MEDICAL SCIENCES FIRST ENTRY PROGRAM

This program is designed for students at Western interested in studying the Medical Sciences including: Medical Cell Biology, Biochemistry, Chemical Biology, Epidemiology and Biostatistics, Medical Biophysics, Interdisciplinary Medical Sciences, Microbiology and Immunology, Neuroscience, Pathology, Pharmacology, and Physiology.

Students interested in the modules leading to a Bachelor of Medical Sciences (BMSc) degree will usually complete the Medical Sciences First Entry Program (Medical Sciences 1 and 2) and submit an Intent to Register during Medical Sciences 2, requesting admission to Year 3 of the BMSc Program. Students completing the Medical Sciences First Entry Program are assured admission to Year 3 of the BMSc Program, provided they satisfy certain conditions in Medical Sciences 1 and 2.

It is anticipated that the available spaces in Year 3 of the BMSc Program will not be filled by students in Medical Sciences 2 who satisfy the conditions for assured admission. Students who complete the courses in Medical Sciences 1 and 2 without being registered in the Medical Sciences First Entry Program, as well as students in Medical Sciences 2 who do not satisfy the conditions for assured admission to the BMSc Program, may apply for admission to the remaining spaces in Year 3. Students in this "competitive pool" must satisfy certain conditions, including a minimum average of 75% on the 2000-level courses listed in the Admission Requirements for the modules. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more details.

For details about the marks, average, etc. required , see ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and BMSc PROGRAM for the modules leading to a BMSc degree.

Admission to the Medical Sciences First Entry Program in the Faculty of Science (Years 1 and 2) will require the following Ontario Grade 12 U Courses:

- English ENG4U
- Calculus and Vectors MCV4U
- Biology SBI4U
- Chemistry SCH4U

Note: Although Western offers first-year physics courses that do not require high-school physics as a prerequisite, it is strongly recommended that students complete Grade 12 U Physics (SPH4U).

Medical Sciences 1 (Year 1):

1.0 course: Biology 1001A and 1002B.
1.0 course: Chemistry 1301A/B and 1302A/B.
0.5 course from*: Calculus 1000A/B or 1500A/B
0.5 course from*: Calculus 1301A/B or 1501A/B, Mathematics 1600A/B, Applied Mathematics 1201A/B.
1.0 course from**: (Physics 1028A/B or 1301A/B or 1501A/B) and (Physics 1029A/B or 1302A/B or 1502A/B)
1.0 course from: either Category A or Category B (see Breadth Requirements for Bachelor Degrees).

*Admission to certain modules may require completion of a specific first-year course in mathematics. See the Admission Requirements for each module for more information.

**Although it is recommended that the first-year physics requirement be completed in Year 1, students may delay the physics requirement until Year 2 (unless they wish to pursue a module in Medical Biophysics).

Students seeking registration in modules leading to a BMSc degree will progress to Medical Sciences 2, provided a full load of 5.0 courses is successfully completed in Medical Sciences 1 and marks of 60% or higher are achieved in each of the half courses in biology, chemistry, and mathematics. Each of the first-year half courses in physics, whether taken in Medical Sciences 1 or 2, must be completed with a mark of 60% or higher.

Students wishing to pursue a Bachelor of Science (BSc) degree will submit an Intent to Register during Medical Sciences 1, requesting admission to a module(s) leading to a BSc degree for Year 2.

Medical Sciences 2 (Year 2):

5.0 courses, including ALL of the 2000-level courses listed in the Admission Requirements for the module to which the student applies for Year 3 (exceptions may be noted in the module). The 2000-level courses listed in the Admission Requirements will also be used towards fulfilling the Module requirements.
Only those students admitted to the Medical Sciences First Entry Program may register in Medical Sciences 2.

For the **Admission Requirements** for each of the modules leading to a BMSc degree, see the following pages:

HONORS SPECIALIZATION IN BIOCHEMISTRY

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 the 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
0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/B
0.5 course from: Calculus 1301A/B, 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.

* 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 with a mark of at least 65%
0.5 course: Biology 2581B
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.
0.5 course from: Chemistry 2213A/B with a mark of at least 65% or Chemistry 2273A
0.5 course from: Chemistry 2223B with a mark of at least 65% or Chemistry 2283G
1.0 course from: Biology 2290F/G, 2382B, Chemistry 2211A/B, 2214A/B, 2374A, 2384B

HONORS SPECIALIZATION IN BIOCHEMISTRY AND CELL BIOLOGY

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 the 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
0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/B
0.5 course from: Calculus 1301A/B, 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.

* 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 with a mark of at least 65%
0.5 course from: Chemistry 2213A/B with a mark of at least 65% or Chemistry 2273A
0.5 course from: Chemistry 2223B with a mark of at least 65% or Chemistry 2283G
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B
1.5 courses: Biology 2290F/G, 2382B, 2581B.

HONORS SPECIALIZATION IN BIOCHEMISTRY OF INFECTION AND IMMUNITY

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 the 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
0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/B
0.5 course from: Calculus 1301A/B, 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.

* 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 with a mark of at least 65%
0.5 course from: Chemistry 2213A/B with a mark of at least 65% or Chemistry 2273A
0.5 course from: Chemistry 2223B with a mark of at least 65% or Chemistry 2283G
1.5 courses: Biology 2290F/G, 2382B, 2581B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.

HONORS SPECIALIZATION IN CHEMICAL BIOLOGY

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

* 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. Students completing the first-year physics requirement in Year 2 may defer one of the 2000-level half courses to Year 3, with the approval of the Departments of Biochemistry and Chemistry. 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 with a mark of at least 65%
0.5 course: Biology 2581B.
3.5 courses: Chemistry 2271A, 2272F, 2273A, 2374A, 2281G, 2283G, 2384B.

HONORS SPECIALIZATION IN CLINICAL BIOCHEMISTRY

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 the 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
0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/B
0.5 course from: Calculus 1301A/B, 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.

* 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 with a mark of at least 65%
0.5 course: Biology 2581B
0.5 course from: Chemistry 2213A/B with a mark of at least 65% or Chemistry 2273A
0.5 course from: Chemistry 2223B with a mark of at least 65% or Chemistry 2283G
1.0 course from: Biology 2290F/G, 2382B, Chemistry 2211A/B, 2214A/B, 2374A, 2384B
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B

HONORS SPECIALIZATION IN COMPUTATIONAL BIOCHEMISTRY

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 the 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
0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/B
0.5 course from: Calculus 1301A/B, 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.

* 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 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 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 from: Computer Science 1025A/B or 1026A/B.
0.5 course: Computer Science 1027A/B with a mark of at least 65%.
0.5 course: Biochemistry 2280A with a mark of at least 65%.
0.5 course: Biology 2581B.
0.5 course from: Biology 2244A/B, or Statistical Sciences 2244A/B.
0.5 course from: Chemistry 2213A/B with a mark of at least 65% or Chemistry 2273A
0.5 course from: Chemistry 2223B with a mark of at least 65% or Chemistry 2283G

HONORS SPECIALIZATION IN INTERDISCIPLINARY MEDICAL SCIENCES (IMS)

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 the 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
0.5 course from: Calculus 1000A/B, 1500A/B
0.5 course from: Calculus 1301A/B, 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.

* 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 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.
1.5 courses: Biology 2290F/G, 2382B, 2581B.
0.5 course: Chemistry 2213A/B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B

HONORS SPECIALIZATION IN MEDICAL BIOPHYSICS (MEDICAL SCIENCE CONCENTRATION)
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 the 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
0.5 course from: Calculus 1000A/B or 1100A/B or 1500A/B
0.5 course from: Calculus 1301A/B or 1501A/B.
0.5 course from: Physics 1028A/B**, 1301A/B, 1501A/B (one of 1301A/B or 1501A/B is preferred)
0.5 course from: Physics 1029A/B**, 1302A/B, 1502A/B (one of 1302A/B or 1502A/B is preferred)

* 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.

**A minimum mark of 80% in each of Physics 1028A/B and 1029A/B is required as a prerequisite for Physics 2101A/B and 2102A/B.

The 2000-level courses below must be completed with a minimum mark of 60% in each 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.

1.0 course from: Medical Biophysics 2128A/B and 2129A/B, or Physics 2128A/B and 2129A/B, or Physics 2101A/B and 2102A/B.
0.5 course from: Calculus 2302A/B, 2502A/B.
0.5 course from: Calculus 2303A/B, 2503A/B.
0.5 course: Chemistry 2213A/B.
0.5 course: Biochemistry 2280A.
0.5 course from: Biology 2382B, 2581B, Chemistry 2214A/B, Medical Biophysics 3336F/G (may be delayed until Year 3).
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B (may be delayed until Year 3).

HONORS SPECIALIZATION IN MEDICAL BIOPHYSICS (CLINICAL PHYSICS CONCENTRATION)
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 the 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
0.5 course from: Calculus 1000A/B or 1100A/B or 1500A/B
0.5 course from: Calculus 1301A/B or 1501A/B.
0.5 course from: Physics 1028A/B**, 1301A/B, 1501A/B (one of 1301A/B or 1501A/B is preferred)
0.5 course from: Physics 1029A/B**, 1302A/B, 1502A/B (one of 1302A/B or 1502A/B is preferred)

* 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.

**A minimum mark of 80% in each of Physics 1028A/B and 1029A/B is required as a prerequisite for Physics 2101A/B, 2102A/B and 2110A/B.

The 2.5 2000-level courses below must be completed with a minimum mark of 60% in each 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 from: Calculus 2302A/B, 2502A/B.
0.5 course from: Calculus 2303A/B, 2503A/B.
1.5 courses: Physics 2101A/B, 2102A/B, 2110A/B.

HONORS SPECIALIZATION IN MEDICAL CELL BIOLOGY

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 the 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
0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/B
0.5 course from: Calculus 1301A/B, 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.

* 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 with a mark of at least 65%
0.5 course from: Chemistry 2213A/B with a mark of at least 65% or Chemistry 2273A
0.5 course from: Chemistry 2223B with a mark of at least 65% or Chemistry 2283G
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B
1.5 courses: Biology 2290F/G, 2382B, 2581B

HONORS SPECIALIZATION IN MEDICAL HEALTH INFORMATICS

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 the 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
0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/B
0.5 course from: Calculus 1301A/B, 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.

* 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 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
1.0 course from: Biology 2290F/G, 2382B, 2581B
0.5 course: Chemistry 2213A/B
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B
1.0 course: Computer Science 2120A/B, 2121A/B.

HONORS SPECIALIZATION IN MICROBIOLOGY AND IMMUNOLOGY

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 the 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
0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/B
0.5 course from: Calculus 1301A/B, 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.

* 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 with a mark of at least 65%
1.0 course: Chemistry 2213A/B and 2223B with marks of at least 65% in each.
1.5 courses: Biology 2290F/G, 2382B, 2581B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B

HONORS SPECIALIZATION IN PATHOLOGY AND TOXICOLOGY

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 the 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
0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/B
0.5 course from: Calculus 1301A/B, 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.

* 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 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.
1.5 courses: Biology 2290F/G, 2382B, 2581B.
0.5 course: Chemistry 2213A/B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B

HONORS SPECIALIZATION IN PHARMACOLOGY

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 the 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
0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/B
0.5 course from: Calculus 1301A/B, 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.

* 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 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.
1.5 courses: Biology 2290F/G, 2382B, 2581B.
0.5 course: Chemistry 2213A/B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B

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HONORS SPECIALIZATION IN PHYSIOLOGY

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 the 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
0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/B
0.5 course from: Calculus 1301A/B, 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.

* 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 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.
1.5 courses: Biology 2290F/G, 2382B, 2581B.
0.5 course: Chemistry 2213A/B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B

HONORS SPECIALIZATION IN PHYSIOLOGY AND PHARMACOLOGY

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 the 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
0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/B
0.5 course from: Calculus 1301A/B, 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.

* 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 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.
1.5 courses: Biology 2290F/G, 2382B, 2581B.
0.5 course: Chemistry 2213A/B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B

SPECIALIZATION IN BIOCHEMISTRY

Admission Requirements, effective September 1, 2015 (for students admitted to Year 1 in September, 2013):
Admission to this Specialization module occurs in Year 3 and requires admission to the 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 Specialization module.

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

* 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 courses below must be completed with a minimum mark of 60% in each (unless otherwise indicated) prior to admission to the Specialization module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional requirements (averages, course load, etc.).

0.5 course: Biochemistry 2280A with a mark of at least 65%
0.5 course: Biology 2581B
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.
0.5 course from: Chemistry 2213A/B with a mark of at least 65% or Chemistry 2273A
0.5 course from: Chemistry 2223B with a mark of at least 65% or Chemistry 2283G
1.0 course from: Biology 2290F/G, 2382B, Chemistry 2211A/B, 2214A/B, 2374A, 2384B

SPECIALIZATION IN INTERDISCIPLINARY MEDICAL SCIENCES (IMS)

Admission Requirements, effective September 1, 2015 (for students admitted to Year 1 in September, 2013):

Admission to this Specialization module occurs in Year 3 and requires admission to the 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 Specialization module.

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
0.5 course from: Calculus 1000A/B, 1500A/B
0.5 course from: Calculus 1301A/B, 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.

* 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 courses below must be completed with a minimum mark of 60% in each prior to admission to the Specialization module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional requirements (averages, course load, etc.).

0.5 course: Biochemistry 2280A.
1.5 courses: Biology 2290F/G, 2382B, 2581B.
0.5 course: Chemistry 2213A/B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B

SPECIALIZATION IN MEDICAL BIOPHYSICS

Admission Requirements, effective September 1, 2015 (for students admitted to Year 1 in September, 2013):
Admission to this Specialization module occurs in Year 3 and requires admission to the 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 Specialization module.

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
0.5 course from: Calculus 1000A/B or 1100A/B or 1500A/B
0.5 course from: Calculus 1301A/B or 1501A/B.
0.5 course from: Physics 1028A/B**, 1301A/B, 1501A/B (one of 1301A/B or 1501A/B is preferred)
0.5 course from: Physics 1029A/B**, 1302A/B, 1502A/B (one of 1302A/B or 1502A/B is preferred)

* 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.

**A minimum mark of 80% in each of Physics 1028A/B and 1029A/B is required as a prerequisite for Physics 2101A/B and 2102A/B.

The courses below must be completed with a minimum mark of 60% in each prior to admission to the Specialization module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional requirements (averages, course load, etc.).

1.0 course from: Medical Biophysics 2128A/B and 2129A/B, or Physics 2128A/B and 2129A/B, or Physics 2101A/B and 2102A/B.
0.5 course from: Calculus 2302A/B, 2502A/B.
0.5 course from: Calculus 2303A/B, 2503A/B.
0.5 course: Chemistry 2213A/B.
0.5 course: Biochemistry 2280A.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B (may be delayed until Year 3).

SPECIALIZATION IN MICROBIOLOGY AND IMMUNOLOGY

Admission Requirements, effective September 1, 2015 (for students admitted to Year 1 in September, 2013):
Admission to this Specialization module occurs in Year 3 and requires admission to the 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 Specialization module.

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

* 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 courses below must be completed with a minimum mark of 60% in each (unless otherwise indicated) prior to admission to the Specialization module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional requirements (averages, course load, etc.).

0.5 course: Biochemistry 2280A with a mark of at least 65%
1.0 course: Chemistry 2213A/B and 2223B with marks of at least 65% in each.
1.5 courses: Biology 2290F/G, 2382B, 2581B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B

SPECIALIZATION IN PATHOLOGY AND TOXICOLOGY

Admission Requirements, effective September 1, 2015 (for students admitted to Year 1 in September, 2013):
Admission to this Specialization module occurs in Year 3 and requires admission to the 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 Specialization module.

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

* 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 prior to admission to the Specialization module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional requirements (averages, course load, etc.).

0.5 course: Biochemistry 2280A.
1.5 courses: Biology 2290F/G, 2382B, 2581B.
0.5 course: Chemistry 2213A/B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B

SPECIALIZATION IN PHARMACOLOGY

Admission Requirements, effective September 1, 2015 (for students admitted to Year 1 in September, 2013):
Admission to this Specialization module occurs in Year 3 and requires admission to the 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 Specialization module.

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

* 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 courses below must be completed with a minimum mark of 60% in each prior to admission to the Specialization module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional requirements (averages, course load, etc.).

0.5 course: Biochemistry 2280A.
1.5 courses: Biology 2290F/G, 2382B, 2581B.
0.5 course: Chemistry 2213A/B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B

SPECIALIZATION IN PHYSIOLOGY

Admission Requirements, effective September 1, 2015 (for students admitted to Year 1 in September, 2013):
Admission to this Specialization module occurs in Year 3 and requires admission to the 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 Specialization module.

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

* 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 courses below must be completed with a minimum mark of 60% in each prior to admission to the Specialization module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional requirements (averages, course load, etc.).

0.5 course: Biochemistry 2280A.
1.5 courses: Biology 2290F/G, 2382B, 2581B.
0.5 course: Chemistry 2213A/B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B

SPECIALIZATION IN PHYSIOLOGY AND PHARMACOLOGY

Admission Requirements, effective September 1, 2015 (for students admitted to Year 1 in September, 2013):
Admission to this Specialization module occurs in Year 3 and requires admission to the 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 Specialization module.

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

* 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 courses below must be completed with a minimum mark of 60% in each prior to admission to the Specialization module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional requirements (averages, course load, etc.).

0.5 course: Biochemistry 2280A.
1.5 courses: Biology 2290F/G, 2382B, 2581B.
0.5 course: Chemistry 2213A/B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B

MAJOR IN BIOCHEMISTRY

A degree containing this module normally requires 4 years for completion. When combined with one of the following Majors, this module leads to a Bachelor of Medical Sciences (BMSc) degree: Interdisciplinary Medical Sciences (IMS), Medical Biophysics, Medical Cell Biology, Microbiology and Immunology, Pharmacology or Physiology. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

Admission Requirements for students pursuing this Major module in a Bachelor of Medical Sciences (BMSc) degree, effective September 1, 2015 (for students admitted to Year 1 in September, 2013):

Admission to this Major module occurs in Year 3 and requires admission to the 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 Double Major modules in 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 1002B*
1.0 course: Chemistry 1301A/B and 1302A/B
0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/B
0.5 course from: Calculus 1301A/B, 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.

* 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 courses below must be completed with a minimum mark of 60% in each (unless otherwise indicated) prior to admission to the Major module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional requirements (averages, course load, etc.).

0.5 course: Biochemistry 2280A.
0.5 course from: Chemistry 2213A/B with a mark of at least 65% or Chemistry 2273A
0.5 course from: Chemistry 2223B with a mark of at least 65% or Chemistry 2283G
0.5 course: Biology 2581B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.

MAJOR IN INTERDISCIPLINARY MEDICAL SCIENCES (IMS)
This Major may only be completed in a Bachelor of Medical Sciences (BMSc) degree, either in combination with another Major (Double Majors) or in addition to an Honors Specialization or Specialization module. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

Admission Requirements for students pursuing this Major module effective September 1, 2015 (for students admitted to Year 1 in September, 2013):
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 the MEDICAL SCIENCES FIRST ENTRY PROGRAM (Medical Sciences 1 and 2) prior to admission to the Major module.

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
0.5 course from: Calculus 1000A/B, 1500A/B
0.5 course from: Calculus 1301A/B, 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.

* 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 courses below must be completed with a minimum mark of 60% in each prior to admission to the Major module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional requirements (averages, course load, etc.).

0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.
1.0 course from: Biology 2290F/G, 2382B, 2581B.
0.5 course from: Chemistry numbered 2100-3999

MAJOR IN MEDICAL BIOPHYSICS

A degree containing this module normally requires 4 years for completion. When combined with one of the following Majors, this module leads to a Bachelor of Medical Sciences (BMSc) degree: Biochemistry, Interdisciplinary Medical Sciences (IMS), Medical Cell Biology, Microbiology and Immunology, Pharmacology or Physiology. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

Admission Requirements for students pursuing this Major module in a Bachelor of Medical Sciences (BMSc) degree, effective September 1, 2015 (for students admitted to Year 1 in September, 2013):

Admission to this Major module occurs in Year 3 and requires admission to the 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 Double Major modules in a BMSc degree.

1.0 course: Biology 1001A* and 1002B*.
1.0 course: Chemistry 1301A/B and 1302A/B.
0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/B
0.5 course from: Calculus 1301A/B, 1501A/B.
0.5 course from: Physics 1028A/B**, 1301A/B, 1501A/B (one of 1301A/B or 1501A/B is preferred)
0.5 course from: Physics 1029A/B**, 1302A/B, 1502A/B (one of 1302A/B or 1502A/B is preferred)

* 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.

**A minimum mark of 80% in each of Physics 1028A/B and 1029A/B is required as a prerequisite for Physics 2101A/B and 2102A/B.

The courses below must be completed with a minimum mark of 60% in each prior to admission to the Major module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional requirements (averages, course load, etc.).

0.5 course from: Calculus 2302A/B, 2502A/B.
0.5 course from: Calculus 2303A/B, 2503A/B.
1.0 course from: Medical Biophysics 2128A/B and 2129A/B, or Physics 2128A/B and 2129A/B, or Physics 2101A/B and 2102A/B.

MAJOR IN MEDICAL CELL BIOLOGY

A degree containing this module normally requires 4 years for completion. When combined with one of the following Majors, this module leads to a Bachelor of Medical Sciences (BMSc) degree: Biochemistry, Interdisciplinary Medical Sciences (IMS), Medical Biophysics, Microbiology and Immunology, Pharmacology or Physiology. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

Admission Requirements for students pursuing this Major module in a Bachelor of Medical Sciences (BMSc) degree, effective September 1, 2015 (for students admitted to Year 1 in September, 2013):

Admission to this Major module occurs in Year 3 and requires admission to the 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 Double Major modules in 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 1002B*
1.0 course: Chemistry 1301A/B and 1302A/B
0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/B
0.5 course from: Calculus 1301A/B, 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.

* 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 courses below must be completed with a minimum mark of 60% in each prior to admission to the Major module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional requirements (averages, course load, etc.).

0.5 course: Biochemistry 2280A.
0.5 course: Chemistry 2213A/B.
0.5 course: Biology 2382B.
0.5 course from: Biology 2290F/G, 2581B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B.

MAJOR IN MICROBIOLOGY AND IMMUNOLOGY

A degree containing this module normally requires 4 years for completion. When combined with one of the following Majors, this module leads to a Bachelor of Medical Sciences (BMSc) degree: Biochemistry, Interdisciplinary Medical Sciences (IMS), Medical Biophysics, Medical Cell Biology, Pharmacology or Physiology. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

Admission Requirements for students pursuing this Major module in a Bachelor of Medical Sciences (BMSc) degree, effective September 1, 2015 (for students admitted to Year 1 in September, 2013):

Admission to this Major module occurs in Year 3 and requires admission to the 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 Double Major modules in 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 1002B*
1.0 course: Chemistry 1301A/B and 1302A/B
0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/B
0.5 course from: Calculus 1301A/B, 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.

* 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 courses below must be completed with a minimum mark of 60% in each (unless otherwise indicated) prior to admission to the Major module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional requirements (averages, course load, etc.).

0.5 course: Biochemistry 2280A with a mark of at least 65%
1.0 course: Chemistry 2213A/B and 2223B with marks of at least 65% in each.
1.0 course: Biology 2382B, 2581B.

MAJOR IN PHARMACOLOGY

A degree containing this module normally requires 4 years for completion. When combined with one of the following Majors, this module leads to a Bachelor of Medical Sciences (BMSc) degree: Biochemistry, Interdisciplinary Medical Sciences (IMS), Medical Biophysics, Medical Cell Biology, Microbiology and Immunology, or Physiology. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

Admission Requirements for students pursuing this Major module in a Bachelor of Medical Sciences (BMSc) degree, effective September 1, 2015 (for students admitted to Year 1 in September, 2013):

Admission to this Major module occurs in Year 3 and requires admission to the 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 Double Major modules in 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 1002B*
1.0 course: Chemistry 1301A/B and 1302A/B
0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/B
0.5 course from: Calculus 1301A/B, 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.

* 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 courses below must be completed with a minimum mark of 60% in each prior to admission to the Major module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional requirements (averages, course load, etc.).

0.5 course: Biochemistry 2280A.
0.5 course: Biology 2382B.
0.5 course: Chemistry 2213A/B.

MAJOR IN PHYSIOLOGY

A degree containing this module normally requires 4 years for completion. When combined with one of the following Majors, this module leads to a Bachelor of Medical Sciences (BMSc) degree: Biochemistry, Interdisciplinary Medical Sciences (IMS), Medical Biophysics, Medical Cell Biology, Microbiology and Immunology, or Pharmacology. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

Admission Requirements for students pursuing this Major module in a Bachelor of Medical Sciences (BMSc) degree, effective September 1, 2015 (for students admitted to Year 1 in September, 2013):

Admission to this Major module occurs in Year 3 and requires admission to the 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 Double Major modules in 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 1002B*
1.0 course: Chemistry 1301A/B and 1302A/B
0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/B
0.5 course from: Calculus 1301A/B, 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.

* 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 courses below must be completed with a minimum mark of 60% in each prior to admission to the Major module in Year 3. These courses will also be used towards the Module requirements. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional requirements (averages, course load, etc.).

0.5 course: Biochemistry 2280A.
0.5 course: Chemistry 2213A/B.
1.0 course from: Biology 2290F/G, 2382B, 2581B.
0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B