

The following proposals, received on DAP between December 16-31, 2016, have been approved. For more information on the DAP process, [see the Secretariat's website](#).

FACULTY OF ENGINEERING

ELECTRICAL AND COMPUTER ENGINEERING

Effective **September 1, 2017**, the following courses be revised.

Electrical and Computer Engineering 2233A/B - Circuits and Systems

Antirequisite(s): MSE 2233A/B.

Prerequisite(s): Applied Mathematics 2270A/B, ECE 2205A/B

Corequisite(s): Applied Mathematics 2276A/B, ~~ECE 2236A/B~~.

Electrical and Computer Engineering 4437A/B - Communications Theory

Prerequisite(s): ECE 3330A/B, ECE 3331A/B, ECE 3375A/B, Statistical Sciences 2141A/B, **Statistical Sciences 2143A/B**, Applied Mathematics ~~3445A/B~~ **2276A/B**, or the former Applied Mathematics 2415.

Effective **September 1, 2017**, the following modules be revised.

A. ELECTRONIC DEVICES FOR UBIQUITOUS COMPUTING

Second-Year Program

Applied Mathematics 2270A/B, Applied Mathematics 2276A/B, Computer Science 1037A/B, ECE 2205A/B, ECE 2231A/B, ECE 2233A/B, ECE 2240A/B, ECE 2241A/B, ECE 2277A/B, ECE 3375A/B, ECE 3380A/B, ES 2211F/G.

Third-Year Program

Computer Science 2210A/B, Computer Science 2211A/B, ECE 2236A/B, ECE 3330A/B, ECE 3331A/B, ECE 3349A/B, ECE 3389A/B, ECE 3390A/B, Mathematics 2151A/B, SE 2203A/B, Statistical Sciences 2141A/B or **Statistical Sciences 2143A/B**, one 0.5 non-technical elective from the approved list.

Fourth-Year Program

ECE 4415, ECE 4436A/B, ECE 4437A/B, ECE 4460A/B, ES 4498F/G, SE 3313A/B, SE 3314A/B, two 0.5 technical electives from the list below, 1.0 non-technical elective*.

Technical Electives: Electronic Devices for Ubiquitous Computing Option

ECE 3332A/B, ECE 3333A/B, ECE 3337A/B, ECE 3370A/B, ECE 4429A/B, ECE 4438A/B, ECE 4445A/B, ECE 4455A/B, ECE 4469A/B, maximum one of (CS 3319A/B, CS 3340A/B, CS 3346A/B).

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B. SOFTWARE SYSTEMS FOR UBIQUITOUS COMPUTING

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Second-Year Program

Applied Mathematics 2270A/B, Applied Mathematics 2276A/B, Computer Science 1037A/B, ECE 2205A/B, ECE 2277A/B, ECE 3375A/B, ECE 3380A/B, Mathematics 2151A/B, MSE 2233A/B, SE 2203A/B, SE 2205A/B, **one of** Statistical Sciences 2141A/B or **Statistical Sciences 2143A/B**.

Third-Year Program

ECE 3330A/B, ECE 3331A/B, ECE 3389A/B, ECE 3390A/B, ECE 4436A/B, ECE 4460A/B, ES 2211F/G, SE 3313A/B, SE 3314A/B, SE 3316A/B, SE 3352A/B, SE 3353A/B.

Fourth-Year Program

ECE 4415, ECE 4437A/B, ES 4498F/G, SE 4452A/B, ~~SE 4453A/B~~ SE 4455A/B, three 0.5 technical electives from the list below, 1.5 non-technical electives*.

Technical Electives: Software Systems for Ubiquitous Computing

ECE 4429A/B, ECE 4438A/B, ECE 4445A/B, ECE 4455A/B, ECE 4469A/B, maximum one of (SE 3309A/B, SE 3310A/B, SE 3351A/B, SE 4472A/B).

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MECHANICAL AND MATERIALS ENGINEERING

Effective **September 1, 2017**, the following courses be revised.

Mechanical and Materials Engineering 2202A/B - Mechanics of Materials

Extra Information: 3 lecture hours, ~~3~~ 2 tutorial hours, 0.5 laboratory hour, 0.5 course.

Mechanical and Materials Engineering 4424A/B - Mechanical Properties of Materials

Prerequisite(s): ~~MME 2202A/B, Applied Mathematics 2270A/B~~ MME 3379A/B or MSE 3301A/B.

*Mechanical and Materials Engineering 4425A/B - Mechanical Vibrations

Prerequisite(s): ~~MME 2213A/B, Applied Mathematics 3413A/B~~ or Applied Mathematics 3415A/B, MME 3381A/B or MSE 3381A/B.

*Mechanical and Materials Engineering 4469A/B - Biomechanics of Musculoskeletal System

Prerequisite(s): ~~ES 1022A/B/Y, MME 2202A/B~~ or MSE 2212A/B, MME 3380A/B or MSE 3380A/B.

Mechanical and Materials Engineering 4482A/B - Fundamentals of MEMS

Extra Information: 3 lecture hours, ~~2~~ tutorial/laboratory hours per week, 0.5 course.

* Later clarification of original DAP submission resulted in the following revisions:

*Mechanical and Materials Engineering 4425A/B - Mechanical Vibrations

Prerequisite(s): Applied Mathematics 3413A/B or Applied Mathematics 3415A/B, ~~and~~ MME 3381A/B or MSE 3381A/B.

*Mechanical and Materials Engineering 4469A/B - Biomechanics of Musculoskeletal System

Prerequisite(s): MME 2202A/B or MSE 2212A/B, ~~and~~ MME 3380A/B or MSE 3380A/B.

Effective **September 1, 2017**, the following modules be revised.

B. Mechanical Engineering and Law Option

First Year Program

Common first year of Engineering.

Second Year Program

Applied Mathematics 2270A/B, Applied Mathematics 2276A/B, ECE 2274A/B, ES 2211F/G, MME 2200Q/R/S/T, MME 2202A/B, MME 2204A/B, MME 2213A/B, MME 2259A/B, MME 2260A/B, MME 2273A/B, MME 2285A/B, Statistical Sciences 2143A/B.

Third Year Program

Applied Mathematics 3413A/B, ~~ECE 3373A/B~~, ECE 3374A/B MME 3303A/B, MME 3307A/B, MME 3334A/B, MME 3350A/B, MME 3360A/B, MME 3379A/B, MME 3380A/B, MME 3381A/B.

Fourth Year Program

First year Law curriculum. No courses outside Law may be taken during this year.

Fifth and Sixth Year Programs

Two 0.5 Technical electives.

MME 4499.

D. Mechanical Engineering and Business Option**First Year Program**

Regular first year curriculum in the Engineering program.

Second Year Program

Applied Mathematics 2270A/B, Applied Mathematics 2276A/B, ECE 2274A/B, MME 2200Q/R/S/T, MME 2202A/B, MME 2204A/B, MME 2213A/B, MME 2259A/B, MME 2260A/B, MME 2273A/B, Statistical Sciences 2143A/B, Business Administration 2257.

Third Year Program

Business Administration 3300K, 3301K, 3302K, 3303K, 3304K, 3307K, 3311K, 3316K, 3321K, 3322K, 3323K.

Fourth Year Program

Applied Mathematics 3413A/B, MME 2285A/B, MME 3303A/B, MME 3307A/B, MME 3334A/B, MME 3360A/B, MME 3379A/B, MME 3380A/B, MME 3381A/B, ECE 3374A/B.

Applied Project Requirement: Business Administration 4569.

Fifth Year Program

ES 4498F/G, MME 3350A/B, MME 4499, ~~MME 4492A/B~~.

~~One 0.5~~ 1.0 technical electives.

3.0 Business Administration courses:

0.5 course: International Perspective Requirement:

Business Administration 4505A/B.

0.5 course: Corporations and Society Perspective Requirement: at least one 0.5 course from Business Administration 4521A/B, 4522A/B, 4523A/B or other business elective as determined and approved by the HBA Program Director to satisfy this requirement.

2.0 elective courses chosen from 4000 level Business courses.

MECHATRONIC SYSTEMS ENGINEERING

Effective **September 1, 2017**, the following course be revised.

Mechatronic Systems Engineering 2212A/B - Mechanics of Materials

Extra Information: 3 lecture hours, 3 2 tutorial hours, 0.5 laboratory, 0.5 course.

SOFTWARE ENGINEERING

Effective **September 1, 2017**, the following course be revised.

Software Engineering 3316A/B - Web Technologies

Technologies, protocols and architectures of the Internet. From HTML, XML, JavaScript and related technologies and to web services technologies such as WSDL, SOAP, UDDI, REST and AJAX to paradigms such as ReST and AJAX and software frameworks for developing modern web applications and integrating services from 3rd parties. We will also look at semantic web, business implications of these protocols as well as legal, ethical and social issues surrounding these technologies.

FACULTY OF SOCIAL SCIENCE**AMERICAN STUDIES**

Effective **September 1, 2017**, the following course be withdrawn.

American Studies 2200E - Advanced American Studies

Effective **September 1, 2017**, the following course be introduced.

American Studies 2201F/G: In Search of America: Advanced American Studies

Short title: *In Search of America*

This course explores the theory and method of American Studies, emphasizing interdisciplinary examinations of U.S. culture, including institutional and cultural traces of Anglo-European colonialism, the effect of their contact with Indigenous and African peoples, immigration, racism, nationalism, war, individualism, communitarianism, religion, government, rights, popular culture, and the arts.

Antirequisite(s): The former American Studies 2200E

Prerequisite(s): At least 60% in ONE of: American Studies 1020, Political Science 1020E, English 1020E, 1022E, 1024E, or permission of the Program in American Studies.

Extra Information: 3 hours, 0.5 course.

Effective **September 1, 2017**, the following modules be revised.

HONORS SPECIALIZATION IN AMERICAN CULTURAL STUDIES**Module**

9.0 courses:

4.0 0.5 course: American Studies 2200E **2201F/G**.

1.0 course from: English 2017, 2308E.

1.0 course: History 2301E.

1.0 course: Political Science 2244E.

2.0 2.5 courses from: American Studies 2230F/G, 2231F/G, 3330F/G, 3340F/G, English 2210F/G, 2250F/G, 3666F/G, 3667F/G, 4620F/G, Film Studies 2253E, 2255E, ~~History 2303F/G~~, 3807E, **the former History 2303F/G**.

1.0 course from: History 3301E, 3305E, 3307E, 3309E, 3311F/G, 3313F/G, 3321E, 3326F/G, 3391E-3395E, 3396F/G-3399F/G, 4707E, 4803E, 4301E, or relevant Special Topics courses in History with the permission of the Centre for **Program in** American Studies.

1.0 course from: Anthropology/First Nations Studies 2211F/G, 2216F/G, 2231F/G, First Nations Studies 2132F/G.

1.0 course from: American Studies 4400E, 4420E, 4430F/G.

HONORS SPECIALIZATION IN CANADIAN-AMERICAN RELATIONS**Module**

9.0 courses:

1.0 0.5 course: American Studies ~~2200E~~ **2201F/G**.**1.0 course:** Political Science 2244E.**1.0 course:** History 2301E.**1.0 course** from: English 2308E, 3667F/G, Anthropology/First Nations Studies 2211F/G, 2216F/G, 2231F/G, First Nations Studies 2132F/G.**4.0 4.5 courses** (with no more than ~~2.0~~ **2.5** from any one department) from: History 2201E, ~~2303F/G~~, 3319E, 3320E, 4301E, 4303E, 4701E, 4707E, Political Science 2211E, 2230E, 3317F/G, 3326E, 4401F/G, 4444E, **the former History 2303F/G**.**1.0 course:** American Studies 4400E, 4420E, 4430F/G.**MAJOR IN AMERICAN STUDIES****Module**

6.0 courses:

1.0 0.5 course: American Studies ~~2200E~~ **2201F/G**.**2.0 courses** from: English 2308E, History 2301E, Political Science 2244E.**3.0 3.5 courses** (with no more than 1.0 from any one department) from: American Studies 2230F/G, 2231F/G, 3330F/G, 3340F/G, Anthropology 2211F/G, 2216F/G, ~~2231F/G~~, First Nations Studies 2211F/G, 2216F/G, 2231F/G, English 2017, 3667F/G, Geography 2142A/B, History 2131A/B, 2132A/B, ~~2303F/G~~, 2703F/G, 3305E, 3307E, ~~3324E~~, 3326F/G, 3396F/G-3399F/G, Political Science 3317F/G, 3326E, **the former Anthropology 2231F/G, History 2303F/G, 3321E**.**MINOR IN AMERICAN STUDIES****Module**

4.0 courses:

1.0 0.5 course: American Studies ~~2200E~~ **2201F/G**.**1.0 course** from: English 2308E, ~~Film Studies 2253E~~, History 2301E, Political Science 2244E, **the former Film Studies 2253E**.**2.0 2.5 courses** from: American Studies 2230F/G, 2231F/G, 3330F/G, 3340F/G, Anthropology 2211F/G, 2216F/G, ~~2231F/G~~, First Nations Studies 2211F/G, 2216F/G, 2231F/G, English 2017, 3667F/G, Geography 2142A/B, History 2131A/B, 2132A/B, ~~2303F/G~~, 2703F/G, 3305E, 3307E, ~~3324E~~, 3326F/G, 3396F/G-3399F/G, Political Science 2102A/B, 2104, 3317F/G, 3326E, **the former Anthropology 2231F/G, the former History 2303F/G, 3321E**.**HISTORY***Effective September 1, 2017, the following courses be withdrawn.***History 2121 - Building Modern Canada, 1845-1945****History 2141 - Western Civilization: Divine Kingdoms to Democratic Communities****History 2303F/G - The Crucible of the Modern World: The United States and the International Community, 1935 to the Present****History 2421F/G - France in the Twentieth Century: Decline, Defeat, and Renewal?****History 2801E - Saints and Sinners: Christianity in Historical Context from Ancient to Modern Times****History 2901E - Conceptions of Humanity and Society in Western Culture**

History 3408F/G - Europe, Nature, and History: Opportunities and Crises
History 3413E - France, 1715 to the Present
History 3417E – Russia
History 3421E - History of European International Relations: Communities and Conflicts
History 3429F/G - Revolutionary and Napoleonic Europe
History 4211F/G - The Rebellions in the Canadas, 1837-1838
History 4707E - Technology and Society in North America

Effective **September 1, 2017**, the following courses be introduced.

History 3402F/G Homer to St. Augustine: Classic Texts and Debates in Western Culture (I)

Short title: *Homer to St. Augustine*

Homer's *Odyssey*, Aristotle's *Ethics*, the Hebrew Bible, and St. Augustine's *Confessions*, which influenced both the ages in which they were composed and subsequent Western thought, depict distinctive and often conflicting ideals for the individual and society. The class examines these ideals and the larger debates they embody and reflect.

Prerequisite: 1.0 History at the 2200 level

2 seminar hours, 0.5 course.

History 3404F/G Montesquieu to Mill: Classic Texts and Debates in Western Culture (II)

Short title: *Montesquieu to Mill*

The class examines and compares the work of key Enlightenment thinkers, including Montesquieu, Voltaire, and Rousseau, as well as authors who responded to the Enlightenment and the French Revolution and interpreted contemporary changes taking place in Europe, including Edmund Burke, Friedrich Hegel, Alexis de Tocqueville, and John Stuart Mill.

Prerequisite: 1.0 History at the 2200 level

2 seminar hours, 0.5 course.

Effective **September 1, 2017**, the following course be revised.

History 2703F/G - Immigration, Ethnicity, and Nationality in Canada and the United States: Histories of Inclusion and Exclusion: Migration and Settler Societies in the US and Canada

BRESCIA UNIVERSITY COLLEGE

HISTORY

Effective **September 1, 2017**, the following course be revised.

History 2127F/G - In Search of Canada: Postwar to Present

Antirequisite(s): **History 2202, History 2205E, and** the former History 2207F/G and 2217F/G.

DAP UPDATE: MINOR CHANGES

DON WRIGHT FACULTY OF MUSIC

Effective **September 1, 2017**, the *BACHELOR OF MUSICAL ARTS* be revised to correct a clerical error, effectively reverting back to 2013 Calendar Copy.

Second Year

Ensemble: One or more of Music 2901, 2902, 2903, 2904, 2905, 2906, 2910, 2911, 2912, 2913.

Music 2635A/B, 2636A/B, 2649A/B, 2650A/B, 2710F/G, 2711F/G, 2920.

1.0 course from the Faculty of Music.

1.0 course from a Faculty other than Music.

Third Year

Music 3924Y and Ensemble* (Music 3901, 3902, 3903, 3904, 3905, 3906, 3910, 3911, 3912, 3913), or 0.5 music elective.

1.5 courses at the 2000 level or above from the Faculty of Music.

2.0 courses from any Faculty.

1.0 course from a Faculty other than Music.

*The ensemble requirement becomes an optional elective for those students not registered in Music 3924Y.

Fourth Year

Music 4924Y and Ensemble* (Music 4901, 4902, 4903, 4904, 4905, 4906, 4910, 4911, 4912, 4913), or 0.5 music elective.

1.0 courses at the 2000 level or above from the Faculty of Music.

1.5 courses from the Faculty of Music.

1.0 course from any Faculty.

~~4.5~~ 1.0 courses from a Faculty other than Music.

FACULTY OF SCIENCE and SCHULICH SCHOOL OF MEDICINE & DENTISTRY

Effective **September 1, 2017**, the following changes be made to modules in preparation for publishing the 2017-2018 Academic Calendar.

MAJOR IN MEDICAL SCIENCES

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Admission Requirements

Completion of first-year requirements, including a mark of at least 60% in each of the 3.0 (full or half) principal courses below:

1.0 course: Biology 1001A and 1002B*.

1.0 course: Chemistry 1301A/B and 1302A/B, or the former 1100A/B and 1200B.

1.0 course from: Applied Mathematics 1201A/B, Calculus 1000A/B or 1500A/B, Calculus 1301A/B or 1501A/B, Mathematics 1225A/B, 1228A/B, 1229A/B, 1600A/B, Statistical Sciences 1024A/B, Applied Mathematics 1413, ~~or the former Calculus 1100A/B, Linear Algebra 1600A/B.~~

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HONORS SPECIALIZATION IN MICROBIOLOGY AND IMMUNOLOGY WITH PATHOLOGY

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Admission Requirements:

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The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 course: Biology 1001A* and Biology 1002B*

1.0 course: Chemistry 1301A/B and 1302A/B

0.5 course from: Calculus 1000A/B, 1500A/B, ~~the former 1100A/B~~

0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, 1501A/B, Mathematics 1600A/B.

0.5 course from: Physics 1028A/B, 1301A/B, 1501A/B

0.5 course from: Physics 1029A/B, 1302A/B, 1502A/B.

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MAJOR IN MICROBIOLOGY AND IMMUNOLOGY

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Admission Requirements for students pursuing this Major module in a degree other than a Bachelor of Medical Sciences (BMSc) degree:

Completion of first-year requirements, including a mark of at least 60% in each of the 3.0 (full or half) principal courses below:

1.0 course: Biology 1001A* and Biology 1002B*.

1.0 course: Chemistry 1301A/B and 1302A/B, or the former 1100A/B and 1200B.

0.5 course from: Calculus 1000A/B, 1500A/B, or the former 1100A/B.

0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, 1501A/B, Mathematics 1600A/B.

The following must be completed by the end of second year, with a mark of at least 60% in each half course:

0.5 course from: Physics 1028A/B, 1301A/B, 1501A/B.

0.5 course from: Physics 1029A/B, 1302A/B, 1502A/B.

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MINOR IN MICROBIOLOGY AND IMMUNOLOGY**Module**

4.0 courses:

0.5 course: Chemistry 2213A/B.

0.5 course: Biochemistry 2280A.

1.0 course: Biology 2382A/B, 2581B.

1.5 courses: Microbiology and Immunology 2500A/B, 3100A, 3300B.

0.5 course from: Biochemistry 3381A, 3385A, Biology 2290F/G, 3218F/G, 3332A, 3355A/B, 3592A, 3595A, Chemistry 2223B, Epidemiology 2200A/B, Health Sciences 2000A/B, Microbiology and Immunology 3500B, 3610F, 3620G, Pathology 3240A, Pharmacology 2060A/B, the former Epidemiology and Biostatistics 2200A/B, ~~3330B~~.

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HONORS SPECIALIZATION IN NEUROSCIENCE

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Admission Requirements

Completion of first-year requirements with no failures. Students must have a minimum average of 75% in the following 4.0 principal courses, with no mark below 60% in any of these (full or half) courses:

1.0 course from: Biology 1001A or 1201A and Biology 1002B or 1202B.

1.0 course: Psychology 1000.

1.0 course: Chemistry 1301A/B and 1302A/B or the former 1100A/B and 1200B.

1.0 course from: Calculus 1000A/B or 1500A/B, 1301A/B or 1501A/B, Mathematics 1225A/B, 1228A/B, 1229A/B, 1600A/B, Statistical Sciences 1024A/B, Applied Mathematics 1201A/B, Applied Mathematics 1413, or the former Calculus 1100A/B.

1.0 course in physics must be completed prior to Year 3. Whether taken in first or second year, a minimum mark of 60% must be achieved in each of two courses in physics, as follows:

0.5 course from: Physics 1028A/B, 1301A/B or 1501A/B.

0.5 course from: Physics 1029A/B, 1302A/B or 1502A/B.

HONORS SPECIALIZATION IN PATHOLOGY

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Admission Requirements

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The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 course: Biology 1001A* and Biology 1002B*.

1.0 course: Chemistry 1301A/B and 1302A/B.

0.5 course from: Calculus 1000A/B, 1500A/B, ~~the former 1100A/B.~~

0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, 1501A/B, Mathematics 1600A/B.

0.5 course from: Physics 1028A/B, 1301A/B, 1501A/B.

0.5 course from: Physics 1029A/B, 1302A/B, 1502A/B.

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Module

11.0 courses:

0.5 course: Biochemistry 2280A.

0.5 course: Biology 2382A/B.

0.5 course from: Biology 2290F/G, 2581B.

0.5 course: Chemistry 2213A/B.

0.5 course from: Chemistry 2211A/B, 2214A/B, 2223B.

0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.

1.0 course: Pharmacology 3620.

1.0 course from: Anatomy and Cell Biology 3309, 3319.

1.0 course: Physiology 3120.

1.0 course: Pathology 3500 with a mark of at least 75%, or the former Pathology 3240A and 3245B with marks of at least 75% in each.

0.5 course from: Biology 3316A/B, Chemistry 2272F, Epidemiology 2200A/B, Physiology 3140A, Medical Health Informatics 4100F, 4110G or the former Epidemiology and Biostatistics 2200A/B, 3330B, ~~Pathology 4100F, 4110G.~~

1.0 course: Pathology 4400A/B, 4500B.

1.0 course from: Medical Sciences 4100F/G, Pathology 3700F/G, 4200A/B, 4000-level courses in Pharmacology.

1.5 courses: Pathology 4980E (Research Project = 1.5 courses).

MAJOR IN PATHOLOGY

Module

6.0 courses:

0.5 course: Biochemistry 2280A.

0.5 course: Biology 2382A/B.

0.5 course from: Chemistry 2213A/B, Biology 2244A/B or Statistical Sciences 2244A/B.

1.0 course from: Anatomy and Cell Biology 3309, 3319.

1.0 course: Physiology 3120.

1.5 courses: Pathology 3500 or the former Pathology 3240A and 3245B, Pathology 4400A/B.

1.0 course from: Medical Health Informatics 4100F, 4110G, Medical Sciences 4100F/G, Microbiology and Immunology 2500A/B, Pathology 3700F/G, 4200A/B, 4500B, Physiology 3140A, ~~the former Pathology 4100F, 4110G.~~

SPECIALIZATION IN PATHOLOGY

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Admission Requirements

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The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 course: Biology 1001A* and Biology 1002B*

1.0 course: Chemistry 1301A/B and 1302A/B.

0.5 course from: Calculus 1000A/B or 1500A/B, ~~or the former 1100A/B.~~

0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B or 1501A/B, Mathematics 1600A/B.

0.5 course from: Physics 1028A/B, 1301A/B, 1501A/B.

0.5 course from: Physics 1029A/B, 1302A/B, 1502A/B.

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Module

10.0 courses:

0.5 course: Biochemistry 2280A.

0.5 course: Biology 2382A/B.

0.5 course from: Biology 2290F/G, 2581B.

0.5 course: Chemistry 2213A/B.

0.5 course from: Chemistry 2211A/B, 2214A/B, 2223B.

0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.

1.0 course: Pharmacology 3620.

1.0 course: Physiology 3120.

1.0 course: Pathology 3500 with a mark of at least 75%, or the former 3240A and 3245B with marks of at least 75% in each.

1.0 course: Pathology 4400A/B, 4500B.

3.0 courses from: Anatomy and Cell Biology 3309, 3319, Biology 3316A/B, Chemistry 2272F, Epidemiology 2200A/B, Medical Sciences 4100F/G, Pathology 3700F/G, 4200A/B, Physiology 3140A, 4000-level courses in Pharmacology, the former Epidemiology and Biostatistics 2200A/B, ~~3330B.~~

HONORS SPECIALIZATION IN PHARMACOLOGY**Admission Requirements**

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The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 course: Biology 1001A* and Biology 1002B*

1.0 course: Chemistry 1301A/B and 1302A/B

0.5 course from: Calculus 1000A/B, 1500A/B, ~~and the former 1100A/B.~~

0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, 1501A/B, Mathematics 1600A/B.

0.5 course from: Physics 1028A/B, 1301A/B, 1501A/B

0.5 course from: Physics 1029A/B, 1302A/B, 1502A/B.

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Module

9.5 courses:

0.5 course: Biochemistry 2280A.

1.5 courses: Biology 2290F/G, 2382A/B, 2581B.

0.5 course: Chemistry 2213A/B.

0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.

1.5 courses: Physiology 3120 and 3140A.

1.5 courses: Pharmacology 3620 and Pharmacology 3580Z.

0.5 course from:** Epidemiology 2200A/B, Pathology 3240A, Chemistry 2210A/B, 2211A/B, 2214A/B, 2223B, or the former Epidemiology and Biostatistics 2200A/B, ~~3330B~~.

1.5 courses: Pharmacology 4980E (Seminar and Research Project = 1.5 courses).

1.5 additional courses in Pharmacology at the 4000-level.

MAJOR IN PHARMACOLOGY

Admission Requirements:

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Admission Requirements for students pursuing this Major module in a Bachelor of Medical Sciences (BMSc) degree:

Admission to this Major module occurs in Year 3 and requires admission to Year 3 of the Bachelor of Medical Sciences (BMSc) Program. Students will usually complete MEDICAL SCIENCES FIRST ENTRY (Medical Sciences 1 and 2) prior to admission to a BMSc degree.

The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 course: Biology 1001A* and Biology 1002B*.

1.0 course: Chemistry 1301A/B and 1302A/B.

0.5 course from: Calculus 1000A/B, 1500A/B, ~~the former 1100A/B~~.

0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, 1501A/B, Mathematics 1600A/B.

0.5 course from: Physics 1028A/B, 1301A/B, 1501A/B.

0.5 course from: Physics 1029A/B, 1302A/B, 1502A/B.

...

Admission Requirements for students pursuing this Major module in a degree other than a Bachelor of Medical Sciences (BMSc) degree:

Completion of first-year requirements, including a mark of at least 60% in each of the 3.0 principal courses below:

1.0 course: Biology 1001A* and Biology 1002B*.

1.0 course: Chemistry ~~1031A/B~~ 1301A/B and 1302A/B, or the former 1100A/B and 1200B.

0.5 course from: Calculus 1000A/B, 1500A/B, ~~the former 1100A/B~~.

0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, 1501A/B, Mathematics 1600A/B.

...

SPECIALIZATION IN PHARMACOLOGY

Admission Requirements

...

The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 course: Biology 1001A* and Biology 1002B*.

1.0 course: Chemistry 1301A/B and 1302A/B.

0.5 course from: Calculus 1000A/B, 1500A/B, ~~or the former 1100A/B~~.

0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B or 1501A/B, Mathematics 1600A/B.

0.5 course from: Physics 1028A/B, 1301A/B, 1501A/B.

0.5 course from: Physics 1029A/B, 1302A/B, 1502A/B.

...

Module

9.5 courses:

0.5 course: Biochemistry 2280A.

1.5 courses: Biology 2290F/G, 2382A/B, 2581B.

0.5 course: Chemistry 2213A/B.

0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.

1.5 courses: Pharmacology 3620 and Pharmacology 3580Z.

1.5 courses: Physiology 3120, 3140A.

1.0 course from: Anatomy and Cell Biology 3309, 3319.

1.5 courses in Pharmacology at the 4000-level (with the exception of Pharmacology 4980E).

1.0 course from**: Epidemiology 2200A/B, Pathology 3240A, 3245B, 4400A/B (a maximum of one half course in Pathology may be chosen), Chemistry 2210A/B, 2211A/B, 2214A/B, 2223B (a maximum of one half course in Chemistry may be chosen), the former Epidemiology and Biostatistics 2200A/B, ~~3330B~~.

HONORS SPECIALIZATION IN PHYSIOLOGY

Admission Requirements

...

The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 course: Biology 1001A* and Biology 1002B*.

1.0 course: Chemistry 1301A/B and 1302A/B.

0.5 course from: Calculus 1000A/B, 1500A/B, ~~the former 1100A/B~~.

0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, 1501A/B, Mathematics 1600A/B.

0.5 course from: Physics 1028A/B, 1301A/B, 1501A/B.

0.5 course from: Physics 1029A/B, 1302A/B, 1502A/B.

...

Module

9.5 courses:

0.5 course: Biochemistry 2280A.

1.5 courses: Biology 2290F/G, 2382A/B, 2581B.

0.5 course: Chemistry 2213A/B.

0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.

2.0 courses: Physiology 3120, 3130Z and 3140A.

1.0 course from: Anatomy and Cell Biology 3309, 3319, Biology 2471A/B, 2601A/B, 3338A, 3592A, 3595A, Chemistry 2223B, Medical Biophysics 3501F, 3503G, 3505F, 3507G, ~~the former Biology 3651A/B~~.

1.5 courses: Physiology 4980E (Seminar and Research Project = 1.5 courses).

2.0 additional courses in Physiology at the 4000-level.

MAJOR IN PHYSIOLOGY

...

Admission Requirements for students pursuing this Major module in a Bachelor of Medical Sciences (BMSc) degree:

...

The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 course: Biology 1001A* and Biology 1002B*.
 1.0 course: Chemistry 1301A/B and 1302A/B.
 0.5 course from: Calculus 1000A/B, 1500A/B, ~~the former 1100A/B~~.
 0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, 1501A/B, Mathematics 1600A/B.
 0.5 course from: Physics 1028A/B, 1301A/B, 1501A/B.
 0.5 course from: Physics 1029A/B, 1302A/B, 1502A/B.
 ..

Admission Requirements for students pursuing this Major module in a degree other than a Bachelor of Medical Sciences (BMSc) degree:

Completion of first-year requirements, including a mark of at least 60% in each of the 3.0 (full or half) principal courses below:

1.0 course: Biology 1001A* and Biology 1002B*.
 1.0 course: Chemistry 1301A/B and 1302A/B, the former or 1100A/B and 1200B.
 0.5 course from: Calculus 1000A/B, 1500A/B, ~~the former 1100A/B~~.
 0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, 1501A/B, Mathematics 1600A/B.
 ...

SPECIALIZATION IN PHYSIOLOGY

...

Admission Requirements

...

The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 course: Biology 1001A* and Biology 1002B*.
 1.0 course: Chemistry 1301A/B and 1302A/B.
 0.5 course from: Calculus 1000A/B, 1500A/B, ~~the former 1100A/B~~.
 0.5 course from: Calculus 1301A/B or 1501A/B, Mathematics 1600A/B. Applied Mathematics 1201A/B.
 0.5 course from: Physics 1028A/B, 1301A/B, 1501A/B.
 0.5 course from: Physics 1029A/B, 1302A/B, 1502A/B.
 ...

Module

9.5 courses:

0.5 course: Biochemistry 2280A.
1.5 courses: Biology 2290F/G, 2382A/B, 2581B.
0.5 course: Chemistry 2213A/B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.
2.0 courses: Physiology 3120, 3130Z, 3140A.
1.5 courses from: Anatomy and Cell Biology 3309, 3319, Biology 2471A/B, 2601A/B, 3338A, 3592A, 3595A, Chemistry 2223B, Medical Biophysics 3501F, 3503G, 3505F, 3507G, ~~the former Biology 3651A/B~~.
3.0 courses in Physiology at the 4000-level (with the exception of Physiology 4980E).

HONORS SPECIALIZATION IN PHYSIOLOGY AND PHARMACOLOGY

...

Admission Requirements

...

The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 course: Biology 1001A* and Biology 1002B*.

1.0 course: Chemistry 1301A/B and 1302A/B.

0.5 course from: Calculus 1000A/B, 1500A/B, ~~the former 1100A/B.~~

0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B, 1501A/B, Mathematics 1600A/B.

0.5 course from: Physics 1028A/B, 1301A/B, 1501A/B.

0.5 course from: Physics 1029A/B, 1302A/B, 1502A/B.

...

SPECIALIZATION IN PHYSIOLOGY AND PHARMACOLOGY

...

Admission Requirements

...

The 1000-level half courses listed below must each be completed with a mark of at least 60%:

1.0 course: Biology 1001A* and Biology 1002B*.

1.0 course: Chemistry 1301A/B and 1302A/B.

0.5 course from: Calculus 1000A/B, 1500A/B, ~~the former 1100A/B.~~

0.5 course from: Applied Mathematics 1201A/B, Calculus 1301A/B or 1501A/B, Mathematics 1600A/B.

0.5 course from: Physics 1028A/B, 1301A/B, 1501A/B.

0.5 course from: Physics 1029A/B, 1302A/B, 1502A/B.

*Effective **September 1, 2017**, the following changes be made to courses in preparation for publishing the 2017-2018 Academic Calendar.*

Epidemiology 2200A/B - Introduction to Epidemiology

Antirequisite(s): The former Epidemiology and Biostatistics 2200A/B, ~~3330B.~~

Pre- or Corequisite(s): One of the following: Biology 2244A/B, Psychology 2810, Statistical Sciences 2035, 2141A/B, 2143A/B, 2244A/B, 2858A/B; ~~or one of the following former half or full courses: Health Sciences 2800, Statistical Sciences 2122A/B.~~

Medical Biophysics 3330F/G - Human Biomechanics with Biomedical Applications

Prerequisite(s): One of Calculus 1000A/B, 1500A/B, Mathematics 1225A/B, Applied Mathematics 1413, ~~or the former Calculus 1100A/B~~; one of Physics 1028A/B, 1301A/B, 1401A/B or 1501A/B, and one of Physics 1029A/B, 1302A/B, 1402A/B or 1502A/B. Typically taken in third year, this course is also open to second-year students with an overall average of at least 70% in first year.

Medical Biophysics 3501F - Biophysics of Transport Systems

Prerequisite(s): One of Calculus 1000A/B, 1500A/B, Mathematics 1225A/B, Applied Mathematics 1413, ~~or the former Calculus 1100A/B~~; one of Physics 1028A/B, 1301A/B, 1401A/B or 1501A/B, and one of Physics 1029A/B, 1302A/B, 1402A/B or 1502A/B. Typically taken in third year, this course is also open to second-year students with an overall average of at least 70% in first year.

Medical Biophysics 3503G - Fundamentals of Digital Imaging

Prerequisite(s): Calculus 1000A/B, 1500A/B ~~or the former 1100A/B~~ plus one of Calculus 1301A/B or 1501A/B, or Applied Mathematics 1413; one of Physics 1028A/B, 1301A/B, 1401A/B or 1501A/B, and one of Physics 1029A/B, 1302A/B, 1402A/B or 1502A/B. Typically taken in third year, this course is also open to second-year students with an average of at least 70% in first year.

Medical Biophysics 3505F - Mathematical Transform Applications in Medical Biophysics

Prerequisite(s): One of Calculus 1000A/B, 1500A/B ~~or the former 1100A/B~~ plus one of Calculus 1301A/B or 1501A/B, or Applied Mathematics 1413; one of Physics 1028A/B, 1301A/B, 1401A/B or 1501A/B, and one of Physics 1029A/B, 1302A/B, 1402A/B or 1502A/B. Although typically taken in third year, this course is available to second-year students with an overall average of at least 70% in first year.

Medical Biophysics 3507G - Analysis of Oxygen Transport in Biological Systems

Prerequisite(s): One of Calculus 1000A/B, 1500A/B ~~or the former 1100A/B~~ plus one of Calculus 1301A/B or 1501A/B, or Applied Mathematics 1413; one of Physics 1028A/B, 1301A/B, 1401A/B or 1501A/B, and one of Physics 1029A/B, 1302A/B, 1402A/B or 1502A/B. Although typically taken in third year, this course is available to second-year students with an overall average of at least 70% in first year.

Medical Biophysics 3645A/B - Introduction to Biomedical Optics

Prerequisite(s): One of Calculus 1000A/B or 1500A/B ~~or the former 1100A/B~~ plus one of Calculus 1301A/B or 1501A/B, or Applied Mathematics 1413; one of Physics 1028A/B, 1301A/B, 1401A/B or 1501A/B, plus one of Physics 1029A/B, 1302A/B, 1402A/B or 1502A/B. Although typically taken in third year, this course is open to second-year students with a minimum average of 75% in first year.

Medical Biophysics 4445A/B - Digital Imaging Processing

Prerequisite(s): Medical Biophysics 3503G, 3505F and 3507G; Calculus 2303A/B or 2503A/B; Physics 2101A/B and 2102A/B, ~~or 1.0 course from the former Medical Biophysics 2128A/B and 2129A/B or the former Physics 2128A/B and 2129A/B~~; or permission of the department.

Medical Biophysics 4467A/B - Radiation Biology with Biomedical Applications

Prerequisite(s): Medical Biophysics 3501F; one of Medical Biophysics 3507G or Physics 2101A/B or 2102A/B, ~~or the former Medical Biophysics 2128A/B and 2129A/B or the former Physics 2128A/B and 2129A/B~~; or permission of the department.

Medical Biophysics 4475A/B - Medical Imaging

Prerequisite(s): Medical Biophysics 3503G, 3505F and 3507G; Physics 2101A/B and 2102A/B, ~~or 1.0 course from the former Medical Biophysics 2128A/B and 2129A/B or the former Physics 2128A/B and 2129A/B~~, or permission of the department.

Medical Health Informatics 4100F - Health Informatics

Antirequisite(s): ~~the former Pathology 4100F~~

Prerequisite(s): Enrolment in Year 4 of either an Honors Specialization in Pathology or an Honors Specialization in Medical Health Informatics, or enrolment in Year 4 of Software Engineering (Health Informatics option) offered through the Department of Electrical and Computer Engineering, or permission of the course director.

Medical Health Informatics 4110G - Health Information Management

Antirequisite(s): ~~the former Pathology 4110G~~

Prerequisite(s): Medical Health Informatics 4100F or the former Pathology 4100F; and enrolment in Year 4 of either an Honors Specialization in Pathology or an Honors Specialization in Medical Health Informatics, or enrolment in Year 4 of Software Engineering (Health Informatics option)

offered through the Department of Electrical and Computer Engineering, or permission of the course director.

Neuroscience 2000 - Introduction to Neuroscience

Antirequisite(s): Psychology 2220A/B and 2221A/B, if taken in 2013/14 or onward.

Prerequisite(s): Psychology 1000 ~~or the former Psychology 1200~~ with a minimum mark of 60%; either Biology 1001A or 1201A with a minimum mark of 60%; and either Biology 1002B or 1202B with a minimum mark of 60%.

Neuroscience 4000E - Honors Thesis

Prerequisite(s): Neuroscience 3000F/G with a minimum mark of 75%; one of Biology 2244A/B, Statistical Sciences 2244A/B ~~or the former 2122A/B~~, or Psychology 2810; and registration in Year 4 of an Honors Specialization in Neuroscience.

Physiology 3120 - Human Physiology

Prerequisite(s): one of Physics 1028A/B, 1301A/B or 1501A/B and one of Physics 1029A/B, 1302A/B or 1502A/B; 1.0 course from: Calculus 1000A/B or 1500A/B ~~or the former 1100A/B~~, Calculus 1301A/B or 1501A/B, Mathematics 1600A/B ~~or the former Linear Algebra 1600A/B~~, Mathematics 1225A/B, 1228A/B, 1229A/B, Statistical Sciences 1024A/B, Applied Mathematics 1201A/B, 1413; one of Biology 1001A or 1201A and one of Biology 1002B or 1202B; or permission of the department. It is strongly recommended that Biochemistry 2280A and Biology 2382A/B be taken prior to Physiology 3120. Open only to students who are registered in Years 3 or 4.

Physiology 3130Z - Physiology Laboratory

Prerequisite(s): One of Physics 1028A/B, 1301A/B or 1501A/B and one of Physics 1029A/B, 1302A/B or 1502A/B; 1.0 course from: Calculus 1000A/B or 1500A/B ~~or the former 1100A/B~~, Calculus 1301A/B or 1501A/B, Mathematics 1600A/B ~~or the former Linear Algebra 1600A/B~~, Mathematics 1225A/B, 1228A/B, 1229A/B, Statistical Sciences 1024A/B, Applied Mathematics 1201A/B, 1413; one of Biology 1001A or 1201A and one of Biology 1002B or 1202B; or permission of the department. It is strongly recommended that Biochemistry 2280A and Biology 2382A/B be taken prior to Physiology 3130Z. A minimum average of 75% in the previous year is required. Open only to students who are registered in Years 3 or 4.

Physiology 3140A - Cellular Physiology

Prerequisite(s): One of Physics 1028A/B, 1301A/B or 1501A/B and one of Physics 1029A/B, 1302A/B or 1502A/B; 1.0 course from: Calculus 1000A/B or 1500A/B ~~or the former 1100A/B~~, Calculus 1301A/B or 1501A/B, Mathematics 1600A/B ~~or the former Linear Algebra 1600A/B~~, Mathematics 1225A/B, 1228A/B, 1229A/B, Statistical Sciences 1024A/B, Applied Mathematics 1201A/B, 1413; one of Biology 1001A or 1201A and one of Biology 1002B or 1202B; or permission of the department. It is strongly recommended that Biochemistry 2280A and Biology 2382A/B be taken prior to Physiology 3140A. Open only to students who are registered in Years 3 or 4.

FACULTY OF SOCIAL SCIENCE

GEOGRAPHY

*Effective **September 1, 2017**, the following module be revised to remove former 3 digit course numbers.*

HONORS SPECIALIZATION IN GEOGRAPHY AND COMMERCIAL AVIATION MANAGEMENT – BA

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Graduation Requirements

To graduate from the GEOGRAPHY AND COMMERCIAL AVIATION MANAGEMENT HONORS SPECIALIZATION, students must achieve a minimum cumulative modular average of 70% with a minimum mark of 60% in each course, obtain a passing grade in each elective course, and maintain a minimum overall average of 65% on the 20.0 courses counted towards the GEOGRAPHY AND COMMERCIAL AVIATION MANAGEMENT HONORS SPECIALIZATION Degree. Students with advanced standing must achieve an overall average of 65% on courses completed at Western.

All students require 2.0 designated essay courses (E, F or G; at least 1.0 of which must be a senior course numbered 2000-4999) and 1.0 course from each of Categories A, B and C.

Year 1

5.0 courses:

1.0 course* from: Geography 1100, 1300A/B, 1400F/G, 1500F/G, ~~the former 020E~~

0.5 course from: Computer Science 1025A/B, 1026A/B, 1032A/B

0.5 course from: Category B or C

3.0 courses numbered 1000-1999

Completion of first-year requirements with no failures. Students must have an average of at least 73% in 3.0 principal courses, including 1.0 course from Geography 1100, 1300A/B, 1400F/G, 1500F/G, 2131A/B, 2153A/B (taken after September 2012), ~~the former 020E~~, 0.5 course from Computer Science 1025A/B, 1026A/B, 1032A/B, plus 1.5 additional courses, with no mark less than 60% in these principal courses.

Notes:

*Senior students may also use Geography 2131A/B and/or Geography 2153A/B in making up the 1.0 Geography admission requirement, as long as they were completed with a grade of at least 60%. Senior qualifying entry course(s) cannot be counted for subsequent program credit.

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HISTORY

Effective **September 1, 2017**, the weekly hours for History 3423F/G be changed as follows.

History 3423F/G - North of the Wall: Scotland From Foundations to 1603

Extra Information: 3 **2** lecture hours, 0.5 course.

HURON UNIVERSITY COLLEGE

RELIGIOUS STUDIES

Effective **September 1, 2017**, the following courses be revised following the withdrawal of History 2801E.

Religious Studies 2126F/G - The Early Church to the Late Middle Ages

Antirequisite(s): **The former** History 2801E and the former Theological Studies 2201F/G or 2202F/G.

Religious Studies 2127F/G - The Late Middle Ages to the Modern Period and Contemporary World

Antirequisite(s): **The former** History 2801E and the former Theological Studies 2202F/G or 2203F/G.