The University of Sydney, Sydney, New South Wales

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From a modest beginning as the NSW Training School for Medical Record Librarians at the Royal Prince Alfred Hospital (RPA) in 1956, the School of Health Information Management at the University of Sydney has gone from strength to strength and continues to maintain a high profile in the education of health information management (HIM) professionals.

Undergraduate program

Bachelor of Health Science – Health Information Management

Since 1983 the very successful baccalaureate course has continued to be offered over 3 years full-time or 6 years part-time. The three major areas of study currently offered cover medicine, information science and information technology, and management. An honours year is available for eligible students.

Currently, the School is undertaking a major course review of the undergraduate program as part of the Faculty’s Undergraduate Reform agenda. The review has been prompted by a number of issues, including changes and developments in health informatics; student feedback at School Board meetings; unit-of-study evaluations completed by students; and release of new competencies for health information managers by the Health Information Management Association of Australia (HIMAA, 2001). The issues raised centre around the relevance of the curriculum, inclusion of appropriate content areas in the curriculum, appropriateness of teaching and learning strategies and the “heavy” workload for students, particularly in years 2 and 3. Consultations regarding the review commenced in July 2002. It is proposed that the revised program will be implemented in 2004.

In 2002 the UAI (University Admissions Index) for this program rose to 78.05 and the quota for the program increased from 35 to 50. Currently, there are 52 students enrolled in first year, 40 enrolled in year 2, and 40 in year 3. There are five Honours students – four enrolled in year 3 and one in year 4.

Special course for overseas students

For many years the School has offered a special certificate program for international students over one or two semesters. These programs are specifically designed for participants from developing countries, and have been extensively used by the World Health Organization in assisting countries in the development of their medical record services. A special course is mapped out for each student to meet his or her specific needs by utilising units offered within the School. The number of students per year varies.

Postgraduate programs

Over the years the School recognised the need for postgraduate studies. To support the need for continuing and higher education of HIM graduates and other health professionals, the School of HIM and the Faculty of Health Sciences offer eight postgraduate programs:

- Master of Health Information Management by Coursework
- Master of Health Science (Health Informatics)
- Master of Health Science (Clinical Data Management) and Master of Health Science (Clinical Data Management), Honours
- Graduate Certificate of Health Science (Clinical Data Management)
- Graduate Certificate of Health Science (Casemix)
- Master of Applied Science (Health Information Management) by Research
- Doctor of Philosophy (PhD) and Professional Doctorate (HScD).

Master of Health Science (Health Information Management) (coursework)

Prior to the development of the current Master of Health Science (Health Information Management) course, the School offered a Postgraduate Diploma of Health Science (Health Information Management) for many years. The PG1, as it was called, was developed to meet the ever-growing demand from health professionals who already held an undergraduate degree but wished to develop a new career pathway while remaining within the health sector. The PG1 was discontinued in 2001 with the development of the course at Master’s degree level. Currently, the School of Health Information Management at the University of Sydney offers the only postgraduate qualification in health information management in Australia.

The Master’s course has been developed to prepare specialists in the design and management of health information systems. It provides participants with core knowledge and skills necessary for the effective practice of health information management. It is a popular course offered on a one-year full-time basis, over a full calendar year, or two years part-time, with a total of 50 credit points required for completion. Requirement for entry is a Bachelor’s degree from an Australian tertiary institution or equivalent, or experience and/or qualifications as deemed appropriate by the Head of School.

Australian HIM professionals who hold an Associate Diploma in Health Information Management (or equivalent) may seek admission to a Master’s qualifying program and, on its successful completion, proceed to the Master of Health Science (Health Information Management) program. Professionals holding a Graduate Diploma of Health Science (Health Information Management) with a credit or above average standing are able to articulate their qualification to the Master’s degree by completing one 12 credit point unit of study (“Research in Health Information Management”). This option will only be available until 2006.

The Master’s course requires the successful completion of eight core professional units (26 credit points) and four elective units (24 credit points).
Core units include Information Systems Management I & II (3 credit points each); International Disease Classification Systems A & B (3 credit points each); Database Management Systems (6 credit points); Fundamentals of Medicine and Medical Terminology I & II (3 credit points each); and Professional Experience.

Eleven elective units (6 credit points each) are available to choose from and include:
- Microcomputing and Data Mining
- Health Care Systems
- Human Resource Management
- Introduction to Epidemiology
- Evidence-based Health Care
- Health Services Management
- Medicolegal Principles and Practice
- Casemix Measurement Systems
- Change Management in an Organizational Context
- Developing a Research Project
- Financial Management in Health Care Facilities.

19 students graduated from this program in 2001, and in 2002, 41 students are enrolled, of whom four are upgrading from the Graduate Diploma and three are enrolled in the Master’s qualifying program.

Master of Health Science (Health Informatics)

As the field of health informatics is one of the fastest growing areas within the health sector, staff of the Sydney School of Health Information Management developed the Master of Health Science (Health Informatics) program, which was offered for the first time in 2001. As with the Master of Health Science (Health Information Management) qualification, it is the first Master’s degree of its type in Australia and was developed in response to industry demands.

The course was designed to 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 is offered on a one-year, full-time basis over two semesters, or a two-year, part-time basis covering four semesters. Each core unit and elective is worth 6 credit points and a total of 48 credit points are required to complete the Master’s degree. To make the course easily accessible to working participants, 50% of the course is offered by distance learning and the remainder via a range of flexible modes of study, including workshops and block teaching. One week of residential study is usually held at the end of the first semester. Each unit of study carries 6 credit points. Available units of study include:
- Clinical Data Management and Clinical Trials
- Fundamentals of Medicine and Medical Terminology
- Introduction to Epidemiology
- Statistics for Clinical Research
- Project Management
- Database Management Systems
- Advanced Clinical Data Management
- Evidence-based Health Care.

In 2002 there are 12 students enrolled in the Graduate Certificate and 15 in the Master’s program.

Graduate Certificate in Health Science (Clinical Data Management) and Master of Health Science (Clinical Data Management)

The Graduate Certificate in Health Science (Clinical Data Management) and Master of Health Science (Clinical Data Management) offer an introductory (Certificate level) and advanced study (Master’s degree) in the design and management of clinical trials. The program is offered on a one-year, full-time basis over two semesters, or a two-year, part-time basis covering four semesters. Students need to complete 24 credit points to attain the Graduate Certificate and a total of 48 credit points to complete the Master’s degree. To make the course easily accessible to working participants, 50% of the course is offered by distance learning and the remainder via a range of flexible modes of study, including workshops and block teaching. One week of residential study is usually held at the end of the first semester. Each unit of study carries 6 credit points. Available units of study include:
- Clinical Data Management and Clinical Trials
- Fundamentals of Medicine and Medical Terminology
- Introduction to Epidemiology
- Statistics for Clinical Research
- Project Management
- Database Management Systems
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Graduate Certificate in Health Science (Casemix)

The Graduate Certificate in Health Science (Casemix) commenced in 2002 and is designed to give graduates the opportunity to obtain knowledge of the design, uses and evaluation of casemix systems. It is offered part-time over one year, requiring the completion of four units of study, each offering 6 credit points. The units of study include an Introduction to Casemix; Generating and Using Casemix Information; Casemix Funding and Financial Management; and Implementing Casemix Systems.

All units are offered by distance (correspondence) education, with printed study manuals available for each unit. In 2002 there are currently eight students enrolled.

Master of Applied Science (Health Information Management) (Research)

The Master’s degree program by research has been designed to enable graduates to pursue advanced
study in areas of professional interest, including information systems, organisational management and evaluation methodology. The program is largely by research thesis, with minimal supplementary coursework, and gives graduates an opportunity to further develop their skills by undertaking research in a specialised area of study.

Requirements for entry to the course are a Bachelor’s degree in Medical Record Administration/Health Information Management from an Australian tertiary institution; or an Associate Diploma in Medical Record Administration, plus an approved Bachelor’s degree; or such qualifications deemed to be equivalent to either of the above. The course may be completed over two years full-time or four years part-time. There are currently four students enrolled, three from Australia and one from overseas.

**Doctor of Philosophy (PhD)**

A doctorate program is also available for interested applicants. The PhD program is designed to provide graduates with the opportunity to undertake in-depth study in a specialised area related to their research and expertise. The PhD is awarded for a thesis judged to be a substantially original contribution to the subject concerned. School staff have expertise and interests in a wide range of research, which includes clinical coding productivity, health informatics, data quality and impact on funding, the relationship between treatment variations and outcomes, and many more.

Entry to the doctorate program requires a master’s degree or a bachelor’s degree with first- or second-class honours. In addition the Head of School must approve the proposed course of study. A full-time candidate would take three years (minimum) to five years (maximum) to complete the program; for a part-time candidate the requirement is three years (minimum) to seven years (maximum). The University of Sydney permits candidates to pursue their candidature outside Australia, on the condition the candidate also completes a minimum of two semesters of the candidature within the University of Sydney before submitting his or her thesis.

There is currently one PhD candidate enrolled.

**Professional Doctorate (HScD)**

The professional doctorate is offered by the Faculty of Health Sciences and brings together opportunities for candidates to extend professional knowledge and practice and to carry out relevant research in their area of interest and expertise. It has been designed to provide specific professional development for experienced health professionals who wish to acquire the knowledge and skills required for assuming leadership roles as health professional practitioners, such as departmental planners and/or educators. The program’s emphasis is on systematic and scientific investigations to interpret theory and research, critique current methods and intervention, and translate these findings into a form that can direct present and future practice.

The program is designed for the equivalent of three years full-time study, consisting of one-third coursework and two-thirds research and production of a thesis.

Entry requirements include a Master’s degree by Research from the University of Sydney; or a Master’s degree by coursework from the University of Sydney, with a credit average or equivalent and a minimum of three years recent full-time experience in the health field; or a Bachelor’s degree with first or second class honours from the University of Sydney; or an undergraduate degree deemed to be equivalent.

The coursework includes three core units: Theory in the Health Professions; Research and Inquiry in Health Professions; and Introduction to Doctoral Studies.

The length of candidature is the same as for the PhD (except for part-time study). The maximum period for completion is 10 years. The School of Health Information Management currently has one candidate enrolled in this program.

**Conclusion**

What educators at the University of Sydney have learnt over the years is that they cannot sit back and be complacent. They need to continue to address the challenges they face, and also to critically evaluate the depth of content of available programs to ensure that they are continuing to meet the needs of the profession.

This is not unique to the University of Sydney and is a challenge facing all health information educators. The continued development of our profession hinges on how successful we are in responding to these challenges.

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