

BMCO GRADUATE PROGRAMS

(available as of July 2006)

Canadian Biomedical Computing, Bioinformatics and Medical Informatics Programs

Program Name: Bioinformatics Training Program for Health Research - M.Sc

Institution: University of British Columbia and Simon Fraser University

Length of Program: 2 years

URL: <http://bioinformatics.bcgsc.ca/>

Program Summary:

Inter-disciplinary program in bioinformatics; course of study individually tailored by each student; will allow students with backgrounds in biology, computer science, and statistics to acquire the relevant skills in each field and to work together to solve bioinformatics problems

Program Name: Bioinformatics Training Program for Health Research - M.Sc & Ph.D.

Institution: University of British Columbia and Simon Fraser University

Length of Program: M.Sc. 2 years / Ph.D 3-4 years

URL: <http://bioinformatics.bcgsc.ca/>

Program Summary:

Inter-disciplinary program in bioinformatics; course of study individually tailored by each student; will allow students with backgrounds in biology, computer science, and statistics to acquire the relevant skills in each field and to work together to solve bioinformatics problems

Program Name: Master of Biomedical Technology Program

Institution: University of Calgary

Length of Program: 1 year

URL: <http://www.biotech.ucalgary.ca/>

Program Summary:

Students acquire a broad range of skills and knowledge to prepare for a career in the biotechnology or pharmaceutical industry; graduates will develop skills in bioinformatics and gain expertise in genomic analysis. Undergraduate degree required. Has a joint MBA and MBT program as well.

Program Name: Biochemistry and Molecular Biology M.Sc. & Ph.D.

Institution: University of Calgary

Length of Program: M.Sc. 2 - 3 years / Ph.D. 5-6 years

URL: <http://www.fp.ucalgary.ca/bmb/graduateprogram/gradprog3.html>

Program Summary:

Leading edge research in a number of different research areas, including molecular, cellular and developmental biology, biochemistry, genetics, bioinformatics and cancer and clinical research.

Program Name: Graduate Diploma in Biotechnology and Genomics

Institution: Concordia University

Length of Program: 1 year

URL: http://artsandscience.concordia.ca/biology/txt.cfm?page=home_Genomicdiploma

Program Summary:

The object of the Diploma program is to provide students with broad-based knowledge of theories, quantitative methods, applications of biotechnology and bioinformatics that are pertinent to genomic analyses, and to introduce students to the associated social and ethical implications of developments in biotechnology and genomics. A parallel goal of the program is to provide in-depth knowledge on the following topics: functional genomics, microbial

biotechnology, production of proteins of value to the pharmaceutical, agri-food and forestry industries, and the development of genomics methods for industrial and environmental applications. It also includes hands-on experience in automatic DNA sequencing, robotic methods for strain handling and manipulation, high-throughput enzyme assays, high-throughput gene amplification, bioinformatics analysis, DNA microarray construction and analysis, laser scanning confocal microscopy and proteomics research.

Program Name: Health Informatics Masters / PhD / Informatics specialization

Institution: Dalhousie University

Length of Program: 2 years

URL: <http://www.healthinformatics.dal.ca/>

Program Summary:

The Health Informatics Graduate program will be fully integrated, with the majority of courses being designed and delivered specifically for health informatics, but with contributions from a wide variety of disciplines that have impact on health and health care. Faculties include Arts and Social Sciences, Computer Science, Management (including Library and Information Studies and Business) and Medicine. A number of different disciplines, health service deliverers and related industries and agencies will participate as supervisors for work terms and theses.

Program Name: M.Sc. & Ph.D. in Bioinformatics

Institution: McGill University

Length of Program: M.Sc. 2 years / Ph.D. 4 years

URL: <http://www.mcb.mcgill.ca/academics/index.php?section=graduate>

Program Summary:

The program is designed to be completed simultaneously with your current or prospective Graduate Program. The student has to meet the requirements of their home department and additional requirements specified by the BioOpt program. The BioOpt program offers four courses open to only students within the BioOpt program. Students are required to complete 2 of the 4 courses in addition to a bi-weekly Bioinformatics seminar.

Program Name: M.Sc. en Bio-informatique

Institution: Université de Montréal

Length of Program: 2 years

URL: http://www.etudes.umontreal.ca/index_fiche_prog/346810_desc.html

Program Summary:

Ce programme vise à fournir une formation spécialisée en bio-informatique. Les études au niveau de la maîtrise visent une spécialisation dans un domaine de la bio-informatique au moyen de cours avancés. Elles ont également pour but l'apprentissage de conduire une recherche indépendante et de rédiger un mémoire.

Program Name: Ph.D. en Bio-informatique

Institution: Université de Montréal

Length of Program: 4 years

URL: http://www.etudes.umontreal.ca/index_fiche_prog/346810_desc.html

Program Summary:

Ce programme vise à fournir une formation approfondie en bio-informatique. Les études au niveau du doctorat visent l'intégration de l'étudiant dans le domaine de la recherche actuelle. Elles reposent essentiellement sur la rédaction d'une thèse faisant avancer la science bio-informatique.

Program Name: Diplôme d'études supérieures spécialisées en Bio-informatique

Institution: Université du Québec à Montréal

Length of Program: 2 years

URL: http://www.regis.uqam.ca/prod/owa/pkg_wpub.affiche_prog_desc?P_prog=3005

Program Summary:

Le DESS vise à perfectionner des bacheliers (d'informatique, de mathématiques, de biologie, de biochimie) pour qu'ils deviennent des spécialistes en bio-informatique; leur permettre l'intégration des fondements des deux disciplines de la bio-informatique (biologie, informatique mathématique); les préparer à jouer un rôle d'interface entre spécialistes des sciences de la vie d'une part, et informaticiens d'autre part, au sein d'une équipe pluridisciplinaire.

Program Name: Protein Function Discovery – Research & Training Programs

Institution: Queen's University

Length of Program: 9 months + thesis research project

URL: <http://www.queens-pfd.ca/>

Program Summary:

The PFD Training Program will (a) train students the key technologies needed to elucidate protein function and (b) provide a research environment where the student can apply these skills to important topics in scientific and health research. An innovative feature of the PFD Training Program is that entering students will participate in a 9-month-long Training Period. During the Training Period students will complete three 2-month-long research rotations in the laboratories of mentors associated with the Program. Students will also take two multidisciplinary graduate half-courses covering the theory and providing practical hands-on training using the instruments in the PFD facility. Following the Training Period students will undertake a thesis research project with a faculty member associated with the program.

Program Name: Ph.D. Program in Proteomics and Bioinformatics

Institution: University of Toronto

Length of Program: 5 years

URL: <http://p-b.med.utoronto.ca/>

Program Summary:

Multi-department and affiliated research institutes' academic program; will bring together researchers in biochemistry, genetics, cell biology, biophysics, chemistry, biotechnology, computational biology, and medicine. Only students in a Ph.D. program may apply. The CGPPB is a graduate *collaborative* program and not a graduate *degree* program. Applicants wishing to join must first apply to and register in the Ph.D. program of one of the collaborating graduate departments.

Program Name: Bioinformatics M.Sc. And Ph.D. Program

Institution: University of Waterloo

Length of Program: unknown

URL: <http://monod.uwaterloo.ca/grad.php>

Program Summary:

Ideal candidates have a background in computer science, and also know a moderate amount of biology. Graduate study in our group leads to the M.Math in Computer Science and then to the Ph.D.

American Biomedical Computing, Bioinformatics and Medical Informatics Programs

Program Name: Bioinformatics - M.S., Ph.D., Certificate

Institution: George Mason University

Length of Program: not specified

URL: <http://binf.gmu.edu/>

Program Summary:

The Ph.D. and M.S. degrees are based on a fully articulated set of specialized graduate courses in Bioinformatics and Computational Biology. A Certificate in Bioinformatics is available for professionals who wish to advance their career goals, but who may not have adequate time available to undertake a graduate degree program.

Program Name: Bioinformatics and Medical Informatics - M.Sc.

Institution: Grand Valley State University

Length of Program: not specified

URL: <http://www.cis.gvsu.edu/Graduate/MBI/>

Program Summary:

The Master of Science degree in Medical and Bioinformatics was developed in parallel with two other closely related M.S. programs, one in Biostatistics and another in Biotechnology. The curriculum for each of the three new programs is interdisciplinary, shares a common core, has a similar curriculum design, has a mandatory business/industry internship component, and can be characterized as a "professional science master's degree."

Program Name: Bioinformatics - M.Sc.

Institution: Indiana University School of Informatics

Length of Program: not specified

URL: <http://informatics.iupui.edu/academics/bio/#ms>

Program Summary:

A Master of Science degree in Bioinformatics at Indiana University addresses the needs for education in this rapidly growing field. This is an interdisciplinary program involving faculty from departments of Biology, Computer Science, Chemistry, Information Science, and others.

Program Name: Medical Informatics Fellowship

Institution: Cleveland Clinic Foundation

Length of Program: 1-2 years

URL: http://www.clevelandclinic.org/gim/medical_informatics_fellowship.htm

Program Summary:

The Cleveland Clinic is seeing a revolution in information technology with the rollout of an ambulatory electronic medical record system, creation of the Center for Online Medical Education and Training (COMET) and initiatives like e-Cleveland Clinic and Disease Management Project. These exciting developments offer ample areas for research into the role of EMRs in improving health care delivery and the use of computers and the Internet in education and training. The fellowship program is geared towards providing the trainee with all the skills and tools required to design and implement a major research project in one of these areas.

Program Name: Biomedical Informatics Executive Programs

Masters, Doctorate, MD/PhD, Post Doc.

Institution: Columbia University

Length of Program: varies

URL: <http://www.dbmi.columbia.edu/executive/>

Program Summary:

Offers a set of innovative courses that capitalize on e-educational methods for teaching biomedical informatics both in the classroom and in a remote fashion. The Intensive Course in Biomedical Informatics, is a one-week, in-class program that combines didactic instruction with computer-based, laboratory learning. The program presents a unified view of the discipline from computational biology to public health informatics. Through a comprehensive curriculum, the

course allows community leaders, business managers and health care professionals to enrich their health care information technology knowledge.

Program Name: Biomedical Informatics – Masters in Biomedical Informatics, M.Eng., Masters in Medical Physics, Ph.D., HST Ph.D.

Institution: Harvard University & Massachusetts Institute of Technology

Length of Program: Masters in Biomedical Informatics 2-3 years

URL: <http://mi-boston.org/fellowship/miboston/page4.htm>

Program Summary:

The research projects that fellows conduct as part of their fellowship typically form the basis for their theses. Thesis work may be carried out at research facilities of the participating informatics groups. The fellows usually also do clinical work (perhaps one day per week) during this time, to maintain their clinical skills.

Program Name: Medical Informatics – Post Doc., Training for Medical / Dental Students,

Institution: Lister Hill National Centre for Biomedical Communications

Length of Program: 8 weeks – 1 year

URL: <http://lhncbc.nlm.nih.gov/lhc/servlet/Turbine/template/training%252CTrainingoppor.vm>

Program Summary:

The Lister Hill Center provides training opportunities for individuals at various stages in their careers.

Program Name: Medical Informatics – M.Sc.

Institution: Medical College of Wisconsin & the Milwaukee School of Engineering

Length of Program: not specified

URL: <http://www.msoe.edu/business/mi/>

Program Summary:

Program emphasizes the applied aspect of using informatics (information science) in the health care setting. This is somewhat different than other MI programs where there is a stronger emphasis on theory. We strive to provide a practical education that prepares students to effectively participate in development, implementation, and management teams charged with producing information technology solutions that improve patient care and reduce the cost of care.

Program Name: Medical Informatics – Certificate

Institution: Center for Medical Informatics, New York

Length of Program: not specified

URL: <http://www.mssm.edu/medicine/medical-informatics/education.shtml>

Program Summary:

Medical Informatics Training will focus on the creative use of computers in support of Mount Sinai-NYU Health System. Fellows engage in Medical Informatics projects and attend a variety of courses, discussion groups, and seminars. Fellows will assist in the integration of clinical enhancements into the hospital and primary care information systems. Training has four components: Projects, Lectures/Seminar Series, Patient Care, and Teaching.

Program Name: Masters in Medical Informatics

Institution: Northwestern University, Chicago

Length of Program: not specified

URL: <http://www.scs.northwestern.edu/grad/mmi/>

Program Summary:

The MMI is a eleven course, part-time evening program that focuses on the study and application of principles of information management, design, integration, implementation, and evaluation to enterprise-wide health care information systems.

Program Name: Medical Informatics Fellowship

Institution: Regenstrief Institute, Indianapolis

Length of Program: not specified

URL: <http://www.regenstrief.org/medinformatics/fellowship>

Program Summary:

The primary intent of this fellowship is to train fellows for careers in medical informatics research positions in academic or state and federal government programs, although graduates are also sought after by the health care and the medical systems development industry. While medical informatics is the principal focus of the program, fellows have the opportunity to explore bioinformatics and medical imaging, two fields to which medical informatics has many strong natural links.

Program Name: Biomedical Informatics – MS., Ph.D.

Institution: Stanford University

Length of Program: not specified

URL: <http://bmi.stanford.edu/>

Program Summary:

The BMI training program encompasses bioinformatics, clinical informatics, and public health informatics. Bioinformatics focuses on methods for relevant to basic biology. Clinical informatics focuses on methods relevant to patient care. Public health informatics focuses on methods relevant to entire health systems.

Program Name: Masters in Medical Informatics

Institution: Sunny Downstate Medical Centre, New York

Length of Program: 2 years

URL: <http://www.downstate.edu/chrp/medinfo/program.html>

Program Summary:

Is a 39 credit program designed for full-time or part-time study. The curriculum is designed to meet the needs of students with a wide range of backgrounds. The courses are sequenced to encompass an overview of the discipline of medical informatics and to develop competencies and skills required by the discipline. The courses include, database systems, network architecture, medical imaging systems, internet integration, medical decision support systems, and evaluation of healthcare information systems. Students will also require to conduct an independent research study in medical informatics.

Program Name: Biomedical Informatics – Masters, Ph.D.

Institution: University of California, Irvine

Length of Program: not specified

URL: <http://www.ics.uci.edu/~biomed/>

Program Summary:

Ongoing research areas:

- **Medical Information Access**
- **Knowledge Representation for Health-Care Guidelines**
- **Modeling Structure in Biomedical Data**
- **Biomedical Simulations**
- **Discovery of Gene Expression Control**

- **Knowledge Discovery in Clinical Databases**
- **Computational Biology**
- **Bioinformatics, Probabilistic Modeling and Machine Learning**

Program Name: **Medical Imaging Informatics / Biomedical Engineering - M.Sc., Ph.D.**

Institution: **University of California, Los Angeles**

Length of Program: MSc. 2 years, Ph.D. – not specified

URL: <http://www.mii.ucla.edu/training-msc>

Program Summary:

The Master's degree in medical imaging informatics provides a 2-year programmatic track that encompasses one year of coursework, followed by a year of research towards a thesis (note that no comprehensive exam plan is offered in this track). Students receive a thorough background in key informatics and imaging areas from the core curriculum.

The PhD program is structured around a **major** field and **two minor fields**. The major field consists of a correlated body of knowledge of suitable quality and quantity, demonstrating basic expertise in medical imaging informatics; for purposes of this program track, the major is represented by completion of the **core curriculum** (Table 1, see below). The minor fields are required for understanding in fields related to the student's chosen research field, and is chosen from Table 2. By completing the coursework in the major and minor fields, students should have a solid understanding of both medical informatics in general and within their chosen dissertation area.

Program Name: **Biological and Medical Informatics**

Institution: **University of California, San Francisco**

Length of Program: 2 years

URL: <http://www.bmi.ucsf.edu/overview.html>

Program Summary:

Biological and Medical Informatics (BMI) encompasses data, information, and knowledge acquisition, representation, modeling, integration, communication, and interpretation ranging across basic science and engineering through clinical practice and policy. The primary mission of the BMI Program is to train biomedical informatics researchers for academia and industry.

Program Name: **Biomedical Visualization – MS; Health Informatics – Ms, Certificate**

Institution: **University of Illinois at Chicago**

Length of Program: not specified

URL: <http://www.ahs.uic.edu/bhis/programs/bvis.php>

Program Summary:

Health informatics program was the first in the country to **focus on the social and organizational issues** affecting information technology in health care. The biomedical visualization program at UIC's College of Applied Health Sciences is a **national leader in educating medical artists**.

Program Name: **Health Informatics – MS & Ph.D.**

Institution: **University of Minnesota**

Length of Program: not specified

URL: <http://ccgb.umn.edu/~sspeedie/hinf/htdocs/aboutus/msphd.html>

Program Summary:

The graduate program in Health Informatics trains students in the application of computer and information sciences to the quantitative aspects and decision needs of the health and life sciences. Health Informatics encompasses not only mathematics, statistics and computing,

but also includes other engineering, management, and information sciences applied to problems arising in biology, medicine and the delivery of health care.

Program Name: Biomedical Informatics – Masters & Ph.D.

Institution: University of Pittsburgh

Length of Program: not specified

URL: <http://www.cbmi.pitt.edu/trainingprogram/degree.htm>

Program Summary:

This highly respected program offers concentrations in specific areas such as diagnosis, knowledge representation, machine learning, intelligent tutoring, natural language generation, planning, case-based reasoning, and problem solving. There are strong working connections to researchers in multiple departments. The important role of research and training in medical applications is recognized through this special Biomedical Informatics Track within the program. The track offers a specialized curriculum, and the advising structure draws more heavily on the medical faculty. The ISP is an interdisciplinary, degree-granting program of the Faculty of Arts and Sciences at the University of Pittsburgh. Faculty in ISP are cross-appointed from other departments and include many of the Pittsburgh Biomedical Informatics Training Program Core Faculty.

Program Name: Medical Informatics – Certificate, MS & Ph.D.

Institution: University of Utah

Length of Program: not specified

URL: <http://www.mc.vanderbilt.edu/dbmi/education/>

Program Summary:

We offer M.S. & Ph.D. degree programs and short-term traineeships for students and visiting fellows. The Certificate Program allows students to gain a broad background in core Informatics issues, as well as more specialized knowledge in the sub-domains, such as bioinformatics, public health informatics, clinical information systems and medical imaging.

Program Name: Biomedical and Health Informatics – MS & Ph. D.

Institution: University of Washington

Length of Program: not specified

URL: <http://www.dbhi.washington.edu/training/overview.html>

Program Summary:

The curriculum design for the UW Graduate Program in Biomedical and Health Informatics is based on three related domains: Biomedicine and Healthcare, Computer and Information Science, and Biomedical and Health Informatics. Within each domain we've designed core coursework specific to that domain yet focused on applications and research in informatics.

Program Name: Biostatistics and Medical Informatics – MS., Ph. D. & Post Doc.

Institution: University of Wisconsin

Length of Program: not specified

URL: <http://www.biostat.wisc.edu/>

Program Summary:

A major goal of the Department faculty and staff is to collaborate in the design, conduct, and analyses of laboratory, clinical, and epidemiologic studies and clinical trials in a variety of biomedical disciplines and departments. In addition, faculty conduct research in statistical methodology and computational methods and participate in several graduate and postdoctoral training programs. The Department is organized into three research and training programs: biostatistics, clinical trials, and medical informatics.

Program Name: Medical Informatics – Ph. D.

Institution: University of Milwaukee

Length of Program: not specified

URL: <http://www.uwm.edu/Dept/medinf/>

Program Summary:

The program curriculum includes core course work in human pathophysiology, databases, medical informatics and medical ethics. Students can specialize in one of the following four areas of concentration: Knowledge Based Systems; Health Services Management and Policy; Health Information Systems & Medical Imaging and Instrumentation.

Program Name: Biomedical Informatics – MS., Ph. D., Post Doc., MD./Ms., MD./Ph.D.

Institution: Vanderbilt University, Nashville

Length of Program: not specified

URL: <http://www.mc.vanderbilt.edu/dbmi/education/>

Program Summary:

The field focuses on improving the ability to process and organize the complex and massive amounts of biomedical data, information, and knowledge. Advances in computer-based patient record, clinician order-entry systems, decision support systems, computer-assisted instruction, and structural and functional decoding of the human genome all trace their roots to the work done by specialists in this field. Medical students who are enrolled or accepted to the one of the combined programs can pursue an MS or PhD in Biomedical Informatics.

Program Name: Medical Informatics – Post Doc.

Institution: Yale University

Length of Program: not specified

URL: <http://ycmi.med.yale.edu/>

Program Summary:

The Center focuses on the creative use of computers in clinical medicine, molecular biology, neuroscience, and other areas of biomedical research. We conduct research, provide support and coordinate collaborative projects involving Medical School faculty, Yale-New Haven Hospital, and faculty in other departments at Yale, such as Computer Science. The Center also serves as a focal point for training in biomedical informatics with a Postdoctoral Fellowship Program. In addition, we participate actively in Yale's recently created interdepartmental PhD program in Computational Biology and Bioinformatics.

Canadian Biomedical Engineering Programs

Program Name: Biomedical Engineering – M.A.Sc., Ph.D.

Institution: Dalhousie University

Length of Program: not specified

URL: <http://bme.medicine.dal.ca/index.html>

Program Summary:

Dalhousie University offers both Master of Applied Science (M.A.Sc.) and Ph.D. degrees in Biomedical Engineering. Qualified students will be accepted into the programs from undergraduate engineering programs, from honours mathematics and physical or biological science programs, as well as from clinical professional programs (M.D., D.D.S., D.V.M.). M.A.Sc. to Ph.D. transfer is available.

Research Areas: Biomaterials; Tissue Engineering; Biomechanics; Human Dynamics; Rehabilitation Engineering; Physiological Modelling; Medical Imaging; Drug Design; Hearing; Cell Mechanics; Cardio-pulmonary function; Dental Materials and Mechanics; Robotics

Program Name: Biomedical Engineering – D.E.S.S., M.Sc., Ph.D.
Institution: Universite de Montreal
Length of Program: not specified
URL: <http://www.igb.umontreal.ca/>
Program Summary: -

Program Name: Biomedical Engineering – M.Eng., Ph.D.
Institution: McGill University
Length of Program: M.Eng. 2-2.5 years, Ph.D. 4-5years
URL: <http://www.bmed.mcgill.ca/>
Program Summary:

The Department of Biomedical Engineering provides instruction and opportunities for interdisciplinary research in the application of engineering, mathematics, and the physical sciences to problems in medicine and the life sciences through M.Eng. and Ph.D. degree programmes. Currently active areas include: neuromuscular and postural control, muscle mechanics, the vestibular system, oculomotor control, the auditory system, joint prosthetics, biomaterials, artificial cells and organs and medical imaging. Staff members are also active in more applied research related to the development of quantitative analysis tools and instruments for biomedical research. Areas of activity here include signal analysis, system identification, modelling, simulation and parameter estimation, image processing, pattern recognition, ultrasound and biorobotics.

Research Areas: Aerospace Medicine; Artificial Cells and Organs Engineering; Auditory Mechanics; Biomaterials; Biomedical Modeling Computer Applications and Instrumentation; Computers in Medical Education; Medical Imaging; Neuromuscular Control; Oculomotor and Vestibular Control; Orthopedic Biomechanics; Systems and Signal Analysis

Program Name: Biomedical Engineering – M.Sc., Ph.D.
Institution: University of Alberta
Length of Program: not specified
URL: <http://www.med.ualberta.ca/bme/>
Program Summary:

Biomedical engineering is found in not one, but in many departments and faculties at the University of Alberta. The Department of Biomedical Engineering, in the Faculty of Medicine and Dentistry, is the central department and offers only graduate degrees, although it teaches courses at both the graduate and undergraduate levels. However, research in biomedical engineering takes place in other departments and faculties within the University that offer graduate degrees, most notably the Departments of Chemical and Materials Engineering, Electrical and Computer Engineering, Mechanical Engineering, Physiology, and the Faculty of Rehabilitation Medicine.

Program Name: Biomedical Engineering – M.Eng., M.Sc., Ph.D.
Institution: University of Calgary
Length of Program: not specified
URL: <http://www.eng.ucalgary.ca/Biomedical/>
Program Summary:

The Biomedical Engineering Graduate Programme is a coordinated graduate programme in Biomedical Engineering for the Province of Alberta, offered jointly by the University of Calgary and the University of Alberta. This programme establishes a Western Canadian centre of excellence in biomedical engineering graduate education and research by coordinating and consolidating the complementary research and teaching programmes at these two universities. The unique design of this programme has U of C and U of A sharing resources through core and elective courses taught over a high-speed video link, ensuring that students draw upon the expertise of researchers and instructors at both universities.

Research Areas: Bioinstrumentation and imaging; Clinical engineering; Rehabilitation engineering; Biomechanics and finite element modeling; Biomaterials; Systems physiology; Aerosols

Program Name: Biomedical Engineering – M.Eng., M.Sc., Ph.D.

Institution: University of Saskatchewan

Length of Program: not specified

URL: <http://www.engr.usask.ca/dept/biomed/index.htm>

Program Summary:

The dominant areas of research interest among our faculty include: biomechanics, nuclear magnetic resonance spectroscopy and magnetic resonance imaging, ultrasonography, biomedical signal and image processing, applications of artificial neural networks, fuzzy logic and expert systems, physiological system modeling, and medical instrumentation.

Program Name: Biomedical Engineering – M.A.Sc., M.Eng., Ph.D.

Institution: University of Toronto

Length of Program: not specified

URL: http://www.ibbme.utoronto.ca/scripts/index_.asp

Program Summary:

Program has been designed to accommodate students and researchers with varying interests, within the field of Biomedical Engineering. Students with backgrounds in physics, biology, medicine, engineering, or biotechnology are invited to apply.

Program Name: Systems Design Engineering – M.A.Sc., M.Eng., Ph.D.

Institution: University of Waterloo

Length of Program: not specified

URL: <http://sydewww.uwaterloo.ca/>

Program Summary:

This program, the only one of its kind in Canada, recognizes that effective solutions to increasingly complex technological and social problems must be based on a broad point of view.

Research Areas: human factors and biomedical engineering; modelling and simulation; pattern analysis; machine intelligence and robotics; signal and image processing; societal and environmental systems engineering; software engineering and optimization software; systems theory

Program Name: Biomedical Engineering – M.E.Sc., Ph.D.

Institution: University of Western Ontario

Length of Program: not specified

URL: <http://www.eng.uwo.ca/research/biomed/>

Program Summary:

All programs are thesis-driven research degrees; a combination of course work and research are required to satisfy degree requirements.

Research Areas: Medical biophysics; metered dosage inhalators; respiratory drug delivery; prosthetics; Application of first-and-second-moment turbulence closures for the prediction of complex engineering and biomedical flows

International Medical Informatics Academic Training Programs

(detailed information not included in binder, names of universities contain website links)

AUSTRALIA

Monash University

Melbourne, Australia
Graduate Certificate and Graduate Diploma in Health Informatics
Graduate Certificate
Graduate Diploma in Health Informatics
Short and Long courses
*All courses are off campus distance learning

University of New South Wales

Sydney, Australia
Master of Health Informatics
Degrees Available:
Masters (available from 2004)
PhD in Health Informatics

University of New South Wales

Sydney, Australia
Master of Health Informatics
Degrees Available:
Masters (available from 2004)
PhD in Health Informatics

The University of Sydney

Sydney, Australia

University of Wollongong

Wollongong NSW, Australia
Master of Health Informatics

AUSTRIA

University for Health Informatics and Technology Tyrol (UMIT)

Innsbruck, Austria
Medical Informatics
Degrees Available:
BSc in Medical Informatics
MSc in Medical Informatics
PhD in Medical Informatics

BRAZIL

Federal University of São Paulo

São Paulo, Brazil
Master of Health Informatics
PhD in Health Informatics

Marilia Medical School

Marilia, Estate of Sao Paulo, Brazil
Medical Course
undergraduate medical course

Universidade Federal de Pernambuco (UFPE)

(Federal University of Pernambuco)
Grupo de Tecnologias da Informação em Saúde (TIS)
(Health Information Technology Group)
Recife-PE, Brazil
Undergraduation:
1. Lessons for the Medical Course and others health courses
Posgraduation:
1. Internal Medicine Master Program
2. Informatics Master Program

CUBA

Instituto Superior de Ciencias Médicas de La Habana (ISCM-H)

La Habana, Cuba
Master in Health Informatics
Degree Available:
Masters

GERMANY

Georg-August-University Goettingen

Applied Informatics / Health Information Officer
Goettingen, Germany
BSc
MSc in Medical Informatics

University of Essen

Essen, Germany
Medizin-Management with Informatics specialization
Degrees Available:
Bachelor of Arts - BA
(soon to offer MA)

University at Leipzig/Germany

Leipzig, Germany
Institute for Formal Ontology and Medical Informationscience (IFOMIS)

GREECE

National and Kapodistrian University of Athens

Athens, Greece
Health Informatics
Degrees Available:
Master of Science - MSc
Doctorate - PhD

IRELAND

Trinity College Dublin

Dublin, Ireland
MSc in Health Informatics
Degree Available:
MSc

THE NETHERLANDS

Erasmus University Rotterdam

Rotterdam, The Netherlands
Erasmus Medical Center Rotterdam
Degrees Available:
Master of Health Information Management

University of Amsterdam

Amsterdam, The Netherlands
Medical Information Sciences
Degrees Available:
Bachelor and Master Degree

PERU

Instituto de Medicina Tropical Alexander Von Humboldt

Universidad Peruana Cayetano Heredia
Lima, Peru
Specialized programs:
Health Informatics
Telemedicine
Artificial Intelligence

SOUTH AFRICA

Stanford-South Africa Biomedical Informatics Program

Program Name: Stanford-South Africa Biomedical Informatics Program
Participating institutions: South African National Bioinformatics Institute, University of the Western Cape, Belleville, South Africa University of Cape Town, Cape Town, South Africa National Institute for Communicable Diseases, Johannesburg, South Africa
Stanford University, Stanford, USA
Degrees offered:
MSc or PhD biomedical informatics or bioinformatics
URLs:
<http://stanford.sanbi.ac.za/>
<http://southafrica.stanford.edu/>

UNITED KINGDOM

Centre for Health Informatics & Multiprofessional Education (CHIME)

London, United Kingdom
Degrees Available:
MPhil, PhD available by research in this area

Imperial College

London, United Kingdom
Degrees Available:
MSc in Health Informatics and Management

King Alfred's Winchester

Winchester, United Kingdom
Degrees Available:
Master of Science - MSc

Oxford University

Certificate, Diploma, M.Sc.
<http://www.conted.ox.ac.uk/cpd/biosciences/courses/msc/default.asp>

University College London

London, England, United Kingdom
Degrees Available:
Master of Science - MSc
Diploma & Certificate Programmes in Health Informatics
Graduate Programme - 3 exit points
PG Certificate
PG Diploma
MSc

University of Edinburgh

Edinburgh, United Kingdom
School of Informatics
Specialism in Bioinformatics
Degrees Available:
Master of Science - MSc
Master Degree - Mres
Doctorate - PhD

University of Sheffield

Sheffield, United Kingdom
Degrees Available:
Certificate Diploma
Master of Science - MSc
(also MPhil, PhD available by research in this area)

University of Wales Swansea

Swansea, Wales, United Kingdom
School of Health Science
Centre for eHealth & Learning

Useful Search URLs:

American Medical Informatics Association

American Programs:

<http://www.amia.org/informatics/acad&training/>

International Programs:

<http://www.amia.org/informatics/acad&training/international.asp>

Biomedical Engineering Grad Programs in Canada

http://www.gradschools.com/listings/canada/biomed_eng_canada.html

Canadian Bioinformatics

http://bioinformatics.ca/bioinformatics_resources/courses_and_programs/programs/