

SECTION 1: ACADEMIC BOARD COURSE PROPOSAL

PART 1: OVERVIEW OF PROPOSAL

Faculty: Health Sciences
Department/School presenting the proposal: Health Information Management

Faculty Contact person and/or: Ms Jane Gamble **Ext. No:** 19203
Academic Proponent: Dr Joanne Callen **Email:** j.gamble@usyd.edu.au

Date course approved by Faculty: Health Sciences

1.1.1. Type of proposal: New

1.1.2. Type of course: Postgraduate coursework

1.1.3. Name of award course(s)
Name of **new** award course/s: Master of Health Informatics

1.1.4. Abbreviated name
MHI

1.1.5. Date of introduction or deletion
Introduced: Year 2008 Semester 1

1.1.6 Availability to students

Commonwealth supported students	<input type="checkbox"/>	Full-time	<input type="checkbox"/>
		Part-time	<input type="checkbox"/>
Fee-paying local students	<input checked="" type="checkbox"/>	Full-time	<input checked="" type="checkbox"/>
		Part-time	<input checked="" type="checkbox"/>
Fee-paying international students	<input checked="" type="checkbox"/>	Full-time	<input checked="" type="checkbox"/>
		Part-time	<input type="checkbox"/>
Research Training Scheme	<input type="checkbox"/>	(PG Research students only)	

SECTION 1 : ACADEMIC BOARD COURSE PROPOSAL

PART 2: DETAILS FOR ASSESSMENT OF PROPOSAL

1.2.1 Purpose of the proposal

The purpose of the proposal is to:

- introduce a new two year full-time course, the **Master of Health Informatics**, which will replace two existing courses (Master of Health Information Management and Master of Health Science (Health Informatics)) which have been offered by the Discipline of Health Information Management since 2000.
- The Master of Health Informatics course is designed to respond to the changing needs of health professionals and health organisations in our increasingly electronic environment. Students will be equipped with the required breadth and depth of knowledge, understanding and expertise in the design, implementation and use of information and communication technologies in health. The course is a graduate entry masters program for students who wish to pursue a career as a health informatics specialist or health informatician. Our aim is to graduate health informatics specialists who can make a significant contribution to the field.

1.2.2 Justification for proposal

The **Master of Health Informatics** is designed to replace two existing one year full-time postgraduate courses, The Master of Health Science (Health Informatics) and the Master of Health Information Management, which have been offered by the Discipline of Health Information Management since 2000. This change is proposed in response to: 1) the identified need for a larger and better trained specialised workforce in health informatics (IMIA, 2000) and, 2) new developments in the knowledgebase of health informatics.

Information exchange is the core of a safe, efficient and effective health system. The underlying aim of the **Master of Health Informatics** program is to provide graduates with the required knowledge and skills to be able to understand and improve the way in which health care delivery and patient outcomes are enhanced through the effective use and exchange of information.

Health systems internationally are coming under increasing pressures driven by demographic, social and technological change. Existing models of health care delivery will not be sustainable in future decades. Information and communication technologies have a significant role to play in creating opportunities for new models of care delivery. Examples range from telemedicine applications supporting care delivery in the community to sophisticated clinical decision support systems accessible to clinicians at the point of care.

The **Master of Health Informatics** is intended to attract a diverse range of students with relevant undergraduate qualifications in health or computer science and provide them with the opportunity to complete an advanced program of study for entry to the health informatics profession. Reflecting the broad nature of health informatics the professional bodies associated with the profession are: the Australian College of Health Informaticians (www.achi.org.au); the Health Informatics Society of Australia (www.hisa.org.au), and the Health Information Management Association of Australia (www.himaa.org.au). The two key bodies internationally are the International Medical Informatics Association (www.imia.org) and the American Medical Informatics Association (www.amia.org). The proposed program was developed in line with the requirements of these professional bodies. There is currently no formal accreditation process for health informatics educational programs, both in Australia and internationally.

The new course will provide graduates with a theoretical and practical understanding of the role of information and communication technologies in health care and the skills required for the successful integration of such technologies into the health system. The course focuses on three central knowledge areas: information and computer science; principles of health informatics, and research methods and analysis applied to health

informatics. Each of these knowledge areas will underpin the philosophy of using information technology to improve quality, safety and cost efficiency of healthcare. The curricula has been designed based on recommendations from the International Medical Informatics Association (IMIA, 2000), the American Medical Informatics Association (Hersh & Williamson 2007) and taking account of identified future trends in health informatics (Mantas, 2004; Hasman & Haux 2004; Lau 2007; Hersh, 2006). The University's generic attributes of: research and enquiry; information literacy; personal and intellectual autonomy; ethical, social and professional understanding and communication are achieved through the core and elective units of study included in the proposed program.

The proposed new course, the **Master of Health Informatics**, will extend and deepen the existing curricula to include knowledge and skills in information science, information and communication technologies in health, and health informatics research, to support the increasing need for health professionals and informaticians to have high levels of expertise in these areas. The course will be delivered using innovative multimedia and web-based technologies. These changes will result in a repositioning of the **Master of Health Informatics** as the premier postgraduate health informatics program in Australia. This aim is in line with the learning and teaching strategic directions (2006-2010) of the University of Sydney.

References:

Hasman A & Haux R. (2004) Curricula in Medical Informatics, in Hovenga EJS & Mantas J (eds). Global Health Informatics Education. Amsterdam: IOS Press. 63-74.

Hersh W. (2006). Who are the Informaticians? What we know and should know. Journal of the American Medical Informatics Association. 12:166-170

Hersh W & Williamson J (2007). Education 10,000 informaticians by 2010: The AMIA 10 x 10 program. International Journal of Medical Informatics. 76: 377-382.

International Medical Informatics Association, Working Group 1: Health and Medical Informatics Education. (2000). Recommendations of the International Medical Informatics Association (IMIA) on Education in Health and Medical Informatics. Methods of Information in Medicine. 39:267-277.

Lau, F (2007) Distributed health informatics graduate education for working professionals. International Journal of Medical Informatics. 76: 344-350.

Mantas J (2004) Future trends in Health Informatics, in in Hovenga EJS & Mantas J (eds). Global Health Informatics Education. Amsterdam: IOS Press. 114-127.

1.2.3 Benchmarking, market research and analysis

1.2.3.1 Benchmarking:

There are two other Australian universities who offer health informatics programs at Masters level: Central Queensland University and the University of Wollongong. Central Queensland University offers a 2 year full-time Master of Health Informatics which is delivered entirely by distance mode.

There are three key points of difference for the proposed Master of Health Informatics from The University of Sydney:

- linkage with world class research centres;
- curriculum content, and
- mode of delivery.

The first key point of difference for the proposed program will be the link between the Health Information Management Discipline and the newly created Health Informatics Research and Evaluation Unit (under the direction of Professor Westbrook) and the National Centre for Classification in Health (under the leadership of Professor Richard Madden). These collaborative links provide a critical mass of knowledge and expertise in

education and research in the management of health information and health informatics. This combination of education and research is vital to underpin the proposed MHI program, which will present as the premier postgraduate health informatics program in Australia.

The proposed MHI focuses on three central knowledge areas: information and computer science; principles of health informatics, and research methods and analysis applied to health informatics. Each of these knowledge areas will underpin the philosophy of using information technology to improve quality, safety and cost efficiency of healthcare. The curricula has been designed based on recommendations from the International Medical Informatics Association (IMIA, 2000), the American Medical Informatics Association (Hersh & Williamson 2007) and taking account of identified future trends in health informatics (Mantas, 2004; Hasman & Haux 2004; Lau 2007; Hersh, 2006). The new course will provide graduates with a theoretical and practical understanding of the role of information and communication technologies in health care and the skills required for the successful integration of such technologies into the health system.

The University of Wollongong offers a one year full-time program delivered face-to-face. The proposed MHI program from the University of Sydney will be two years full-time and delivered in a flexible mode which combines face-to-face block mode seminars with e-learning strategies. We have found that this combination works best with students who are often working part-time as health or IT professionals. The Health Information Management Discipline at the Faculty of Health Sciences, The University of Sydney, was the first Australian university to offer a Master of Health Informatics in 2000. We have therefore accumulated several years experience in delivering these graduate programs.

There are a number of Health Informatics courses offered internationally, particularly from the United States of America, Canada and Europe. The curriculum team developing the proposed MHI have reviewed the material provided by these programs on their web sites and other curriculum material in the informatics literature. Generally the curricula of health informatics programs reflect the Faculty where they are offered from, with some focusing more on bioinformatics or nursing informatics or computer technologies. The proposed MHI will utilise existing expertise in health information science and health informatics within the Health Information Management discipline, the Health Informatics Research and Evaluation Unit, the National Centre for Classification in Health, and other expertise from across the university.

1.2.3.2 Market research and analysis:

There is an urgent need for high level research and graduate education in health informatics highlighted in the recent Productivity Commission Report into the Australian Health Workforce. Australia is currently embarking upon the largest investment in health information systems in its history, including the goal of establishing a single national electronic health record system. This is being mirrored in the UK where the National Health System has committed £6 billion to build its national health information infrastructure and in the US, where the President in 2004 announced an Executive Order initiating the “Decade of Health Information Technology”. Better use of health information through improved management, analysis and communication has been identified as playing a key role in meeting the capacity and demand challenges for health systems of the future. The USA, UK and Australia have all identified current deficits in the requisite research and educational capacity to support their e-health agendas.

The proposed **Master in Health Informatics** is suitable for students who wish to enhance their understanding and ability to work effectively with information and information technologies in the health sciences and also for those who wish to pursue a career as health informatics specialists.

1.2.3.3 Summary table of competitive offerings to proposed award course:

Institute	Competitive offering	Additional information
Monash	Graduate Certificate and	Offered jointly through

	Diploma in Health Informatics	Faculty of Medicine, Nursing, Health Sciences and Information Technology Distance delivery
Central Queensland University	Graduate Certificate, Graduate Diploma and Master of Health Informatics	All informatics programs from CQU are fully distance. From Faculty of Business and Informatics
Wollongong University	Graduate Certificate and Master of Health Informatics	School of Information Technology and Computer Science Face-to-face delivery
University of Tasmania	Graduate Certificate and Diploma in E Health (Health Informatics)	Department of Rural Health Distance delivery

1.2.3.4 Estimated student demand

Estimated student demand	2008	2009	2010
Commonwealth-supported			
Local fee-paying	15	20	30
International fee-paying	8	10	15
Estimated Total EFTSU	16.5	48	61.5
Lowest EFTSU for which course would be run	10	25	32

Estimated full-time and part-time Students	2008	2009	2010
Estimated number of Full-time students	10	15	20
Estimated number of Part-time students	13	15	25

Impact on students currently enrolled:

Students enrolled in the two existing 48 credit point one year full-time (or two year part-time) Masters courses (that is, the Master of Health Science (Health Informatics) or the Master of Health Information Management) will be offered the option of transferring to the proposed new two year full-time Master of Health Informatics or completing their existing 48 credit point course. If they elect to transfer their previous studies will be evaluated to ascertain appropriate credit and units of study to complete in the new 96 credit point program. If they elect to remain in their existing course they will be taught to completion in the existing 48 credit point program. It is anticipated those students who elect to remain in their existing courses will complete their studies in semester 2, 2007 (full-time students) and semester 2, 2008 (part-time students). From 2009 onwards, a decision will be made on a case-by-case basis as to whether they should complete under the old resolutions or be transferred into the new course described in the 2008 resolutions (MHI).

Enrolment Quotas:

Will quotas be set for the proposed award course or for any units of study within the award course?

For local fee-paying students

Yes Please specify

No

For international fee-paying students

Yes
 No

Please specify

1.2.4 Consultation and external references

Consultees	Date of consultation	Method of consultation	Type of supporting evidence provided
Dean and Pro Dean, Faculty of Health Science	21.2.07 19.3.07	Face to face meetings	Vision documents for Health Information Management Discipline
Current and past students from Master of Health Science (Health Informatics) and Master of Health Information Management	10.4.04 18.4.07 19.4.07 27.4.07	Focus groups Telephone consultations Face to face meetings	Notes on meetings and focus groups
Academic staff – School of Health Information Management	24.4.07 26.4.07 11.5.07	Face to face meetings Email communication	Notes from meetings Email communications
Professional Association and other external stakeholders	20.4.07 3.5.07 4.5.07 22.5.07	External Advisory Committee Email communication Telephone consultations	Notes from External Advisory Committee Email communications
Academic staff – Faculty of Health Science (HIREU)	22.3.07	Face to face meeting	Meeting notes
Director – Student Central	2.5.07 8.5.07	Face to face meeting Email communication	Notes from meetings
Chief Librarian – Faculty of Health Sciences	3.5.07	Face to face meeting Email communication	Notes from meetings
Faculty Manager, Faculty of Health Science	3.5.07	Email communication	Email communications
School of Public Health and School of Information Technologies, The University of Sydney	11.5.07	Email communications	Email communications

1.2.5 Course structure

1.2.5.1

Award course	Length of candidature (years)	Type of enrolment	
		Full-time	Part-time
MHI	Minimum	2	4
	Maximum		

1.2.5.2 Minimum credit points required for completion of qualification: 96 credit points.

1.2.5.3 Mode of delivery: Face-to-face teaching Distance education
All compulsory units of study are face-to-face delivery with block mode and e-learning support. Some of the elective choices are provided by distance education which suits local part-time students who are generally working in health.

1.2.5.4 Does the course involve clinical or industrial placement/experience?

Yes No

If Yes, please provide details: Professional Practice in Health Informatics is included as a unit of study in the proposed MHI course. Industry experience is essential to provide students with appropriate learning opportunities in a variety of environments, including public and private hospitals, general practice settings, health computing companies, government health departments and health funds.

1.2.5.5 Please indicate what processes are in place to guarantee the quality of academic staffing, available resources for teaching and provision of adequate curriculum delivery, assessment and authentication of student work.

The course will be taught by research active academic staff who are specialists in their teaching areas.

The proposed two year full-time MHI will replace two existing one year full-time Masters Courses and hence adequate teaching resources are currently available. The Faculty of Health Sciences has recently recruited Professor Johanna Westbrook who has established a Health Informatics Research and Evaluation Unit (HIREU) and staff from this centre will provide valuable input into the program. A unit of study, Health Informatics Evaluation, has been developed by Professor Westbrook for inclusion in the new MHI and will be taught by staff from her unit. The National Centre for Classification in Health at the Faculty of Health Sciences will also provide input into the curricula related to health terminologies and classifications.

Unit evaluations will run on every unit of study in every semester throughout the first cycle of the program. Assessment programs are reviewed annually at an Assessment Program Meeting. There is a system of peer review of teaching, assessments and marking.

1.2.6 Assessment procedures

The program comprises 12 core units (6 credit points each) and four electives (6 credit points each). A variety of assessment procedures will be utilised and include: essays, reports, tests, exams, individual projects, group projects, on-line activities (eg online discussion questions), presentations and class participation.

The following provides an outline for assessments across the core units of study offered by the Faculty of Health Sciences

Proposed assessment regime	Proportion of assessment regime (%)	Use of external assessors/examiners (Yes/No) (if yes, please provide details)
Essay and/or report	30	No
Project (individual/group)	25	No
On-line activity	15	No
Exam	30	No

These assessment procedures are utilised as they provide an effective way to evaluate the range of skills and knowledge addressed in the programs units of study. These assessment regimes support the achievement of the Faculty of Health Sciences generic attributes.

1.2.7 Student workload

1.2.7.1

Expected workload	Total time expected (per credit point)
Lectures	4
Tutorials	2
Practical experience	2
Independent study	3
Reading and work for assessment	8
Others (please specify): On line learning and web discussions	3

The Faculty of Health Science Student Workload formula defines maximum student workload for 1 Credit Point as 26 hours of total learning activities per semester. No Unit of Study will have a total number of hours in excess of this. The distribution of hours between lectures and tutorials will vary between units of study. In general students will be involved in one large group teaching activity (eg lecture), a small group activity (tutorial/ seminar/ computer laboratory class), and additional reading/flexible learning activities each week. Total face to face class time will generally not exceed 3 hours per UOS per week.

1.2.7.2 Provide an indication of how the academic course load including the weight given to any dissertation component compare with other similar course loads in the faculty/college/university

The total course load is compatible with most other comparable two year Masters courses at the University and is equivalent to other graduate entry masters courses at the Faculty of Health Sciences.

1.2.7.3 What load for HECS and student load purposes should be given to each of the constituent parts or units making up the award course?
Not applicable – proposed MHI is a fee paying graduate entry masters course

1.2.8 Attributes of graduates

The Faculty of Health Sciences Statement of Graduate Attributes 2004 comprises five clusters which broadly define generic attributes. These are listed below:

1. Research and Inquiry: Be able to create new knowledge and understanding through the process of research and enquiry
2. Information Literacy: Be able to use information effectively in a range of contexts
3. Personal and Intellectual Autonomy: Work independently and sustainably, in a way that is informed by openness, curiosity and a desire to meet new challenges
4. Ethical, Social and Professional Understanding: Hold personal values and beliefs consistent with their role as responsible members of local, national, international and professional communities
5. Communication: Recognise and value communication as a tool for negotiating and creating new understanding, interacting with others, and furthering their own learning

Specifically, graduates of the Master of Health Informatics program should be able to demonstrate the following skills and attributes:

- Understand the value of health information and communication technology and how it can contribute to improved health outcomes for patients and efficient and safe practices for health professionals
- Understand the essential functions of electronic health information systems, both clinical and administrative

- Apply the principles of implementing electronic health records and other health information systems in ambulatory, hospital and other settings
- Understand the concepts of, standards and interoperability, and language and terminologies.
- Skilful use of technology both in practical, professional settings and in research
- Apply appropriate models for evaluating information systems in health and informatics applications
- Demonstrate the knowledge and skills to contribute to the development and implementation of point-of-care clinical systems, informatics applications, electronic health records, web-based applications and other ICT infrastructure supporting health care
- Analyse the organisational, people and cultural issues associated with the implementation of health informatics initiatives in a range of health care and health care related settings
- Design and implement effective and efficient tools for gathering and storing health and related data
- Understand the importance of privacy, confidentiality and security in relation to health information and apply these concepts to health data
- Be familiar with the requirements to undertake research and scholarship and understand the value it has in contributing to improving health care through better information
- Be able to exercise critical judgement and make appropriate decisions in a professional setting
- Be capable of independent thought and problem solving at both a practical and theoretical level utilising the most current research and evidence
- Develop a commitment to continuous learning and professional development
- Understand the ethical behaviour required of professional practice and respond appropriately in a given situation

1.2.9 Transitional arrangements (for continuing students)

Last year of student intake under existing Resolutions: Local students 2007
 International students 2007

Provisions in place for students enrolled under existing Resolutions:

Students enrolled in the two existing 48 credit point one year full-time (or two year part-time) Masters courses (that is, the Master of Health Science (Health Informatics) or the Master of Health Information Management) will be offered the option of transferring to the proposed new two year full-time Master of Health Informatics or completing their existing 48 credit point course. If they elect to transfer their previous studies will be evaluated to ascertain appropriate credit and units of study to complete in the new 96 credit point program. If they elect to remain in their existing course they will be taught to completion in the existing 48 credit point program. It is anticipated those students who elect to remain in their existing courses will complete their studies in semester 2, 2007 (full-time students) and semester 2, 2008 (part-time students).

1.2.10 Course administration

Course to be administered by the following Faculty: Health Sciences

1.2.10.1 Is there **shared teaching** with other Faculties?

Yes Please see below on provision of additional information.

If yes,

Faculty	Percentage of EFTSU
Managing Faculty: Health Sciences	75
Collaborating faculties: Eleven of the twelve core units will be delivered by the Faculty of Health Sciences. One core	25

unit (Relational Database Management Systems) will be offered by the School of Information Technologies and there is the opportunity for students to choose electives (up to 4) from the Schools of Information Technologies and Public Health.	
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The School of Information Technologies and the School of Public Health have been consulted and agree to their electives being offered to students in the proposed MHI.

1.2.10.2 Basis for the above allocation between faculties: The four electives in the proposed MHI course can be chosen from electives offered from the Faculty of Health Science and from the School of Public Health and the School of Information Technologies to give students relevant choices of electives.

1.2.10.3 Combined degree – inter-faculty arrangements: Not applicable

1.2.10.4 Is the proposed award course part of a **con-joint venture** with another institution?

Yes No x

1.2.11 Resolutions

1.2.11.1 Are there changes to the list of Degrees, Diplomas and Certificates conferred by your Faculty, as listed in the **Resolutions of the Senate** available in the **University Calendar**?

Yes x *If yes, please complete Appendix 2.*

1.2.11.2 Will there be new Resolutions or changes to the existing **Resolutions of the Senate** for the proposed Coursework award course?

Yes x *If yes, please complete Appendix 3.*

1.2.11.3 Will there be new Resolutions or changes to the existing **Faculty Resolutions** for the proposed award course?

Yes x *If yes, please complete Appendix 4.*

1.2.11.4 Will there be changes to the academic dress due to the introduction of the proposed new award course?

Yes x No

1.2.12 Quality assurance arrangements and plans

Quality assurance arrangements include use of existing quality processes under the oversight of the Faculty of Health Sciences Learning and Teaching portfolio.

These include unit evaluations run on every unit of study in every semester throughout the first cycle of the program. Assessment programs are reviewed annually at an Assessment Program Meeting. There is a system of peer review of teaching, assessments and marking.

The program will be reviewed after two cycles.

The External Advisory Committee of the Health Information Management Discipline provides advice and consultation regarding the relevance of the course to stakeholder needs.

SECTION 1 : ACADEMIC BOARD COURSE PROPOSAL

PART 3: RESOURCE IMPLICATIONS

1.3.1 Estimated Student Numbers for next three years of the award course

Estimated Student Demand	2008	2009	2010
Estimated Student Numbers	23	43	60
Estimated EFTSU	16.5	48	61.5

1.3.2 Availability of teaching and support staff

1.3.2.1 Availability of academic and support staff to deliver the proposed award course: Academics who currently teach in the existing two health informatics/health information management postgraduate programs (which the proposed new course is replacing) will be adequate to deliver the proposed new Master of Health Informatics course. Approval has been gained to advertise for a new professor in health informatics to replace Professor Beth Reid who is currently on long service leave and retires in February 2008. The addition of the Health Informatics Research and Evaluation Unit to the Faculty of Health Sciences, in 2007, will add further support to the program. The health classification and terminology expertise of the National Centre for Classification will provide further support to the academic staff of the Health Information Management Discipline.

1.3.2.2 Strengths of the department/school/faculty:

The strengths of the Health Information Management discipline lie in their expertise in the delivery of post-graduate programs in health information management, health informatics and clinical data management. With the addition of the Health Informatics Research and Evaluation Unit (HIREU) they have internationally recognised research expertise in the area of health informatics evaluation and implementation of clinical information systems. The HIREU is the largest health informatics evaluation research team in Australia and the group's work is highly competitive with other international research teams in this area.

1.3.3 Availability of teaching space, and other required facilities

1.3.3.1 Teaching rooms:

Teaching can be accommodated on the Faculty of Health Science campus.

1.3.3.2 Lecture theatres:

As above

1.3.3.3 Laboratories (including computer access labs):

As above

1.3.3.4 Staff offices:

As above

1.3.3.5 Storage or other space required including any which needs to be rented externally:

No other facilities required

1.3.4 Availability of Library Resources

Concerns about library holdings that need to be addressed:

Library holdings relevant to the proposed MHI have already been accumulated and are being maintained and updated appropriately.

SECTION 1 – APPENDIX 2: RESOLUTIONS OF THE SENATE (DEGREES, DIPLOMAS AND CERTIFICATES)

**Template for
Resolutions of the Senate**

Section 1: Resolutions of the Senate relating to degrees, diplomas and certificates

Resolutions of the Senate

Degrees, diplomas and certificates in the Faculty of [Faculty]

The Resolutions of the Senate relating to degrees, diplomas and certificates in the Faculty of [Faculty] (p..., *Calendar 200x*) are amended, with effect from 1 January [year], as follows:

Will a pdf of CMS resolutions be attached?

SECTION 1 – APPENDIX 3: RESOLUTIONS OF THE SENATE (COURSEWORK AWARD COURSES)

Resolutions of the Senate (Coursework courses)

Master of Health Informatics

1. Requirements for the *[Master of Health Informatics]*

1.1 To qualify for the award of the *Master of Health Informatics* a student must:

- 1.1.1 complete successfully units of study giving credit for a total of 96 credit points; and
- 1.1.2 satisfy the requirements of all other relevant By-laws, Rules and Resolutions of the University.

2. Specialisations, streams or majors

2.1 The award course, *[award course title]*, will be awarded in the following specialisations/streams/majors: Not applicable for MHI

3. Requirements for the honours degree

This section only needs to be included where honours is an option Not applicable for MHI

3.1 To qualify for the award of the honours degree a student must complete the honours requirements published in the Faculty Resolutions relating to the course.

Will a pdf of CMS resolutions be attached?

SECTION 1 – APPENDIX 4: RESOLUTIONS OF THE FACULTY

Resolutions of the Faculty

Template for the Resolutions of the Faculty

Template for Faculty Resolutions relating to Coursework Courses

Will a pdf of CMS resolutions be attached?



The University of Sydney

SECTION 1 – APPENDIX 5:
LIBRARY IMPACT
STATEMENT

LIBRARY IMPACT STATEMENT

Faculty of Health Sciences Master of Health Informatics [MHI]

I have examined Library needs related to the proposed course and certify that existing staffing, services, and accommodation are adequate to cover the demands that are inherent in it.

Students will be supported by resources and services of the Health Sciences Library. Other print and electronic collections from the University of Sydney Library system can also be utilised to support learning and teaching for these courses including the collections in the Medical, Burkitt-Ford and Nursing Libraries.

Course coordinator must continue to inform the library of new titles that should be acquired to support these programs. Further negotiations will need to occur about new journal titles that may be required. Continued collaboration between the course coordinator and the Faculty Liaison Librarian will ensure continued collection development in the health sciences discipline.

It is recommended that course coordinator and the Health Sciences Library staff continue to collaboratively develop information literacy programs as an integral part of the new curriculum. This will ensure that students are able to develop high level information and research skills necessary to complete the course.

We look forward to working in partnership with the staff and students to support these courses and develop training and services appropriate to their needs.

Libby O'Reilly
Director, Health and Medical Libraries
for the University Librarian.
May 2007.

SECTION 2: FEE REVIEW AND FEE SETTING

Faculty: Health Sciences

Department/School presenting the proposal: Health Information Management

Faculty Contact person and/or: Ms Jane Gamble
Academic Proponent Dr Joanne Callen

Ext. No: 19203
Email: j.gamble@usyd.edu.au

2.1.1 Type of proposal: New x

2.1.2 Type of course: Postgraduate coursework x

2.1.3 Name of award course(s)

Name of new award course: Master of Health Informatics

2.1.4 Abbreviated name

MHI

2.1.5 Date of introduction or deletion

Introduced: Year 2008 Semester 1

2.1.6 Fee review and Fee-setting

2.1.6.2 Fees for Postgraduate award course:

Postgraduate award course	Current fees (per 1 EFTSU per annum)		Proposed increase (%)		Proposed fees (per 1 EFTSU per annum)	
	Local students	International students	Local	Int'l	Local students	International students
MHI	\$12,000	\$23,760	9.5	5.6	\$13,200	\$25,200

As per Office of Strategy Implementation and Sustainability Planning schedule, 1/4/2007 and consistent with similar degrees

PROPOSED BY:

Nominated Faculty Officer Dean of Faculty (or Delegate)

APPROVAL:

Provost and Deputy Vice-Chancellor/Vice-Chancellor

SECTION 3: COURSE INFORMATION FORM AND MARKETING PLAN

PART 1: COURSE INFORMATION FOR FLEXSIS

Faculty: Health Sciences

Department/School presenting the proposal: Health Information Management

Faculty Contact person and/or: Ms Jane Gamble Ext. No: 19203
Academic Proponent Dr Joanne Callen Email: j.gamble@usyd.edu.au

3.1.1 Type of proposal: New x

3.1.2 Type of course: Postgraduate coursework x

3.1.3 Name of award course(s)

Name of new award course: Master of Health Informatics

3.1.4 Abbreviated name

MHI

3.1.5 Date of introduction or deletion

Introduced: Year 2008 Semester 1

3.1.6 Course code

Course code of existing award course for amendment or deletion: Not applicable

3.1.7 CRICOS code

CRICOS code of existing award course for amendment or deletion: Not applicable

3.1.8 Short degree description (e.g. for the UAC Guide):

Not applicable

3.1.9 Full degree description (e.g. for Faculty handbook):

Information exchange is the core of a safe, efficient and effective health system. The underlying aim of the **Master of Health Informatics** program is to provide graduates with the required knowledge and skills to be able to understand and improve the way in which health care delivery and patient outcomes are enhanced through the effective use and exchange of information.

Health systems internationally are coming under increasing pressures driven by demographic, social and technological change. Existing models of health care delivery will not be sustainable in future decades. Information and communication technologies have a significant role to play in creating opportunities for new models of care delivery. Examples range from telemedicine applications supporting care delivery in the community to sophisticated clinical decision support systems accessible to clinicians at the point of care.

The **Master of Health Informatics** is intended to attract a diverse range of students with relevant undergraduate qualifications in health, computer science or related areas and provide them with the opportunity to complete an advanced program of study for entry to the health informatics profession. Reflecting the broad nature of health informatics the professional bodies associated with the profession are: the Australian College of Health Informaticians (www.achi.org.au); the Health Informatics Society of Australia (www.hisa.org.au), and the Health Information Management Association of Australia (www.himaa.org.au). The two key bodies internationally are the International Medical Informatics Association (www.imia.org) and the American Medical Informatics Association (www.amia.org).

The course focuses on three central knowledge areas: information and computer science; principles of health informatics, and research methods and analysis applied to health informatics. Each of these knowledge areas will underpin the philosophy of using information technology to improve quality, safety and cost efficiency of healthcare. The course consists of 12 compulsory units of study and four electives. It is delivered full-time over two years or students may elect to enrol part-time. The program provides a range of delivery modes to suit part-time students. Students may receive credit transfer for core units of study; however credit transfer for elective units must be replaced with alternative units of study. Elective units can be chosen from across the University of Sydney and include offerings by the School of Information Technologies and the School of Public Health.

The Master of Health Informatics is designed for those graduates who wish to pursue a career as health informatics specialists or for health professionals who wish to increase their knowledge and skills in this developing area.

3.1.10 Level of award:

Master's degree by coursework x

3.1.11 Is this an Honours course?

Yes x No

Honours requirements (if applicable):

At the end of Year 1 (48 credit points) students with academic performance that meets the criteria are able to transfer to a Master's honours degree. The Master of Health Informatics (Honours) degree is undertaken by coursework and a research dissertation. To be eligible for admission to this degree students must already be enrolled in the Master of Health Informatics and have achieved at least a weighted average mark of 70 per cent in Year 1 coursework. Students who have achieved this level of performance may apply to have their enrolment transferred to the honours degree. In the honours degree the research dissertation replaces 18 credit points of coursework. Enrolment for the honours dissertation is a minimum of two semesters. Re-enrolment will be necessary if the dissertation cannot be submitted within that time frame.

3.1.12 If the proposal is for a new award course, please indicate if the new course is the result of new resolutions for an existing course? Yes x No

3.1.13 Name of award that will be conferred upon completion of course:

Master of Health Informatics

3.1.14 If the proposal is for a new award course, please indicate which category the proposed course should be allocated to according to the DEST Field of Education and Discipline Area (available from the [Courses and Fees Toolkit](#)):

DEST Field of Education Cluster 6

DEST Discipline Area Other Information Technology 029900

3.1.15 Credit points required for the award: 96

3.1.16 Location/campus for student attendance:

Camperdown & Darlington x Cumberland x

3.1.17 Are students enrolling in the proposed award course subject to:

Criminal Record Check Yes x No

Prohibited Employment Declaration Yes x No

Health Records & Privacy Yes x No

Information Declaration

3.1.18 Prohibitions:

3.1.19 Articulation pathway (if applicable): Not applicable

Course(s) to which this course articulates		Credit given in articulating course
Code	Name	

3.1.20 Units of study offered in proposed award course:

(a). Existing units of study

<i>UoS Code</i>	<i>UoS Name</i>	<i>Core/ Elective</i>	<i>Session offered</i>	<i>Course year offered</i>
HIMT 5057	Health Informatics Principles	Core	1 and 2	1
BACH 5286	Research and Enquiry in Health Professions	Core	1 and 2	1
BACH 5068	Statistics for Clinical Research	Core	2	1
COMP 5138	Relational Database Management Systems	Core	2	1
HIMT 5058	Health Informatics Applications	Core	1	2
HIMT5065	Project Management	Core	1 and 2	2
HIMT5060	Integration of Health Informatics	Core	2	2
HIMT 5079	Health Informatics Research Project	Core	2	2
HIMT5062	Dissertation A	Core Honours	1	2
HIMT 5023	Fundamentals of Medical Terminology	Elective	2	
HIMT 5059	Health Classification Systems	Elective	1	
HIMT5050	International Disease Classification A	Elective	1	
HIMT 5051	International Disease Classification B	Elective	2	
HIMT5059	Health Classification Systems	Elective	2	
HIMT 5067	Evidence-Based Health Care	Elective	1 and 2	
HIMT 5069	Health Care Systems	Elective	1 and 2	
BACH 5255	Qualitative Research Methods	Elective	2	
BACH 5338	Cyberpsychology and Online health	Elective	2	

(b). New units of study

<i>UoS</i>	<i>UoS Name</i>	<i>Core/</i>	<i>Faculty</i>	<i>Australian</i>	<i>Session &</i>	<i>Credit</i>
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Code		Elective		Standard Classification Education (ASCED) Code	campus offered	points
HIMT XXXX	Information Systems in Healthcare	Core	Health Sciences		1 and 2; Cumberland campus	6
HIMT XXXX	Professional Practice in Health Informatics	Core	Health Sciences		1 and 2; Cumberland campus	6
HIMT XXXX	Health Informatics Evaluation	Core	Health Sciences		1	6
HIMT XXXX	Health Systems Data Analysis	Core	Health Sciences		2	6
HIMT XXXX	Dissertation B	Core Honours	Health Sciences		2	12
BACH XXXX	Social Dimensions of Biotechnology	Elective	Health Sciences		1 and 2	6

SECTION 3 : COURSE INFORMATION FORM AND MARKETING PLAN

PART 2: COURSE INFORMATION FOR UNIVERSITY'S UNDERGRADUATE AND POSTGRADUATE COURSE DATABASE (FOR MARKETING PURPOSES)

- 3.2.1** UAC code: Not applicable (Undergraduate courses only)
- 3.2.2** CRICOS code: See section 4 of this document
- 3.2.3** Career opportunities: Graduate of the MHI will work as specialists in health informatics in a variety of locations from hospitals, IT companies, general practice settings, government and health funds.
- 3.2.4** Areas of study: The three areas of study include, information and computer science, principles of health informatics, and research methods and analysis applied to health informatics.
- 3.2.5** Assumed knowledge: Not applicable
- 3.2.6** Minimum education requirements:
- | | | | |
|--|--------------------------|---|--------------------------|
| Year 12 (senior secondary certificate) or equivalent | <input type="checkbox"/> | Bachelor's degree (pass) in a health related area (for example, medicine, nursing, allied health) | x |
| No minimum education | <input type="checkbox"/> | Bachelor (Hons) | <input type="checkbox"/> |
| Mature background | <input type="checkbox"/> | Graduate Certificate | <input type="checkbox"/> |
| Relevant employment experience | <input type="checkbox"/> | Graduate Diploma | <input type="checkbox"/> |
| | | Master's degree | <input type="checkbox"/> |

Additional information: If applicant has a diploma qualification (for example, nursing diploma) consideration for entry will be at the discretion of the Course Coordinator. If applicant has a non-health undergraduate degree (for example computer science or commerce) then they must complete two prescribed units of study as their elective choices. These two prescribed electives are: HIMT5023 Fundamental of Medical Terminology and HIMT5069 Health Care Systems. These prescribed electives will provide the non-health students with some background in the health system and the language of medicine.

- 3.2.7** If the proposal is for a Postgraduate award course, please indicate the course method:
- | | | | |
|------------|--------------------------|----------------------------------|--------------------------|
| Coursework | x | Coursework with research pathway | <input type="checkbox"/> |
| Research | <input type="checkbox"/> | | |
- 3.2.8** UAI (for UG only): N/A
- 3.2.9** Additional admission selection criteria: No additional admission selection criteria
- 3.2.10** If the course is offered to international students please complete the following:
UAI International (for international students only): Not applicable as graduate entry masters course (Undergraduate courses only)
Other international student entry requirements: IELTS 7.0 No additional student entry requirements.
- 3.2.11** If the proposal is for a Postgraduate award course, please indicate the application closing date:
For local students, closing date for applications is: Mid January of the commencement year for semester 1 entry and mid June of the commencement year for semester 2 entry
For international students, closing date for applications is: December of the year prior to

semester 1 entry and mid April of the commencement year for semester 2 entry

3.2.12	Will mid-semester intake be available for:				
	Commonwealth-supported students	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
	Local fee-paying students	Yes	x	No	<input type="checkbox"/>
	International fee-paying students	Yes	x	No	<input type="checkbox"/>

SECTION 3 : COURSE INFORMATION FORM AND MARKETING PLAN

PART 3: MARKETING PLAN

3.3.1 Marketing plan and strategy

Several strategies are being developed to market the proposed Master of Health Informatics:

- Information about the course will be placed on the web site of the Health Information Management Discipline and the Faculty of Health Science
- New brochures and posters will be designed and printed to be used for marketing activities
- A powerpoint presentation will be prepared to be used for marketing activities
- The course will be advertised at the annual national Australian health informatics conference (Health Informatics Conference) (www.hisa.org) and other appropriate conferences. The International Conference for Medical Informatics (Medinfo) is being held this year for the first time in Australia (Brisbane August 2007). Three staff from the Health Informatics Discipline and Health Informatics Research and Evaluation Unit are presenting at this conference and they will undertake marketing where appropriate (www.medinfo2007.org). The Third International Conference on Information Technology in Health Care: Sociotechnical approaches 2007 (www.ithc2007.org) is being held in Sydney following Medinfo '07 and this conference will also be targeted for marketing the new program
- Media advertisements and articles in appropriate journals and magazines will be prepared (for example, International Journal of Medical Informatics, Journal of the American Medical Informatics Association, electronic Journal of Health Informatics, Health Information Management Journal, the Lamp, Image and Data Manager, Australian Nursing Journal, Private Hospital)
- Letters and information brochures will be distributed widely amongst stakeholders including previous graduates from our undergraduate health information management program and relevant professional associations
- A powerpoint presentation will be presented at targeted sessions with health facilities (public and private hospitals), computer companies, health funds and government health departments.

APPROVALS

Nominated Faculty Officer

Dean of Faculty (or Delegate)

SECTION 4: INTERNATIONAL STUDENT ADMINISTRATION REQUIREMENTS

Faculty: Health Sciences

Department/School presenting the proposal: Health Information Management

Faculty Contact person and/or: Ms Jane Gamble Ext. No: 19203
Academic Proponent Email: j.gamble@usyd.edu.au

4.1.1 Type of proposal: New Amended Deletion Please note if the proposal is changing the course name, for example Bachelor of ABC to Bachelor of AB (C) then this is a NEW course.

4.1.2 Type of course: Undergraduate Postgraduate coursework Postgraduate research

4.1.3 Name of award course(s)

Name of new award course: Master of Health Informatics OR

Name of amended award course: OR

Change of name of existing award course: from to OR

Name of award course to be deleted:

4.1.4 Abbreviated name

MHI

4.1.5 Date of introduction or deletion

Introduced: Year 2008 Semester 1

Deletion: Year Semester

4.1.6 Course code

Course code of existing award course for amendment or deletion: Not applicable – new course

4.1.7 CRICOS code

CRICOS code of existing award course for amendment or deletion: Not applicable – new course

4.1.8 Marketing plan and strategy

Provide a brief summary of plans to market this proposed award course and to recruit international students. Advice is available from the International Office, Marketing and Student Recruitment Unit or the relevant faculty marketing officer. For information on where to get assistance, refer to Section 4 – Appendix 1 Consultation checklist.

Several strategies are being developed to market the proposed Master of Health Informatics to international students:

- Consultation and liaison with International Office regarding appropriate marketing strategies
- Information about the course will be placed on the web site of the Health Information Management Discipline and the Faculty of Health Science
- New brochures will be designed and printed to be used for marketing activities
- The International Conference for Medical Informatics (Medinfo) is being held this year for the first time in Australia (Brisbane August 2007). Three staff from the Health Informatics Discipline and Health Informatics Research and Evaluation Unit are presenting at this conference and they will undertake marketing where appropriate (www.medinfo2007.org). The Third International Conference on Information Technology in Health Care: Sociotechnical approaches 2007 (www.ithc2007.org) is being held in Sydney following Medinfo '07 and this conference will also be targeted for marketing the new program
- Media advertisements and articles in appropriate journals and magazines will be prepared (for example, International Journal of Medical Informatics, Journal of the American Medical Informatics Association, electronic Journal of Health Informatics)
- Letters and information brochures will be distributed widely amongst previous international student graduates from our undergraduate health information management program and international health informatics professional associations
- Letters and information brochures will be distributed to our other international contacts through previous WHO consultancies and other activities

4.1.9 Availability of course

Only full-time courses are permitted to be registered on CRICOS.

Will international students be able to enrol full-time?

Yes No

4.1.10 Mode of study

Courses taught in distance mode or on-line cannot be registered on CRICOS.

Will international students be able to study the proposed course in "face-to-face" mode for at least 75% of the time each semester?

Yes No

4.1.11 Incidental (ancillary) fees

The CRICOS register requires an indication of any compulsory costs other than tuition fees (e.g. bench fees).

Will the proposed course incur any compulsory costs other than tuition fees and compulsory subscriptions?

Yes If yes please indicate the amount
No

4.1.10 Commencement semester

Indicate whether entry to the course is possible in each semester.

SEM1 ONLY SEM1or 2 SEM2 ONLY

If entry is permissible in Semester 2, please indicate whether subject choice will be restricted and whether the duration of the course will necessarily increase?

If students commence in semester 2 there will not be restriction of unit of study choice and the

duration of the course will not necessarily increase.

4.1.11 English language requirements

Will the minimum English language requirement for the proposed course differ from the usual requirements (i.e. overall IELTS score of 6.5 with a minimum of 6.0 in each band)?

Yes
No

If yes please indicate IELTS equivalent 7.0

APPROVALS

.....
Dean or delegate

The Proposed Course is suitable for CRICOS registration and International Office processing.

.....
Director International Office

SECTION 5: PLANNING SUPPORT OFFICE

Please complete this section for information to be provided to the Planning Support Office. The information is required to incorporate new degrees/diplomas/certificates into the University's planning processes. The information provided will enable the student load (EFTSU) to be quantified and allocated to departments and faculties for the purpose of income distribution.

Faculty: Health Sciences

Faculty Contact person and/or: Ms Jane Gamble Ext. No: 19203

Academic Proponent Email: j.gamble@usyd.edu.au

5.1.1 Type of proposal: New Amended Deletion Please note if the proposal is changing the course name, for example Bachelor of ABC to Bachelor of AB (C) then this is a NEW course.

5.1.2 Type of course: Undergraduate Postgraduate coursework Postgraduate research

5.1.3 Name of award course(s)
 Name of new award course: Master of Health Informatics OR
 Name of amended award course: OR
Change of name of existing award course: from _____ to _____ OR
 Name of award course to be deleted:

5.1.4 Abbreviated name

MHI

5.1.5 Date of introduction or deletion
 Introduced: Year 2008 Semester 1
 Deletion: Year _____ Semester _____

5.1.6 Estimated percentage distribution of load across departments in one or more faculties:

Faculty	Department	Estimated percentage of load
Health Sciences	Health Information Management Discipline	63%
Health Sciences	Behavioural and Community Health Sciences	19%
Engineering and Information Technologies	School of Information Technologies	13%
Medicine	School of Public Health	5%

5.1.7 Number of semesters required to complete the course in minimum time
4

5.1.8 Estimated student enrolments (i.e. head count)

Estimated student numbers for the next three years of the award course:

Estimated student enrolments		2008	2009	2010
Commonwealth-supported	Full-time			
	Part-time			
Local fee-paying	Full-time	2	7	10
	Part-time	13	28	53
International fee-paying	Full-time	8	18	25
	Part-time	0	0	0
Total student enrolments		23	53	88

5.1.9 For undergraduate degrees only, please indicate the expected 'carry-on' rate from one academic year to the next.

e.g. the number of students in first year in year 'n' expected to re-enrol in second year in year 'n+1'.

Not applicable

5.1.10 IMPORTANT The University operates within a fixed target for Commonwealth-supported load. Any new course proposals which include intakes of Commonwealth-supported (HECS) students must be accompanied by an indication of a corresponding reduction in the HECS intake to another degree of similar duration offered within the same Faculty. Details of proposed reduction:

APPROVALS

Nominated Faculty Officer

Dean of Faculty or delegate

Table x : Full-Time Enrolment Pattern, Master of Health Informatics

Units of Study	Credit Points	A: Assumed Knowledge P: Prerequisites Q: Qualifying C: Corequisites N: Prohibition	Session
Course Code XXXXX			
Credit Points for award: 96			
Full-time, 4 semesters			
YEAR 1: Semester 1			
Information Systems in Healthcare	6		Sem 1 and 2
Health Informatics Principles	6		Sem 1 and 2
Research and Enquiry in Health Professions	6		Sem 1 and 2
Elective	6		Sem 1 and 2
Total Credit Points	24		
YEAR 1: Semester 2			
Statistics for Clinical Research	6	A: Students must have access to a PC to load and use the statistical packages SAS or SPSS	Sem 2
Relational Database Management Systems	6		Sem 2
Professional Practice in Health Informatics	6		Sem 1 and 2
Elective	6		Sem 1 and 2
Total Credit Points	24		
YEAR 2: Semester 1			
Health Informatics Applications	6		Sem 1
Health Informatics Evaluation	6		Sem 1
Project Management	6		Sem 1 and 2
Elective	6		Sem 1 and 2
Total Credit Points	24		
YEAR 2: Semester 2			
Integration of Health Informatics	6		Sem 2
Health Systems Data Analysis	6	P: Statistics for Clinical Research	Sem 2
Health Informatics Research Project	6	P: Research and Enquiry in Health Professions	Sem 2
Elective	6		Sem 1 and 2
Total Credit Points	24		

Table x : Part-Time Enrolment Pattern, Master of Health Informatics

Units of Study	Credit Points	A: Assumed Knowledge P: Prerequisites Q: Qualifying C: Corequisites N: Prohibition	Session
Course Code XXXXX			
Credit Points for award: 96			
Part-time, 8 semesters			
YEAR 1			
Information Systems in Healthcare	6		Sem 1 and 2
Health Informatics Principles	6		Sem 1 and 2
Research and Enquiry in Health Professions	6		Sem 1 and 2
Elective	6		Sem 1 and 2
Total Credit Points	24		
YEAR 2			
Professional Practice in Health Informatics	6		Sem 1 and 2
Elective	6		Sem 1 and 2
Statistics for Clinical Research	6	A: Students must have access to a PC to load and use the statistical packages SAS or SPSS	Sem 2
Relational Database Management Systems	6		Sem 2
Total Credit Points	24		
YEAR 3			
Health Informatics Applications	6		Sem 1
Health Informatics Evaluation	6		Sem 1
Project Management	6		Sem 1 and 2
Health Systems Data Analysis	6	P: Statistics for Clinical Research	Sem 2
Total Credit Points	24		
YEAR 4			
Elective	6		Sem 1 and 2
Elective	6		Sem 1 and 2
Integration of Health Informatics	6		Sem 2
Health Informatics Research Project	6	P: Research and Enquiry in Health Professions	Sem 2
Total Credit Points	24		

Table x : Full-Time Enrolment Pattern, Master of Health Informatics (Honours)

Units of Study	Credit Points	A: Assumed Knowledge P: Prerequisites Q: Qualifying C: Corequisites N: Prohibition	Session
Course Code XXXXX			
Credit Points for award: 96			
Full-time, 4 semesters			
YEAR 1: Semester 1			
Information Systems in Healthcare	6		Sem 1 and 2
Health Informatics Principles	6		Sem 1 and 2
Research and Enquiry in Health Professions	6		Sem 1 and 2
Elective	6		Sem 1 and 2
Total Credit Points	24		
YEAR 1: Semester 2			
Statistics for Clinical Research	6	A: Students must have access to a PC to load and use the statistical packages SAS or SPSS	Sem 2
Relational Database Management Systems	6		Sem 2
Professional Practice in Health Informatics	6		Sem 1 and 2
Elective	6		Sem 1 and 2
Total Credit Points	24		
YEAR 2: Semester 1			
Health Informatics Applications	6		Sem 1
Health Informatics Evaluation	6		Sem 1
Project Management	6		Sem 1 and 2
Dissertation A	6	P: Research and Enquiry in Health Professions	Sem 1 and 2
Total Credit Points	24		
YEAR 2: Semester 2			
Integration of Health Informatics	6		Sem 2
Health Systems Data Analysis	6	P: Statistics for Clinical Research	Sem 2
Dissertation B	12	P: Dissertation A; Research and Enquiry in Health Professions	Sem 1 and 2
Total Credit Points	24		

UNITS OF STUDY FOR STUDENTS ENROLLED IN THE MHI PROGRAM

In sequence of occurrence in full-time mode.

CORE UNITS OF STUDY

HIMT XXXX	Information Systems in Healthcare
Credit points:	6
Session:	Semester 1 and 2
Delivery mode:	BM
Description:	This unit of study introduces students to the concepts of health information, its management and importance. The unit provides a thorough coverage of concepts, methodologies and techniques available to support patient care processes through the use of information technology. The foundation concepts of data, information and knowledge are introduced as well as definitions of systems and models. International, national and local data collections will be reviewed. Electronic health records, electronic medical records and computerised personal health records will be investigated. Students will gain exposure to a range of systems in use in healthcare including administrative, clinical and financial information systems
Corequisites:	Health Informatics Principles
Classes:	Intensive, compulsory block mode (6 x 4 hrs) plus individual and small group independent learning and e-learning activities; Cumberland campus
Assessment:	3 x 2000 word assignments
HIMT 5057	Health Informatics Principles (previously HIMT 5057 Introduction to Health Informatics)
Credit points:	6
Session:	Semester 1 and 2
Delivery Mode:	BM
Description:	This unit introduces students to the concepts and philosophies which are foundations underlying current and future directions of health informatics practice. Concepts to be addressed will include: privacy and security, language and terminologies, standards and interoperability, decision support systems, health informatics specialties such as consumer, nursing and bioinformatics
Corequisites:	Information Systems in Healthcare
Classes:	Intensive, compulsory block mode (6 x 4 hrs) plus individual and small group independent learning and e-learning activities; Cumberland campus
Assessment:	2 x 2000 assignments and 1x 2 hr exam
BACH 5268	Research and Enquiry in Health Professions (previously BACH 5268 Developing a Research Project)
Credit points:	6
Session:	Semester 1 and 2
Delivery mode:	DE and NE
Description:	This unit provides an overview of the research process and focus on the formulation of a research proposal. It provides students with an opportunity to review and update their knowledge of research methods, and introduce the research electives which concentrate on a particular methodology or aspect of the research process. Basic research design issues are considered. Various methods of data collection are examined together with their suitability for investigating different types of research questions. Students explore the use of quantitative and qualitative data, longitudinal and cross-sectional designs, and data resulting from experimental interview, observation, single case and survey research methods in addition to content analysis and secondary data analysis.

Emphasis is placed on the issues of validity and reliability of data collection techniques. Basic statistical procedures are briefly reviewed and applications such as epidemiology and evaluation research are introduced.

Classes: Off campus for distance mode; 3 hrs/week (evening classes) throughout semester for on-campus mode; Cumberland campus
Assessment: 3 x assignments for distance mode; 2 x assignments for on-campus mode

BACH 5068

Credit points:

Session:

Delivery mode:

Description:

Statistics for Clinical Research

6

Semester 2

DE

This unit aims to introduce students to basic statistical principles relevant to the manipulation and analysis of clinical data. Students will be exposed to concepts of sampling, distributions of scores, summaries of data, and treatment of categorical and quantitative data. This last topic will include chi square analysis, calculation of confidence intervals, tests for differences in the locations of samples (including t-tests and tests for non-normally distributed data), correlation and regression, sample size estimation and an introduction to survival analysis. It is expected that at the conclusion of the unit students will be able to: appraise published statistical analyses; perform simple statistical tests by hand and with the assistance of a computer package SAS or SPSS; and present statistical data

Classes:

Assessment:

Off campus

4 x assignments, total length 6000 words equivalent

COMP 5138

Credit points:

Session:

Delivery mode:

Description:

Relational Database Management Systems

6

Semester 2

NE

This unit of study will provide a comprehensive conceptual and practical introduction to managing large relational databases. Relational and normalisation theory will be emphasized along with a focus on relational query language (SQL). Objectives in this unit are that students will develop the ability to: understand the foundations of database management; strengthen their theoretical knowledge of database systems in general and relational data models and systems; create robust relational database designs; understand the theory and applications of relational query processing and optimization; study the critical issues in data and data administration; explore the key emerging topics in database management

Classes:

Assessment:

1x 2 hr lecture and 1x 1 hr tutorial per week (evening classes); Camperdown campus

2 x assignments 1 x 2hr examination

HIMT XXXX

Credit points:

Session:

Delivery mode:

Description:

Professional Practice in Health Informatics

6

Semester 1 and 2

PP

This unit of study will engage students in the process of exploring health informatics in practical settings. Appropriate opportunities to learn within interdisciplinary teams will be available and students will undertake facilitated peer discussions via electronic media. At the completion of this unit of study, students will be able to discuss the capabilities of health

informatics specialists, and engage in professional discourse regarding their own learning needs.

Classes: On-campus preparation and debriefing. 5 days supervised fieldwork. Additional e-learning tasks and electronic industry links
Assessment: 100% assessment based on performance, written material, communication skills, organisational skills and professionalism

HIMT 5058

Credit points:

Session:

Delivery mode:

Description:

Health Informatics Applications

6

Semester 1

BM

This unit of study utilizes case study analysis, review of contemporary literature and presentations to explore different health informatics topic areas. Students are provided with the opportunity to develop and enhance their information seeking and critical appraisal skills as they investigate and report on key themes, issues and trends in health informatics. A focus of the unit will be reviewing and investigating current and future technology applications such as: telemedicine and health in the home, web-based applications, cyber-consultations and wireless technology

Classes: Intensive, compulsory block mode (6 x 4 hrs) plus individual and small group independent learning and e-learning activities; Cumberland campus
Assessment: 1 x 2000 word literature review and 2x 2000 word assignments

HIMT XXXX

Credit points:

Session:

Delivery mode:

Description:

Health Informatics Evaluation

6

Semester 1

BM

This unit provides an overview of approaches to evaluating health informatics interventions. A broad range of methods and techniques for measuring the impact that health informatics applications have on the delivery of health services, patient outcomes, health professionals' work and organizational efficiency will be covered. Students will be introduced to theoretical perspectives of evaluation as well gain practical skills in designing evaluation and benefit realization projects. The unit focuses on the use of multi-method models which incorporate both quantitative and qualitative techniques.

Classes: Intensive, compulsory block mode (6 x 4 hrs) plus individual and small group independent learning and e-learning activities; Cumberland campus
Assessment: 3 x 2000 word assignments

HIMT 5065

Credit points:

Session:

Delivery mode:

Description:

Project Management

6

Semester 1 and 2

BM

This unit covers all the nine knowledge areas of the Australian Project Management competency standards including planning and scheduling, quality, risks and status reporting. Team and people management issues, managing external dependencies and costs are also covered. Workshop groups use exercises based around a case study from healthcare to apply principles to various situations.

Classes: Intensive, compulsory block mode (4 days, 9am-5pm); Cumberland campus
Assessment: Multiple choice questions/quiz daily in class, 1 x 2000 word case study and 1 x 2500 word workplace portfolio

HIMT 5060
Credit points:
Session:
Delivery mode:
Description:

Integration of Health Informatics

6
Semester 2
BM

This unit aims to provide an understanding of the organizational, people and social issues related to the successful implementation and use of health information systems in health care organizations. In this unit there is an analysis of relevant theories and principles as an understanding of these frameworks is essential for the successful diffusion of health information systems. Information and communication technology integration is challenging as healthcare organizations are complex and diverse with a variety of professionals working within them. This unit will cover issues that are often seen as barriers to information diffusion such as: organisational culture; communication; change management and work flow

Classes: Intensive, compulsory block mode (6 x 4 hrs) plus individual and small group independent learning and e-learning activities; Cumberland campus
Assessment: 3 x 2000 word assignments

HIMT XXXX
Credit points:
Session:
Delivery mode:
Description:

Health Systems Data Analysis

6
Semester 2
BM

This unit of study covers the major health systems databases and how they can be analysed to provide information for strategic planning, ongoing program management, monitoring, evaluation and research purposes. These include different analytical approaches and reporting formats for the different purposes. By working with real data and real problems, students will learn basic tools and methods of data analysis and data mining

Prerequisites: Statistics for Clinical Research
Classes: Combination of lecture/lab/tutorial/online modalities; Cumberland campus
Assessment: 3 x 2000 word assignments

HIMT 5079

Health Informatics Research Project (old HIMT 5079 Health Informatics Project)

Credit points:
Session:
Delivery mode:
Description:

6
Semester 2
BM

Students will undertake a research project in health informatics over the course of the semester. Preference is given to real-life health informatics projects being planned or underway in the workplace. Students will be supported to work independently and will make regular reports to key stakeholders on progress. This project will be completed either individually or as part of larger teams. This unit of study will provide opportunities for formal and informal inter-professional learning. E-learning tasks, based around peer support and moderated peer learning, will assist in the extension and deepening of the application of health informatics theory to practice

Prerequisites: Research and Enquiry for Health Professions
Classes: On-campus preparation and debriefing. Fieldwork and concurrent e-learning tasks
Assessment: 1 x 1500 word progress plan and 1 x 3000 word final report

HIMT 5062
Credit points: 6
Session: Semester 1
Delivery mode: ND
Description: Honours students will develop a proposal to undertake an investigation in an area of specialised interest in health informatics
Prerequisites: Research and Enquiry for Health Professions
Classes: Supervised research activity with on-campus presentation; Cumberland campus
Assessment: 1 x 1500 word progress plan and 1 x 20 minute presentation

HIMT XXXX
Credit points: 12
Session: Semester 2
Delivery mode: ND
Description: During this unit Honours students will complete the investigation begun during HIMT5062 Dissertation A. The student will prepare a written report suitable for submission to a refereed journal for publication. Full details of the requirements for this report can be found in the (Health Informatics) (Honours) Guidelines, Policy and Procedures.
Prerequisites: Dissertation A and Research and Enquiry for Health Professions
Classes: Supervised research activity with on-campus presentation; Cumberland campus
Assessment: 1 x 5000 word thesis and 1 x 30 minute presentation

ELECTIVE UNITS OF STUDY

Electives can be chosen from across the University of Sydney, including offerings from the Schools of Public Health and Information Technologies, with approval from MHI Course Coordinator

POSSIBLE ELECTIVES

HIMT 5023
Credit points: 6
Session: Semester 2
Delivery mode: OL
Description: This unit is designed to provide the student with the knowledge necessary to understand the information contained in health records. Within each body system, the student will study anatomy and physiology, disease processes and their treatment, and medical terminology disease titles, symptomatic terms, surgical terms and investigations. The unit also includes diagnostic tests, diagnostic procedures, radiology, nuclear medicine, radiation therapy and an introduction to pharmacology, pathology and cancer research.
Classes: Web-based; no on-campus attendance required
Assessment: Assignments and examination

HIMT 5050
Credit points: 6
Session: Semester 1
Delivery mode: BM
Description: This unit is designed to enable the student to classify diseases using ICD-10-AM and procedures using MBS-Extended. It includes the historical development of clinical classification systems and students will make comparisons between ICD-9-CM and ICD-10-AM. The focus of the unit is to develop the student's practical coding skills.
Classes: Intensive, compulsory block mode (6 x 4 hrs) plus individual and small group independent learning and e-learning activities; Cumberland campus
Assessment: Assignments and examination

HIMT 5051
Credit points: 6
Session: Semester 2
Delivery mode: BM
Description: This unit builds on both theoretical and practical issues studied in HIMT5050 and allows the student the opportunity to code using hospital medical records. The student will also become familiar with computer-assisted coding and indexing systems. Casemix measurement systems will be reviewed in detail.
Prerequisites: International Disease Classification A (HIMT 5050)
Classes: Intensive, compulsory block mode (6 x 4 hrs) plus individual and small group independent learning and e-learning activities; Cumberland campus
Assessment: Assignments and examination

HIMT 5059
Credit points: 6
Session: Semester 2
Delivery mode: BM
Description: This unit introduces the student to the concepts of organising health information in a logical way to interface with an electronic information system. The importance of terminologies such as the Unified Medical Language System will be investigated along with issues related to comparing coding systems, including mapping. A review of the structure of a range of current health classification systems such as International Classification of Diseases (ICD), the Systematised Nomenclature of Medicine (SNOMED), Read Codes, the International Classification of Primary Care (ICPC) and casemix (DRGs, RUGs, AVG) will be undertaken
Classes: Intensive, compulsory block mode (6 x 4 hrs) plus individual and small group independent learning and e-learning activities; Cumberland campus
Assessment: 1 x 1500 word assignment, 1 x 2000 word essay and 1 x 2hr examination

HIMT 5067
Credit points: 6
Session: Semester 1 and 2
Delivery mode: BM
Description: Greater demands are being placed upon health care practitioners and managers to adopt evidence-based practice. This requires a systematic

appraisal of the best available evidence. The rapid expansion of information in the health sector should result in increased knowledge and more effective health care. However it is common for practitioners to feel overwhelmed by the volume and different types and quality of information available. This unit includes concepts relating to adopting an evidence-based decision making approach in the health sector. Issues covered include what constitutes evidence, levels of evidence, searching for evidence and critical appraisal.

Classes: Intensive, compulsory block mode plus individual and small group independent learning and e-learning activities; Cumberland campus
Assessment: 3 x 2000 word assignments

HIMT 5069

Credit points:

Session:

Delivery mode:

Description:

Health Care Systems

6

Semester 1 and 2

NE

This unit provides an introduction to health care systems with an emphasis on the Australian health care system. Topics covered include Commonwealth and State responsibilities for health with a particular focus on funding issues, healthcare expenditure, the structure and organisation of health insurance, health care facilities and the health workforce. The health of the Australian population is considered and compared internationally, and the health of indigenous Australians is reviewed in depth. The unit encourages a critical appraisal of current health arrangements and policies and an appreciation of the pluralistic nature of the health system. Students will participate in the Health Care Game, an interactive web-based program, as part of the unit of study

Classes: Lecture/lab/tutorial on-campus 2 hrs per week throughout semester (evening classes); Cumberland campus;
Assessment: 1x 1500 word essay, 1 x Health Care Game assignment and 1 x 2hr examination

BACH 5255

Credit points:

Session:

Delivery mode:

Description:

Qualitative Research Methods

6

Semester 2

ND

In this unit students will learn about qualitative research techniques such as in-depth interviewing and participant observation which focus on the investigation of people's experiences and their interpretation of events. This unit examines the types of research questions for which these methods are best suited, and provides training in data collection methods and analysis. The unit is conducted as a seminar in which students actively participate; students also work on a research project of their choice throughout the semester

Classes: Lecture/lab/tutorial on-campus 3 hrs per week (day classes) throughout semester; Cumberland campus;
Assessment: Assignments and examination

BACH 5338

Credit points:

Session:

Delivery mode:

Description:

Cyberpsychology and Online Health

6

Semester 2

ND

Cyberpsychology and e-Health aims to educate those seeking careers in allied health on how societal and individual health is both affected and resourced

by the Internet. The unit of study will be based on current research and policy guidelines set by the Australian and American Medical Associations, the American Psychological Association and Australian Psychological Society for the use of Information technology in the following areas: 1. Informing allied health professionals of online resources for their profession. 2. How types of ICT functions may affect the behaviour of youth and the elderly. 3. Ethics and viability of delivering general health and mental health resources online. 4. The evolution of Telemedicine and Cyber-pharmacology practices. 5. Provision of psychological therapy over the Internet. 6. General health and mental health research and testing online. 7. Quality control and assessment of general and specific online health resources. 8. Future directions of Information Technology and its application to health.

Classes: Lecture/lab/tutorial on-campus 2 hrs per week (day classes) throughout semester, plus 2 hrs practical fieldwork; Cumberland campus;
Assessment: Assignments and examination

BACH XXXX

Credit points:

Session:

Delivery mode:

Description:

Social Dimensions of Biotechnology

6

Semester 1 or 2

ND

This unit examines the social dimension of biotechnology and its role in medicine and health. It focuses on the promises and limitations of biotechnology, the ethical implications, and its representation in the media. Students will explore notions of the 'genetic underclass'; genetic determinism in media representation; the changing nature of traditional institutions such as the family and the workplace in light of our increasing knowledge about genes, heredity, and genetic risk; and the reconstitution of social and individual identities through biotechnology. Students will be introduced to social issues surrounding cutting edge technologies including the human genome project, gene therapy, stem cell research, cloning, xeno transplantations, reproductive technologies, and the various types of DNA tests now available including presymptomatic, predictive, and diagnostic tests; population (mass) screenings; pre-implantation diagnosis; and forensic DNA fingerprinting.

Prerequisites: Health, illness and Social Inquiry or Introduction to Health Sociology or Foundations of Health Sociology

Classes: Lecture/lab/tutorial on-campus 2 hrs per week (day classes) throughout semester; Cumberland campus;

Assessment: 1 x journal club assignment, 1 x 1000 word assignment, 1 x 2000 word essay and workshop participation