SCHULICH SCHOOL OF MEDICINE & DENTISTRY AND FACULTY OF SCIENCE

Honors Specialization in Epidemiology and Biostatistics

NEW CALENDAR COPY
http://www.westerncalendar.uwo.ca/2013/pg1459.html

HONORS SPECIALIZATION IN EPIDEMIOLOGY AND BIOSTATISTICS

This module is intended primarily for students who wish to pursue graduate training in Epidemiology and Biostatistics and want to include applied human health research-intensive preparation in their undergraduate program. This module leads to a Bachelor of Medical Sciences (BMSc) degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

Admission Requirements for September 1, 2013
Completion of first-year requirements (5.0 courses) with no failures. Students must have an average of at least 75% on the following 3.0 principal courses, with no mark below 60% in any of these courses:

1.0 course: Biology 1001A* and 1002B*, or the former Biology 1222 or 1223
1.0 course: Chemistry 1100A/B and 1200B, or the former Chemistry 1020, 1050, or 023
0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/B
0.5 course: Mathematics 1600A/B, or the former Linear Algebra 1600A/B

* Biology 1201A with a mark of at least 70% may be used in place of Biology 1001A, and Biology 1202B with a mark of at least 70% may be used in place of Biology 1002B.

1.0 course in physics must be completed by the end of Year 2 and a minimum mark of 60% must be achieved in each of two half courses, as follows:
0.5 course from: Physics 1028A/B, 1301A/B, 1501A/B
0.5 course from: Physics 1029A/B, 1302A/B, 1502A/B

Students will not be admitted to Year 2 of the Honors Specialization module beginning in September, 2014.

Admission Requirements, effective September 1, 2015 (for students admitted to Year 1 in September, 2013)
Admission to this Honors Specialization module occurs in Year 3 and requires admission to Year 3 of the Bachelor of Medical Sciences (BMSc) Program. Students will usually complete the MEDICAL SCIENCES FIRST ENTRY PROGRAM (Medical Sciences 1 and 2) prior to admission to the Honors Specialization module. Enrolment in this Honors Specialization module is limited and meeting the minimum requirements does not guarantee admission.

The 1000-level half courses listed below must each be completed with a mark of at least 60%:
1.0 course: Biology 1001A* and 1002B*
1.0 course: Chemistry 1301A/B and 1302A/B, or the former Chemistry 1100A/B and 1200B
0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/B
0.5 course: Mathematics 1600A/B.
0.5 course from: Physics 1028A/B, 1301A/B or 1501A/B
0.5 course from: Physics 1029A/B, 1302A/B or 1502A/B.

* Biology 1201A with a mark of at least 70% may be used in place of Biology 1001A, and Biology 1202B with a mark of at least 70% may be used in place of Biology 1002B.

The 2000-level courses below must be completed with a minimum mark of 60% in each (unless otherwise indicated) prior to admission to the Honors Specialization module in Year 3. These 2000- level courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for additional average, course load requirements, etc. and MODULES OFFERED IN THE BMSc PROGRAM for specific information about Honors Specialization modules, including the Weighted Average Chart.

0.5 course: Biochemistry 2280A
0.5 course: Chemistry 2213A/B
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B with a mark of at least 75%
1.5 courses: Biology 2290F/G, 2382B, 2581B
0.5 course: Epidemiology 2200A/B with a mark of at least 75%

Module
11.0 courses:
0.5 course: Biochemistry 2280A
0.5 course: Chemistry 2213A/B
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B, or the former Statistical Sciences 2122A/B
1.5 courses: Biology 2290F/G, 2382B, 2581B
0.5 course: Epidemiology 2200A/B, or one of the former Epidemiology and Biostatistics 2200A/B or 3300B
1.0 course from the Social Science Subject List (see below)
0.5 course: Biostatistics 3100A with a mark of at least 70%.
0.5 course: Biostatistics 3110B
1.0 course: Epidemiology 3200A and 3500A with marks of at least 70% in each
2.0 courses: Epidemiology 3210B, 4310A, 4320A, 4500B
1.0 course from: Biostatistics 4115B, Epidemiology 3315B, 4600A, 4615B
1.5 course: Epidemiology and Biostatistics 4900E (Research Project = 1.5 courses)

Social Science Subject List:
Students must complete 1.0 senior course from one of the subject areas below (e.g. 1.0 course in Economics) and it is recommended that this 1.0 course be selected from the number range specified for the subject area. Note that (i) two half courses from two different subject areas will not satisfy this requirement, and (ii) some courses may require a prerequisite.

Anthropology (2200 or above), Economics (2100 or above), First Nations (2100 or above), Geography (2200 or above), History (2200 or above), Political Science (2230 or above), Psychology (2100 or above, with the exception of Psychology 2800E, 2810 and 2820E), or Sociology (2200 or above).

Introduction of "Epidemiology" and "Biostatistics" as Undergraduate Subject Areas

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Each of "Epidemiology" and "Biostatistics" to be added individually to the list of undergraduate subject areas:
http://www.westerncalendar.uwo.ca/2013/pg882.html

as well as to the Category C breadth requirements under *Medical Sciences*:
http://www.westerncalendar.uwo.ca/2013/pg81.html

CATEGORY C
Engineering
Chemical and Biochemical Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Engineering Science, Green Process Engineering, Mechanical and Materials Engineering, Software Engineering

Medical Science
Anatomy and Cell Biology, Biochemistry, ***Biostatistics***, Chemical Biology, ***Epidemiology***, Epidemiology and Biostatistics, Medical Biophysics, Medical Health Informatics, Medical Sciences, Microbiology and Immunology, Neuroscience, Pathology, Pathology and Toxicology, Pharmacology, Physiology

(*No further changes)*

Western

Final Assessment Report of Program Review

Undergraduate Program:	**Epidemiology and Biostatistics**
New or Cyclical Program Review (please indicate)	**New Program: Honors Specialization in Epidemiology and Biostatistics**
Degree(s) Offered:	**BMSc**
Date of Site Visit:	**6 February 2013**
Recommendation:	**Approved to commence with report in 2 years**

Summary:

The Department of Epidemiology and Biostatistics at the Schulich School of Medicine & Dentistry has a long history of graduate education. The proposed Honors Specialization in Epidemiology and Biostatistics will be the Department's first entry into undergraduate education. The program is modeled on the other Honors Specialization modules in the Bachelor of Medical Sciences program (i.e., normally students will be admitted after completing Medical Sciences 1 and 2). It is intended to provide a unique alternative to other Honors Specializations, particularly for students who are interested in health economics, health systems policy, and health technology assessment. The reviewers were satisfied with the overall structure of the proposed program, and were impressed by the quality of faculty, departmental leadership, and library resources. They were somewhat less impressed with the physical infrastructure of the Kresge Building, but this has no bearing on the academic quality of the proposed program.

The reviewers expressed some concerns about the implications of introducing undergraduate education in the Department. This will involve an increase in teaching load for faculty and will require them to deliver courses to a different cohort of students. During the review, there was considerable discussion about the number of courses that will be combined with existing graduate courses, and about how this would affect the learning experience for each group of students. However, the Department Chair provided assurance that faculty were supportive of the new program, and has agreed to provide a workshop in undergraduate teaching during the summer of 2013. Also, the Department has recently received budget approval to hire an additional tenured/probationary faculty member in the area of Population Epidemiology which will enhance existing teaching resources.

In reviewing the program requirements, the external reviewers noted that the proposed program was focused primarily on epidemiology rather than biostatistics, and opined that graduates would not be sufficiently qualified as biostatisticians. They accordingly suggested that the program be renamed, "Honors Specialization in Epidemiology." Given that the approved graduate program is in Epidemiology and Biostatistics, the Department responded that the expertise is established. About half the faculty identify themselves as biostatisticians. The module has a number of courses in Biostatistics following Statistics courses. Because of the background of the faculty in the Department, a number of the courses identified as Epidemiology also have biostatistics components. The SUPR-U committee, on review of the proposed courses and module, supported that the program name should be Epidemiology and Biostatistics, which also aligns with the approved graduate program.

Recommendation	Responsibility
Monitor implications of introducing an undergraduate program within a graduate program environment.	Department
Assess the syllabi of the courses in the module during their implementation and report in implementation of biostatistics components in the module	Department
Organize a workshop in undergraduate teaching for faculty (through Teaching Support Centre)	Department
Appoint an Undergraduate Assistant of 0.4 FTE	Department