered.

ITCS921 Database Design and Implementation 6cp
Autumn Wollongong On Campus
Contact Hours: 3hr Lectures per week
Exclusions: MCS9315

Assessment: 1. Assignments - 3*10% 2. Class tests - 4*5% 3. Final examination - 50%

Subject Description: This subject investigates the process of relational database design starting from conceptual database design, through logical database design up to and including physical database design, database tuning and administration. The topics will include conceptual database design based on Object Modelling Technique, methodologies for conceptual design, view integration, logical database design, database normalization and de-normalization, physical database design, generation of database applications, database tuning, design of distributed database systems.

ITCS922 Computer Security 6cp
Autumn Wollongong On Campus
Contact Hours: 3hrs Lecture, 1hr Practical per week
Exclusions: MCS9361

Assessment: The exam contributes 70% to the final mark. The laboratory work contributes 30% to the final mark

Subject Description: This subject develops the knowledge and skills necessary to identify the security problems that may occur in a distributed computer environment, and then to devise means for countering the threats. Covers: Identification: passwords, challenge-response protocols Private Key Cryptography: classical ciphers, Feistel cryptosystems Public Key Cryptography: RSA, Merkle-Hellman, El-Gamal, Elliptic-Curve cryptosystems Hashing: Birthday paradox, serial and parallel hashing, MD family, keyed hashing Digital Signatures: generic, RSA, El-Gamal, blind, undeniable, fail-stop Key Establishment Protocols: classical key transport, DH agreement, Kerberos, SPX, STS protocol, BAN logic Access Control: MAC, DAC, RBAC, implementations of access control, security kernel, Multics, UNIX, capabilities, access control lists, Network Security: IPsec, viruses, web security, copyright protection.

ITCS923 The Wired World 6cp
Spring Wollongong On Campus
Contact Hours: 1hr Lecture, 2hr Tutorial per week
Exclusions: ITCS910, MCS9303

Assessment: Exam - 40% Assignment - 60%

Subject Description: This subject investigates the issues list in the objectives below within the context of world wide networking. Emphasis will be placed on group work with students required to participate in problem solving communications tasks. Web based activities will be an essential element in the conduct of this subject. Other activities may include: the setting up and conduct of a video-

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conference with students at another University, the running of a bulletin board or Internet mailing list or the maintenance of a World Wide Web site. Contributions to this subject have been made by several members of staff within the School.

ITCS929 Concepts and Issues in Healthcare Computing 6cp

Spring Wollongong On Campus

Contact Hours: 1 hr Lecture, 2 hr Tutorial per week

Assessment: Assignment 100%

Subject Description: This subject examines the essential concepts of health computing, limitations of technology, issues of privacy and security, economics of healthcare computing, managing healthcare computing projects, evaluation methods in medical informatics, knowledge engineering in health informatics, risk assessment in health informatics and the important issues involved in computer applications in healthcare.

ITCS930 Introduction to Health Informatics 6cp

Autumn Wollongong On Campus

Contact Hours: 1 hr Lecture, 2 hour Tutorial per week

Exclusions: ITCS430

Assessment: Assignment 100%

Subject Description: The subject covers clinical decision making and decision support systems and how health informatics and health information systems can assist. Topics include decision-making and decision-support systems in healthcare; the reasons for the necessity of systematically processing data, information and knowledge in medicine and healthcare; benefits and constraints of using information and communication technology; principles of practice evaluation and evidence-based care; evaluation methods; processing and evaluating information including analysis of business processes, bio-statistics and epidemiology; the application of statistics; computer concepts; characteristics of health information systems; healthcare systems; patient management; primary care systems and knowledge management.

ITCS931 Advance Web Application Development 6cp

Spring Wollongong On Campus

Contact Hours: 2hrs Lecture, 1hrTutorial per week

Assessment: Assignments Final exam

Subject Description: This subject is an advanced web applications development subject utilizing the visual basic integrated development environment. Requirements analysis and component solution architectures for e-commerce applications will be studied and solutions implemented utilizing advanced features of VB IDE. See Subject Outline for details

ITCS932 Web Design 6cp

Spring Wollongong On Campus

Contact Hours: 2hr Lecture, 1hr Lab per week

Assessment: Assignments 100%

Subject Description: This subject introduces students to the design and programming of multi-tier web sites, where

dynamic pages present data from databases. Programming will be done with frameworks, such as Apple Web Objects to create web applications that support dynamic web pages and object models of databases. Topics include the design and creation of user process, site architecture, elegant page layouts and simple site navigation. Pages will be designed and content created with professional web tools, such as Adobe web tools. Emphasis is placed on user process, good media design, clean architecture and efficient algorithms.

ITCS933 Software Engineering Requirements and Specifications 6cp

Spring Wollongong On Campus

Contact Hours: 2hr Lecture per week

Assessment: Assignments 50% Examination 50%

Subject Description: This subject will demonstrate how software development can be viewed as a kind of engineering - an activity of building useful things to serve recognisable purposes. For software engineers, these useful things are a special kind of machine known as software systems. This subject emphasises the importance of understanding the application domains that software systems interact with and the problems we try to solve in these domains. The subject focuses on writing explicit and precise descriptions known as: (1) Requirements - descriptions of application domains and the problems to be solved there; (2) Specifications - descriptions of the interface between the machine and the application domain. The subject addresses techniques used to record, elicit, and reason about these descriptions. The subject examines the approach to Requirements and Specification techniques taken by a range of systems engineering methodologies. The concepts of method engineering are introduced and the role of software tools to support this activity is discussed.

ITCS934 Software Process Management 6cp

Autumn Wollongong On Campus

Contact Hours: 3hr Lecture, 1hr Tutorial per week

Assessment: Assignments 50% Examination 50%

Subject Description: Software development is a difficult and challenging task. Apart from the most trivial of problems, the software development process is generally a collaborative rather than an individual effort. To manage the development of complex software artifacts, various principles and practices of software engineering have been formulated. Acquainting students with the principles and practices of managing the software development process is the primary aim of this subject.

ITCS935 Software Engineering Formal Methods 6cp

Autumn Wollongong On Campus

Contact Hours: 3hrs Lecture per week

Assessment: Assignments 50% Examination 50%

Subject Description: This subject introduces students to formal methods for software specification. The role of formal methods in the software development process is explained, and it is illustrated with case studies of the industrial application of formal methods. The subject uses the Z notation as an example of a formal specification technique, and

software tools for the manipulation of Z specifications are introduced. Case studies in the application of formal methods to safety-critical and real-time software systems are presented.

ITCS936 Detailed Design of Integrated Solutions for eBusiness 6cp

Spring Wollongong On Campus

Intake C Sydney On Campus

Contact Hours: Wollongong 1hr Lecture, 2hrs Tutorial; Intake C Saturdays 9.30am-4.30pm

Exclusions: ITCS436

Assessment: Assignment 50% Exam 50%

Subject Description: This subject develops the students' understanding of the system development process by taking the student through all the phases of analysis design and construction of an eBusiness solution. The methods adopted provide an in-depth understanding of the logistical problems associated with gathering user requirements, and analysis and design, using the 'Patterns for eBusiness' method.

ITCS937 Security, Risk Management and Control in Electronic Commerce 6cp

Autumn Wollongong On Campus

Contact Hours: 1 hr Lecture, 2 hr Tutorial per week

Pre-requisites: IACT906

Assessment: Tutorial Participation/Exercises/Discussion; Essay; Risk Assessment Project (Major Group Assignment); Seminar Presentation.

Subject Description: This subject aims to provide students with a deep understanding of the security, risk management and regulatory aspects of e-commerce facing businesses in the on-line business environment. Today most businesses compete in a global business environment; a sound business strategy that addresses these issues is essential. This subject covers key issues in e-commerce, including: security options, trusted authorities, secure payment systems for the Internet, the regulatory environment and Government policy; risk management and control.

ITCS938 eBusiness Technologies 6cp

Autumn Wollongong On Campus

Contact Hours: 1hr Lecture, 2hrs Tutorial per week

Restrictions: Not available to MCompStud students

Exclusions: IACT305

Assessment: Mid Session Test 10% Assignment 30% Exam 60%

Subject Description: The subject explores the technology being adopted by organisations and the various means of maximising business potential using Internet technology, including eBusiness (B2B, B2C, B2G etc.). The focus of the course is from the IT professional perspective, giving the student a feel for what is required in a commercial business environment. The technology aspects will cover both developing in house software, as well as selecting 'best practice' outsourced options. Comparisons are drawn between the two adoption methods, and the student is engaged by scenario role playing as part of the group assignments.

ITCS940 Multimedia Programming Foundations 6cp

Autumn/Spring Wollongong On Campus

Contact Hours: 1hr Lecture, 2hrs Lab Tutorial per week

Assessment: Programming Assignments - 60% Final exam - 40%

Subject Description: This subject provides an introduction to multimedia programming by exploring multimedia infrastructure and developing skills in the programming technologies used in multimedia. Infrastructure includes both how the elements of a multimedia system relate, for example MPEG 21, and foundational concepts used in producing multimedia, for example matrix transforms, simulations, kinematics and the dynamics of motion. Programming technologies include OO programming, 2D graphics, simple image and audio processing in Java; web presentation technologies such as SMILE; multimedia messaging; and an overview of multimedia applications programming interfaces, such as Java media framework and QuickTime, XML, and authoring and scripting languages. This will be studied in the context of the broad range of multimedia techniques and the social and ethical issues involved.

ITCS941 Multimedia Graphics 6cp

Not on offer in 2004

Assessment: Assignments (Programming and/or essay) - 60% Exam - 40%

Subject Description: This subject explores the creation of graphics for multimedia applications, covering graphics theory, programming and creative tools. It will commence with an overview of 2D graphics, including an examination of the support for 2D graphics in languages, such as Java 2D and their use in creative tools, such as Adobe Illustrator. It will focus on 3D graphics. Theory topics include basic three dimensional theory, reflection models, shading techniques, rendering, event models of user interaction, parametric representations, anti-aliasing, compositing of images, colour management, ray tracing, radiosity, shadows, texture, colour science and simple animation. Programs will be implemented in a common graphics language used in multimedia, such as OpenGL. The subject will compare and contrast it to other graphics programming technologies used in multimedia, such as MPEG-4 objects, Java 3D and VRML.

ITCS942 Multimedia 3D Modelling and Animation 6cp

Not on offer in 2004

Assessment: Individual Assignments - 30% Group project - 30% Exam - 40%

Subject Description: This subject studies the design, creation and animation of 3D models with a professional 3D modelling tool, such as Lightwave. Model design and creation topics include coordinate frames, solids of revolution, designing objects from a set of 3D primitives, lighting, design for motion, textures, filters, shading, effects, inverse kinematics, rendering and surface modelling. Animation involves the theory of object motion and relative motion between components of an object, the practical problems of rendering images to visualise motion, the creative skills of coordinating image sequences with audio (voice, music and sound effects) and the programming of

Subject Descriptions

images and audio into timed sequences to produce movies in multimedia formats, such as MPEG-1 and QuickTime.

ITCS943 Game Design and Programming 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hr Lecture, 1 hr Lab/Tutorial

Assessment: Assignments - 40% Essay - 20% Oral presentation - 10% Group project - 30% Exam - 40%

Subject Description: This subject studies the design and implementation of games engines, artificial intelligence and media creation for different genres of games. It starts with the design of game play within the context of different genres of games. It examines in detail the technical requirements of games engines both for playing the game and presenting the multimedia to the user. A significant component of the subject is the use of artificial intelligence (expert systems, fuzzy logic and simulation) to make the game appear intelligent to the user.

ITCS945 Multimedia Project 12cp

Spring 04/Sum 05 Wollongong On Campus

Contact Hours: Regular meeting with supervisor

Pre-requisites: 24 cp of subjects from Master of Multimedia Technologies with $\geq 75\%$ average

Assessment: Multimedia Seminars - 10% Project proposal - 10% Regular appraisals - 10% Project report - 70%

Subject Description: This subject involves undertaking a project in an area of multimedia. Projects will be closely aligned to the content of the subjects in the Master of Multimedia, and related to the research interests of the staff. They will be chosen to develop the student's research skills. Each student will deliver a seminar on a recent paper in the area of their project. Also, each student will prepare a final thesis and deliver a multimedia seminar about the work undertaken.

ITCS949 MIIT Research Project 12cp

Annual/Spring Wollongong On Campus

Contact Hours: Regular meetings with supervisor

Assessment: Project management (10%) Project proposal (10%) Regular appraisals (10%) Project report (70%)

Subject Description: This subject involves undertaking a project related to the student's employment. The projects are to be closely aligned with current developments in IT, ideally associated with project development or management and are chosen to develop the student's research skills. Each student is required to deliver an oral seminar and to prepare a final thesis on the result of the work undertaken.

ITCS950 Patterns for eBusiness 6cp

Autumn Wollongong On Campus

Contact Hours: 1hr Lecture, 2hrs Tutorial per week

Exclusions: CSCI942

Assessment: Assignments (60%) Exam (40%)

Subject Description: This subject explores advanced 'pattern-oriented' approaches to the design and development of eBusiness solutions. The 'Patterns for eBusiness' initiative provides a conceptual framework that can be exploited at all

stages in the eBusiness software lifecycle. In particular, this conceptual framework and vocabulary bridges the communications gap between business analysts and systems developers seeking to devise integrated solutions for eBusiness.

ITCS951 Web Services for Dynamic eBusiness 6cp

Spring Wollongong On Campus

Contact Hours: 1hr Lecture, 2hrs Tutorial per week

Exclusions: ITCS451

Assessment: Assignments (60%) Exam (40%)

Subject Description: Web Services are at the core of what is being termed the next generation of eBusiness. The term 'Web Services' refers to the set of standard protocols and associated technologies that enable software applications to communicate with each other across the Internet. To effectively exploit the potential of Web Services requires appropriate effort in the proper design of business processes and service architectures.

MATH902 Solution to Differential Equations By One-Parameter Groups 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hr per week

Assessment: Assignments 25%; presentation 5%; final exam 70%.

Subject Description: One-parameter groups and Lie series, linear ordinary differential equations, first and second order ordinary differential equations, linear and non-linear partial differential equations.

MATH903 Mean Periodic Functions 6cp

Not on offer in 2004

Subject Description: An introduction to L. Schwartz's theory of mean periodic functions using the transform of J P Kahane. Applications to differential equations.

MATH904 Stability for Partial Differential Equations 6cp

Not on offer in 2004

Assessment: Assignments and examination

Subject Description: This subject is concerned with parabolic and elliptic partial differential equations. The main topic is the stability of solutions under changes in initial values or other parameters connected with the equations. Some of the tools that will be used are an analysis of the spectrum for elliptic operators and the Linearization Principle.

MATH905 Functional Analysis and Control Theory 6cp

Not on offer in 2004

Assessment: Assignments and examination

Subject Description: This subject introduces several function spaces and then examines how they can be used in the theory of partial differential equations and control theory. Some of the topics considered will be the existence and uniqueness of solutions for hyperbolic and parabolic partial differential equations and the exact controllability for systems governed by the wave equation.

MATH912 Mathematics of Microwave Heating 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hr per week

Subject Description: Electrostatics, Gauss' law, magnetic fields, induction, Maxwell's equations, the damped wave equation, the forced heat equation, solutions of microwave heating for constant conductivity, temperature dependent conductivity, hotspots.

MATH913 Fluid Mechanics and Wave Theory 6cp*Not on offer in 2004*

Subject Description: Hyperbolic partial differential equations, conservation laws, shallow water equations, dispersive waves, solution theory, gas dynamics, shock waves, flow past bodies, conformal mapping, aerofoil theory.

MATH914 Analytic Dynamics 6cp*Not on offer in 2004*

Subject Description: Lagrangian and Hamiltonian formulations, symmetry and conservation laws. Regular and chaotic motion. Strange attractors.

MATH915 Applied Non-Linear Partial Differential Equations 6cp*Not on offer in 2004*

Subject Description: Fluid flow in porous media. Exact solution of related nonlinear boundary value problems. Introduction to inverse scattering transforms and soliton equations. Tests for integrability of a nonlinear equation. Chaotic flows.

MATH916 Heat Conduction and Moving Boundary Problems 6cp*Not on offer in 2004*

Subject Description: Solutions of the heat equation, semi-infinite media, solution by Fourier series, solutions by heat-balance, classical moving boundary problems, large Stefan number expansions, integral formulation, bounds, integral equations, polynomial approximations, boundary fixing series solutions.

MATH917 Advanced Numerical Analysis 6cp*Not on offer in 2004*

Subject Description: Solution of Ordinary and Partial Differential Equations. Integration including multiple integration. Solution of Integral Equations. The algebraic eigenvalue problem.

MATH918 Computational Fluid Mechanics 6cp*Not on offer in 2004*

Subject Description: Finite-difference and finite element methods applied to incompressible inviscid flow problems and incompressible viscous flow problems. Introduction to Boundary-element technique and its application to potential flows. The relationship between these numerical approaches will also be discussed.

MATH921 Advanced Functional Analysis 6cp*Not on offer in 2004*

Subject Description: Normed spaces, Banach spaces, linear operators, applications of the theory of linear operators to other areas of analysis such as Fourier analysis, quadrature formulae and integral equations.

MATH922 Harmonic Analysis 6cp*Not on offer in 2004***MATH923 Measure and Integration 6cp***Not on offer in 2004*

Subject Description: Lebesgue measure and more general measures, measurable functions, Lebesgue integration and its properties, behaviour of integrals under taking limits, product integrals.

MATH924 Distributions 6cp*Not on offer in 2004*

Subject Description: Mikusinski's theory of convolution quotients and an introduction to L. Schwartz's theory of distributions. Properties of the space of continuous functions of a single real variable (equipped with a suitable topology) and dual space.

MATH925 Topics in Algebra 6cp*Not on offer in 2004*

Subject Description: Partially ordered sets, lattices, modular lattices, Boolean Algebras and Boolean rings, orthomodular lattices.

MATH926 Logic and Set Theory 6cp

Spring Wollongong On Campus

Contact Hours: 2 hours per week

Subject Description: Axiomatic propositional and predicate logic, nonclassical logics, applications to circuit theory and logic programming, introduction to Axiomatic Set Theory.

MATH927 Combinatory Logic 6cp*Not on offer in 2004*

Subject Description: Introduction to Pure and Illature combinatory logic, relation to lambda-conversion, functionality, application to propositional and predicate calculus.

MATH928 Advanced Measure Theory 6cp*Not on offer in 2004*

Subject Description: Construction of outer, measures, Hausdorff measures, signed measures, Radon-Nikodym theorem, differentiation of measures.

MATH929 General Topology 6cp
Not on offer in 2004

Subject Description: This subject is a systematic discussion of topological spaces and associated concepts which are of fundamental importance in various areas of mathematics. The topics covered will include topologies, bases and sub bases for topologies, separation properties of topologies, product and quotient topologies, and connectedness and compactness. Depending upon students' interests and backgrounds, excursions into the following or other areas are possible: topological groups, programming language semantics, elementary algebraic topology, dimension theory and cardinal invariants.

MATH931 Statistical Behaviour in Dynamical Systems 6cp

Spring Wollongong On Campus

Subject Description: Two different statistical phenomena in dynamical systems are considered; recurrence and averaging. In tossing an unbiased coin, recurrence is illustrated by eventually obtaining 'heads', while averaging is illustrated by obtaining approximately the same number of 'heads' and 'tails' over a large number of tosses. The ideas are discussed in the context of systems on an interval, probability and general ergodic theory. Applications will be discussed, and these may include number theory, information theory, mathematical economics, chaos and statistical mechanics.

MATH941 Financial Calculus and Logistics 6cp

Autumn Wollongong On Campus

Contact Hours: 3 hr per week

Exclusions: Not to count with MATH317

Assessment: Assignments 30%, Exam 70%.

Subject Description: MATH941 is an compulsory subject for students enrolled in the Master of Financial Mathematics degree. The subject consists of two sections: Financial Calculus: This is an introductory mathematical modelling course into the rapidly accelerating area of financial derivatives. It explores the properties of options and provides a theoretical framework within which these options can be valued and hedged. Logistics: This section introduces general principles of mathematical logistics, using inventory modelling as the main example.

MATH942 Numerical Methods in Finance 6cp

Spring Wollongong On Campus

Contact Hours: 3 hr per week

Exclusions: Not to count with MATH321

Assessment: Laboratory 20% Assignments 10%, Exam 70%.

Subject Description: MATH942 is designed to develop practical skills in numerical and computational mathematics to solve problems that have no analytic solution. Various numerical techniques, such as Newton's iteration method, finite difference and finite element methods, for solving algebraic as well as differential equations are discussed. Methods that are particularly of interest for finance problems such as the Monte Carlo method and the binomial method are also studied.

MATH943 Practitioner's Seminars and Industrial Practice 2cp

Annual Wollongong On Campus

Contact Hours: 1 hr per week

Assessment: Seminar participation 30%, Report 70%.

Subject Description: MATH943 is designed to let students enrolled in Master of Financial Mathematics to develop a knowledge base for the state-of-the-art technology and skills required in business and finance. Leading experts in industry relate first-hand experiences of problems and techniques that arise in the financial industry. Students will be required to hand in reports on the topics discussed in the seminars, two weeks after each seminar is presented.

MATH971 Advanced Topics in Applied Mathematics A 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hr per week

Subject Description: Topics will be selected from the areas of interest of staff members or visiting staff members of the School. In 2000, the special topic will be Elasticity and Fracture Mechanics.

MATH972 Advanced Topics in Applied Mathematics B 6cp

Autumn/Spring Wollongong On Campus

Contact Hours: 2 hr per week

Subject Description: Topics will be selected from the areas of interest of staff members or visiting staff members of the School.

MATH973 Advanced Topics in Pure Mathematics A 6cp
Not on offer in 2004

Subject Description: Topics will be selected from the areas of interest of staff members or visiting staff members of the School. These may include topics in Analysis, Algebra, Logic or Number Theory.

MATH974 Advanced Topics in Pure Mathematics B 6cp
Not on offer in 2004

Subject Description: Topics will be selected from the areas of interest of staff members or visiting staff members of the School. These may include topics in Analysis, Algebra, Logic or Number Theory.

MATH977 Advanced Topics in Mathematics A 6cp
Not on offer in 2004
MATH978 Advanced Topics in Mathematics B 6cp
Not on offer in 2004

MATH980 Preliminary Topics in Mathematics A 6cp

Autumn Wollongong On Campus

Contact Hours: 3hr per week**Subject Description:** A selection of topics will be available from time to time to serve as preliminary material in the Master of Mathematics.**MATH981 Preliminary Topics in Mathematics B 6cp**

Spring Wollongong On Campus

Contact Hours: 3 hr per week**Subject Description:** A selection of topics will be available from time to time to serve as preliminary material in the Master of Mathematics.**MATH982 Preliminary Topics in Mathematics C 6cp***Not on offer in 2004***MATH989 Project Part 1 6cp***Not on offer in 2004***MATH990 Project Part 2 6cp**

Autumn/Spring Wollongong On Campus

Co-requisites: MATH188**MATH991 Project 12cp**

Annual Wollongong On Campus

Spring 04/ Aut 05 Wollongong On Campus

MCS9102 Systems 6cp

Spring Wollongong On Campus

Contact Hours: 4 hrs Lecture; 2 hrs Lab/Tutorial per week**Exclusions:** ITCS905**Assessment:** Assignments (40%) Examinations (60%)**Subject Description:** This subject establishes the position of Computer Science and Information Technology in a non-programming context. Areas introduced include Human-Computer Interface, Information Modelling, Intelligent Systems, Networks, Operating Systems, Software Design and Development and Professional ethics, rights and responsibilities.**MCS9103 Algorithms and Problem Solving 6cp**

Autumn/Spring Wollongong On Campus

Contact Hours: 4 hours Lecture, 2 hours Laboratory/Tutorial per week**Assessment:** Assignments (40%) Examinations (60%)**Subject Description:** This subject introduces the basic concepts of algorithms and their relationship to data structures and problem solving. This subject emphasises problem solving techniques leading to the development of algorithms rather than their implementation or a formal mathematical treatment of algorithms. Topics include sorting, searching and counting problems and the principal algorithms used in their solution.

Common approaches to algorithm development and analysis will be examined.

MCS9112 Theory of Computer Science 6cp

Spring Wollongong On Campus

Contact Hours: 3 hr Lecture, 1 hr Tutorial per week**Exclusions:** ITCS916**Assessment:** 1.6 Assignments 40% 2. Final Examination 60%**Subject Description:** The concepts of algorithms and computability together with techniques for analysis of the efficiency and complexity of algorithms are studied. Logical formalisms and their application in computing environments and the use of logical reasoning in establishing the correctness of implementations of algorithms are discussed. The abstract models such as finite state machines, pushdown automata and Turing machines are treated.**MCS9114 Procedural Programming 6cp**

Autumn/Spring Wollongong On Campus

Contact Hours: 4 hr Lecture; 2 hr Laboratory/Tutorial per week**Exclusions:** ITCS901**Assessment:** Assignments (40%) Examinations (60%)**Subject Description:** This subject introduces the procedural approach to program design and implementation. Covers basic language constructs for defining variables of built-in types, flow control constructs and simple I/O. Explores functional decomposition as a design technique, and the implementation of functions. Introduces simple user-defined data types and aggregates.**MCS9124 Object Programming 6cp**

Spring Wollongong On Campus

Contact Hours: 4 hr Lecture; 2 hr Laboratory/Tutorial per week**Pre-requisites:** MCS9114 & MCS9103**Exclusions:** ITCS902**Assessment:** Exam - 60% Assignment - 40%**Subject Description:** this subject develops skills in object-oriented program design and implementation. Covers characterisation of abstract data types and their realisation as classes. Explores the implementation of standard data types including lists, binary trees, queues. Investigates implementation of standard searching and sorting algorithms. Provides experience in the use of dynamic data structures.**MCS9201 Information Technology & Citizens' Rights 6cp**

Autumn Wollongong On Campus

Contact Hours: 1 hr Lecture, 2 hr Tutorial per week**Exclusions:** ITCS908**Assessment:** 1. 2x Mini report 30% 2. 2x On-line Discussion groups 20% 3. Group report 30% 4. Final report 20%**Subject Description:** This subject will examine the information technology industry which encompasses: telecommunications; computing; broadcasting and publishing. It will analyse the encroachment of industry activities that use electronic media on: citizens' rights in matters of data surveillance; freedom of

access to information and ownership of intellectual property. The extent to which technical solutions to these problems can and cannot be provided will be discussed and alternative non-technical (eg administrative or regulatory) solutions will also be treated. An investigation of the current legal safeguards, their legislative histories and the need for new legislation will be covered.

MCS9203 Algorithms and Data Structures 6cp

Autumn Wollongong On Campus

Contact Hours: 3 hr Lecture, 2 hour Laboratory per week

Pre-requisites: MCS9124 or ITCS902

Exclusions: ITCS918

Assessment: assignments 40%; final exam 60%

Subject Description: Approaches to analysing algorithm complexity, introduced in earlier subjects, will be reviewed. The use of abstract data types as a design technique, and their implementation in solutions to problems, will form a large part of the subject. The concept of efficient code and ways to measure efficiency (both empirically, by timings, and theoretically) will be studied.

MCS9204 The C Family and Unix 6cp

Autumn/Spring Wollongong On Campus

Contact Hours: 4 hr Lecture, 2 hr Laboratory per week

Pre-requisites: MCS9124 or ITCS902

Exclusions: Not to count with ITCS903

Assessment: Assignments 40% Final Examination 60%

Subject Description: Students will be introduced to the C programming language and the UNIX operating system. Particular attention will be paid to the differences that exist between C and C++ and ways in which C++ constructs can be implemented in C. The tools available in the UNIX environment for program development and maintenance will be covered plus the methods of interfacing code to operating system functions, and libraries such as the C++ Standard Template Library.

MCS9205 Development Methods & Tools 6cp

Spring Wollongong On Campus

Contact Hours: 3 hr Lecture, 2 hour Laboratory per week

Pre-requisites: MCS9121

Assessment: 50% for a final examination. 50% for assignments

Subject Description: To provide students with practical skills and knowledge of systems analysis and design techniques. Students will be given instruction in a particular, standard analysis and design method. The techniques and phases of the selected method will be treated thoroughly and in detail. The instruction will utilise case studies, and it will be supported by Computer Aided Software Engineering (CASE) technology. In addition to individual learning, students will be introduced to group analysis and design activities.

MCS9212 Interacting Systems 6cp

Autumn Wollongong On Campus

Contact Hours: 3 hr Lecture, 2 hr Laboratory/Tutorial per week

Pre-requisites: MCS9102 or ITCS905

Exclusions: ITCS909

Assessment: Assignments 40% Final Exam 60%

Subject Description: This subject examines the relationships between the program and its environment: with the user via a consideration of HCI and graphical interfaces; with the computer via the operating system; with data via the file system and with other programs via the network.

MCS9213 Java Programming & the Internet 6cp

Autumn Wollongong On Campus

Spring Wollongong On Campus

Contact Hours: Autumn 3 hr Lecutre, 2 hr Laboratory per week

Pre-requisites: MCS9124

Exclusions: ITCS907

Assessment: assignments 50%; exams 50%

Subject Description: This subject provides: 1. an introduction to the Java language and some of its standard class libraries 2. experience with object oriented design and implementation techniques 3. an understanding of the Internet and its importance to modern software systems. Topics will include: Java language, subset of Java class libraries (windowing, graphics, networking, threads), object oriented design and implementation, Internet issues, basics of TCP/IP protocols, Web technologies, HTML and Javascript, CGI programming, introduction to security issues.

MCS9214 Distributed Systems 6cp

Spring Wollongong On Campus

Contact Hours: 3 hr Lecture, 1 hr Laboratory per week

Assessment: assignments 40%; exam 60%

Subject Description: This subject introduces basic concepts of internetworking and distributed systems. Physical communications media are introduced, then the focus shifts to network protocols (TCP/IP), then client-server model and the sockets interface. Other topics to be covered include network addressing and security (firewalls). Real-world programming examples from Unix and Windows-NT environments will be presented. Students will undertake laboratory exercises on Linux-based PCs.

MCS9235 Database Systems 6cp

Autumn/Spring Wollongong On Campus

Contact Hours: 3 hr Lecture, 2 hr Laboratory per week

Assessment: 1. Assignments- 25% 2. Class tests - 15% 3. Final examination- 60%

Subject Description: This subject investigates three major areas of modern database systems: 1. design of relational databases br 2. programming of relational databases br 3. concurrency control and data recovery in database systems br Topics will include: Introduction to conceptual database modelling; Principles of relational database model; Structured Query Language (SQL) and its procedural extensions (PL/SQL, Embedded SQL, JDBC); Database server programming; Normalization of relational databases; and Transaction management and recovery in database systems

MCS9301 Information and Communication Security Issues 6cp**Spring** Wollongong On Campus**Contact Hours:** 1 hr Lecture, 2 hr Tutorial per week**Pre-requisites:** MCS9201**Assessment:** Assignment 1- 10%; Seminar presentation + seminar 40% Exam 50%

Subject Description: This subject will examine current controls, both legislative and technical, aimed at maintaining data integrity, ease of access to information, and protection of ownership, in the light of on going developments in computer security, multimedia communications, international electronic networks, and electronic publishing. The subject will cover communication security; issues relating to the monitoring of international agreements; OECD guidelines for security of information; maintaining privacy provisions; password security; and future IT developments and their implications for monitoring intellectual property rights and communication security.

MCS9303 World Wide Networking 6cp**Spring** Wollongong On Campus**Contact Hours:** 1 hr Lecture, 2 hr Tutorial/Laboratory per week**Pre-requisites:** MCS9102**Exclusions:** ITCS910, ITCS923**Assessment:** Exam - 40% Assignment - 60%

Subject Description: This subject investigates the issues list in the objectives below within the context of world wide networking. Emphasis will be placed on group work with students required to participate in problem solving communications tasks. Web based activities will be an essential element in the conduct of this subject. Other activities may include: the setting up and conduct of a video-conference with students at another University, the running of a bulletin board or Internet mailing list or the maintenance of a World Wide Web site. Contributions to this subject have been made by several members of staff within the School.

MCS9315 Database Design and Implementation 6cp**Autumn** Wollongong On Campus**Contact Hours:** 3 hr Lectures per week**Pre-requisites:** MCS9235**Exclusions:** ITCS921**Assessment:** 1. Assignments – 3x10% 2. Class tests - 4x5% 3. Final examination - 50%

Subject Description: This subject investigates the process of relational database design starting from conceptual database design, through logical database design up to and including physical database design, database tuning and administration. The topics will include conceptual database design based on Object Modelling Technique, methodologies for conceptual design, view integration, logical database design, database normalization and de-normalization, physical database design, generation of database applications, database tuning, design of distributed database systems.

MCS9317 Database Performance Tuning 6cp**Spring** Wollongong On Campus**Contact Hours:** 3 hr Lecture, 2 hr Laboratory per week**Pre-requisites:** MCS9235**Assessment:** Assignments 20% Tests 20% Final examination 60%

Subject Description: The subject addresses the performance problems of relational database systems. In particular, it presents optimisation of query processing in relational database systems, performance tuning of database applications, transaction processing in database systems, optimisation of transaction processing, performance tuning of relational database servers, performance tuning of three tier database applications. Laboratory classes demonstrate the techniques used for elimination of performance problems in database systems. Oracle 9i database management system is used for demonstration purposes and all practical work in the subject.

MCS9322 Systems Administration 6cp**Spring** Wollongong On Campus**Contact Hours:** 3 hr Lecture, 1 hr Laboratory per week**Pre-requisites:** MCS9204**Assessment:** Assignments 40%; Final Examination 60%

Subject Description: This subject will cover the practical and theoretical aspects of system administration. The various resource areas which have to be managed will be discussed and examined, and the possible methods of monitoring and controlling them in various systems will be investigated. The features unique to both single processor and networked systems will be investigated.

MCS9323 Artificial Intelligence 6cp**Spring** Wollongong On Campus**Contact Hours:** 3 hr Lecture, 1 hr Laboratory per week**Pre-requisites:** MCS9114**Assessment:** Final Examination 60% Laboratory Assignments 20% Term project 20%

Subject Description: This subject reviews the main components of Artificial Intelligence research including knowledge representation, reasoning, natural language understanding, and perception. Focuses on Expert Systems and the computational models they embody. Introduces the programming languages Lisp and Prolog.

MCS9324 Human Computer Interface 6cp**Spring** Wollongong On Campus**Contact Hours:** 2 hr Lecture, 1 hr Tutorial per week**Assessment:** Final Exam 40% Assessment 60%

Subject Description: This subject examines the design evaluation and implementation of interactive computing systems for human use (HCI) and the major phenomena surrounding them. Also considered are joint performance of tasks by humans and machines, structure of human machine communication, social and organizational interactions with machine design, human capabilities to use machines including their learnability as well as algorithms and programming of the interface itself, engineering concerns that

arise in designing interfaces, the process of specification design and implementation of interfaces and design tradeoffs.

MCS9334 Real Time Programming 6cp

Spring Wollongong On Campus

Contact Hours: 3 hr Lecture, 1 hr Laboratory per week

Pre-requisites: MCS9114

Assessment: Five assignments at 8% each = 40% Final examination (3 hours) = 60%

Subject Description: The emphasis of this subject is on low-level interfacing of computer peripherals in high-level languages. Students will be required to complete a number of practical assignments. Topics to be covered will include (a) IBM PC Programmer's model, (b) interrupt handling, (c) I/O registers, (d) data input, error detection and correction, filtering, storage and output, (e) programmable chips for digital, serial, analog and disk I/O, graphics, memory management and real-time clocks. It should be noted that according to Course Rule 003 {Interpretation Point 2 (t)} each credit point for a single session subject has the value of about 2 hours per week including class attendance. Therefore, the amount of time spend on each 6 credit point subject should be at least is at least 12 hours per week, which includes lectures/tutorials/labs etc.

MCS9337 Organisation of Programming Languages 6cp

Spring Wollongong On Campus

Contact Hours: 3 hr Lecture, 1 hr Laboratory per week

Pre-requisites: MCS124

Assessment: Assignments 40% Exam 60%

Subject Description: This subject develops an understanding of major programming paradigms including imperative, functional, logical, object-oriented, and procedural paradigms. Introduces formal language specification. Covers language definition and syntax; data types and data structures, control structures and data flow; run-time considerations; and interpreted languages.

MCS9361 Computer Security 6cp

Autumn Wollongong On Campus

Contact Hours: 3 hr Lecture per week

Pre-requisites: MCS9124

Exclusions: ITCS922

Assessment: The exam contributes 70% to the final mark The laboratory work contributes 30% to the final mark

Subject Description: This subject develops the knowledge and skills necessary to identify the security problems that may occur in a distributed computer environment, and then to devise means for countering the threats. Covers: Identification: passwords, challenge-response protocols Private Key Cryptography: classical ciphers, Feistel cryptosystems Public Key Cryptography: RSA, Merkle-Hellman, El-Gamal, Elliptic-Curve cryptosystems Hashing: Birthday paradox, serial and parallel hashing, MD family, keyed hashing Digital Signatures: generic, RSA, El-Gamal, blind, undeniable, fail-stop Key Establishment Protocols: classical key transport, DH agreement, Kerberos, SPX, STS protocol, BAN logic Access Control: MAC, DAC, RBAC, implementations of access control,

security kernel, Multics, UNIX, capabilities, access control lists, Network Security: IPsec, viruses, web security, copyright protection .

MCS9457 Advanced Topics in Database Management 6cp

Spring Wollongong On Campus

Contact Hours: 2 hr Lecture per week

Pre-requisites: MCS9315

Exclusions: CSCI957

Assessment: Implementation project (20%) mini research project (30%) final examination (50%)

Subject Description: This subject covers two advanced topics from modern database management systems: object-oriented databases and transaction management in database systems. The topics include the details such as design and implementation of object-oriented database systems, hybrid transaction management, optimistic transaction management, nested transactions, management of long transactions, and management of transaction in distributed systems.

STAT901 Modern Inference 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hr per week

Subject Description: Introduction to programming in S-Plus; bootstrap methods; Monte-Carlo methods; permutation tests; nonparametric regression; the sign, Kruskal-Wallis and Spearman tests and extensions of them; ties.

STAT902 Advanced Data Analysis 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hr per week

Assessment: Assignments 30%; exam 70%.

Subject Description: A selection of topics from: Regression model building and checking; Causal modelling; Cluster analysis; Multi-dimensional scaling; Log-linear models; Generalised linear models; Time series methods; Principal components, Factor analysis; Canonical correlations; Statistical computer packages.

STAT903 Survey Design and Analysis 6cp

Spring Wollongong On Campus

Contact Hours: 2 hr per week

Assessment: assignments 20%, reports 10%; exam 70%

Subject Description: Survey methods - survey development; Cluster and multi-stage sampling; Repeated and longitudinal surveys; Non-sampling errors; General methods of variance estimation; Small area estimation; Non-response adjustment; Analysis of complex survey data; Report writing.

STAT904 Statistical Consulting 6cp

Spring Wollongong On Campus

Contact Hours: 2 hr per week

Subject Description: Project management; Client liaison; Problem identification; Consulting ethics and principles; Sources of data; Choosing design and analysis procedures;

Common problems in statistical consulting; Setting sample size - power calculations; Consulting case studies; Report writing.

STAT905 Time Series **6cp**
Not on offer in 2004

Subject Description: Prediction theory; Linear models; identification, estimation, diagnostic checking; Multivariate models.

STAT906 Experimental Design **6cp**
Not on offer in 2004

Subject Description: The general linear model; Complete and incomplete block designs; The construction of optimal block designs; Factorial designs and fractional factorial designs; Response surface methodology.

STAT920 Stochastic Methods in Finance **6cp**
Autumn Wollongong On Campus

Contact Hours: 3 hr per week

Assessment: Assignments 30%; exam 70%.

Subject Description: STAT920 covers necessary probabilistic concepts and models such as linear stochastic models, nonlinear stochastic models and nonlinear chaotic models used in finance. Topics discussed in this subject also include martingale methods, stochastic processes, optimal stopping, the modeling of uncertainty using a Wiener process, Ito's formula as a tool of stochastic calculus, fundamentals of stochastic differential equations and the applications of these methods to finance.

STAT921 Multiple Regression and Time Series **6cp**
Spring Wollongong On Campus

Contact Hours: 3 hr per week

Assessment: Assignments 40%; exam 60%.

Subject Description: STAT921 is an advanced course covering relationships between variables and the analysis of observational studies and designed experiments. Topics covered include multiple linear regression, non-linear regression, generalised linear regression, ARIMA models, forecasting of time series and Box-Jenkin's approach.

STAT922 Statistical Inference and Multivariate Analysis **6cp**

Autumn Wollongong On Campus

Contact Hours: 3 hr per week

Exclusions: Not to count with STAT333.

Assessment: Assignments 30%; exam 70%.

Subject Description: STAT922 covers inference (estimation and hypothesis testing) in both one and many dimensions. Topics covered include transformations, maximum likelihood and minimum variance unbiased estimation, the likelihood ratio, score and Wald tests, vector random variables, the multivariate Normal distribution, principal components analysis, factor analysis and discriminant analysis.

STAT923 Operations Research and Applied Probability **6cp**

Spring Wollongong On Campus

Contact Hours: 3 hr per week

Exclusions: Not to count with STAT304

Assessment: Assignments 30%, Exam 70%

Subject Description: The operations research component includes linear programming, simplex algorithm, duality, sensitivity analysis, transportation and assignment problems, integer programming, and use of computer software. The applied probability component includes Markov chains, birth and death processes and queuing theory.

STAT941 Statistical Quality Control 1 **6cp**
Not on offer in 2004

Subject Description: Why control charts?; Level of variability; Differences between specification limits and control limits; Deming's philosophy; Quality circles; Cause and effect diagrams; Pareto diagrams; Control charts; Benefits of using control charts; Shewhart charts, such as x-charts, c-charts, p-charts, R-charts, s-charts; Cumulative sum (CUSUM) control charts; Exponentially weighted moving averages; Moving average and moving range charts; Average run length of the above mentioned control charts; Comparison of charting methods; Process capability indices; Determining process capability using control charts; Some case studies.

STAT942 Design and Analysis For Quality Control **6cp**
Not on offer in 2004

Subject Description: Experimental design; Principles of design; Importance of randomisation; Randomised block designs; Factorial designs; Fractional factorials; Taguchi's philosophy and how it relates to experimental design; Introduction to variance components; Fixed models as opposed to random (mixed) models; Estimation of variance components; Evolutionary processes.

STAT943 Statistical Quality Control 2 **6cp**
Not on offer in 2004

Pre-requisites: MATH188

STAT944 Regression and Observational Studies **6cp**
Not on offer in 2004

Subject Description: Linear regression; Regression diagnostics; Multicollinearity; Residual analysis; Response surface methodology; Logistic regression; Planning of observational studies; Effects of matching and covariates as controls. Concepts of confounding.

STAT949 Statistical Thinking **6cp**
Not on offer in 2004

Subject Description: The importance of variability; Why statistics?; Statistics and quality; Exploratory data analysis;

Subject Descriptions

Numerical and graphical summaries; Measures of location and spread; Elementary probability; The Binomial; Poisson and Normal Distributions; The role of the Central Limit Theorem in statistics; The nature and purpose of statistical inference; Point estimation and confidence intervals; Concepts of hypothesis testing; Simulation techniques; Sampling methods; Elementary control charts.

STAT955 Sample Surveys and Experimental Design (With Project) 8cp

Autumn Wollongong On Campus

Contact Hours: 2 hr Lectures, 1 hr Tutorial

Pre-requisites: STAT232, or STAT252 at Credit level or better, or STAT151 at Credit level or better, or PSYC232 at Credit level or better, or ECON121 at Credit level or better, or (STAT131 and STAT231 both at Credit level or better)

Exclusions: Not to count with STAT335 or STAT355

Assessment: Assignments 20%, project 25%; exam 55%. (Note: students should expect to spend approximately 4 hours/week on the project.)

Subject Description: Experimental designs: completely randomised, randomised complete block, Latin Square, factorial; the analysis of the data arising from these designs. Steps in conducting a sample survey; methods such as simple random sampling and stratified sampling, number raised and ratio estimation. Statistical computing is an essential part of this subject. Project: Students will undertake a project that relates the work of this subject to an investigation in their field of major interest.

STAT971 Preliminary Topics in Statistics A 6cp

Autumn Wollongong On Campus

Contact Hours: 2 hr per week

Subject Description: A selection of topics will be available from time to time to serve as preliminary material in the Master of Statistics.

STAT972 Preliminary Topics in Statistics B 6cp

Autumn/Spring Wollongong On Campus

Contact Hours: 2 hr per week

Subject Description: A selection of topics will be available from time to time to serve as preliminary material in the Master of Statistics.

STAT981 Advanced Topics in Statistics A 6cp

Autumn Wollongong On Campus

Subject Description: Current research interests of staff of the School of Mathematics and Applied Statistics and visitors to the School.

STAT982 Advanced Topics in Statistics B 6cp

Not on offer in 2004

Subject Description: Current research interests of staff of the School of Mathematics and Applied Statistics and visitors to the School.

STAT983 Advanced Topics in Statistics C 6cp *Not on offer in 2004*

Subject Description: Current research interests of staff of the School of Mathematics and Applied Statistics and visitors to the School.

STAT990 Minor Project 6cp

Autumn/Spring Wollongong On Campus

STAT991 Project 12cp

Annual Wollongong On Campus

Spring 04/Aut 05 Wollongong On Campus

LAW SUBJECT DESCRIPTIONS

CMP 901 Strategy and Sea Power

8cp

Not on offer in 2004

Assessment: Class presentations, Research Paper

Subject Description: The course will cover the following issues: the Mahanian legacy, the great White Fleet, the Gunboat Diplomacy, the Washington Disarmament Conference, Power in the Pacific, the Pacific War, the Cold War and the Nuclear Age, ANZUS and the Radford-Collins Agreement, the Asia-Pacific Regional Context, Lehman and the Forward Maritime Strategy, the New World Order.

CMP 902 Law of the Sea

8cp

Autumn/Spring Australian Defence Force Academy (Navy) On Campus

Assessment: Class presentations, Research Paper

Subject Description: The subject will cover the following: the history of international ocean management regimes; the 1982 Law of the Sea Convention; the Law of Armed Conflict of the Sea; the international legal regulation of marine resources; the protection of the marine environment; and law and order at sea.

CMP 903 Australian Maritime Power

8cp

Autumn/Spring Australian Defence Force Academy (Navy) On Campus

Assessment: Class presentations, Research Paper

Subject Description: The course deals with the historical evolution of Australian maritime power from a naval perspective. Topics covered include: international oceans politics; the uses of the sea; the development of national oceans policy; regional maritime policy issues in the Asia-Pacific; maritime and security arrangements in the Asia-Pacific region; Australia's maritime science and technology plan; co-operative arrangements for regional maritime surveillance and maritime transport.

CMP 904 Maritime Regulation and Enforcement

8cp

Autumn/Spring Wollongong On Campus

Assessment: Syndicate work and other class presentations, research paper.

Subject Description: The course focuses on the specific enforcement and regulatory powers, and responsibilities of states in the various maritime zones of jurisdiction, i.e. the territorial sea, the EEZ, continental shelf and high seas. Relevant policy and legal considerations in the development and enforcement of maritime jurisdiction will be covered.

CMP 905 Legal Regulation of Shipping

8cp

Not on offer in 2004

Subject Description: The course addresses the legal and regulatory frameworks relevant to shipping. It comprises two main elements: 1. The International Regulatory Framework, including: the Law of the Sea Convention; the role of the IMO; IMO related conventions; regional regulatory frameworks; and

the arrest and detention of ships. 2. The Australian Domestic Regulatory Framework, including: the constitutional framework; the administrative framework; the Navigation Act; marine insurance; and salvage.

CMP 906 Comparative Oceans Policy

8cp

Autumn/Spring Wollongong On Campus

Subject Description: The course analyses policy implications of increased sea use, comprising the following aspects: the conceptual basis for an integrated national ocean policy; the integration of national sectoral interests such as marine industries and other stakeholders; integrating ocean and coastal management; Australia's Oceans Policy; ocean policy developments in other parts of the world; and regional cooperation and management of shared ocean space, especially within the Southeast Asia.

CMP 907 Shipping and Ports

8cp

Autumn/Spring Wollongong On Campus

Subject Description: The subject addresses the key economic, geographic and policy aspects of international and domestic shipping and port operations. Key content includes global and Asia-Pacific trade, the emergence of a system of hub ports, and introduction to shipping and port/logistics economics, types of shipping, technology trends in shipping and port operations, flagging out of merchant fleets and port state control issues.

CMP 908 Contemporary Maritime Issues in the Asia-Pacific Region

8cp

Autumn/Spring Wollongong On Campus

Subject Description: This course deals with the leading maritime issues in the Asia-Pacific region, including: maritime territorial disputes (South China Sea, Taiwan, East China Sea, Kuriles); piracy/sea robbery; archipelagic sea lane passage; military operations in the EEZ; confidence-building; naval cooperation and competition; and maritime terrorism.

CMP 909 International Marine Environmental Law and Management

8cp

Not on offer in 2004

Subject Description: The subject covers International marine environmental law and conventions, including Part XII of the Law of the Sea Convention and Agenda 21; the specific concerns with, and importance of, the marine environment; important international conventions impacting upon the use and protection of the marine environment, and the domestic and international legal and policy implications of those conventions; the state of world and regional fisheries, and the legal and political efforts to sustain fish stocks.

CMP 910 Selected Topic in Maritime Studies

8cp

Autumn/Spring Wollongong Distance

Subject Description: 10,000 word research paper in an approved topic in maritime studies.

CMP 911 Research Project in Maritime Studies 8cp

Autumn/Spring Wollongong On Campus

Assessment: Research Paper**Subject Description:** 10,000 word research paper in an approved topic in maritime studies.**CMP 912 Minor Thesis in Maritime Studies 16cp**

Autumn/Spring Wollongong On Campus

Assessment: Thesis**Subject Description:** 20,000 word minor thesis in an approved topic in maritime studies.**CMP 913 Integrated Marine and Coastal Management 8cp***Not on offer in 2004***Assessment:** Syndicate work and other class presentations
Research Paper**Subject Description:** The subject covers: 1. The processes and importance of marine and coastal environments 2. Marine and coastal resources, ecological systems and ecosystem services. 3. The factors involved with integrated coastal zone management. 4. Planning for integrated management: roles, components, parties and processes.**CMP 914 International Fisheries Law 8cp***Not on offer in 2004***Assessment:** Syndicate work and other class presentations
Research paper**Subject Description:** The course addresses: 1. The Law of the Sea Convention framework for international fisheries law; 2. Shortcomings of the Law of the Sea framework; 3. Post-Law of the Sea fisheries instruments; 4. Fisheries enforcement; 5. Regional fisheries management organisations; 6. Fisheries sector dispute settlement.**CMP 915 Fisheries Management Law 8cp***Not on offer in 2004***Assessment:** Syndicate work and other class presentations
Research paper**Subject Description:** The subject addresses: 1. Fisheries allocation and property rights and stakeholders; 2. Implementation instruments and national policy considerations; 3. National enforcement regimes; 4. Dispute settlement and litigation; 5. Ecological assessment of fisheries.**LAW 923 The Law of the Sea 8cp***Not on offer in 2004***Pre-requisites:** LAW 910 and LAW 911**Assessment:** Class participation, examination, research essay**Subject Description:** The evolving law of the sea from an historical perspective. The 1982 United Nations Convention on the Law of the Sea (LOSC) and its associated instruments. Maritime zones of jurisdiction and the navigational regime under (LOSC). The major factors influencing the development of the law of the sea; the various interests involved in the law of the sea and how LOSC attempts to balance these interests.**LAW 924 International Environmental Law 8cp***Not on offer in 2004***Pre-requisites:** LAW 910 and LAW 911**Assessment:** A selection from assignments, class participation, class presentation, examination and research essay.**Subject Description:** The relevant legal rules at the international level designed to protect the global environment. The historical development of these rules and the institutional framework within which they are made and enforced. The weaknesses of international environmental law, focusing on problems of domestic implementation.**INTR 900 International Law and Diplomacy 8cp**

Autumn Wollongong On Campus

Assessment: Research essay and final examination**Subject Description:** Sources of international law; the relationship between domestic law and international law; the law of treaties; the structure of the international legal system; statehood, state jurisdiction, state responsibility, nationality and refugees.**LAW 930 Research Project in Natural Resources Law 24cp**

Autumn/Spring Wollongong On Campus

Pre-requisites: 24 credit points at 900 level from the Natural Resources Law & Policy course**Co-requisites:** 24 credit points at 900 level from the Natural Resources Law & Policy course**Assessment:** Research essay**Subject Description:** Content as arranged.**LAW 950 Foreign Investment Law in the People's Republic of China 8cp***Not on offer in 2004***Assessment:** class participation, negotiation group work, examination**Subject Description:** An analysis of the laws and procedures regulating foreign investment in, and trade with, the PRC. This subject will examine those laws relating to: joint ventures and other forms of foreign investment; revenue and finance law including taxation, customs duties and exchange control; foreign trade including compensation trade, technology transfer and intellectual property; and dispute resolution.**LAW 960 Legal Studies For Professionals 6cp**

Spring Wollongong On Campus

Spring Wollongong Flexible

Assessment: problem assignment, research essay, examination**Subject Description:** This subject is offered in a series of modules. The first module lasts for 5 weeks and is completed by all students. It introduces Australia's constitutional and legal structure and explores the nature and processes of law. The second and third modules are designed for postgraduate students and, currently, address areas of law relevant to health and accounting professionals and general management issues.

LAW 969 Occupational Health and Safety Law 6cp**Autumn** Wollongong On Campus**Contact Hours:** 4 day intensive**Assessment:** Class participation, research essay and examination**Subject Description:** This subject is concerned with the study of the legal regime governing health, safety and welfare of people at work in New South Wales. Its focus will be the Occupational Health and Safety Act 2000 and the Occupational Health and Safety Regulations 2001.**LAW 970 Banking and Financial Institutions Law 6cp****Autumn** Wollongong On Campus**Contact Hours:** Refer to Faculty**Pre-requisites:** Bachelor of Commerce specialising in Finance or approval by the Head of Department**Exclusions:** Not to count with LLB321**Assessment:** Refer to subject outline**Subject Description:** The legal framework establishing, controlling and regulating financial institutions, including the Reserve Bank, banks, money market dealers and securities. The law dealing with financial money market instruments, particularly bills of exchange, promissory notes and cheques. Legal basis of the relationship between financial institutions and their clients. The law of securities - nature and types of securities; capacity and authority of borrowers entering transactions; remedies available to secured lenders.**LAW 993 Research Essay 8cp****Autumn/Spring** Wollongong On Campus**Assessment:** 10,000 word dissertation**Subject Description:** Information may be obtained from the Postgraduate Co-ordinator or Sub-Dean regarding the research essay.**LAW 994 Legal Research Proposal 8cp****Autumn/Spring** Wollongong On Campus**Pre-requisites:** LAW 993 or equivalent**Subject Description:** This subject will provide students with the skills to develop a research proposal suitable for research at Master's level, and to choose an appropriate methodology for carrying out the research. It will explore the range of approaches available to legal researchers at a time when legal research is in a considerable state of flux. Traditional approaches based on detailed analysis of case law and legislation will be compared and contrasted with socio-legal approaches which rely on theoretical and methodological inputs from other disciplines. In particular, the relevance of empirical research to the issues of implementation and law reform, both qualitative and quantitative, will be examined. After completing the subject, students will be in a position to pursue more detailed studies in relation to their methodology of choice.**LAW8311 Lawyers and Legal Ethics 6cp****Autumn/Spring** Wollongong On Campus**Contact Hours:** 2 hr seminar per week**Pre-requisites:** LAW810**Exclusions:** Before becoming eligible for a grade in this subject, a candidate must complete the practical component of the subject to the satisfaction of the Faculty.**Assessment:** Research essay or project 50%; Problems in Professional Responsibility assignment 40%, Class participation 10% (total will be scaled back to 60%). Placement program 40%.**Subject Description:** This subject falls into two parts. 1) the nature of professionalism and ethics; the 'legal profession', its regulation, and its rules of conduct; and how the law in practice relates to access to justice. 2) a practical or clinical element, in which students can observe and participate in the practice and operation of the law, through the Professional Experience Placement Program. Each student must undertake 2 placements each of 20 working days of professional experience, in two different legal environments approved by the Faculty. The Placement Program is undertaken after the Course work in the subject has been completed.**LAW9317 E-Commerce Law 6cp****Spring** Wollongong On Campus**Contact Hours:** 2 hr seminar per week**Pre-requisites:** 24 credit points of Master of Electronic Commerce**Exclusions:** LAW317, LLB317**Assessment:** Class participation, class tests, research essay or class presentation and report.**Subject Description:** This subject considers some of the more significant legal and regulatory issues that e-commerce has given rise to, and the efficacy of sustainability of the emerging responses to them. The subject begins with an overview of the structural framework of the cyber marketplace. It then focuses on starting up an on-line business activity, the legal issues at the forefront, and the progress thus far towards resolving them. Intellectual property aspects and privacy are particularly relevant at this stage. The subject then focuses on operating an on-line business and considers contract and consumer protection, and payment and security issues.**LAW9380 Law For Environmental Managers 8cp****Spring** Wollongong On Campus**Contact Hours:** 2 hr seminar, 1 hr lecture per week**Pre-requisites:** 72 credit points in a discipline other than Law or enrolled in MEnvSc**Exclusions:** Not to count with LAW100, LAW334 or LAW380**Assessment:** Take-home examination and a final examination.**Subject Description:** The goal of this subject is to enable candidates to develop a basic, critical understanding of the law in relation to environmental management in Australia, with particular emphasis on NSW, including the limitations of legal instruments in achieving environmental management and policy objectives.**LEGL910 International Cooperation in Crime Prevention 4cp****Autumn** Wollongong On Campus**Contact Hours:** WebCT and 2 days compulsory intensive classes

Assessment: class presentation, assignments and research paper

Subject Description: The politics of international relations, regional security and transnational crime and their historical background. UN institutions including the proposed International Criminal Court, different regional institutions, anti-corruption mechanisms, whistleblowing, transparency in governance and the role of civil society.

LEGL911 International Criminal Law 4cp

Autumn Wollongong On Campus

Contact Hours: WebCT and 2 days compulsory intensive classes

Assessment: class presentation, assignments, research paper

Subject Description: International law related to national extraterritorial regulatory and enforcement jurisdiction, mutual assistance and extradition, and international crimes and tribunals. Includes an overview of relevant international instruments such as the UN Narcotic Drugs and Psychotropic Substances Treaty, the OECD Convention Bribery, the Draft UN Convention against Transnational Organised Crime, the Law of the Sea Convention, and bilateral instruments such as extradition treaties and mutual assistance treaties.

LEGL912 Comparative Criminal Justice 4cp

Autumn Wollongong On Campus

Contact Hours: WebCT and 2 days compulsory intensive classes

Assessment: class presentation, assignments, research paper

Subject Description: Common Law, civil law and shari'a criminal justice systems are compared with the objective of developing an appreciation of different legal systems, cultures and ethics. International criminal procedure is examined including international policing cooperation.

LEGL920 Transnational Corporate Crime 4cp

Spring Wollongong On Campus

Contact Hours: WebCT and 2 days compulsory intensive classes

Co-requisites: LEGL911

Assessment: class presentation, assignments, research paper

Subject Description: Fraud, money laundering, tax evasion and tax havens, securities offences, corporate structures including holding companies and subsidiaries, directors' responsibilities. Case studies and examples provided by relevant guest lecturers from government and commerce.

LEGL921 Crime and Transnational Financial Transactions 4cp

Autumn Wollongong On Campus

Contact Hours: WebCT and 2 days of compulsory intensive classes

Co-requisites: LEGL911

Assessment: class discussions, assignments, individual essay

Subject Description: The subject focuses on the implications of fraud for the financial sector. It entails analysis of fraudulent activity in financial transactions, e.g. letters of credit, credit cards, electronic transfers, insurance, banking

codes, and other banking procedures, together with the rules governing the disclosure of account holders and other forms of government record tracing.

LEGL922 Financial Investigations Practice and Procedure 4cp

Spring Wollongong On Campus

Contact Hours: WebCT and 2 days compulsory intensive classes

Co-requisites: LEGL911

Assessment: class discussions, assignments, research essay

Subject Description: This subject focuses on the investigation of accounts and other relevant financial information held by financial organisations. It entails analysis of financial and other account information, auditing of accounts, and accountant and lawyer ethics and responsibilities, eg. in relation to confidentiality, search warrants and subpoenas.

LEGL923 Crime and Information Technology Regulation 4cp

Spring Wollongong On Campus

Contact Hours: WebCT and 2 days compulsory intensive classes

Co-requisites: LEGL911

Assessment: class discussions, assignments and research essay.

Subject Description: The subject focuses on the implications of developments in information technology for corporate and governmental security. It entails analysis of E-commerce regimes, theft of services and intellectual property and information piracy, dissemination of offensive materials, money laundering, vandalism, illegal interception, fraud, mobility and location of crime together with the rules governing the disclosure of account holders by Internet Service Providers (ISP) and forensic skills.

LEGL930 Legal Research and Writing 2cp

Autumn Wollongong On Campus

Contact Hours: WebCT and compulsory intensive class

Assessment: A case summary; a web-based exercise; small group exercise

Subject Description: The subject is intended to introduce students to the particular characteristics of legal research and writing relevant to the Master of Transnational Crime Prevention (MTCP) program. The subject content is similar to that offered by the Faculty in LLB9395 Legal Research and Writing.

LEGL931 Computing and Statistical Skills 2cp

Autumn Wollongong On Campus

Contact Hours: WebCT and compulsory intensive class

Assessment: practical exercises and assignments

Subject Description: The subject is intended to introduce students to the application of information technology in legal and financial work, including information retrieval, litigation support, property (land) transactions, company searches, court and office management and the use of expert systems. The

subject content is similar to that offered by the Faculty in LLB390.

LEGL940 Transnational Organised Crime 8cp

Spring Wollongong On Campus

Contact Hours: WebCT and 4 days compulsory intensive classes

Pre-requisites: LEGL 911

Assessment: class presentations and research paper

Subject Description: All students will undertake a common core module on the analysis and structure of transnational organised crime, including the sociology of the development of such crime. Thereafter, students will choose one case study on serious organised crime to be selected from Terrorism, Banking Fraud, Firearms Trafficking, Narcotics, People Trafficking, Environmental Crime, Maritime Crime and Intellectual Property Crimes. Examples and case studies will be provided by relevant experts from Government and Commerce.

LEGL950 Transnational Crime Prevention Research Project 8cp

Autumn/Spring Wollongong On Campus

Pre-requisites: 24 credit points of LEGL subjects

Assessment: 10,000 word dissertation.

Subject Description: Students will research and write a dissertation of approximately 10,000 words, on a subject selected by the student and approved by the subject coordinator. The student should approach the topic from an international and comparative law perspective drawing together different threads of the Master of Transnational Crime Prevention (MTCP) program undertaken by the student in light of the students experience and background. Where appropriate, assistance from external experts is encouraged.

LEGL951 Special Studies in Transnational Crime and Prevention 8cp

Autumn/Spring Wollongong On Campus

Pre-requisites: 24 credit points of LEGL subjects

Assessment: 5,000 word essay

Subject Description: This subject permits the inclusion in the Master of Transnational Crime Prevention (MTCP) program of an in depth study of a particular aspect of transnational crime prevention within the specialisation of a visiting expert, which would otherwise not be offered by the Faculty.

LLB 843 Professional Practice 8cp

Autumn/Spring Wollongong On Campus

Pre-requisites: Bachelor of Laws degree or equivalent

Co-requisites: LLB844

Assessment: Workshops, small group activities, assignments, reflective journal, professional experience component, report.

Subject Description: An introductory program which will provide frameworks, foundations and strategies for the other Practice Subjects of the course. The subject contains seven modules: Professional Responsibility and Competent Practice; Problem Analysis Skills; Dispute Resolution Skills; Cross-cultural Communication Skills; Electronic Research Skills;

Writing and Drafting Skills and Professional Experience Program. Students attend on-campus for the first week of the Course, and thereafter meet the requirements of the Professional Experience program in law-related employment or in a placement arranged by the Practical Legal Training Unit. The requirements of this subject are not completed until all components of professional experience.

LLB 844 Practice Management 8cp

Autumn/Spring Wollongong On Campus

Pre-requisites: Bachelor of Laws degree or equivalent

Co-requisites: LLB843

Assessment: The completion of a workbook, several assignments, attend and actively participate in a seminar.

Subject Description: This subject will introduce students to the statutory and professional requirements in relation to clients' Trust monies and securities, and to principles of practice management including computerised accounting and recording systems, costing, risk management and related matters. The subject contains three inter-related modules: Trust and Office Accounting; and Law Office Management.

LLB 845 Conducting Litigation 16cp

Autumn/Spring Wollongong On Campus

Pre-requisites: Bachelor of Laws degree or equivalent

Co-requisites: LLB843 and LLB844

Assessment: A combination of workshops, self-directed learning, assignments, Court visits, and interactive legal files.

Subject Description: The subject is organised in seven modules: Litigation Strategy Workshop; Civil Litigation Practice; Criminal Law Practice; Family Law Practice; Advocacy Workshop; Administrative Law Practice and Environmental Law Practice.

LLB 846 Commercial and Property Practice 16cp

Autumn/Spring Wollongong On Campus

Pre-requisites: Bachelor of Laws degree or equivalent

Co-requisites: LLB843 and LLB844

Assessment: Assessment involves a combination of workshops, seminars, an auction report, workbook exercises, assignments, and conduct of a legal file.

Subject Description: The subject is delivered in 8 modules: Commercial Planning; Revenue Implications; Real Property Transactions; Commercial Contracts; Government Commercial Transactions; Trusts, Wills and Estate Planning; Probate and Estate Administration; Small Business Practice. The subject provides an overview of particular aspects of commercial and property transactions, and related matters which affect clients in planning their business and personal affairs.

LLB 950 Foreign Investment Law in the People's Republic of China 8cp

Not on offer in 2004

Pre-requisites: Refer to Faculty

Assessment: Class participation, negotiation group work, examination.

Subject Description: An analysis of the law and procedures regulating foreign investment in, and trade with, the PRC. This

Subject Descriptions

subject will examine those laws relating to: joint ventures and other forms of foreign investment; revenue and finance law including taxation, customs duties and exchange control; foreign trade including compensation trade, technology transfer and intellectual property; and dispute resolution.

LLB9100 Introduction to Legal Systems 8cp

Autumn/Spring Wollongong On Campus

Subject Description: An overall perspective on the Australian legal system and its role in the Australian social order; an introduction to the sources and authority of legal rules, the nature of legal institutions and practices, legal materials, reasoning and terminology. Aspects of substantive law will be used to illustrate general principles.

LLB9210 Law of Contracts 8cp

Spring Wollongong On Campus

Contact Hours: 1 hr lecture, 2 hr seminar per week

Co-requisites: LLB9100

Assessment: Case note; mid session assignment; class participation; and final examination.

Subject Description: The study of the modern law of contract as it has developed in Australia. The subject introduces the context and significance of contract law, especially in relation to commercial dealings. Using the case book method, students study the legal principles as to formation of a contract, privity of contract, the terms of the contract, the contract excuses, performance breach and termination of the contract, and remedies for breach of contract. Similarly, students study promissory estoppel. The subject is designed to facilitate students acquiring a sound knowledge of the basic legal principles of the discipline area and their diverse applications.

LLB9222 Perspectives on Law 8cp

Not on offer in 2004

Co-requisites: LLB9100

Assessment: assignments

Subject Description: As its title suggests, this is a subject about law rather than a subject on the law itself. A basic theme of the subject is the underlying tension between law as an abstract medium of scholarship and the way it operates in real life. A wide variety of theoretical tools will be presented to help students make sense of the differences between law in books and law in action.

LLB9300 Remedies and Procedure 8cp

Spring Wollongong On Campus

Contact Hours: 2 hr seminar per week

Pre-requisites: LLB9210 and LLB9307

Assessment: class participation, assignment, examination

Subject Description: The Remedies component of this subject explores the major legal and equitable remedies available in a civil action. These judicial remedies are considered according to the particular purpose or goal that they are intended to achieve, including compensation, punishment, restitution and coercion. In addition, some attention is given to non-judicial (or "self help") remedies. The Civil Procedure component of the subject examines pre-trial procedure in civil actions in the Supreme Court of New South Wales. Topics covered include

determining who may be a party to the proceedings; choosing originating process; serving court process; pleading; bringing proceedings to an early end; obtaining discovery and administering interrogatories.

LLB9301 Evidence 8cp

Spring Wollongong On Campus

Contact Hours: 1 hr lecture, 2 hr seminar per week

Pre-requisites: LLB9210

Assessment: Research essay, moot or assignment, class participation and final examination.

Subject Description: Students will be introduced to the rules relating to the sources and admissibility of evidence in civil and criminal trials. Topics will include the burden and standard of proof; the examination of witnesses; character evidence; documentary evidence; and the rules in relation to opinion evidence, hearsay, confessions and admissions; illegally obtained evidence; discretions and warnings.

LLB9302 Law of Business Organisations 8cp

Autumn Wollongong On Campus

Contact Hours: 1 hr lecture, 2 hr seminar per week

Pre-requisites: LLB9210

Assessment: Assignments and examination.

Subject Description: The subject introduces the central concerns of a law of organisations, and of the law of business organisations, and the public policies informing the development of the Australian legal response. The range of organisations available for business and non-business purposes and their legal regulation are overviewed. Partnerships and companies and their legal regulations are considered in depth, including current policy issues.

LLB9303 Family, Children and Welfare 8cp

Autumn Wollongong On Campus

Contact Hours: Delivered as intensive subject over 4 days

Pre-requisites: LLB9100

Assessment: Essay; class participation; class exercises; quiz; and final examination.

Subject Description: To develop in students a satisfactory level of understanding of all aspects of the Family Law Act and related legislation.

LLB9304 Criminal Law and the Process of Justice 8cp

Autumn Wollongong On Campus

Contact Hours: 2 hr seminar per week

Assessment: Essay and examination

Subject Description: This subject is an introduction to: general principles of criminal liability; major categories of offences and selected defences; and aspects of criminal procedure.

LLB9305 Property and Trusts A 8cp

Autumn Wollongong On Campus

Contact Hours: 1 hr lecture, 2 hr seminar per week

Pre-requisites: LLB9210

Assessment: Class participation, assignment and final examination

Subject Description: Consideration of the notion of property and interests in property; the distinctions between 'real, personal and intangible' property; legal and equitable interests in property and the notion of title; the notion of ownership; legal protection of property interests. The relationship of landlord and tenant; easements and covenants.

LLB9306 Property and Trusts B 8cp

Spring Wollongong On Campus

Contact Hours: 1 hr lecture, 2 hr seminar per week

Pre-requisites: LLB9305

Assessment: Class participation; assignment and final examination

Subject Description: The modern law of real property, including Torrens title, mortgages and co-ownership. The law of express trusts, including the powers and obligations of trustees, and remedies of the beneficiary for breach of trust.

LLB9307 Law of Torts 8cp

Autumn Wollongong On Campus

Contact Hours: 2 x 1 hr lectures, 1 hr seminar per week

Pre-requisites: LLB9100

Assessment: assignments; examination

Subject Description: Introduction to the law of civil wrongs, its aims, operation and relationship to other societal mechanisms of compensation. Topics include negligence; international torts; nuisance. The focus will be the development of the common law and the operation of public policy granting relief in a variety of tort actions.

LLB9308 Public Law A 8cp

Autumn Wollongong On Campus

Contact Hours: 1 hr lecture, 2 hr seminar per week

Pre-requisites: LLB9100

Assessment: problem assignment and exam.

Subject Description: The notion of the state and state power; limitations on state power; the constitutional structure of the Australian nation-state; the notion of division and separation of powers; mechanisms of accountability and control of government officials, including access to government information, the Ombudsman, merits review tribunals and judicial review.

LLB9309 Public Law B 8cp

Spring Wollongong On Campus

Contact Hours: 2 hr seminar per week

Pre-requisites: LLB9308

Assessment: research essay and exam.

Subject Description: Division of power between Commonwealth and State legislatures; the structure and powers of State and Commonwealth governments, with special emphasis on the limitation of the power of the Commonwealth; the place of the judiciary and judicial review of legislative and executive power; Commonwealth and State fiscal powers;

express and implied constitutional rights; constitutional change.

LLB9312 Legal Theory 8cp

Spring Wollongong On Campus

Contact Hours: 2 hr seminar per week

Pre-requisites: LLB9100

Assessment: Assignments; research essay; class participation

Subject Description: This subject addresses a range of fundamental issues in jurisprudence, revolving around the nature of law, the basis for legal authority, the scope and limits of law, and the relationship between law, morality and values such as justice, liberty and autonomy.

LLB9320 Commercial and Consumer Contracts 8cp

Autumn Wollongong On Campus

Contact Hours: 2 hr seminar per week

Pre-requisites: LLB9210

Assessment: Class participation; assignment and examination

Subject Description: The special rules relating to common commercial contracts, such as contracts of agency, contracts for the sale of goods, insurance contracts, and contracts of carriage; statutory restrictions on contracts.

LLB9321 Finance and Security 8cp

Spring Wollongong On Campus

Contact Hours: 2 hr seminar per week

Pre-requisites: LLB9210

Assessment: class participation, assignment, examination

Subject Description: LLB9321 Finance & Security is designed to develop in students a sound understanding of the law governing financial institutions in Australia, and the manner in which these institutions are regulated. The relationship between financial institutions and their customers will be examined, along with the impact of recent technological developments on this relationship and on the business of banking. The law dealing with cheques and other negotiable instruments will be discussed in detail. The issue of security for transactions with financial institutions will be analysed, along with the position of banks as creditors when a customer becomes bankrupt.

LLB9330 Law of Employment 8cp

Autumn Wollongong On Campus

Contact Hours: 1 hr lecture, 2 hr seminar per week

Pre-requisites: LLB9210

Assessment: class participation, essay/project and examination

Subject Description: The rights and duties of individual employers and employees under common law and selected legislation, including: formation, content and termination of the contract of employment; implied duties of employers and employees; remedies at common law; unfair dismissal legislation; anti-discrimination law; unfair work contracts; occupational health and safety.

LLB9331 Intellectual Property Law 8cp

Autumn Wollongong On Campus

Contact Hours: 1 hr lecture, 2 hr seminar per week

Pre-requisites: LLB9100

Assessment: class participation, research essay, take-home examination

Subject Description: This subject provides an overview of the field of intellectual property law commencing with an analysis of the 2 major and oldest forms of intellectual property - copyright and patents. The course then moves on to the methods of protecting business reputation both at common law/equity, and through the registration of trade marks. Other more recent forms of intellectual property are also covered, such as plant breeder's rights, designs and circuit layouts.

LLB9332 Labour Relations Law 8cp

Spring Wollongong On Campus

Contact Hours: 2 hr seminar per week

Pre-requisites: LLB9210

Assessment: Assignment, class participation, presentation and examination.

Subject Description: The legal regulation of collective relations between employers and employees under the Workplace Relations Act 1996 (Cth) and the Industrial Relations Act 1996 (NSW). Topics include: constitutional requirements; parties to an industrial dispute; powers of industrial tribunals (including natural justice); processes of award making and variation; collective bargaining and certified agreements; Australian Workplace Agreements; legal regulation of trade unions; liability for industrial action.

LLB9334 Environmental Law 8cp

Spring Wollongong On Campus

Contact Hours: 2 hr seminar per week

Pre-requisites: LLB9100

Assessment: assignment, research essay, class participation, examination

Subject Description: The goal of this subject is to enable candidates to develop a basic, critical understanding of the law in relation to environmental management in Australia, with particular emphasis on NSW, including the limitations of legal instruments in achieving environmental management and policy objectives.

LLB9335 Anti-Discrimination Law 8cp

Spring Wollongong On Campus

Contact Hours: 1 hr lecture, 2 hr seminar per week

Pre-requisites: LLB9100

Assessment: essay/research project, class participation and examination

Subject Description: An analysis and appraisal of laws prohibiting discrimination in Australia on various grounds, including: sex, marital status, race, disability, age, sexual preference and transgender. Laws prohibiting harassment and vilification will also be examined. The subject includes exploration of the aims and social context of anti-discrimination legislation, as well as related concepts such as equal opportunity, social justice and affirmative action. Examination of processes for complaints, dispute resolution

and enforcement, and powers of investigative and adjudicatory bodies.

LLB9336 Regulation of Business 8cp

Not on offer in 2004

Pre-requisites: LLB9100

Assessment: Class participation, assignment and research paper 4,000 words.

Subject Description: This course is concerned with the law controlling the sale and distribution of products and services, credit, restrictive trade practices and other aspects of the commercial environment. It examines the relation of production and consumption in the economy and the law, the policies and legal rules intended to protect consumers, and legal remedies and institutions which are designed to offer assistance to consumers. Consumer protection is related to business regulation and restrictive trade practices (competition law) since both these areas seek to supplement and support market and other mechanisms which ensure that consumers get the goods and services that they want, at a fair price, and without risk of injury or deception. There is also an examination of consumerism as a world-wide phenomenon with specific emphasis on the international consumer movement and consumer rights as well as anti-competitive concerns about intellectual property in the context of the multilateral trading system of the WTO.

LLB9337 Comparative Studies in Law 8cp

Spring Wollongong On Campus

Contact Hours: 4 day intensive

Pre-requisites: LLB9100

Assessment: Research essay and final examination

Subject Description: A comparison of the French civil law with the common law of England and Australia, with the objective of developing an appreciation of different legal systems and approaches.

LLB9338 International Trade Law 8cp

Not on offer in 2004

Pre-requisites: A Law degree

Assessment: Class participation, assignments, research papers or take home examination

Subject Description: Public and private law aspects of international trade and investment, including contracts, transport, insurance and the settlement of international commercial disputes, the role of the World Trade Organisation, its regime of trade regulation and dispute resolution mechanisms, multilateral agreement on trade in services, and the financing of international transactions.

LLB9341 Revenue Law 8cp

Not on offer in 2004

Pre-requisites: LLB9210

Assessment: class presentation, written advice to clients involving 2 scenarios; class participation and assignment

Subject Description: Revenue Law, or taxation law, is one of the highly technical fields of law bringing together economic, accounting and financial concepts into a legal construct for the determination of how the costs of good government are to

be shared among the members of society. Taxation pervades everyone's life in some way, whether in the form of income tax, for instance, or some form of consumption or other tax. LLB9341 is confined to the Income Tax Assessment Act (1936/97), the Fringe Benefits Tax Assessment Act and associated legislation. These fields alone provide more than enough content for a one semester subject, but are essential for those students seeking registration as CPAs or Chartered Accountants after completing their Degree.

LLB9343 International Law 8cp

Autumn Wollongong On Campus

Contact Hours: 2 hr seminar per week

Pre-requisites: LLB9100

Assessment: research essay and final examination

Subject Description: Sources of international law; the relationship between domestic law and international law; the law of treaties; the structure of the international legal system; statehood, state jurisdiction, state responsibility, nationality and refugees.

LLB9344 Indigenous Peoples and Legal Systems 8cp

Not on offer in 2004

Pre-requisites: LLB9100

Assessment: essays, research paper.

Subject Description: This subject is an introduction to the relationship between Indigenous and non-Indigenous laws and legal systems in Australia. It considers the nature and status of Aboriginal and Torres Strait Islander laws, and explores some of the specific legal issues of current relevance to Indigenous peoples in Australia. Topics include the impact of European colonisation, over-representation in the criminal justice system, land rights and native title, recognition of Aboriginal law, and self-determination.

LLB9348 Media Law 8cp

Not on offer in 2004

Pre-requisites: LLB9100

Co-requisites: LLB9210

Assessment: research project, class tests, examination

Subject Description: An introduction to the law affecting information (in the broadest sense of the term) gathering and dissemination, and to the policies and philosophies informing the legal protection of and restrictions on freedom of speech.

LLB9349 Feminism and Law 8cp

Not on offer in 2004

Pre-requisites: LLB9100

Subject Description: This subject introduces the major themes in feminist thought and modes of contemporary feminist scholarship and applies them to law, legal institutions and the practice of law in Australia. It provides a foundation for future analysis of substantive and procedural law by students and subjects the institutions of law and their practitioners to scrutiny from a feminist perspective.

LLB9350 Special Study in Law A 8cp

Autumn/Spring Wollongong On Campus

Pre-requisites: LLB9210

Subject Description: A study in depth of selected area of law.

LLB9351 Special Study in Law B 8cp

Autumn/Spring Wollongong On Campus

Pre-requisites: LLB9210

Assessment: Not available.

Subject Description: A study in depth of a selected area of law.

LLB9360 Foreign Investment Law in the People's Republic of China 8cp

Not on offer in 2004

Pre-requisites: LLB9100

Co-requisites: LLB9210

Assessment: class participation, negotiation group work, examination

Subject Description: An analysis of the law and procedures regulating foreign investment in, and trade with, the PRC. This subject will examine those laws relating to: joint ventures and other forms of foreign investment; revenue and finance law including taxation, customs duties and exchange control; foreign trade including compensation trade, technology transfer and intellectual property; and dispute resolution.

LLB9362 Advanced Revenue Law 8cp

Not on offer in 2004

Pre-requisites: LLB9341

Assessment: Research project; client interview and class participation

Subject Description: In this subject, students will be exploring selected aspects of income tax, capital gains tax, fringe benefits tax, the new goods and services tax and state taxes. The course is run on an intensive basis and features presentations from tax professionals, the Australian Tax Office, and the NSW Office of State Revenue.

LLB9395 Legal Research and Writing 2cp

Autumn/Spring Wollongong On Campus

Assessment: Exercises, small-group presentation, class participation

Subject Description: An introduction to the location and use of primary legal materials, including the use of computers in retrieving legal material; observation of legal practice in courts and elsewhere; analysis of legal documents; development of clear, concise and simple styles of presenting ideas and arguments in writing; citation of legal materials.

SCIENCE SUBJECT DESCRIPTIONS

BIOL970 Advances in Conservation Biology 12cp

Autumn Wollongong On Campus

Contact Hours: 6 hr per week

Restrictions: Students must qualify for entry into the MSc (Biological Sciences) and have an undergraduate background, at senior undergraduate level, in ecology.

Assessment: Critical review paper & seminar; Seminar, Land & Environment Court assignment; Practical reports; Field camp & report; Final examination

Subject Description: This subject examines the science behind modern conservation biology, integrating ecology, ecological genetics & legislation. Emphasis is placed on understanding ecological & genetic principles, mastering lab. & field skills & elementary mathematical modelling, & then placing these in the context of current legislation & other conservation instruments. Students use these skills & knowledge to assess a recent issue in conservation biology, as a critical review of methodology & conclusions.

BIOL971 Advanced Topics in Marine and Terrestrial Ecology 12cp

Spring Wollongong On Campus

Contact Hours: 2 hr Lecture, 4 hr Tutorial/Practical per week

Assessment: Research project or Literature review; Seminar presentation

Subject Description: Introduction to ecology - levels of organisation (individual, population, community and ecosystem) and the importance of spatial and temporal variation. Experiments in ecology - field and laboratory, their design and analysis, including the detection of human impacts. Biotic interactions: the roles of competition, herbivory, predation, mutualisms and disturbance, in community structure and function. Behavioural ecology: innate vs learned behaviours and their effects on individual fitness, demography and community structure. Applied ecology: rehabilitation and ecological management. Literature review examining contemporary research in ecology (tailored to the specialisations of MSc students enrolled in the subject).

BIOL972 Ecological and Evolutionary Physiology 12cp

Autumn Wollongong On Campus

Assessment: Literature reports & project reports; Seminar presentation; Theory exam

Subject Description: Physiological and biochemical responses of animals and plants to environmental variables (light intensity, temperature, water, salt content, gas composition and pressure). Physiological and behavioural adaptations of organisms to particular aquatic and terrestrial environments. Effect of organism size and phylogeny on physiological performance. Evolution of endothermy. Using allometry to predict and evaluate physiological performance. Literature review examining contemporary research in physiology.

BIOL980 Biotechnology 12cp

Autumn Wollongong On Campus

Contact Hours: 2 hr Lecture, 4 hr Tutorial/Practical per week

Assessment: Tutorial presentation; Literature review/critique and presentation; Practical/research project reports and presentation; Theory examinations

Subject Description: Recombinant DNA technology and genetic engineering of micro-organisms, plant cells and animal cells. Expression, production and purification of recombinant proteins, cytokines and hormones. Fermentation technology and industrial scale-up. Applications of Biotechnology to the fields of human therapeutics, agriculture and diagnostics. Bioinformatics, ethical and patent issues of Biotechnology.

BIOL981 Molecular Cell Biology 12cp

Autumn Wollongong On Campus

Contact Hours: 2 hr Lecture, 4 hr Tutorial/Practical per week

Assessment: Literature review & seminar presentation on advanced topics in Molecular Cell Biology; Mid-session quiz; Practical report and student laboratory report book; Poster; Theory exam; Practical exam

Subject Description: Assumed knowledge: basic biochemistry, cell biology (cell structures of prokaryote versus eucaryotes) & molecular biology (DNA, RNA structure, basic mechanisms of DNA replication, transcription, translation & gene expression). This subject covers many specific aspects of cell biology, including cell and tissue structure, protein sorting mechanisms, secretion, membrane transport, energetics, signal transduction, apoptosis, cellular and molecular genetics of development, the cell cycle and cancer. In addition, focused lab-based practicals are offered which will provide an understanding of the techniques used for studying cell biology. These include: cell and organelle isolation and analysis, growth of various cell types in aseptic culture, observation and manipulation of cellular functions and cell surface labelling and protein blotting.

BIOL982 Cellular and Molecular Immunology 12cp

Spring Wollongong On Campus

Contact Hours: 2 hr Lecture, 4hr Tutorial/Practical per week

Assessment: Research project; Literature review; Theory examination(s); Seminar presentation

Subject Description: Cells (T cells, B cells, macrophages, dendritic cells, etc.) and organs (thymus, lymph nodes, etc.) of the immune system. Antigen presenting cells, clonal selection theory and the humoral response. Molecules of the immune system (cell surface receptors, MHC, cytokines). B and T cell activation. Antibody structure and function, generation of antibody diversity. Innate immunity, complement, phagocytosis. Tolerance and autoimmunity. ELISA techniques, monoclonal antibodies, antibody engineering, phage antibodies, flow cytometry. HIV and AIDS.

BIOL983 Research Methods in Biotechnology 12cp**Autumn** Wollongong On Campus**Contact Hours:** 5 hr per week**Restrictions:** Attainment of a standard equivalent to the third year of the Bachelor of Biotechnology**Assessment:** Literature research project; Presentation of one seminar; Written examination

Subject Description: The role of proteins in biotechnology. Aspects of protein 3-dimensional structure & fold, ligand binding & catalysis important in biotechnology. Extraction & recovery of proteins in the biotechnology industry. Purification & characterisation of proteins. Animal cell & tissue culture: advanced culture techniques, flow cytometry & genetic engineering. Antibody technology: radio-immunoassay & enzyme-immunoassay techniques, signal amplification strategies. Transgenics: current status & prospects. Recent advances in gene cloning & screening. Resistance of plants to disease & abiotic stress. Genetic engineering of plants. Bioremediation using plants & microbes. Vaccines: antigen selection, presentation & delivery.

BIOL984 Applied Bioinformatics 12cp**Autumn/Spring** Wollongong On Campus**Contact Hours:** 6 hr per week**Assessment:** Individual practical exercises; Written formal report; Presentation of seminar; Written examination.

Subject Description: A revolution is underway in Biological Sciences due to the impact of Genomics, Transcriptomics and Proteomics. These new technologies have transformed Biology from a data-poor to a data-rich science. Bioinformatics is concerned with the utilisation of this new data. Bioinformatics will be explored in lectures and computer-based practicals. Databases for nucleic acid and protein sequences, structures and other parameters of biological molecules, plus linkages to the scientific literature, will be used to extract information, compare and analyse biological data. Each student will prepare a literature research paper and deliver a seminar on a relevant aspect of Bioinformatics. Students enrolled in this subject are assumed to have a knowledge of biology commensurate with that of a 3rd year life science student.

BIOL991 Major Research Project 24cp**Autumn/Spring** Wollongong On Campus**Summer 2004/2005** Wollongong On Campus

Subject Description: The student will undertake a research project on a topic in Biotechnology and present a research report and seminar on a topic chosen by the supervising staff. The research can be undertaken in collaboration with industry or another recognised institution.

BIOL992 Literature Review Project 12cp**Autumn/Spring** Wollongong On Campus**Summer 2004/2005** Wollongong On Campus**Assessment:** Literature report; Seminar; Other assessment as directed by the Head of Department

Subject Description: Under the supervision of staff (nominated by the Masters Coordinator) the student will survey the biological literature and present a written report and a seminar on a topic chosen by the supervisory academic.

BIOL993 Research Project 12cp**Autumn/Spring** Wollongong On Campus**Summer 2004/2005** Wollongong On Campus**Assessment:** Supervisor's assessment 5%; Seminar 20%; Project report 75%

Subject Description: Under the supervision of staff (nominated by the Masters Coordinator) the student will undertake a research project and present a written report and a seminar on a topic chosen by the supervising staff. Students enrolled in this subject are assumed to have a knowledge of biology commensurate with that expected of a life sciences BSc graduate. Before enrolling in this subject, students need to identify a supervisor and an appropriate research project.

CHEM910 Research Skills Training 12cp**Annual** Wollongong On Campus**Autumn/Spring** Wollongong On Campus**Exclusions:** Not to count with CHEM411 or CHEM911

Assessment: Written/oral assignments and examinations (as appropriate). Research Skills Directed Studies 67%; Generic Skills Modules 33%.

Subject Description: This subject provides training in generic research skills such as data interpretation and analysis, library skills, literature evaluation, quality control and assurance, and Occupational Health and Safety. In addition, students will carry out directed studies in topics of advanced chemistry, chosen to complement their research interests, in discussion with the course co-ordinator.

CHEM911 Selected Topics in Chemistry 8cp**Autumn/Spring** Wollongong On Campus**Spring 04/Aut 05** Wollongong On Campus**Exclusions:** Not to count with CHEM910

Assessment: Written/oral assignments and examinations (as appropriate)

Subject Description: This subject provides training in generic research skills such as data interpretation and analysis, library skills, literature evaluation, quality control and assurance, and Occupational Health and Safety. In addition, students will carry out directed studies in topics of advanced chemistry, chosen to complement their other subjects, in discussion with the course Co-ordinator.

CHEM915 Advanced Chemistry Laboratory Project 12cp**Autumn/Spring** Wollongong On Campus**Annual** Wollongong On Campus**Contact Hours:** 168 hr lab work**Assessment:** Thesis 70%; Poster 15%; Seminar 15%

Subject Description: Under the supervision of staff appointed by the Head of Department, students will undertake a laboratory project and present a written report, poster and a seminar on a topic chosen by the supervising staff.

CHEM919 Literature Report in Chemistry 12cp**Autumn/Spring** Wollongong On Campus**Annual** Wollongong On Campus**Assessment:** Substantial report 85%; Seminar 15%

Subject Description: Students in this subject undertake a literature search on recent advances in a research topic in chemistry. The topic is chosen in consultation with their supervisor and the course coordinator. A substantial report is the written outcome and the students meet in regular tutorials with their supervisor to discuss issues raised in the topic and compilation of the report.

CHEM923 Advanced Topics in Chemistry Part 1 (Spring) 8cp**Spring** Wollongong On Campus**Assessment:** Written/oral assignments and examinations (as appropriate)**Subject Description:** Part 1 of CHEM910**CHEM924 Advanced Topics in Chemistry Part 2 (Autumn) 8cp****Autumn** Wollongong On Campus**Pre-requisites:** CHEM923**Assessment:** Written/oral assignments and examinations (as appropriate)**Subject Description:** Part 2 of CHEM910**CHEM930 Selected Topics in Medicinal Chemistry 12cp****Annual** Wollongong On Campus**Autumn/Spring** Wollongong On Campus**Contact Hours:** 4 hr Lecture, 1 hr contact with supervisor per week**Pre-requisites:** Entry is subject to approval of Head of Department**Assessment:** Written examination; Essays (2); Seminar

Subject Description: Specialist courses in aspects of medicinal chemistry and related areas (drug design, synthesis, pharmacology, computer modelling and structural studies). Directed Medicinal Chemistry studies, in an area related to the student's individual research project.

CHEM940 Contemporary Topics in Biomolecular Chemistry 12cp**Autumn/Spring** Wollongong On Campus**Annual** Wollongong On Campus**Contact Hours:** 6 hr Lecture/Tutorial, 4 hr Lab per week**Assessment:** Laboratory work and quizzes (20%); Written exam (40%); Written report (30%); Oral presentation (10%)

Subject Description: This unit gives students a good grounding in modern aspects of biomolecular chemistry. The exact course of study will vary depending on the student's background and interests. It may include studies of advanced methods of synthesis; studies of molecular structure via spectroscopy and modelling; and biological chemistry and bioinformatics. In addition, students undertake a small project in which they are given a research problem in biomolecular science to solve.

This may take the form of a synthetic target or data to analyse. Students will present their findings by means of a short presentation and a report.

CHEM950 Contemporary Topics in Analytical and Environmental Chemistry 12cp**Autumn/Spring** Wollongong On Campus**Annual** Wollongong On Campus**Contact Hours:** 6 hr Lectures/Tutorials, 4 hr Lab per week**Assessment:** Laboratory work and quizzes (20%); Written exam (40%); Written report (30%); Oral presentation (10%)

Subject Description: This unit gives students a good understanding in modern aspects of environmental chemistry and related analytical techniques. The exact course of study will vary depending on the student's background and interests. It may include modules of study of: atmospheric processes and their chemistry; water and soil chemistry and analysis; environmental sampling; instrumental analysis; Quality Control/Quality Assurance/Total Quality Management. In addition, students undertake a small project in which they are given a research problem in environmental chemistry to solve. This may take the form of a pollution or remediation/disposal problem or data to analyse. Students will present their findings by means of a short presentation and a report.

EESC901 Advanced Plate Tectonics, Macrotopography and Earth History 12cp**Autumn** Wollongong On Campus**Contact Hours:** 2 hr Lecture, Tutorials/Practicals up to 2 hr per week; 5 days field work**Assessment:** Assignment 1 20%; Assignment 2 and seminar 20%; Field trip report 1 10%; Field trip report 2 10%; Final examination 40%

Subject Description: This subject is concerned with the theory of plate tectonics and its role in the formation of Earth structures and topography. Large-scale processes are examined in relation to the controls of topography and bathymetry. Relationships between plates and ocean basins, continental margins, continental interiors and sedimentary basins are evaluated. Earth structure is examined along with earthquakes and deformation (stress, strain, faulting and folding). Earth history is considered in relation to past mountain belts, continents and oceans. Practicals are a series of tutorials designed to reinforce the material covered in lectures. Field work consists of two field trips.

EESC902 Advanced Coastal Environments: Processes and Management 12cp**Spring** Wollongong On Campus**Contact Hours:** 2 hr Lecture, 3 hr Practical per week; Field trip**Assessment:** Class tests, essays, research project, practical work, final examination (as appropriate)

Subject Description: This subject examines sedimentary and ecological processes on the coast. Coastal management is considered from geomorphological and ecological perspectives. Topics include the morphology and development of coastal landforms, particularly estuaries, deltas, chenier and beach-ridge plains, beaches and dunes, and coral reefs. Emphasis is placed on interpreting Holocene morphostratigraphy and morpho-dynamics, reconstructing sea-level changes and the

Subject Descriptions

effect of sea-level changes on coastal environments, and on understanding longer-term ecological and geomorphological processes.

EESC903 Advanced Fluvial Geomorphology & Sedimentology 12cp

Autumn Wollongong On Campus

Contact Hours: 3 hr Lectures, 3 hr Practical per week

Assessment: Class tests, essays, research project, practical work, final examination (as appropriate)

Subject Description: Rivers play a dynamic role in shaping the Earth's landforms (geomorphology), constructing sedimentary sequences of economic importance (sedimentology), and presenting flood and erosion hazards, all of which greatly influence human use of the Earth's surface. This subject examines processes forming and modifying contemporary drainage basins, interprets fluvial sedimentary records and relates changes in these records to variations in climate and depositional environment. Particular attention is given to human modification and the management of river systems.

EESC904 Advanced Geographic Information Science 12cp

Spring Wollongong On Campus

Contact Hours: 2 x 1hr Lectures, 1 x 3hr Practical per week

Pre-requisites:

Assessment: Class tests, essays, research project, practical work, final examination (as appropriate)

Subject Description: Geographical information Science is concerned with the theory and analysis of spatial data, particularly using GIS. Practical applications in natural resource management, urban and regional planning, pollution management, distribution of plant and animal communities, natural hazards, medical geography, economic and environmental geology and environmental impact assessment are emphasised. Topics include data acquisition, spatial data-bases and analysis, georeferencing, digital terrain modelling, and accuracy.

EESC905 Advanced Remote Sensing 12cp

Autumn Wollongong On Campus

Contact Hours: 2 hr Lectures, 3 hr Practical per week

Assessment: Class tests, essays, research project, practical work, final examination (as appropriate)

Subject Description: This subject examines advanced principles and techniques for identifying and mapping environmental features using images obtained from satellites and aircraft. Satellite imagery from Landsat 7 ETM, SPOT, and EO-1 Hyperion, in addition to airborne hyperspectral imagery from Hymap and CASI will be examined. Case studies will be used to illustrate the multidisciplinary scope of remote sensing. Topics include environmental monitoring, vegetation analysis, geological exploration and urban planning. Practical work involves the development of interpretation skills as well as computer-based digital analysis.

EESC910 Advanced Social Spaces: Rural and Urban 12cp

Spring Wollongong On Campus

Contact Hours: 2hr Lecture/Workshop, 2hr Practical per week

Assessment: Exam 25%, Census analysis assignment 20%, Critical analysis exercise 10%, Workshops 15%, Essay 30%

Subject Description: This subject requires postgraduate students to critically assess how geographers and others have theorised the global and national processes that shape the social, economic and spatial characteristics of Australian cities and regions. Students will build upon insights from previous study to explore how contemporary urban and rural landscapes have been formed and how they are constantly being reshaped. They will draw upon theoretical perspectives including political economy and post-structuralism to explore varying accounts of these socio-spatial processes. Examples such as industry restructuring, rural/urban mythology and the development of Australian and overseas cities will be used to make connections between processes at the various scales and specific aspects of Australian urban and rural life. Through workshops and assignments, students will further develop skills and knowledge in areas such as media analysis and the use of census and other data sources. In addition, students will complete an essay in which they evaluate theoretical perspectives on a topic chosen in conjunction with the subject co-ordinator.

EESC911 Advanced Isotope Geochemistry 12cp

Autumn Wollongong On Campus

Assessment: Essays, reports, seminars, final examination (as appropriate)

Subject Description: Topics include sample preparation; mass spectrometry; applications of both radiogenic and stable isotopic systems; geochronology modelling; petrogenetic modelling.

EESC912 Advanced Soils, Landscapes and Hydrology 12cp

Spring Wollongong On Campus

Contact Hours: 2 hr Lectures, 2 hr Practical per week

Assessment: Class tests, essays, research project, practical work, final examination (as appropriate)

Subject Description: The interdependence of landform, hydrology and soil, together with time and place, are the major factors influencing landscape evolution. This subject examines denudation of highlands; survival of ancient landscapes; climatic and geomorphic controls on landforms; erosion; weathering processes and the formation of soils, laterites, silcretes and calcretes; soil surveying; environmental records of lakes; groundwater and surface-water processes and chemistry; dating of land-surfaces and groundwater; the hydrological cycle.

EESC917 Advanced Spaces, Places and Identities 12cp

Autumn Wollongong On Campus

Contact Hours: 2hr Lecture/Tutorial, 3 hr Workshops per week

Assessment: Term paper, Exam, Seminar presentation, Research report, Interview transcript, Literature review

Subject Description: The lecture content is designed to enable postgraduate students to build upon their geographical knowledge by critically studying how geographers have conceptualised space/place. Drawing upon different approaches, this subject investigates the connections that have been made between place making processes and identity including gender, ethnic, sexual, tourist and national identity. The approaches drawn upon include structuralism and post-structuralism. Underpinning the design of the workshops is the objective that students will learn qualitative research skills. In these workshops, students are encouraged to gain proficiency in three areas: qualitative research, team-work and presentation skills. Employers often seek postgraduate students with demonstrated skills in these three areas. This subject is designed to enable postgraduate students to develop these skills.

EESC918 Advanced Environmental and Heritage Management 12cp

Spring Wollongong On Campus

Contact Hours: 2 hr Lectures, 3 hr Practical per week

Assessment: Essay 20%, Practical reports 10%, Research report 50%, Final examination 20%

Subject Description: This subject presents advanced geographic perspectives on environmental and heritage management. We examine environmental and cultural values and how they are translated into practice to protect and manage landscapes, places, resources and ecosystems. Consequently, the subject will consider definitions of concepts such as environment, nature and heritage as well as legislative and policy frameworks in Australia and overseas. These themes will be pursued through studies of issues such as indigenous land and heritage management, wilderness identification and management, catchment management and restoration of ecosystems and the built environment. The subject is suitable for practitioners seeking to update their academic knowledge as well as for postgraduate students wanting to further develop their applied research skills.

EESC921 Advanced Environmental Geology 12cp

Spring Wollongong On Campus

Contact Hours: 42 hr per session, plus field work

Assessment: Essays, reports, seminars, final examination (as appropriate)

Subject Description: Topics include the relationship between mining operations and communities; downstream pollution problems; mineralogical composition and types of associated dusts; composition of mine waters and stack emissions, the reclamation of mine sites; effects of mine subsidence; the composition, uses and disposal of waste residues; environmental impact studies; alienation of resources; conflicts of interest in mining operations.

EESC950 Advanced Topic A 12cp

Autumn/Spring Wollongong On Campus

Annual Wollongong On Campus

Assessment: Essays, reports, seminars, final examination (as appropriate)

Subject Description: This project will consist of a library and/or laboratory study on some topical aspect of earth and

environmental sciences equivalent to one third of full-time study.

EESC951 Advanced Topic B 8cp

Autumn/Spring Wollongong On Campus

Annual Wollongong On Campus

Assessment: Essays, reports, seminars, final examination (as appropriate)

Subject Description: This project will consist of a library and/or laboratory study on some topical aspect of earth and environmental sciences equivalent to one third of full-time study.

ENVE985 Environmental Engineering 8cp

Autumn Wollongong On Campus

Assessment: Laboratory Reports and Examinations

Subject Description: This subject takes an engineering approach to solving problems in air, noise and water pollution. It considers the sources, effects and methods of control of the pollutants, as well as legislative requirements. The lecture and tutorial components of this subject are complemented by extensive field and laboratory sampling, measuring and analysis.

ENVI910 Directed Studies in Environmental Chemistry 12cp

Spring/Autumn Wollongong On Campus

Annual Wollongong On Campus

Contact Hours: See office door for availability or by appointment

Pre-requisites: Must be enrolled in Environmental Science Postgraduate program

Assessment: Continuous assessment, Final exam, Major case study report

Subject Description: The chemistry of water and air pollution. Toxins in the environment. Sources, sinks and transport processes, methods for quantitative measurement and control.

ENVI911 Directed Studies in Ecology 12cp

Autumn/Spring Wollongong On Campus

Annual Wollongong On Campus

Contact Hours: 26 hr Laboratory, 13 hr Tutorial project

Pre-requisites: Must be enrolled in Environmental Science Postgraduate program

Assessment: Continuous assessment and final examinations for coursework (autumn session); Major case study report and seminar (either session)

Subject Description: This subject includes a coursework component and an independent research component. The coursework provides an introduction to the basics of Biology and the principles of ecology and evolution, including the diversity of organisms, population growth and interactions, principles of evolution, impacts of humans on ecosystems. The research project focusses on a current issue in field work, analysis and communication.

ENVI912 Directed Studies in Land Resources 12cp**Annual** Wollongong On Campus**Autumn/Spring** Wollongong On Campus**Pre-requisites:** Must be enrolled in Environmental Science Postgraduate program**Subject Description:** This subject will examine coastal, river, water and soil managements focussing on human induced changes to these natural systems. Emphasis will be given to geomorphological processes, remote sensing of land and biological resources.**ENVI913 Directed Studies in Earth Sciences 12cp****Annual** Wollongong On Campus**Autumn/Spring** Wollongong On Campus**Pre-requisites:** Must be enrolled in Environmental Science Postgraduate program**Subject Description:** Topics include the relationship of mining operations to communities; composition of mine waters, dusts and stack emissions; reclamation of mine sites; effects of mine subsidence; the composition, uses and disposal of waste residues; environmental effects of pollution, erosion and deposition; environmental impact studies.**ENVI919 Directed Studies in Environmental Science 12cp****Autumn/Spring** Wollongong On Campus**Annual** Wollongong On Campus**Summer 2004/2005** Wollongong On Campus**Pre-requisites:** Must be enrolled in Environmental Science Postgraduate program or with permission of the Head of Environmental Science.**Assessment:** Major written report based on work completed**Subject Description:** In this subject students will undertake either a major literature review or carry out a practical study on a problem of current environmental interest. The work will normally be related to one of the ongoing activities of the Unit, giving the student the opportunity to become well acquainted with a particular aspect of environmental science. International students will be encouraged to undertake activities with significant relevance to their home countries.**ENVI920 Scientific Basis of Environmental Management 8cp****Spring** Wollongong On Campus**Contact Hours:** 2 x 2 hr Lectures per week, At least one field trip**Pre-requisites:** Must be enrolled in MEnvSc**Subject Description:** This course gives a comprehensive overview, with case studies, of the scientific basis of environmental management by adopting a multi-disciplinary approach to the scientific understanding of how major ecosystems work. The science of aquatic, alpine, forest, grassland and semi-arid environments, along with hazardous waste (including radioactive) management will be amongst those discussed. Students will complete a team project that develops interdisciplinary skills in addressing appropriate management strategies.**ENVI921 Environmental Planning 8cp****Autumn** Wollongong On Campus**Contact Hours:** By appointment with Professor John Morrison**Subject Description:** This course presents a comprehensive overview of environmental planning in government and industry. Students are introduced to the basic principles followed by presentations from staff from a wide range of organisations involved in environmental planning. The mechanisms, difficulties and benefits of current planning activities in Australia are explained. While the emphasis is on the Australian situation, reference to activities in other countries and the global situation of environmental planning is included.**ENVI930 Thesis 24cp****Autumn/Spring** Wollongong On Campus**Annual** Wollongong On Campus**Contact Hours:** By appointment with coordinator**Subject Description:** A research topic in an area of environmental science will be selected by each candidate after consultation with the degree co-ordinator. The thesis will be supervised by staff from the appropriate department or departments.**ENVI931 Thesis 32cp****Annual** Wollongong On Campus**Subject Description:** A research topic in an area of environmental science will be selected by each candidate after consultation with the degree co-ordinator. The thesis will be supervised by staff from the appropriate department or departments.**MARE957 Advanced Topics in Molluscan Biology 12cp****Summer 2004/2005** Wollongong On Campus**Contact Hours:** 10hr Lecture/Tutorial per week for 2 weeks, 20hr Practical & Field Excursions per week for 2 weeks**Pre-requisites:** BIOL241 (or equivalent)**Assessment:** theory examinations; research project reports and presentation; literature review/critique**Subject Description:** This subject will provide an overview of molluscan biology, diversity and phylogeny. It will also examine the role of molluscs in fisheries, aquaculture, as pests and as carriers of disease. Consideration will be given to these aspects of molluscan biology worldwide, but there will also be a focus on the largely endemic Australian fauna. Each of the major groups of molluscs will be examined, including polyplacophorans (chitons), bivalves (e.g. clams and oysters), gastropods (e.g. slugs and snails) and finally the cephalopods (including octopuses and squid). For each group, their conservation, ecology, biology and evolutionary relationships will be addressed, with important current issues and research directions highlighted. The course will provide training in field techniques, identification, lab studies including dissection and accessing resources. It will include the observation and collection of molluscs in a variety of habitats, including the rocky shore, estuarine and rainforest environments. Literature examining contemporary research in molluscs will also be reviewed (tailored to the specialisations of MSc students enrolled in the subject).

MARE973 Advanced Topics In Fisheries and Aquaculture 12cp**Spring** Wollongong On Campus**Contact Hours:** 2 hr Lecture; 4 hr Tutorial/Practical per week**Assessment:** Theory examinations; Research project reports and presentation; Literature review/critique

Subject Description: This subject will provide an overview of fisheries biology and aquaculture (vertebrate and invertebrate) including: the diversity of Australian and international fisheries and their key challenges; relevant ecological issues (population dynamics, transport processes, stock identification); predictive modelling, fisheries management; secondary impacts of fisheries; the diversity of aquaculture; case studies in aquaculture; ecological impacts, potential for enhancement of fisheries. Literature review examining contemporary research in ecology (tailored to the specialisations of MSc students enrolled in the subject).