

#### **SENATE AGENDA**

1:30 p.m., Friday, December 7, 2012 HBA Building, Room 1R40

- 1. Minutes of the Meeting of November 16, 2012
- 2. Business Arising from the Minutes
- 3. Report of the President (A. Chakma)
- 4. Reports of Committees:
  Academic Policy and Awards EXHIBIT I (B. Timney)
  University Planning EXHIBIT II (J. Hatch)
- 5. Announcements and Communications EXHIBIT III
- 6. Enquiries and New Business
- 7. Adjournment

Senate meetings are scheduled to begin at 1:30 p.m. and normally will end by 4:30 p.m. unless extended by a majority vote of those present.

To download a complete copy of the Senate agenda, including minutes to be approved at the meeting plus exhibits and their attachments (92) please go to the following website: http://www.uwo.ca/univsec/senate/minutes/2012/a1212sen\_all.pdf

#### **APPROVAL OF MINUTES**

#### REPORT OF THE PRESIDENT

#### SENATE COMMITTEE ON ACADEMIC POLICY AND AWARDS (SCAPA)

FOR ACTION

Faculty of Arts and Humanities:

- Introduction of a Major in Italian Language and Culture and a Minor in Italian
- Revisions to the Certificate in Practical Italian

Schulich School of Medicine & Dentistry: Revisions to the Admission Requirements of the DDS Program Faculty of Science: Withdrawal of the Honors Specialization in Bioinformatics (Biochemistry Concentration) Schulich School of Medicine & Dentistry and Faculty of Science: Medical Sciences Program

- Revisions to the Medical Sciences Program and Modules
- Introduction of an Honors Specialization and Specialization in Interdisciplinary Medical Sciences (IMS)
- Withdrawal of the Honors Specialization and Specialization in Medical Sciences
- Introduction of a Major in Interdisciplinary Medical Sciences
- Revisions to the Major in Medical Sciences

Schulich School of Medicine & Dentistry, Faculty of Science, Richard Ivey School of Business: Revisions to the Combined BMSc/HBA Program

Faculty of Science and Western Continuing Studies: Introduction of a Diploma in Computer Science Faculties of Engineering and Law: Introduction of a Mechatronic Systems Engineering with Law Option Sessional Dates

FOR INFORMATION
Report of Scholastic Offences
New Scholarships and Awards

#### SENATE COMMITTEE ON UNIVERSITY PLANNING (SCUP)

FOR ACTION
Sustainable Western Experience Report

FOR INFORMATION
Performance Indicators Report

#### **ANNOUNCEMENTS & COMMUNICATIONS**

FOR INFORMATION Standard Report



#### MINUTES OF THE MEETING OF SENATE

November 16, 2012

The meeting was held at 1:30 p.m. in Room 1R40, HBA Building

#### SENATORS:

C. Harvey J. Aitken Schermer B. Barkley J. Hatch I. Birrell J. Hopkins M. Blagrave M. Khalkhali J. Boulter R. Klassen (Eng) S. Camiletti J. Knowles J. Capone G. Kulczycki T. Carmichael J. Lamarche C. Lee A. Chakma A. Damji B. Leipert K. Lovell J. Deakin C. Dean S. Macfie J. Dickey J. Malkin J. Doerksen J. Matthews L. Elliott S. McClatchie J. Etherington S. McDonald Aziz K. Foullong P. McKenzie G. Gao R. Mercer J. Garnett M. Milde R. Graham L. Miller J. Mitchell A. Grzyb

B. Neff A. Nelson S. Nemirovsky D. Neufeld T. Newson C. Nolan C. Palmer M. Rothstein I. Scott S. Seck B. Silverstein M. Singh D. Stanford M. Strona K. Sullivan D. Sylvester B. Timney A. Vainio-Mattila

O. Yucel

Observers: D. Abelson, R. Chelladurai, L. Gribbon, G. Tigert, A. Weedon

By Invitation: H. Connell, J. McMullin

#### S.12-174 MINUTES OF THE PREVIOUS MEETING

The minutes of the meeting of October 19, 2012, were approved as circulated.

#### S.12-175 **REPORT OF THE PRESIDENT**

The President's report consisted of the following items: two new Canada Research Chairs, the Africa Institute symposium, Ivey Business Leader Award dinner, update on Strategic Mandate Agreements, Western's standing in the recent <u>Maclean's Magazine</u> ranking, potential impact of the federal and provincial fiscal situations.

#### S.12-176 **BUSINESS ARISING FROM THE MINUTES**

Dr. D. Stanford clarified that the security issues mentioned in the discussion of classroom computer log-in requirements [S.12-138, S.12-162] referred to the fact that there is double lock security on storing final grades, but not for the maintenance of grades in the Sakai system.

#### REPORT OF THE OPERATIONS/AGENDA COMMITTEE [EXHIBIT I]

#### S.12-177 <u>Senate Membership – Huron University College</u>

It was moved by T. Carmichael, seconded by S. Camiletti,

That the seat held by Nelson Heapy, faculty representative on Senate for Huron University College, be declared vacant effective October 1, 2012 as a result of his resignation and that Arja Vainio-Mattila be elected to complete his term until June 30, 2014.

**CARRIED** 

#### S.12-178 <u>Senate Membership – School of Graduate and Postdoctoral Studies – At-Large</u> Representative

It was moved by T. Carmichael, seconded by D. Stanford,

That the seat held by Andrew Nelson, faculty representative on Senate for the School of Graduate and Postdoctoral Studies – At-Large, be declared vacant effective January 1, 2013 as a result of his leave of absence and that Kim Clark (Anthropology) be elected to complete his term until June 30, 2013.

**CARRIED** 

#### S.12-179 Nominating Committee Membership

Katrina Moser was elected by acclamation to the Nominating Committee.

#### S.12-180 Change in Terms of Reference of the University Council of Animal Care

It was moved by T. Carmichael, seconded by J. Hatch,

That Senate approve revisions to the Terms of Reference and Composition of the University Council on Animal Care (UCAC) as set out in Exhibit I, Appendix 1.

**CARRIED** 

#### S.12-181 **REPORT OF THE NOMINATING COMMITTEE** [EXHIBIT II]

The candidates proposed by the Nominating Committee in Exhibit II, were elected by acclamation.

#### REPORT OF THE SENATE COMMITTEE ON ACADEMIC POLICY AND AWARDS [EXHIBIT III]

### S.12-182 <u>Faculty of Engineering and Richard Ivey School of Business: Introduction of a Combined</u> Mechatronic Systems Engineering and Management Program

It was moved by B. Timney, seconded by K. Foullong.

That a combined program in Mechatronic Systems Engineering and Management be introduced by the Faculty of Engineering and the Richard Ivey School of Business, effective September 1, 2013, as set out in Exhibit III, Appendix 1.

**CARRIED** 

#### S.12-183 Revisions to the Program Information Section for the School of Health Studies

It was moved by B. Timney, seconded by J. Hopkins,

That effective September 1, 2013, the Program Information section for the School of Health Studies be revised as set out in Exhibit III, Appendix 2.

**CARRIED** 

#### S.12-184 Revisions to the Admission and Module Requirements for Health Sciences Modules

It was moved by B. Timney, seconded by J. Hopkins,

That effective September 1, 2013, the Admission and Module requirements for the following Health Sciences modules be revised as set out in Exhibit III, Appendix 2:

Honors Specialization in Health Sciences – Health Promotion Honors Specialization in Health Sciences with Biology Honors Specialization in Health Sciences Major in Health Sciences Specialization in Health Sciences

**CARRIED** 

### S.12-185 Schulich School of Medicine & Dentistry: Revisions to the Admission requirements of the MD Program

It was moved by B. Timney, seconded by D. Stanford,

That effective July 1, 2013, the Admission Requirements for the MD program in the Schulich School of Medicine & Dentistry be revised as set out in Exhibit III, Appendix 3.

A member asked if new admission policies for the MD program would impact students enrolled in a Doctor of Medicine program outside Canada who wish to apply to Schulich. Dean Strong explained that those students would have the same status as students applying from graduate programs elsewhere. He also noted that the letter required from an applicant's supervisor is meant to ensure that the supervisor is aware that his/her student has applied to medical school and is not intended to serve as a letter of reference.

The guestion was called and CARRIED.

## S.12-186 <u>Faculty of Social Science and King's University College: Introduction of a Major in Middle East Studies</u>

It was moved by B. Timney, seconded by S. Macfie,

That a Major in Middle East Studies be introduced in the Faculty of Social Science and King's University College, effective September 1, 2013, as detailed in Exhibit III, item 5.

**CARRIED** 

### S.12-187 King's University College: Revisions to Admission and Graduation Requirements for the Bachelor of Social Work (Honors) Program

It was moved by B. Timney, seconded by B. Silverstein,

That effective September 1, 2013, the admission and graduation requirements for the Bachelor of Social Work (Honors) Program at King's University College be revised as set

out in Exhibit III, Appendix 4.

**CARRIED** 

#### S.12-188 School of Graduate and Postdoctoral Studies: Introduction of an MSc in Surgery

It was moved by B. Timney, seconded by A. Nelson,

That, pending Quality Council approval, a Master of Science (MSc) in Surgery be introduced in the School of Graduate and Postdoctoral Studies as set out in Exhibit III, Appendix 5, effective January 1, 2013.

**CARRIED** 

#### S.12-189 Introduction of Fall Study Days

It was moved by B. Timney, seconded by A. Damji,

That the Guidelines for the Structure of the Academic Year be revised to accommodate a two-day fall study break starting in the fall term of the 2013 – 2014 academic year as set out in Exhibit III, Appendix 6.

D. Stanford suggested that the motion be amended to stipulate that the two-day study break always coincide with Fall convocation. B. Timney noted that the correlation in 2013 was a result of a change to the convocation schedule for that year. Dr. Doerksen noted that the preference of the students had been to have the break as late as possible in the semester. Dean Timney suggested that it would be best to see how the schedule worked for 2013 and then determine whether it should be changed for future years.

Asked if there was evidence that the study days would improve the overall mental health of the undergraduate population, Dr. Doerksen said that about half of Ontario universities already observe a Fall study break. The study break will help to alleviate anxiety and stress which typically builds toward the end of the first term as a result of major assignments, etc.

- S. Macfie expressed concern about the impact on the scheduling of science labs because these spaces are shared and will require the removal of equipment to accommodate rotation.
- J. Doerksen said that the former Associate Dean, Faculty of Science had indicated that changes to the lab rotation cycle could be accommodated.

The question was called and CARRIED.

#### S.12-190 Faculty of Science: Earth Sciences Programs for Professional Registration

Senate was advised that degree parchments had been inadvertently issued without the qualifier "For Professional Registration". This will be corrected for two graduates and for students going forward.

#### S.12-191 Revisions to Western's IQAP Guidelines

Senate was advised about revisions to Western's IQAP document approved by the Quality Council.

#### S.12-192 Revisions to the Regulations for the Annual Awards for Excellence in Teaching

Senate received for information a report on revisions to regulations for Western's Annual Awards for Excellence in Teaching as set out in Exhibit III, Appendix 7.

#### S.12-193 New Scholarship and Award

SCAPA has approved on behalf of the Senate for recommendation to the Board of Governors

through the President & Vice-Chancellor, the Terms of Reference for the new scholarship and award set out in Appendix 8.

#### REPORT OF THE SENATE COMMITTEE ON UNIVERSITY PLANNING [EXHIBIT IV]

### S.12-194 School of Medicine & Dentistry - Dissolving the Department of the History of Medicine

It was moved by J. Hatch, seconded by M. Strong,

That Senate approve and recommend to the Board of Governors the closure of the Department of the History of Medicine in the Schulich School of Medicine & Dentistry effective January 1, 2013, as detailed in Exhibit IV, item 1.

**CARRIED** 

## S.12-195 Faculty of Arts and Humanities: Dissolving the Program in Writing, Rhetoric and Professional Communications; Renaming the Department of English to Department of English and Writing Studies

It was moved by J. Hatch, seconded by M. Milde,

That effective January 1, 2013 Senate approve and recommend to the Board of Governors that the Program in Writing, Rhetoric and Professional Communications be closed, and;

That the Department of English be renamed the Department of English and Writing Studies as detailed in Exhibit IV, item 2.

**CARRIED** 

#### S.12-196 The Ivey Professorship in Leadership

It was moved by J. Hatch, seconded by I. Scott,

That Senate approve and recommend to the Board of Governors that the Ivey Professorship in Leadership be established, with academic appointment in the Richard Ivey School of Business as shown in Exhibit IV, Appendix 1.

**CARRIED** 

#### S.12-197 Campus Master Plan Update

Senate received for information a report on plans for a comprehensive Campus Master Plan update.

#### S.12-198 **REPORT OF THE ACADEMIC COLLEAGUE** EXHIBIT V]

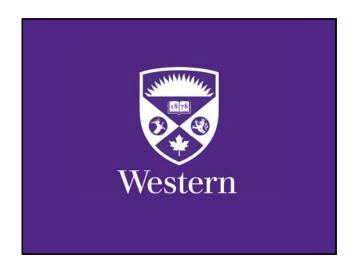
The report of the Academic Colleague regarding the COU meeting held in October 2012 was received for information. Topics reported on included: resignation of the Minister of Training, Colleges and Universities, stakeholder responses to ministry consultations, online education, support for universities, best practices, other shareholders, areas of broad consensus, and updates from Council of Ontario Universities.

#### **Enquiries**

Student Senators inquired about initiatives in place to support international students living off-campus who do not have contact with support services in residence. Dr. J. McMullin, Vice-Provost (International) reviewed the range of resources available to such students, including

programming through the International and Exchange Student Centre, International Peer Connection Program, English conversion program, Porch Light Program for female students, global cafe and various social and cultural events.

ADJOURNMENT	
The meeting adjourned at 2:25 p.m.	
A. Chakma	I. Birrell
Chair	Secretary



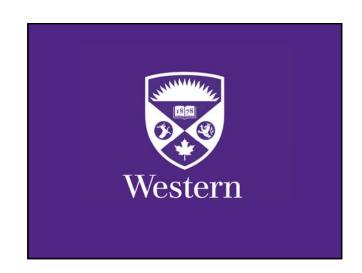
# **President's Report** to Senate

November 16, 2012



- Vice-Provost SGPS appointment
- Government / SMA update
- Research update
  - > CERC competition
  - Media spotlight on Western neuroscience breakthrough and HIV vaccine clinical trials
  - > Fraunhofer Project Centre opening
  - ➤ Western hosts Canada's largest space summit





#### REPORT OF THE SENATE COMMITTEE ON ACADEMIC POLICY AND AWARDS

(SCAPA)

Faculty of Arts and Humanities: Introduction of a Major and a Minor in Italian Language and Culture

Faculty of Arts and Humanities: Revisions to the Certificate in Practical Italian

Faculty of Science: Withdrawal of the Honors Specialization in Bioinformatics (Biochemistry Concentration)

Schulich School of Medicine & Dentistry and Faculty of Science: Revisions to the Medical Sciences Program and Modules

Introduction of an Honors Specialization and Specialization in Interdisciplinary Medical Sciences (IMS)

Withdrawal of the Honors Specialization and Specialization in Medical Sciences

Schulich School of Medicine & Dentistry, Faculty of Science and Richard Ivey School of Business: Revisions to the Combined BMSc/HBA Program

Faculty of Science and Western Continuing Studies: Introduction of a Diploma in Computer Science

Faculties of Engineering and Law: Introduction of a Mechatronic Systems Engineering with Law Option

**Undergraduate Sessional Dates** 

**Report of Scholastic Offences** 

**New Scholarship and Awards** 

#### FOR APPROVAL

#### 1. Faculty of Arts and Humanities

1a Introduction of a Major and a Minor in Italian Language and Culture

**Recommended:** That a Major and a Minor in Italian Language and Culture be introduced in the

Faculty of Arts and Humanities, as set out in Appendix 1, effective September 1,

2013.

1b Revisions to the Certificate in Practical Italian

**Recommended:** That revisions to the Certificate in Practical Italian be revised as set out in

Appendix 1, effective September 1, 2013.

#### Background:

New modules in Italian Language and Culture are being introduced in order to correspond to more up-todate pedagogy, current research interests of faculty and the faculty complement in the Department of Modern Languages and Literatures. Both the new Minor in Italian and the Major in Italian Language and Culture predominantly contain courses taught in Italian.

### 2. <u>Faculty of Science: Withdrawal of the Honors Specialization in Bioinformatics (Biochemistry Concentration)</u>

#### **Recommended:** That, effective September 1, 2013, admission into the Honors Specialization in

Bioinformatics (Biochemistry Concentration) in the Faculty of Science be

discontinued,

that students enrolled in the module prior to September 1, 2013 be permitted to continue with the understanding that they must complete the requirements prior

to September 2017, and

that effective September 1, 2017, the module be withdrawn and all registration

discontinued.

#### Background:

Recommended:

Since its introduction, the Honors Specialization in Bioinformatics (Biochemistry Concentration) has only graduated one student. In comparison, the Honors Specialization in Bioinformatics (Computer Science Concentration) has been more successful, as the students have more of a focus on computing, algorithms, and programming. The Department of Biochemistry recently introduced a new Honors Specialization in Computational Biochemistry, with the plan to eventually phase out the Honors Specialization in Bioinformatics (Biochemistry Concentration). Thus, the program can now be withdrawn.

(The current module is listed in the on-line Academic Calendar: http://www.westerncalendar.uwo.ca/2012/pg623.html).

#### 3. Schulich School of Medicine & Dentistry and Faculty of Science: Medical Sciences Program

#### 3a Revisions to the Medical Sciences Program and Modules

That effective September 1, 2013, Senate approve revisions to the Medical Sciences First Entry Program, the Admission requirements for the Bachelor of Medical Sciences (BMSc) program, and the Bachelor of Medical Sciences – Undergraduate Program description, as set out in **Appendix 2**;

that effective September 1, 2015, students admitted to Year 3 of the Bachelor of Medical Sciences (BMSc) Program, usually from Year 2 of the Medical Sciences First Entry program (Medical Sciences 2), be allowed to use 2000-level courses towards the Admission Requirements for the module, as well as use these same 2000-level courses towards fulfilling the Module requirements; and,

that the Admission and Module Requirements of the modules leading to a Bachelor of Medical Sciences (BMSc) degree (Honors Specialization, Specialization and Major modules) be revised, as set out in **Appendix 2, Annex 1,** for students admitted to Western as of September 1, 2013 (following the introduction of the Medical Sciences First Entry Program).

#### Background:

On June 8, 2012, Senate approved the introduction of the "Medical Sciences First Entry Program" <a href="http://www.uwo.ca/univsec/senate/minutes/2012/r1206scapa.pdf">http://www.uwo.ca/univsec/senate/minutes/2012/r1206scapa.pdf</a> in the Faculty of Science, effective September 1, 2013, as well as the delay of admission to the BMSc Program to Year 3.

The "Medical Sciences First Entry Program" is a two-year program, providing assured admission into Year 3 of the BMSc program if certain conditions are satisfied. A minimum average of 80% in certain modular courses is one of the conditions required for assured admission to Year 3 of the BMSc Program from the Medical Sciences First Entry Program. This average was arrived at by a modelling process, based on student performance for the past few years, in an effort to determine the average that will be required to fill approximately 75% of the spaces in Year 3 of the BMSc Program. The remaining spaces

in Year 3 of the BMSc Program will be available for students who (i) either do not apply or are not admitted to the Medical Sciences First Entry Program, and (ii) who are admitted to the Medical Sciences First Entry Program but do not meet the conditions required for assured admission to Year 3 of the BMSc Program. These students must also satisfy certain conditions for admission, which includes an average of at least 75% in certain modular courses. Students entering the Faculty of Science (or other faculties) in Year 1 will continue to have access to the BMSc program on a competitive basis, provided their marks are comparable to those currently required for admission to Year 3 of the BMSc Program.

The BMSc Program is a limited enrolment program (enrolment target for Year 3 is 500 students), in which there are (or will soon be) 17 Honors Specialization modules, each having limited enrolment due to limited spaces in 4000-level research project courses and "advanced" laboratory courses. Admission to Year 3 of the BMSc Program and the various Honors Specialization modules has been competitive for several years and the information outlining the limited nature of the program and modules has been housed on the BMSc website. The departments participating in the BMSc Program discussed and approved of the manner in which students have been adjudicated into the BMSc Program and the various modules, but the process is not simple due to the limited enrolment in the over-arching BMSc Program and the 17 Honors Specialization modules. Senate's recent approval of the introduction of the Medical Sciences First Entry Program and the delay of admission to the BMSc Program to Year 3, has provided a timely opportunity to formalize the current admission/adjudication process for the program and the various Honors Specialization modules.

Delaying admission to the BMSc Program until Year 3 provides assurance that, once admitted to the BMSc Program, students are assured the opportunity to complete the BMSc Program. Delaying admission to Year 3, however, creates special challenges for students to meet Admission Requirements for the various modules leading to a BMSc degree. Thus, there must be an overlap between the 2000-level courses required for admission into the modules offered in the BMSc Program and the Module requirements, and all of the modules leading to a BMSc degree have been included in this proposal to identify which courses will be used as both Admission Requirements and Module courses. The Major modules can be taken in either BMSc or non-BMSc degrees and the Admission Requirements for these modules must reflect that, while admission to a Major in a non-BMSc degree will occur in Year 2, admission to a Major in a BMSc degree will not occur until Year 3. Each Major will specify the Admission Requirements for students pursuing a BMSc degree, including the 2000-level courses that will also satisfy the Module requirements, and for students pursuing a non-BMSc (only the first-year courses will be specified).

The first-year mathematics requirement has been revised in the Medical Sciences First Entry Program and in the Admission Requirements for most of the modules such that at least a half course in calculus is mandatory. Students admitted to the Medical Sciences First Entry Program will require Grade 12 Calculus and Vectors (MCV4U) as an admission prerequisite and, as such, will be eligible to register in a first-year Calculus course. An increase in problem-solving skills in Year 1 has been requested by the Basic Medical Science departments and, as a result, several of the first-year courses initially approved for the first-year mathematics requirement are being removed. The courses to be removed (Mathematics 1225B, 1228A/B, 1229A/B, and Statistical Sciences 1024A/B) are intended for students in the Faculty of Social Science and are not as rigorous in terms of problem-solving skills.

New sections for the Academic Calendar are being proposed: ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM to link admission to BMSc with the MEDICAL SCIENCES FIRST ENTRY PROGRAM, and MODULES OFFERED IN THE BMSc PROGRAM to provide more information about the admission into the various Honors Specialization, Specialization and Major modules.

Several of the modules contain one or more modular courses that have, as part of their prerequisite, a minimum mark in a prerequisite course. These minimum mark requirements in modular courses have been noted in each Module, where appropriate, rather than having "Notes for the Module" to advise students about marks required in particular courses. When a mark/average requirement is not as easily indicated, a generic note has been added below the Module to refer students to the course descriptions in the Academic Calendar.

Senate Agenda EXHIBIT I
December 7, 2012 Page 4

#### Other changes to Modules:

Medical Cell Biology (Honors Specialization and Major) and the Honors Specialization in Biochemistry and Cell Biology: Changes in the focus of the content covered in Physiology 3140A has resulted in it being added as an alternative to Biology 3316A/B as a prerequisite for several 4000-level courses in Anatomy and Cell Biology, and as an alternative to Biology 3316A/B as a modular course.

3b <u>Introduction of an Honors Specialization, Specialization and Major in Interdisciplinary Medical Sciences (IMS)</u>

#### Recommended:

That effective September 1, 2013, an Honors Specialization, a Specialization and a Major in Interdisciplinary Medical Sciences (IMS) be introduced in the Schulich School of Medicine & Dentistry, as set out in **Appendix 2**;

that effective September 1, 2013, the Major in Medical Sciences be revised as set out in **Appendix 2**; and,

that students registered in a Bachelor of Medical Sciences (BMSc) degree prior to September 1, 2013 be permitted to complete the existing Major in Medical Sciences.

#### Background:

Effective September 2013, students interested in the Bachelor of Medical Sciences (BMSc) Program will apply to the Medical Sciences First Entry Program at Western. Students in first and second years will be registered in "Medical Sciences 1" and "Medical Sciences 2." In an attempt to reduce confusion between the Medical Sciences First Entry Program and the Medical Sciences modules, the existing Honors Specialization and Specialization modules in Medical Sciences will be withdrawn and replaced by Honors Specialization and Specialization modules in "Interdisciplinary Medical Sciences" (IMS).

The proposed Honors Specialization and Specialization in Interdisciplinary Medical Sciences (IMS) will be more rigorous than the current Honors Specialization and Specialization in Medical Sciences. Students will be required to complete a minimum of 2.5 basic medical science courses that serve as prerequisites for 4000-level courses (Group A courses) and at least one half basic medical science course with a laboratory component (Group C courses). They will be limited as to the number of basic medical science courses that can be included in their module that do not provide a prerequisite for 4000-level courses (Group B courses).

Students will be admitted to Year 2 of the Honors Specialization and Specialization modules in September 2013 under the Admission Requirements for September 1, 2013. Students admitted to Western in Year 1 in September 2013 will usually enter the Medical Sciences First Entry Program and will register in Medical Sciences 1 in 2013/14 and Medical Sciences 2 in 2014/15. They will apply for admission to the modules when they are admitted to Year 3 of the BMSc Program in 2015/16. Students will not be admitted to Year 2 of the modules in 2014/15 as they will be registered in Medical Sciences 2 in that year.

#### 3c Withdrawal of the Honors Specialization and Specialization in Medical Sciences

#### Recommended:

That effective September 1, 2013, admission to the Honors Specialization and Specialization modules in Medical Sciences be discontinued;

that students enrolled in these modules prior to September 1, 2013 be permitted to continue with the understanding that they must complete the requirements prior to September 2017; and,

that effective October 2017, the modules be withdrawn and all registration discontinued.

(Current Calendar Copy: page 195-197 of the 2012/13 Academic Calendar and <a href="http://www.westerncalendar.uwo.ca/2012/pq705.html">http://www.westerncalendar.uwo.ca/2012/pq705.html</a> of the online 2011/12 Academic Calendar)

#### Background:

Effective September 2013, students interested in the Bachelor of Medical Sciences (BMSc) Program will apply to the Medical Sciences First Entry Program at Western. Students in first and second years will be registered in "Medical Sciences 1" and "Medical Sciences 2." In an attempt to reduce confusion between the Medical Sciences First Entry Program and the Medical Sciences modules, the existing Honors Specialization and Specialization modules in Medical Sciences will be withdrawn (phased out) and replaced by Honors Specialization and Specialization modules in "Interdisciplinary Medical Sciences" (IMS). A Major in Interdisciplinary Medical Sciences (IMS) will be introduced and will be available only for students in a Bachelor of Medical Sciences (BMSc) degree. The current Major in Medical Sciences will continue to be offered but will only be available for students in non-BMSc degrees.

### 4. <u>Schulich School of Medicine & Dentistry, Faculty of Science and Richard Ivey School of Business:</u> Revisions to the Combined BMSc/HBA Program

**Recommended:** That the combined BMSc and HBA program be revised as set out in **Appendix** 

3, effective September 1, 2015.

#### Background:

Effective September 2013, students interested in the Bachelor of Medical Sciences (BMSc) Program at Western will usually enter the recently-approved Medical Sciences First Entry Program (Medical Sciences 1 and 2) and apply for admission to the BMSc Program in Year 3. In an effort to reduce the confusion between the Medical Sciences First Entry Program and the modules in Medical Sciences, admission to the Honors Specialization in Medical Sciences will be discontinued in September 2013 and the module will be replaced by an Honors Specialization in Interdisciplinary Medical Sciences (IMS). An additional half course has been added to the Honors Specialization in IMS and the 2000- and 3000-level basic medical science courses in the module have been separated into three groups: Group A (courses that serve as prerequisites for 4000-level courses), Group B ("terminal" courses) and Group C (courses with a laboratory component).

The BMSc component of the Combined BMSc/HBA program will be revised by incorporating (i) the Medical Sciences First Entry Program, and (ii) Groups A, B and C into the Year 4 requirements, and adding a half course at the 4000-level to the Year 5 requirements (with the subsequent removal of a half course from any faculty). Students will be advised to include 1.0 course from Group B to satisfy the Breadth Requirements of the BMSc degree in either Year 1 or 2.

The Richard Ivey School of Business is changing the Applied Project Requirement in HBA2 to Business Administration 4569.

### 5. <u>Faculty of Science and Western Continuing Studies: Introduction of a Diploma in Computer Science</u>

**Recommended:** That a Diploma in Computer Science be introduced jointly by the Faculty of

Science and Western Continuing Studies, as set out in Appendix 4, effective

September 1, 2013.

#### Background:

The Diploma in Computer Science is a post-degree program for students who have completed a science or engineering degree. It is aimed at those who may not wish to or are not able to pursue an undergraduate Computer Science degree, but who already have significant scientific maturity (as demonstrated by holding a science and/or engineering degree), and some Computer Science background/experience. The Diploma will provide science and engineering graduates with the opportunity to acquire the specific skills and experience needed to start a career in information technology or to upgrade their Computer Science skills and apply for the MSc in Computer Science Graduate Program at Western. Upon completion of the Diploma in Computer Science, those students with excellent academic records may wish to pursue further Computer Science studies and will be eligible to apply to the Master's Program in Computer Science at Western.

Senate Agenda EXHIBIT I
December 7, 2012 Page 6

The Diploma will provide one year (or equivalent) of instruction in Computer Science at Western with core second to fourth-year courses. The Diploma can be taken on a full-time or part-time basis, and must be completed within three calendar years.

The Department of Computer Science has conducted an electronic survey of 300 undergraduate Science and Engineering students and found that 130 expressed interest in the proposed Diploma.

### 6. <u>Faculties of Engineering and Law: Introduction of a Mechatronic Systems Engineering with Law</u> Option

**Recommended:** That a Mechatronic Systems Engineering with Law Option be introduced by the

Faculties of Engineering and Law, as set out in Appendix 5, effective September 1,

2013.

#### Background:

Mechatronic Systems Engineering involves the integration of mechanical and electronic systems into intelligent consumer and industrial products. Western's program has a continuing design approach, ideally suited to the development of innovative solutions that can lead to new products and new markets. Its integration with Western Law enhances its originality. The Western Law School is an international research leader in Intellectual Property and Information and Technology Law, areas that will be of prime importance to graduates of the program.

Combined degrees with Law have proved very popular and successful in Engineering. Mechatronic Systems Engineering is one of the last disciplines to initiate the combined program with Law. It follows the same outline as other combined programs with Law. As well , the proposed Mechatronic Systems Engineering with Law program is consistent with the mission directions of both the university and the Engineering Faculty.

#### 7. Undergraduate Sessional Dates

**Recommended:** That Senate approve the undergraduate sessional dates for 2014, and the

sessional dates in Dentistry, Education, Law and Medicine for 2013-2014, as set

out in **Appendix 6**.

#### Background:

The undergraduate sessional dates for 2014, and the 2013-2014 sessional dates for Education, Dentistry, Law and Medicine, are submitted for approval. Undergraduate sessional dates for 2013 were already approved in December 2011 and are included in **Appendix 6** for information.

#### FOR INFORMATION

#### 8. Report of Scholastic Offences

The report of the Vice-Provost (Academic Programs & Students) [Registrar] on scholastic offences for the period July 1, 2011 to June 30, 2012, is attached as **Appendix 7**.

#### 9. **New Scholarship and Awards**

SCAPA has approved on behalf of the Senate, for recommendation to the Board of Governors through the President & Vice-Chancellor, the Terms of Reference for the new scholarship and awards set out in **Appendix 8**.

#### **FACULTY OF ARTS AND HUMANITIES**

#### **NEW CALENDAR COPY**

(http://www.westerncalendar.uwo.ca/2012/pg246.html)

#### **MAJOR IN ITALIAN LANGUAGE AND CULTURE**

#### **Admission Requirements**

Completion of first-year requirements, including 1.0 course from Italian 1030 or 1030W/X with a mark of at least 60%. Students with Grade 12 U will begin the module with Italian 2200.

#### Module

6.0 courses:

3.0 courses: Italian 2200 (or 2200W/X), 2215F/G, 3300, 4400A/B

1.0 course from: Italian 2220A/B and above 1.5 courses from: Italian 3325A/B and above 0.5 course from: Italian 4410F/G and above

A maximum of 1.0 course may be an Italian course taught in English only.

#### MINOR IN ITALIAN LANGUAGE AND CULTURE

#### **Admission Requirements**

Completion of first-year requirements, including 1.0 course from Italian 1030 or 1030W/X with a mark of at least 60%. Students with Grade 12 U will begin the module with Italian 2200.

#### Module

4.0 courses:

2.0 courses: Italian 2200 (or 2200W/X), 3300

2.0 courses from: Italian 2215F/G and above, CLC 3333F/G, 3334F/G, 3335F/G

With permission of the Department, special topics courses on Italian literature, cinema, art, music, culture or history may also be counted toward the module.

#### REVISED CALENDAR COPY

http://www.westerncalendar.uwo.ca/2012/pg1481.html

#### CERTIFICATE IN PRACTICAL ITALIAN

Open to all students in the University, the Certificate aims to develop the skills in practical Italian. Any undergraduate student may apply for admission, subject to prerequisites.

#### **Admission Requirements**

Completion of first-year requirements, including 1.0 course from Italian 1030 or 1030W/X with a mark of at least 60%. Students with Grade 12 U will-receive special permission to go straight into Italian 2250 begin the module with Italian 2200. A student may not pursue both a Certificate in Practical Italian and an Italian module.

#### **Progression and Graduation Requirements**

To progress and complete the program, students must achieve and maintain a minimum average of 70% in the required courses. If a course in the Certificate program is waived by the department on the basis of existing language proficiency, other Italian courses will have to be taken so that the total number of course credits is 3.0.

#### **Certificate Program**

3.0 courses: Italian-2250, 2200 (or 2200W/X), 2220A/B, 3300, 4400A/B 4420

Note: At least 2.0 of the 3.0 courses must be taken at Western

### SCHULICH SCHOOL OF MEDICINE & DENTISTRY AND FACULTY OF SCIENCE Bachelor of Medical Sciences

#### REVISIONS TO MEDICAL SCIENCES FIRST ENTRY PROGRAM

#### REVISED CALENDAR COPY

http://www.westerncalendar.uwo.ca/2012/pg1675.html

#### MEDICAL SCIENCES FIRST ENTRY PROGRAM (effective 2013/14)

This program is designed for students at Western interested in studying the Medical Sciences including: Anatomy and 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 Neuroscience will normally apply for admission to the Medical Sciences First Entry Program and then submit an Intent to Register for the limited number of spaces available in the Honors Specialization in Neuroscience (BSc) in Year 2. Any student at the University satisfying the first-year Admission Requirements may, however, be considered for admission to Year 2 of the Honors Specialization in Neuroscience. The Admission Requirements for the Honors Specialization in Neuroscience include 1.0 course in mathematics selected from a broader list of courses than required in the Medical Sciences First Entry Program. Students in Medical Sciences 1 who intend to register in the Honors Specialization in Neuroscience in Year 2 may choose, therefore, 1.0 mathematics course from this broader list unless they wish to maintain the flexibility of applying to the BMSc Program in Year 3.

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 will apply for admission to the BMSc Program in Year 3 and will be guaranteed admission, provided certain conditions are satisfied. Admission to the modules leading to a BMSc degree will occur in Year 3. who complete 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. Students admitted to Western through other faculties/programs may also apply for admission to Year 3 of the BMSc Program and the modules leading to a BMSc degree, and will be admitted on a competitive basis to the remaining spaces

For details about the marks, average, etc. required for admission to Year 3 of the BMSc Program, see ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM.—See 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)

#### 5.0 courses:

2.0 courses: Biology 1001A, 1002B, Chemistry 1100A/B and 1200A 1301A/B, 1302A/B 1.0 course from\*: Calculus 1000A/B or 1100A/B or 1500A/B, Calculus 1301A/B or 1501A/B, Mathematics 1600A/B, Mathematics 1225A/B, 1228A/B, 1229A/B, Statistical Sciences 1024A/B, Applied Mathematics 1201A/B, Applied Mathematics 1413.

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. The first-year physics requirement may be delayed until Year 2 for some modules. See the Admission Requirements for each module for more details 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).

Following Medical Sciences 1, students may request registration in a Bachelor of Science (BSc) degree in Year 2.

Students seeking registration in the Bachelor of Medical Sciences (BMSc) Program will register 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 first year with Medical Sciences 1 and marks of at least 60% or higher are achieved in each of the eight required half courses in biology, chemistry, and mathematics and physics (if completed in Medical Sciences 1). 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 ALL of the 2000-level courses required in the module for which registration in Year 3 is requested. Iisted in the Admission Requirements for the module to which the student applies for Year 3 (any exceptions are may be noted in the module sections). 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 details about the marks, average, etc. required for admission to Year 3 of the BMSc Program, see ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM. See BMSc PROGRAM for the modules leading to a BMSc degree.

## REVISIONS TO ADMISSION AND MODULE REQUIREMENTS FOR STUDENTS ENTERING YEAR 3 OF THE BMSC PROGRAM

#### REVISED CALENDAR COPY

http://www.westerncalendar.uwo.ca/2012/pg1674.html

#### ADMISSION TO THE **BACHELOR OF MEDICAL SCIENCES** (BMSc) PROGRAM

Registration in Admission to the BMSc Program occurs in Year 3 and enrolment is limited. Students must be enrolled in the BMSc program in Year 3 admitted to Year 3 of the BMSc Program in order to progress to Year 4. Admission to Year 3 of the BMSc Program is assured for students in Medical Sciences 2 who complete the MEDICAL SCIENCES FIRST ENTRY PROGRAM (Medical Sciences 1 and 2), provided:

- a full load of 5.0 courses is successfully completed in Medical Sciences 2, and
- an average of at least 80% is achieved on 3.0 of the 2000-level courses required in the module for which registration is requested,
- a mark of at least 60% is achieved in each modular course, and
- no modular courses have been repeated
- ALL of the 2000-level modular courses listed in the Admission Requirements for the module to which the student applies for Year 3 have been completed with a mark of at least 60% in each, a minimum average of 80% has been achieved on the best 3.0 of these 2000-level modular courses, and none of these 2000-level modular courses has been repeated.

If the enrolment target for Year 3 of the BMSc Program is not reached with qualified students from Medical Sciences 2, additional students will be admitted on a competitive basis until the capacity of Year 3 of the BMSc Program is reached. 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. The following conditions must be satisfied by these-additional students in the "competitive pool" requesting admission to the remaining spaces in Year 3 of the BMSc Program:

- marks of at least 60% have been achieved in each of the eight first-year half courses in biology, chemistry, math and physics (marks of at least 70% are required in each of listed in the Admission Requirements for the module to which the student applies for Year 3 has been completed with a mark of at least 60% (students who have completed Biology 1201A and/or 1202B must have marks of 70% or higher in each of these courses),
- a full load of 5.0 courses was is successfully completed in Year 2,
- at least 3.0 of the 2000-level modular courses required in the module for which registration is requested were completed in Year 2, listed in the Admission Requirements for the module to which the student applies in Year 3 have been completed with a mark of at least 60% in each, a minimum average of 75% has been achieved\* on the best 3.0 of these 2000-level modular courses, and a maximum of one of these 2000-level modular half courses has been repeated\*\*.
- an average of at least 75% was achieved on 3.0 of the 2000-level courses required in the
  module for which registration is requested (Note: an average greater than 75% may be
  required on the 2000-level modular courses if the number of applicants exceeds the
  number of remaining spaces in Year 3 of the BMSc Program),
- a mark of at least 60% was achieved in each modular course, and
- a maximum of one of the 2000 level modular half courses has been repeated

Within the BMSc Program, each Honors Specialization module has a maximum capacity and admission will be competitive if the number of students requesting registration is greater than the maximum capacity of the module. Admission to the BMSc Program does not guarantee admission to a particular Honors Specialization module. Admission into the Honors Specialization modules in Year 3 will be based on the averages obtained in the 2000-level modular courses.

Admission into the Honors Specialization modules in Year 4 will require completion of the appropriate 2000- and 3000-level courses and a Weighted Average of at least 75%. The Weighted Average required for admission to Year 4 of any Honors Specialization module may be greater than 75% if the number of students requesting registration is greater than the maximum capacity of the module.

\*Students will be admitted to the remaining spaces in Year 3 of the BMSc Program until the enrolment capacity has been reached, beginning with students achieving the highest average on the best 3.0 of the 2000-level modular courses listed in the Admission Requirements of the module to which they apply. An average greater than 75% may be required on these 3.0 courses if the number of applicants exceeds the number of remaining spaces in Year 3 of the BMSc Program.

\*\*If one 2000-level modular half course has been repeated, the average on the best 3.0 of the 2000-level modular courses will be calculated using an average on the two attempts in the repeated half course.

For details about Admission to the various modules leading to a BMSc degree, see MODULES OFFERED IN THE BMSc PROGRAM.

(Add the entire text – create link on page <a href="http://www.westerncalendar.uwo.ca/2012/pg586.html">http://www.westerncalendar.uwo.ca/2012/pg586.html</a> as Modules Offered in the BMSc Program)

#### MODULES OFFERED IN THE BMSc PROGRAM

#### **Honors Specialization Modules:**

Within the BMSc Program, each Honors Specialization module has a maximum capacity and admission will be competitive if the number of students requesting admission is greater than the maximum capacity of the module. Admission to the BMSc Program does not guarantee admission to a particular Honors Specialization module.

Once admitted to Year 3 of the BMSc Program, admission to each Honors Specialization module in Year 3 will be based on the average obtained in ALL of the 2000-level modular courses listed in the Admission Requirements for the module to which the student applies for Year 3. The 2000-level courses listed in the Admission Requirements will also be used towards fulfilling the Module requirements. Students satisfying the conditions for assured admission to Year 3 of the BMSc Program from the MEDICAL SCIENCES FIRST ENTRY PROGRAM (Medical Sciences 2) will receive priority placement in the Honors Specialization modules in Year 3. Once these students have been adjudicated into the Honors Specialization modules, students admitted to Year 3 of the BMSc Program from the competitive pool will be adjudicated into the remaining spaces in the Honors Specialization modules. Students admitted to Year 3 of the BMSc Program from the competitive pool without having completed all of the 2000-level courses listed in the Admission Requirements for a particular module may be granted special permission for admission, if (i) there are spaces remaining in the module, and (ii) they have satisfied the prerequisites for the 3000-level modular courses.

A minimum Weighted Average of 75% will be required for admission to Year 4 of any Honors Specialization module. See the Weighted Average Chart for the courses/method used to calculate the Weighted Average for each Honors Specialization module. The Weighted Average will be higher than 75% for admission to Year 4 of an Honors Specialization module if the number of students requesting admission is greater than the maximum capacity of the module. Admission to each Honors Specialization modules in Year 4 also requires completion of ALL of the courses indicated in the Weighted Average Chart below.

#### WEIGHTED AVERAGE CHART

Honors Specialization Module	Modular courses responsible for 1/3 of the Weighted Average	Modular courses responsible for 2/3 of the Weighted Average
Biochemistry	3.5 courses: Biochemistry 2280A; Biology 2581B; Biology or Statistical Sciences 2244A/B; Chemistry 2213A/B or 2273A; Chemistry 2223B or 2283G; 1.0 course from Biology 2382B, Biology 2290F/G, Chemistry 2211A/B, 2214A/B, 2374A, 2384B.	2.0 courses: Biochemistry 3380G, 3381A, 3382B and 3390A.
Biochemistry and Cell Biology	3.5 courses: Biochemistry 2280A; Biology 2581B, 2382B and 2290F/G; Biology or Statistical Sciences 2244A/B; Chemistry 2213A/B or 2273A; Chemistry 2223B or 2283G.	3.5 courses: Biochemistry 3380G, 3381A and 3382B; Biology 3316A/B; Biology 3326F/G; Anatomy and Cell Biology 3309.
Biochemistry of Infection and Immunity	3.5 courses: Biochemistry 2280A; Biology 2581B, 2382B and 2290F/G; Biology or Statistical Sciences 2244A/B; Chemistry 2213A/B or 2273A; Chemistry 2223B or 2283G.	3.0 courses: Biochemistry 3380G or Microbiology and Immunology 3600G; Biochemistry 3381A and 3382B; Microbiology and Immunology 2100A, 3300A and 3400B
Chemical Biology	4.5 courses: Biochemistry 2280A; Biology 2581B; Chemistry 2271A, 2281G, 2272F, 2273A, 2283G, 2374A and 2384B	2.5 courses: Biochemistry 3380G, 3381A and 3382B; 1.0 course from Chemistry 3371F, 3372F/G, 3373F or 3374A/B.
Clinical Biochemistry	3.5 courses: Biochemistry 2280A; Biology 2581B; Biology or Statistical Sciences 2244A/B; Chemistry 2213A/B or 2273A; Chemistry 2223B or 2283G; 1.0 course from Biology 2382B, Biology 2290F/G, Chemistry 2211A/B, 2214A/B, 2374A, 2384B.	2.5 courses: Biochemistry 3381A, 3382B, 3385A, 3386B and 3387G.
Computational Biochemistry	3.5 courses: Biochemistry 2280A; Biology 2581B;Chemistry 2213A or 2273A; Chemistry 2223B or 2283G; Biology or Statistical Sciences 2244A/B; Computer Science 1025A/B or 1026A/B; Computer Science 1027A/B.	2.5 courses: Biochemistry 3380G, 3381A and 3382B; Computer Science 2210A/B and 2211A/B.
Epidemiology and Biostatistics	3.5 courses: Biochemistry 2280A; Biology 2581B, 2382B and 2290F/G; Chemistry 2213A/B; Biology or Statistical Sciences 2244A/B: Epidemiology 2200A/B or the former Epidemiology and Biostatistics 2200A/B, 3330B.	2.5 courses: Biostatistics 3100A and 3110B; Epidemiology 3200A, 3210B and 3500A.
IMS (Interdisciplinary Medical Sciences)	3.0 courses: Biochemistry 2280A; Biology 2581B, 2382B and 2290F/G; Chemistry 2213A/B or 2273A; Biology or Statistical Sciences 2244A/B.	3.0 courses: 3.0 courses from Groups A and C in the IMS Honors Specialization module, with at least 2.5 of the courses being from Group A.
Medical Biophysics (Medical Sciences concentration)	3.5 courses: Biochemistry 2280A; Calculus 2302A/B or 2502A/B; Calculus 2303A/B or 2503A/B; Chemistry 2213A/B; Physics 2101A/B and 2102A/B; Biology or Statistical Sciences 2244A/B.	3.0 courses: Medical Biophysics 3330F, 3501F, 3503G, 3505F, 3507G and 3970Z.
Medical Biophysics	2.5 courses: Calculus 2302A/B or 2502A/B; Calculus	3.0 courses: Medical Biophysics 3330F/G, 3501F,

(Clinical Physics concentration)	2303A/B or 2503A/B; Physics 2101A/B, 2102A/B and 2110A/B.	3503G, 3505F, 3507G, 3970Z
Medical Cell Biology	3.5 courses: Biochemistry 2280A; Biology 2581B, 2382B and 2290F/G; Biology or Statistical Sciences 2244A/B; Chemistry 2213A/B or 2273A; Chemistry 2223B or 2283G.	3.0 courses: Anatomy and Cell Biology 3309; Biochemistry 3381A and 3382B; Biology 3316A/B or Physiology 3140A; Biochemistry 3380G or Biology 3326F/G
Medical Health Informatics	3.5 courses: Biochemistry 2280A; 1.0 course from Biology 2290F/G, 2382B, 2581B; Chemistry 2213A/B; Biology or Statistical Sciences 2244A/B; Computer Science 2120A/B and 2121A/B.	3.0 courses: Computer Science 3120A/B and 3121A/B; Pathology 3240A and 3245B; Physiology 3120.
Microbiology and Immunology	3.5 courses: Biochemistry 2280A; Biology 2581B, 2382B and 2290F/G; Chemistry 2213A/B and 2223B; Biology 2244A/B or Statistical Sciences 2244A/B.	2.5 courses: Biochemistry 3381A; Microbiology and Immunology 2100A, 3300A, 3400B and 3600G.
Pathology and Toxicology	3.0 courses: Biochemistry 2280A; Biology 2290F/G, 2382B, 2581B; Chemistry 2213A/B; Biology or Statistical Sciences 2244A/B.	4.0 courses: 1.0 course from Anatomy and Cell Biology 3309 or 3319; Pathology 3240A and 3245B; Pharmacology 3620; Physiology 3120.
Pharmacology	3.0 courses: Biochemistry 2280A; Biology 2581B, 2382B and 2290F/G; Chemistry 2213A/B; Biology or Statistical Sciences 2244A/B.	3.0 courses: Pharmacology 3580Y and 3620; Physiology 3120 and 3140A.
Physiology	3.0 courses: Biochemistry 2280A; Biology 2581B, 2382B and 2290F/G; Chemistry 2213A/B; Biology or Statistical Sciences 2244A/B.	2.0 courses: Physiology 3120, 3130Y and 3140A.
Physiology and Pharmacology	3.0 courses: Biochemistry 2280A; Biology 2581B, 2382B and 2290F/G; Chemistry 2213A/B; Biology or Statistical Sciences 2244A/B.	3.5 courses: Pharmacology 3580Y and 3620; Physiology 3120, 3130Y and 3140A.

#### Notes:

- 1. Some courses in the Weighted Average Chart include a mark/average requirement in their prerequisite(s). See UNDERGRADUATE COURSE INFORMATION.
- 2. Information about the minimum Weighted Average required for admission to each Honors Specialization module is available on the BMSc website: www.uwo.ca/bmsc

#### **Double Majors:**

Students admitted to Year 3 of the BMSc Program are eligible to register in Double Major modules provided they have completed all of the 2000-level courses listed in the Admission Requirements for both Major modules and have the prerequisites to register in the 3000-level courses required in the module (some 3000-level courses include mark/average requirements in their prerequisites). Students admitted to Year 3 of the BMSc Program who have not completed all of the 2000-level courses listed in the Admission Requirements for both Major modules may be granted special permission for admission if they have the prerequisites to register in the 3000-level courses required in the module.

#### **Specialization modules:**

Students admitted to Year 3 of the BMSc Program are eligible to register in Specialization modules provided they have completed all of the 2000-level courses listed in the Admission Requirements for the Specialization module and have the prerequisites to register in the 3000-level courses required in the module (some 3000-level courses include mark/average requirements in their prerequisites). Students admitted to Year 3 of the BMSc Program who have not completed all of the 2000-level courses listed in the Admission Requirements for Specialization may be granted special permission for admission if they have the prerequisites to register in the 3000-level courses required in the module. Students in the BMSc Program are encouraged to pursue either an Honors Specialization module or Double Major modules leading to Honors degrees. Specialization modules lead to 4-year BMSc (non-honors) degrees.

### REVISIONS TO THE BACHELOR OF MEDICAL SCIENCES – UNDERGRADUATE PROGRAM DESCRIPTION

#### REVISED CALENDAR COPY

http://www.westerncalendar.uwo.ca/2012/pg531.html

#### Replace the entire page with the text below:

#### **BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM**

The Bachelor of Medical Sciences (BMSc) Program, offered jointly by the Faculty of Science and the Schulich School of Medicine & Dentistry, offers four-year undergraduate degrees for students interested in an advanced study of one or more of the disciplines offered by the following Basic Medical Science departments:

Anatomy and Cell Biology+ Microbiology and Immunology

Biochemistry Pathology
Epidemiology and Biostatistics Pharmacology
Medical Biophysics Physiology

Students wishing an interdisciplinary approach and a broader education in the basic medical sciences are invited to consider the Interdisciplinary Medical Sciences (IMS) modules as an alternative to the discipline-specific modules.

+ Medical Cell Biology modules are offered by the Department of Anatomy and Cell Biology

The Honors Bachelor of Medical Sciences (BMSc) degree:

This degree must contain either one of the following Honors Specializations:

Biochemistry

Biochemistry and Cell Biology

Biochemistry of Infection and Immunity

Chemical Biology

Clinical Biochemistry

Computational Biochemistry

**Epidemiology and Biostatistics** 

Interdisciplinary Medical Sciences (IMS) (formerly "Medical Sciences")

Medical Biophysics (Medical Science Concentration)

Medical Biophysics (Clinical Physics Concentration)

Medical Cell Biology

Medical Health Informatics

Microbiology and Immunology

Pathology and Toxicology

Pharmacology

Physiology

Physiology and Pharmacology

OR

two of the following Majors:

**Biochemistry** 

Interdisciplinary Medical Sciences (IMS)\*

Medical Biophysics

Medical Cell Biology

Microbiology and Immunology

Pharmacology

Physiology

<sup>\*</sup>Note: Students registered in a Bachelor of Medical Sciences (BMSc) degree prior to September 1, 2013, may complete a Major in Medical Sciences. Students admitted to the BMSc Program

after September 1, 2013 may include the Major in Interdisciplinary Medical Sciences (IMS) in a BMSc degree but not the Major in Medical Sciences.

The Bachelor of Medical Sciences (BMSc) degree:

This degree must contain either one of the following Specializations:

Biochemistry

Interdisciplinary Medical Sciences (IMS) (formerly "Medical Sciences")

**Medical Biophysics** 

Microbiology and Immunology

Pathology and Toxicology

Pharmacology

Physiology

Physiology and Pharmacology

OR

two of the following Majors:

Biochemistry

Interdisciplinary Medical Sciences (IMS)\*

Medical Biophysics

Medical Cell Biology

Microbiology and Immunology

Pharmacology

Physiology

\*Note: Students registered in a Bachelor of Medical Sciences (BMSc) degree prior to September 1, 2013, may complete a Major in Medical Sciences. Students admitted to the BMSc Program after September 1, 2013 may include the Major in Interdisciplinary Medical Sciences (IMS) in a BMSc degree but not the Major in Medical Sciences.

Students interested in the modules leading to a Bachelor of Medical Sciences (BMSc) degree will normally complete the MEDICAL SCIENCES FIRST ENTRY PROGRAM (Medical Sciences 1 and 2). See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for additional information.

## HONORS SPECIALIZATION, SPECIALIZATION AND MAJOR IN INTERDISCIPLINARY MEDICAL SCIENCES (IMS)

#### **NEW CALENDAR COPY**

Faculty of Science: http://www.westerncalendar.uwo.ca/2012/pg705.html Schulich School of Medicine & Dentistry: http://www.westerncalendar.uwo.ca/2012/pg531.html

#### HONORS SPECIALIZATION IN INTERDISCIPLINARY MEDICAL SCIENCES (IMS)

This module leads to a Bachelor of Medical Sciences (BMSc) degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

#### Admission Requirements for September 1, 2013

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

2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1100A/B, 1200B 1.0 course from: Calculus 1000A/B or 1500A/B, Calculus 1301A/B or 1501A/B, Mathematics 1600A/B, Mathematics 1225A/B, 1228A/B, 1229A/B, Statistical Sciences 1024A/B, Applied Mathematics 1201A/B, Applied Mathematics 1413.

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

1.0 course in physics must be completed by the end of Year 2 and a minimum mark of 60% must be achieved in each of two half courses, as follows:

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

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

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

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

Admission to this Honors Specialization module occurs in Year 3 and requires admission to 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%:

2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 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.

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

#### Module

10.0 courses:

3.5 courses: Biochemistry 2280A, Biology 2290F/G, 2382B, 2581B, Chemistry 2213A/B, Medical Sciences 4900F/G, 4930F/G

0.5 course from: Chemistry numbered 2100-3999 (2223B is recommended)

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

3.5 courses from: Groups A, B and C (see below), with at least 2.5 courses selected from Group A and at least 0.5 course selected from Group C, and no more than 2.0 courses from one subject area.

2.0 courses at the 4000-level from at least two of the following subject areas: Anatomy and Cell Biology, Biochemistry, Biostatistics, Epidemiology, Medical Biophysics, Medical Sciences, Microbiology and Immunology, Pathology, Pharmacology, Physiology.

Group A: Anatomy and Cell 3309, Biochemistry 3381A, 3382B, Biostatistics 3100A, 3110B, Epidemiology 2200A/B, 3200A, Medical Biophysics 3330F/G, 3336F/G, 3501F, 3503G, 3505F, 3507G, Microbiology and Immunology 2100A, 3300A, 3400B, Pathology 3240A, 3245B, Pharmacology 3620, Physiology 3120, 3140A

Group B: Anatomy and Cell Biology 3319\*\*, Biochemistry 3385A, 3386B, 3390A, Epidemiology 3210B, 3315B, 3500A, Microbiology and Immunology 2500A/B, Pharmacology 2060A/B

Group C: Anatomy and Cell Biology 3309, Biochemistry 3380G, 3387G, Medical Biophysics 3970Z, Microbiology and Immunology 3600G, Pharmacology 3580Y, Physiology 3130Y

\*\*Including Anatomy and Cell Biology 3319 in the module will increase the total number of courses required to complete the module to 10.5 courses.

See UNDERGRADUATE COURSE INFORMATION for the requisites for 3000- and 4000-level courses, and the BMSc website for information about constraints (priority and restricted access) for all basic medical science courses.

#### SPECIALIZATION IN INTERDISCIPLINARY MEDICAL SCIENCES (IMS)

This module leads to a Bachelor of Medical Sciences (BMSc) degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

#### Admission Requirements for September 1, 2013:

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

- 2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1100A/B, 1200B 1.0 course from: Calculus 1000A/B or 1500A/B, Calculus 1301A/B or 1501A/B, Mathematics 1600A/B, Mathematics 1225A/B, 1228A/B, 1229A/B, Statistical Sciences 1024A/B, Applied Mathematics 1201A/B, Applied Mathematics 1413.
- \* Biology 1201A with a mark of at least 70% may be used in place of Biology 1001A, and Biology 1202B with a mark of at least 70% may be used in place of Biology 1002B.
- 1.0 course in physics must be completed by the end of Year 2 and a minimum mark of 60% must be achieved in each of two half courses, as follows:
- 0.5 course from: Physics 1028A/B, 1301A/, 1501A/B
- 0.5 course from: Physics 1029A/B, 1302A/B, 1502A/B

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

### 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%:

- 2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 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.).

2.5 courses: Biochemistry 2280A; Biology 2290F/G, 2382B, 2581B; Chemistry 2213A/B

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

#### Module

9.5 courses:

2.5 course: Biochemistry 2280A, Biology 2290F/G, 2382B, 2581B, Chemistry 2213A/B

0.5 course from: Chemistry numbered 2100-3999 (2223B is recommended)

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

3.5 courses from: Groups A, B and C (see below), with at least 2.5 courses selected from Group A and at least 0.5 course selected from Group C, and no more than 2.0 courses from one subject area

2.5 courses at the 4000-level from at least two of the following subject areas: Anatomy and Cell Biology, Biochemistry, Biostatistics, Epidemiology, Medical Biophysics, Medical Sciences, Microbiology and Immunology, Pathology, Pharmacology, Physiology.

Group A: Anatomy and Cell 3309, Biochemistry 3381A, 3382B, Biostatistics 3100A, 3110B, Epidemiology 2200A/B, 3200A, Medical Biophysics 3330F/G, 3336F/G, 3501F, 3503G, 3505F, 3507G, Microbiology and Immunology 2100A, 3300A, 3400B, Pathology 3240A, 3245B, Pharmacology 3620, Physiology 3120, 3140A

Group B: Anatomy and Cell Biology 3319\*\*, Biochemistry 3385A, 3386B, 3390A, Epidemiology 3210B, 3315B, 3500A, Microbiology and Immunology 2500A/B, Pharmacology 2060A/B

Group C: Anatomy and Cell Biology 3309, Biochemistry 3380G, 3387G, Medical Biophysics 3970Z, Microbiology and Immunology 3600G, Pharmacology 3580Y, Physiology 3130Y

\*\*Including Anatomy and Cell Biology 3319 in the module will increase the total number of courses required to complete the module to 10.0 courses.

See UNDERGRADUATE COURSE INFORMATION for the requisites for 3000- and 4000-level courses, and the BMSc website for information about constraints (priority and restricted access) for all basic medical science courses.

#### 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. As of September 1, 2013, students in non-BMSc degrees may pursue a MAJOR IN MEDICAL SCIENCES, only.

#### Admission Requirements for September 1, 2013:

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

2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1100A/B, 1200B 1.0 course from: Calculus 1000A/B or 1500A/B, Calculus 1301A/B or 1501A/B, Mathematics 1600A/B, Mathematics 1225A/B, 1228A/B, 1229A/B, Statistical Sciences 1024A/B, Applied Mathematics 1201A/B, Applied Mathematics 1413

- \* Biology 1201A with a mark of at least 70% may be used in place of Biology 1001A, and Biology 1202B with a mark of at least 70% may be used in place of Biology 1002B.
- 1.0 course in physics must be completed by the end of Year 2 and a minimum mark of 60% must be achieved in each of two half courses, as follows:

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

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

Students will not be admitted to Year 2 of the Major in IMS beginning in September, 2014.

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%:

2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 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, Statistical Sciences 2244A/B

1.0 course from: Biology 2290F/G, 2382B, 2581B 0.5 course from: Chemistry numbered 2100-3999

#### Module

6.0 courses:

0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B

1.0 course from: Biology 2290F/G, 2382B, 2581B

0.5 course from: Chemistry numbered 2100-3999

3.0 courses from: Groups A and B (see below) with at least 2.0 courses selected from Group A and no more than 2.0 courses in one subject area

1.0 course at the 4000-level from any of the following subject areas: Anatomy and Cell Biology, Biochemistry, Biostatistics, Epidemiology, Medical Biophysics, Medical Sciences, Microbiology and Immunology, Pathology, Pharmacology, Physiology

Group A: Anatomy and Cell 3309, Biochemistry 3381A, 3382B, Biostatistics 3100A, 3110B, Epidemiology 2200A/B, 3200A, Medical Biophysics 3330F/G, 3336F/G, 3501F, 3503G, 3505F, 3507G, Microbiology and Immunology 2100A, 3300A, 3400B, Pathology 3240A, 3245B, Pharmacology 3620, Physiology 3120, 3140A

Group B: Anatomy and Cell Biology 3319, Biochemistry 3385A, 3386B, 3390A, Epidemiology 3210B, 3315B, 3500A, Microbiology and Immunology 2500A/B, Pharmacology 2060A/B

#### Notes:

- 1. See UNDERGRADUATE COURSE INFORMATION for course requisites and the BMSc website for information about constraints (priority and restricted access) for all basic medical science courses.
- 2. 3000-level courses from the subject areas in Groups A and B that do not appear in the lists above may be included in the Major only with permission of the IMS counselor.
- 3. A maximum of 1.0 "common course" can be double-counted toward two modules in a BMSc degree. See the Common Course Policy on the BMSc website for more information.

#### REVISIONS TO THE MAJOR IN MEDICAL SCIENCES

#### REVISED CALENDAR COPY

http://www.westerncalendar.uwo.ca/2012/pg707.html

#### **MAJOR IN MEDICAL SCIENCES**

As of September 1, 2013, admission to this module is available only to students in degrees other than Bachelor of Medical Sciences (BMSc) degrees. Students registered in a Bachelor of Medical Sciences (BMSc) degree prior to September 1, 2013 may complete the Major in Medical Sciences. Students admitted to the BMSc Program after September 1, 2013 who are interested in an interdisciplinary Major should see the MAJOR IN INTERDISCIPLINARY MEDICAL SCIENCES (IMS).

#### **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, or the former Biology 1222 or 1223
- 1.0 course: Chemistry 1100A/B and 1200B, or the former Chemistry 1020, 1050, or 023
- 1.0 course from: Calculus 1000A/B or 1100A/B or 1500A/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 or the former Calculus 1201A/B, Applied Mathematics 1413, or the former Mathematics 030

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

- 0.5 course from: Physics 1028A/B, 1301A/B or 1501A/B
- 0.5 course from: Physics 1029A/B, 1302A/B or 1502A/B

It is recommended that the two 0.5 courses in Physics be taken in the Fall and Winter terms of the same academic year.

#### **Notes for Admission Requirements:**

- 1. 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.
- 2. Either the former Physics 1020 or 1024 with a minimum mark of 60%, may be used in place of two 0.5 courses in Physics listed above.
- 3. Chemistry 1301A/B and 1302A/B will be introduced in September 2014 and will replace Chemistry 1100A/B and 1200B in the Admission Requirements.

#### Module

6.0 courses:

0.5 course: Biochemistry 2280A

0.5 course from: Chemistry 2213A/B or 2273A 0.5 course from: Chemistry numbered 2100-3999

0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B, or the former Statistical

Sciences 2122A/B

1.0 course from: Biology 2290F/G, 2382B, 2581B

3.0 courses\* from: Anatomy and Cell Biology 3309, 3319, Biochemistry 3380G or 3387G, 3381A, 3382B, 3385A, 3386B, Epidemiology and Biostatistics 2200A/B, Medical Biophysics 3330F/G, 3336F/G, 3501F, 3503G, 3505F, 3507G, 3970Z, Microbiology and Immunology 2100A, 2500A/B, 3300A, 3400B, 3600G, Pathology 3240A, 3245B, Pharmacology 2060A/B, 3580Y, 3620, the former Pharmacology 3550A/B, 3560A/B, Physiology 3120, 3130Y, 3140A, the former Epidemiology and Biostatistics 3330B, the former Medical Biophysics 3302E, 3303E.

\* The following 'discipline requirement' must be satisfied with these 3.0 courses:

A minimum of 1.0 course must be taken from one of the Basic Medical Science disciplines (below), and

A minimum of 1.0 course must be taken from a different Basic Medical Science discipline

Basic Medical Science Disciplines: Anatomy and Cell Biology, Biochemistry, Epidemiology and Biostatistics, Medical Biophysics, Microbiology and Immunology, Pathology, Pharmacology, and Physiology.

Students are advised to consult the BMSc website (www.uwo.ca/bmsc) for information about constraints (priority and restricted access) for all Basic Medical Science courses.

Basic Medical Science courses at the 4000-level may be included in the Major only with permission of the Medical Sciences counselor.

3.0 courses from: Groups A and B (see below) with at least 1.0 course selected from Group A and no more than 2.0 courses from one subject area.

Group A: Anatomy and Cell 3309, Biochemistry 3381A, 3382B, Biostatistics 3100A, 3110B, Epidemiology 2200A/B, 3200A, Medical Biophysics 3330F/G, 3336F/G, 3501F, 3503G, 3505F, 3507G, Microbiology and Immunology 2100A, 3300A, 3400B, Pathology 3240A, 3245B, Pharmacology 3620, Physiology 3120, 3140A

Group B: Anatomy and Cell Biology 3319, Biochemistry 3385A, 3386B, 3390A, Epidemiology 3210B, 3315B, 3500A, Microbiology and Immunology 2500A/B, Pharmacology 2060A/B

#### Notes:

- 1. See UNDERGRADUATE COURSE INFORMATION for the course requisites and the BMSc website for information about constraints (priority and restricted access) for all basic medical science courses.
- 2. 3000-level courses from the subject areas in Groups A and B that do not appear in the lists above may be included in the Major only with permission of the IMS counselor.

  3. 4000-level courses from the subject areas in Groups A and B may be included in the Major only with permission of the IMS counselor (a maximum of 1.0 4000-level course will be permitted).

<u>Note to Senate:</u> The following modules will be revised to accommodate changes related to the introduction of the Medical Sciences First Entry Program. Module descriptions in the Academic Calendar will be replaced as shown below for the following modules:

HONORS SPECIALIZATION IN BIOCHEMISTRY - http://www.westerncalendar.uwo.ca/2012/pg613.html

HONORS SPECIALIZATION IN BIOCHEMISTRY AND CELL BIOLOGY

http://www.westerncalendar.uwo.ca/2012/pg614.html

HONORS SPECIALIZATION IN BIOCHEMISTRY OF INFECTION AND IMMUNITY

http://www.westerncalendar.uwo.ca/2012/pg616.html

HONORS SPECIALIZATION IN CHEMICAL BIOLOGY

http://www.westerncalendar.uwo.ca/2012/pg1586.html

HONORS SPECIALIZATION IN CLINICAL BIOCHEMISTRY

http://www.westerncalendar.uwo.ca/2012/pg617.html

HONORS SPECIALIZATION IN COMPUTATIONAL BIOCHEMISTRY

http://www.westerncalendar.uwo.ca/2012/pg1603.html

HONORS SPECIALIZATION IN MEDICAL BIOPHYSICS (MEDICAL SCIENCE CONCENTRATION)

http://www.westerncalendar.uwo.ca/2012/pg700.html

HONORS SPECIALIZATION IN MEDICAL BIOPHYSICS (CLINICAL PHYSICS CONCENTRATION)

http://www.westerncalendar.uwo.ca/2012/pg1608.html

HONORS SPECIALIZATION IN MEDICAL CELL BIOLOGY

http://www.westerncalendar.uwo.ca/2012/pg1351.html

HONORS SPECIALIZATION IN MEDICAL HEALTH INFORMATICS

http://www.westerncalendar.uwo.ca/2012/pg1664.html

HONORS SPECIALIZATION IN MICROBIOLOGY AND IMMUNOLOGY

http://www.westerncalendar.uwo.ca/2012/pg712.html

HONORS SPECIALIZATION IN PATHOLOGY AND TOXICOLOGY

http://www.westerncalendar.uwo.ca/2012/pg718.html

HONORS SPECIALIZATION IN PHARMACOLOGY http://www.westerncalendar.uwo.ca/2012/pg754.html

HONORS SPECIALIZATION IN PHYSIOLOGY http://www.westerncalendar.uwo.ca/2012/pg748.html

HONORS SPECIALIZATION IN PHYSIOLOGY AND PHARMACOLOGY

http://www.westerncalendar.uwo.ca/2012/pg749.html

SPECIALIZATION IN BIOCHEMISTRY http://www.westerncalendar.uwo.ca/2012/pg620.html

SPECIALIZATION IN MEDICAL BIOPHYSICS http://www.westerncalendar.uwo.ca/2012/pg703.html

SPECIALIZATION IN MICROBIOLOGY AND IMMUNOLOGY

http://www.westerncalendar.uwo.ca/2012/pg714.html

SPECIALIZATION IN PATHOLOGY AND TOXICOLOGY

http://www.westerncalendar.uwo.ca/2012/pg719.html

SPECIALIZATION IN PHARMACOLOGY http://www.westerncalendar.uwo.ca/2012/pg756.html

SPECIALIZATION IN PHYSIOLOGY http://www.westerncalendar.uwo.ca/2012/pg752.html

SPECIALIZATION IN PHYSIOLOGY AND PHARMACOLOGY

http://www.westerncalendar.uwo.ca/2012/pg753.html

MAJOR IN BIOCHEMISTRY http://www.westerncalendar.uwo.ca/2012/pg619.html

MAJOR IN MEDICAL BIOPHYSICS http://www.westerncalendar.uwo.ca/2012/pg702.html

MAJOR IN MEDICAL CELL BIOLOGY http://www.westerncalendar.uwo.ca/2012/pg594.html

MAJOR IN MICROBIOLOGY AND IMMUNOLOGY http://www.westerncalendar.uwo.ca/2012/pg713.html

MAJOR IN PHARMACOLOGY http://www.westerncalendar.uwo.ca/2012/pg755.html

MAJOR IN PHYSIOLOGY http://www.westerncalendar.uwo.ca/2012/pg751.html

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#### HONORS SPECIALIZATION IN BIOCHEMISTRY

http://www.westerncalendar.uwo.ca/2012/pg613.html

This module leads to a Bachelor of Medical Sciences (BMSc) Honors degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

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

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

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

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

2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 1302A/B

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

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.

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

#### Module

9.5 courses:

- 1.0 course: Biochemistry 2280A, Biology 2581B
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B
- 1.0 course: Chemistry 2213A/B or 2273A, and Chemistry 2223B or 2283G
- 1.0 course from: Biology 2290F/G, 2382B, Chemistry 2211A/B, 2214A/B, 2374A (or the former 2274A), Chemistry 2384B (or the former 2284B)
- 1.5 courses: Biochemistry 3380G, 3381A, 3382B (with a mark of at least 70% in each)
- 1.5 courses: Biochemistry 3390A, 4410A, 4420A (or the former 4420B)
- 1.5 courses from: Biochemistry 4400G (or the former 4400F), 4430B, 4435B, 4445F, 4450A, 4463G, 4465A, the former Biochemistry 4440A
- 1.5 courses: Biochemistry 4483E (Research Project = 1.5 courses)

#### **Notes for Module:**

- 1. Students registered in Year 3 or 4 of the Honors Specialization module in 2011 or earlier will require only 9.0 courses for the module (Biochemistry 3390A will not be required).
- 2. It is recommended that students include at least one of Biology 2290F/G, Chemistry 2214A/B, or Chemistry 2374A (or the former Chemistry 2284B).

<sup>\*</sup> 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.

#### HONORS SPECIALIZATION IN BIOCHEMISTRY AND CELL BIOLOGY

http://www.westerncalendar.uwo.ca/2012/pg614.html

This module leads to a Bachelor of Medical Sciences (BMSc) Honors degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

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

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

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 courses listed below must each be completed with a mark of at least 60%:

- 2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 1302A/B
- 0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/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
- \* 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%), Chemistry 2273A
- 0.5 course from: Chemistry 2223B (with a mark of at least 65%), Chemistry 2283G
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B
- 1.5 courses: Biology 2290F/G, 2382B, 2581B

#### Module

10.5 courses:

- 0.5 course: Biochemistry 2280A
- 1.0 course: Chemistry 2213A/B or 2273A, and Chemistry 2223B or 2283G
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B
- 1.5 courses: Biology 2290F/G, 2382B, 2581B
- 0.5 course: Biochemistry 3380G
- 1.0 course: Biochemistry 3381A, 3382B (with a mark of at least 70% in each)
- 0.5 course from: Biology 3316A/B, Physiology 3140A
- 1.5 courses: Anatomy and Cell Biology 3309, Biology 3326F/G
- 2.0 courses: Anatomy and Cell Biology 4429A, Biochemistry 4410A, 4420A (or the former 4420B), 4430B
- 1.5 courses from: Anatomy and Cell Biology 4480E, Biochemistry 4483E (or the former 4480E) (Research project = 1.5 courses)

**Note:** Some modular courses include a mark requirement in their prerequisite(s). See UNDERGRADUATE COURSE INFORMATION.

### HONORS SPECIALIZATION IN BIOCHEMISTRY OF INFECTION AND IMMUNITY

http://www.westerncalendar.uwo.ca/2012/pg616.html

This module leads to a Bachelor of Medical Sciences (BMSc) Honors degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

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

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

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 courses listed below must each be completed with a mark of at least 60%:

- 2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 1302A/B
- 0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/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
- \* 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.

- 2.0 courses: Biochemistry 2280A (with a mark of at least 65%), Biology 2290F/G, 2382B, 2581B
- 0.5 course from: Chemistry 2213A/B (with a mark of at least 65%), Chemistry 2273A
- 0.5 course from: Chemistry 2223B (with a mark of at least 65%), Chemistry 2283G
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B

#### Module

10.0 courses:

- 3.0 courses: Biochemistry 2280A, Biology 2290F/G, 2382B, 2581B
- 1.0 course: Chemistry 2213A/B or 2273A, and Chemistry 2223B or 2283G
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B
- 2.5 courses: Biochemistry 3381A, 3382B, Microbiology and Immunology 2100A, 3300A, 3400B (with a mark of at least 70% in each)
- 0.5 course from: Biochemistry 3380G, Microbiology and Immunology 3600G
- 1.0 course from: Microbiology and Immunology 4100A, 4200B, 4300A, 4700B
- 1.0 course: Biochemistry 4410A, 4420A (or the former 4420B)
- 1.5 courses from: Biochemistry 4483E, Microbiology and Immunology 4970E (Research Project = 1.5 courses)

**Note:** Some modular courses include a mark requirement in their prerequisite(s). See UNDERGRADUATE COURSE INFORMATION.

#### HONORS SPECIALIZATION IN CHEMICAL BIOLOGY

http://www.westerncalendar.uwo.ca/2012/pg1586.html

This module leads to a Bachelor of Medical Sciences (BMSc) Honors degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

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

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

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 courses listed below must each be completed with a mark of at least 60%:

- 2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 1302A/B
- 0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/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

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.

4.5 courses: Biochemistry 2280A (with a mark of at least 65%), Biology 2581B, Chemistry 2271A, 2272F, 2273A, 2374A, 2281G, 2283G, 2384B

#### Module

11.0 courses:

4.5 courses: Biochemistry 2280A, Biology 2581B, Chemistry 2271A, 2272F, 2273A, 2374A, 2281G, 2283G, 2384B

- 1.5 courses: Biochemistry 3380G, 3381A, 3382B
- 1.0 course from: Chemistry 3371F, 3372F/G, 3373F, 3374A/B
- 1.0 course: Biochemistry 4410A, 4420A (or the former 4420B)
- 1.5 courses from: Biochemistry 4400G (or the former 4400F), 4430B, 4435B, 4445F, 4450A, 4463G,
- 4465A, the former Biochemistry 4440A, the former Pharmacology 3550A/B, 3560A/B
- 1.5 courses: Chemical Biology 4500E (Research Project = 1.5 courses)

#### HONORS SPECIALIZATION IN CLINICAL BIOCHEMISTRY

http://www.westerncalendar.uwo.ca/2012/pg617.html

This module leads to a Bachelor of Medical Sciences (BMSc) Honors degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

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

<sup>\*</sup> 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.

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

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 courses listed below must each be completed with a mark of at least 60%:

- 2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 1302A/B
- 0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/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
- \* 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.

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

#### Module

10.0 courses:

- 1.0 course: Biochemistry 2280A, Biology 2581B
- 1.0 course: Chemistry 2213A/B or 2273A, and Chemistry 2223B or 2283G
- 1.0 course from: Biology 2290F/G, 2382B, Chemistry 2211A/B, 2214A/B, 2374A (or the former 2274A), 2384B (or the former 2284B)
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B
- 0.5 course: Pathology 3240A
- 1.5 courses: Biochemistry 3381A, 3382B, 3387G (with a mark of at least 70% in each)
- 3.0 courses: Biochemistry 3385A, 3386B, 4410A, 4420A (or the former 4420B), 4450A, 4463G
- 1.5 courses: Biochemistry 4485E (Research Project = 1.5 courses)

#### HONORS SPECIALIZATION IN COMPUTATIONAL BIOCHEMISTRY

http://www.westerncalendar.uwo.ca/2012/pg1603.html

This module leads to a Bachelor of Medical Sciences (BMSc) Honors degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

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

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

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 courses listed below must each be completed with a mark of at least 60%:

- 2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 1302A/B
- 0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/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
- \* 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.

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

### Module

10.0 courses:

- 1.0 course: Computer Science 1025A/B or 1026A/B, and Computer Science 1027A/B
- 2.0 courses: Biochemistry 2280A, Biology 2581B, Computer Science 2210A/B, 2211A/B
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B
- 1.0 course: Chemistry 2213A/B or 2273A, and Chemistry 2223B or 2283G
- 1.5 courses: Biochemistry 3380G, 3381A, 3382B (with a mark of at least 70% in each)
- 2.0 courses: Biochemistry 4410A, 4420A (or the former 4420B), 4435B, 4445F
- 0.5 course from: Biochemistry 4400G (or the former 4400F), Biochemistry 4430B, 4450A, 4463G, 4465A, the former Biochemistry 4440A
- 1.5 courses: Biochemistry 4483E (Research Project = 1.5 courses)

# HONORS SPECIALIZATION IN MEDICAL BIOPHYSICS (MEDICAL SCIENCE CONCENTRATION) http://www.westerncalendar.uwo.ca/2012/pg700.html

This module leads to a Bachelor of Medical Sciences (BMSc) Honors degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

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

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

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 courses listed below must each be completed with a mark of at least 60%:

- 2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 1302A/B
- 1.0 course: Calculus 1000A/B or 1100A/B or 1500A/B, and 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, Physics 2128A/B and 2129A/B, Physics 2101A/B and 2102A/B
- 1.0 course: Calculus 2302A/B or 2502A/B, and Calculus 2303A/B or 2503A/B
- 1.0 course: Biochemistry 2280A, Chemistry 2213A/B
- 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, Statistical Sciences 2244A/B (may be delayed until Year 3)

#### Module:

- 9.5 courses:
- 1.0 course from: Medical Biophysics 2128A/B and 2129A/B, Physics 2128A/B and 2129A/B, Physics 2101A/B and 2102A/B
- 1.0 course: Calculus 2302A/B or 2502A/B, and Calculus 2303A/B or 2503A/B
- 1.0 course: Biochemistry 2280A, Chemistry 2213A/B
- 0.5 course from: Biology 2382B, 2581B, Chemistry 2214A/B, Medical Biophysics 3336F/G
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B
- 1.5 courses from: Medical Biophysics 3501F, 3503G, 3970Z, the former Medical Biophysics 3302E\* -- DOES THIS ASTERISK BELONG HERE???
- 1.0 course from: Medical Biophysics 3505F, 3507G, the former Medical Biophysics 3303E
- 0.5 course: Medical Biophysics 3330F/G
- 1.0 course from: Medical Biophysics 4445A/B, 4455A/B, 4467A/B, 4535A/B, 4475A/B
- 1.5 courses: Medical Biophysics 4970E (Research Project = 1.5 courses)

# HONORS SPECIALIZATION IN MEDICAL BIOPHYSICS (CLINICAL PHYSICS CONCENTRATION) http://www.westerncalendar.uwo.ca/2012/pg1608.html

This module leads to a Bachelor of Medical Sciences (BMSc) Honors degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

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

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

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 courses listed below must each be completed with a mark of at least 60%:

- 2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 1302A/B
- 1.0 course from: Calculus 1000A/B or 1100A/B or 1500A/B, and 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 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: Calculus 2302A/B or 2502A/B, and Calculus 2303A/B or 2503A/B
- 1.5 courses: Physics 2101A/B, 2102A/B, 2110A/B

### Module

11.5 courses:

- 1.0 course from: Calculus 2302A/B or 2502A/B, and Calculus 2303A/B or 2503A/B
- 1.5 courses: Physics 2101A/B, 2102A/B, 2110A/B
- 6.0 courses: Physiology 3120, Medical Biophysics 3330F/G, 3501F, 3503G, 3505F, 3507G, 3970Z,

Physics 3200A/B, 3300A/B, 3380A/B, 3400A/B

- 1.0 course from: Physics at the 3000- or 4000-level
- 0.5 course from: Medical Biophysics 4445A/B, 4455A/B, 4535A/B
- 1.5 courses: Medical Biophysics 4971E (Research Project = 1.5 courses)

#### HONORS SPECIALIZATION IN MEDICAL CELL BIOLOGY

http://www.westerncalendar.uwo.ca/2012/pg1351.html

This module leads to a Bachelor of Medical Sciences (BMSc) Honors degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

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

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

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 courses listed below must each be completed with a mark of at least 60%:

- 2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 1302A/B
- 0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/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

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%), Chemistry 2273A 0.5 course from: Chemistry 2223B (with a mark of at least 65%), Chemistry 2283G

0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B

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

#### Module

11.0 courses:

0.5 course: Biochemistry 2280A

1.0 course: Chemistry 2213A/B or 2273A, and Chemistry 2223B or 2283G

0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B

1.5 courses: Biology 2290F/G, 2382B, 2581B 1.0 course: Anatomy and Cell Biology 3309

1.0 course from: Anatomy and Cell Biology 3319, Physiology 3120

1.0 course: Biochemistry 3381A, 3382B

0.5 course from: Biology 3316A/B, Physiology 3140A

0.5 course from: Biochemistry 3380G, Biology 3326F/G

1.5 courses: Anatomy and Cell Biology 4410A, 4411B, 4429A

0.5 course from: Anatomy and Cell Biology 4451F/G (or the former 4451A), 4452A/B, 4461B

1.5 courses: Anatomy and Cell Biology 4480E (Research Project = 1.5 courses)

Note: Some modular courses include a mark requirement in their prerequisite(s). See UNDERGRADUATE COURSE INFORMATION.

### HONORS SPECIALIZATION IN MEDICAL HEALTH INFORMATICS

http://www.westerncalendar.uwo.ca/2012/pg1664.html

This module leads to a Bachelor of Medical Sciences (BMSc) Honors degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

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

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

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 courses listed below must each be completed with a mark of at least 60%:

2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 1302A/B

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

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, Statistical Sciences 2244A/B

1.0 course: Computer Science 2120A/B, 2121A/B

#### Module

11.0 courses:

1.0 course: Biochemistry 2280A, Chemistry 2213A/B

1.0 course from: Biology 2290F/G, 2382B, 2581B

0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B

1.0 course: Pathology 3240A, 3245B

2.0 courses: Computer Science 2120A/B, 2121A/B, 3120A/B, 3121A/B

1.0 course from: Computer Science 3122A/B, 3375A/B, 4412A/B

1.0 course: Physiology 3120

1.0 course from: Anatomy and Cell Biology 3309, 3319, Biochemistry 3385A, 3386B, Epidemiology 2200A/B, Medical Biophysics 3503G, Microbiology and Immunology 2500A/B, Pharmacology 3620, the former Epidemiology and Biostatistics 2200A/B, 3330B

1.0 course: Medical Health Informatics 4100F (or the former Pathology 4100F), 4110G (or the former Pathology 4110G)

1.5 courses: Medical Health Informatics 4980E (Research Project = 1.5 courses).

Note: Some modular courses include a mark requirement in their prerequisite(s). See UNDERGRADUATE COURSE INFORMATION.

#### HONORS SPECIALIZATION IN MICROBIOLOGY AND IMMUNOLOGY

http://www.westerncalendar.uwo.ca/2012/pg712.html

This module leads to a Bachelor of Medical Sciences (BMSc) Honors degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

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

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

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 courses listed below must each be completed with a mark of at least 60%:

2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 1302A/B

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

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.

1.5 courses: Biochemistry 2280A, Chemistry 2213A/B, 2223B (with a mark of at least 65% in each)

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

0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B

#### Module

9.5 courses:

3.0 courses: Biochemistry 2280A, Chemistry 2213A/B, 2223B, Biology 2290F/G, 2382B, 2581B

0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B

0.5 course: Biochemistry 3381A (with a mark of at least 70%)

2.0 courses: Microbiology and Immunology 2100A, 3300A, 3400B, 3600G (with a mark of at least 70% in each)

2.0 courses: Microbiology and Immunology 4100A, 4200B, 4300A, 4700B

1.5 course: Microbiology and Immunology 4970E (Research Project = 1.5 courses)

#### HONORS SPECIALIZATION IN PATHOLOGY AND TOXICOLOGY

http://www.westerncalendar.uwo.ca/2012/pg718.html

This module leads to a Bachelor of Medical Sciences (BMSc) Honors degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

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

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

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%:

2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 1302A/B

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

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

<sup>\*</sup> 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.

Senate Agenda December 7, 2012

BMSc PROGRAM for specific information about Honors Specialization modules, including the Weighted Average Chart.

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

#### Module

11.0 courses:

2.5 courses: Biochemistry 2280A, Biology 2290F/G, 2382B, 2581B, Chemistry 2213A/B

0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B

1.0 course: Pharmacology 3620 (or the former Pharmacology 3550A/B), 3560A/B

1.0 course from: Anatomy and Cell Biology 3309, 3319

1.0 course: Physiology 3120

1.0 course: Pathology 3240A, 3245B (with a mark of at least 75% in each)

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

1.0 course: Pathology 4400A/B, 4500B

1.0 course from: Medical Sciences 4100F/G, Pathology 4200A, 4000-level courses in Pharmacology (with the exception of 4980E), the former Pathology 3900F/G

1.5 courses: Pathology and Toxicology 4980E (Research Project = 1.5 courses)

### HONORS SPECIALIZATION IN PHARMACOLOGY

http://www.westerncalendar.uwo.ca/2012/pg754.html

This module leads to a Bachelor of Medical Sciences (BMSc) Honors degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

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

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

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 courses listed below must each be completed with a mark of at least 60%:

2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 1302A/B

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

\* 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.

#### Module

- 9.5 courses:
- 2.5 courses: Biochemistry 2280A, Biology 2290F/G, 2382B, 2581B, Chemistry 2213A/B
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B
- 1.5 courses: Physiology 3120, 3140A
- 1.5 courses: Pharmacology 3620 (or the former Pharmacology 3550A/B and 3560A/B), Pharmacology 3580Y
- 0.5 course from\*\*: Epidemiology 2200A/B, Pathology 3240A, Chemistry 2210A/B, 2211A/B, 2214A/B, 2223B, the former Epidemiology and Biostatistics 2200A/B, 3330B
- 1.5 courses: Pharmacology 4980E (Thesis = 1.5 courses)
- 1.5 additional courses in Pharmacology at the 4000-level

Note: Some modular courses include a mark/average requirement in their prerequisite(s). See UNDERGRADUATE COURSE INFORMATION.

\*\*If Pharmacology 2060A/B was completed prior to September 1, 2012, it may be used in lieu of a half course from this list.

#### HONORS SPECIALIZATION IN PHYSIOLOGY

http://www.westerncalendar.uwo.ca/2012/pg748.html

This module leads to a Bachelor of Medical Sciences (BMSc) Honors degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

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

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

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. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM and MODULES OFFERED IN THE BMSc PROGRAM for more information.

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

- 2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 1302A/B
- 0.5 course from: Calculus 1000A/B. 1100A/B. 1500A/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
- \* 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.

<sup>0.5</sup> course from: Biology 2244A/B, Statistical Sciences 2244A/B

#### Module

- 9.5 courses:
- 2.5 courses: Biochemistry 2280A, Biology 2290F/G, 2382B, 2581B, Chemistry 2213A/B
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B
- 2.0 courses: Physiology 3120, 3130Y, 3140A
- 1.0 course from: Anatomy and Cell Biology 3309, 3319, Biology 2471A/B, 2601A/B, 3338A, 3592A, 3595A, the former 3651A/B, Chemistry 2223B, Medical Biophysics 3501F, 3503G, 3505F, 3507G, the former Biology 2672A/B, the former Medical Biophysics 3302E, 3303E
- 1.5 courses: Physiology 4980E (Thesis = 1.5 courses)
- 2.0 additional courses in Physiology at the 4000-level

Note: Some modular courses include a mark/average requirement in their prerequisite(s). See UNDERGRADUATE COURSE INFORMATION.

# HONORS SPECIALIZATION IN PHYSIOLOGY AND PHARMACOLOGY

http://www.westerncalendar.uwo.ca/2012/pg749.html

This module leads to a Bachelor of Medical Sciences (BMSc) Honors degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

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

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

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 courses listed below must each be completed with a mark of at least 60%:

- 2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 1302A/B
- 0.5 course from: Calculus 1000A/B, 1100A/B, 1500A/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
- \* 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.

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

### Module

10.0 courses:

- 2.5 courses: Biochemistry 2280A, Biology 2290F/G, 2382B, 2581B, Chemistry 2213A/B
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B
- 2.0 courses: Physiology 3120, 3130Y and 3140A
- 1.5 courses: Pharmacology 3620 (or the former Pharmacology 3550A/B and 3560A/B) and Pharmacology 3580Y

- 1.5 courses from: Physiology 4980E or Pharmacology 4980E (Thesis = 1.5 courses).
- 1.0 additional course in Pharmacology at the 4000-level\*\*.
- 1.0 additional course in Physiology at the 4000-level.

Note: Some modular courses include a mark/average requirement in their prerequisite(s). See UNDERGRADUATE COURSE INFORMATION.

\*\*If Pharmacology 2060A/B was completed prior to September 1, 2012, it may be used in lieu of a half course in Pharmacology at the 4000-level.

#### SPECIALIZATION IN BIOCHEMISTRY

http://www.westerncalendar.uwo.ca/2012/pg620.html

This module leads to a Bachelor of Medical Sciences (BMSc) degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

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

# 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%:

- 2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 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 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: Biochemistry 2280A (with a mark of at least 65%), Biology 2581B
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B
- 0.5 course from: Chemistry 2213A/B (with a mark of at least 65%), Chemistry 2273A
- 0.5 course from: Chemistry 2223B (with a mark of at least 65%), Chemistry 2283G
- 1.0 course from: Biology 2290F/G, 2382B, Chemistry 2211A/B, 2214A/B, 2374A, 2384B

# Module

- 9.0 courses:
- 1.0 course: Biochemistry 2280A. Biology 2581B
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B
- 0.5 course from: Chemistry 2213A/B, 2273A
- 0.5 course from: Chemistry 2223B, 2283G
- 1.0 course from: Biology 2290F/G, 2382B, Chemistry 2211A/B, 2214A/B, 2374A (or the former 2274A), Chemistry 2384B (or the former 2284B)
- 1.5 courses: Biochemistry 3380G, 3381A, 3382B
- 0.5 course at the 2000- or 3000- level (with a lab component) from: Microbiology and Immunology 2100A, Medical Biophysics 3330F/G or from the Department of Biology or Chemistry

- 1.0 course: Biochemistry 4410A, 4420A (or the former 4420B)
- 2.5 courses from: Biochemistry 3385A, 3386B, and courses in Biochemistry at the 4000-level (with the exception of Biochemistry 4483E, 4485E, and 4999E)

#### SPECIALIZATION IN MEDICAL BIOPHYSICS

http://www.westerncalendar.uwo.ca/2012/pg703.html

This module leads to a Bachelor of Medical Sciences (BMSc) degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

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

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%:

- 2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 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 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
- 1.0 courses: Chemistry 2213A/B, Biochemistry 2280A
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B (may be delayed until Year 3)

## Module

- 9.0 courses:
- 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
- 1.0 course: Chemistry 2213A/B. Biochemistry 2280A
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B
- 1.0 course from: Medical Biophysics 3501F and 3503G, or the former Medical Biophysics 3302E
- 1.0 course from: Medical Biophysics 3505F and 3507G, or the former Medical Biophysics 3303E
- 0.5 course from: Medical Biophysics 3330F/G, 3336F/G
- 0.5 course from: Medical Biophysics 4467A/B, 4535A/B
- 2.5 courses from: Applied Mathematics 2402A (or the former Differential Equations 2402A), Applied Mathematics 2813B, 3615A/B, Biology 2290F/G, 2382B, 2581B, Chemistry 2214A/B (or the former

2274A), Mathematics 1600A/B (or the former Linear Algebra 1600A/B), Medical Biophysics 3330F/G, 3336F/G, 3970Z, 4467A/B, 4475A/B, 4535A/B, Physiology 2130 or 3120

# SPECIALIZATION IN MICROBIOLOGY AND IMMUNOLOGY

http://www.westerncalendar.uwo.ca/2012/pg714.html

This module leads to a Bachelor of Medical Sciences (BMSc) degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

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

# 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%:

- 2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 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

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.).

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

### Module

9.0 courses:

- 3.0 courses: Biochemistry 2280A, Chemistry 2213A/B, 2223B, Biology 2290F/G, 2382B, 2581B
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B
- 0.5 course: Biochemistry 3381A
- 1.5 course: Microbiology and Immunology 2100A, 3300A, 3400B (with a mark of at least 70% in each)
- 0.5 course: Microbiology and Immunology 3600G
- 2.0 courses: Microbiology and Immunology 4100A, 4200B, 4300A, 4700B
- 1.0 course from Anatomy and Cell Biology, Biochemistry, Biology, Epidemiology and Biostatistics, Medical Biophysics, Pathology, Pharmacology, or Physiology courses at the 2000- or 3000-level

# SPECIALIZATION IN PATHOLOGY AND TOXICOLOGY

http://www.westerncalendar.uwo.ca/2012/pg719.html

This module leads to a Bachelor of Medical Sciences (BMSc) degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

<sup>\*</sup> 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.

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

# 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%:

- 2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 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 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.).

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

#### Module

10.0 courses:

- 2.5 course: Biochemistry 2280A, Biology 2290F/G, 2382B, 2581B, Chemistry 2213A/B
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B
- 1.0 course: Pharmacology 3620, or the former Pharmacology 3550A/B, 3560A/B
- 1.0 course: Physiology 3120
- 1.0 course: Pathology 3240A and 3245B (with a mark of at least 75% in each)
- 1.0 course: Pathology 4400A/B, 4500B
- 1.0 course in Pharmacology at the 4000 level (with the exception of Pharmacology 4980E)
- 2.0 courses from: Anatomy and Cell Biology 3309, 3319, Biology 3316A/B, Chemistry 2272F,

Epidemiology 2200A/B, Pathology 4200A, Physiology 3140A, the former Epidemiology and Biostatistics 2200A/B, 3330B, the former Pathology 3900F/G

SPECIALIZATION IN PHARMACOLOGY <a href="http://www.westerncalendar.uwo.ca/2012/pg756.html">http://www.westerncalendar.uwo.ca/2012/pg756.html</a> This module leads to a Bachelor of Medical Sciences (BMSc) degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

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

# 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%:

2.0 course: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 1302A/B

0.5 course from: Calculus 1000A/B, 1100A/B, 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

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.).

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

#### Module

9.5 courses:

- 2.5 course: Biochemistry 2280A, Biology 2290F/G, 2382B, 2581B, Chemistry 2213A/B
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B
- 1.5 courses from: Pharmacology 3620 (or the former Pharmacology 3550A/B and 3560A/B) and Pharmacology 3580Y
- 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

Note: Some modular courses include a mark/average requirement in their prerequisite(s). See UNDERGRADUATE COURSE INFORMATION.

\*\*If Pharmacology 2060A/B was completed prior to September 1, 2012, it may be used in lieu of a half course from this list.

#### SPECIALIZATION IN PHYSIOLOGY

http://www.westerncalendar.uwo.ca/2012/pg752.html

This module leads to a Bachelor of Medical Sciences (BMSc) degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

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

# 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%:

- 2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 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

<sup>\*</sup> 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.

<sup>\*</sup> 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.).

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

### Module

9.5 courses:

2.5 courses: Biochemistry 2280A, Biology 2290F/G, 2382B, 2581B, Chemistry 2213A/B

0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B

2.0 courses: Physiology 3120, 3130Y, 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 2672A/B, 3651A/B, or the former Medical Biophysics 3302E, 3303E

3.0 courses in Physiology at the 4000-level (with the exception of Physiology 4980E)

Note: Some modular courses include a mark/average requirement in their prerequisite(s). See UNDERGRADUATE COURSE INFORMATION.

### SPECIALIZATION IN PHYSIOLOGY AND PHARMACOLOGY

http://www.westerncalendar.uwo.ca/2012/pg753.html

This module leads to a Bachelor of Medical Sciences (BMSc) degree. See BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for more information.

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

# 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%:

2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 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 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.).

2.5 courses: Biochemistry 2280A, Biology 2290F/G, 2382B, 2581B, Chemistry 2213A/B

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

#### Module

- 9.5 courses:
- 2.5 courses: Biochemistry 2280A, Biology 2290F/G, 2382B, 2581B, Chemistry 2213A/B
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B.
- 2.0 courses: Physiology 3120, 3130Y, 3140A
- 1.5 courses: Pharmacology 3620 (or the former Pharmacology 3550A/B and 3560A/B) and Pharmacology 3580Y
- 1.5 courses in Pharmacology at the 4000-level\*\* (with the exception of Pharmacology 4980E)
- 1.5 courses in Physiology at the 4000-level (with the exception of Physiology 4980E)

Note: Some modular courses include a mark/average requirement in their prerequisite(s). See UNDERGRADUATE COURSE INFORMATION.

\*\*If Pharmacology 2060A/B was completed prior to September 1, 2012, it may be used in lieu of a half course in Pharmacology at the 4000-level.

#### **MAJOR IN BIOCHEMISTRY**

http://www.westerncalendar.uwo.ca/2012/pg619.html

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.

Students pursuing a Bachelor of Medical Sciences (BMSc) degree will not be admitted to Year 2 of the Major beginning in September, 2014. Students in other degrees will continue to be admitted to the Major in Year 2.

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%:

- 2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 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%), Chemistry 2273A
- 0.5 course from: Chemistry 2223B (with a mark of at least 65%), Chemistry 2283G
- 0.5 course: Biology 2581B
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B

Senate Agenda December 7, 2012

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\*, 1002B\* (or the former Biology 1222 or 1223)

1.0 course: Chemistry 1100A/B, 1200B\*\* (or the former Chemistry 1020 or 1050 or 023)

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

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

- \* 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.
- \*\* Chemistry 1301A/B and 1302A/B will be introduced in September 2014 and will replace Chemistry 1100A/B and 1200B in the Admission Requirements.

### Module

6.0 courses:

0.5 course: Biochemistry 2280A

1.0 course: Chemistry 2213A/B or 2273A, and Chemistry 2223B or 2283G

0.5 course: Biology 2581B

0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B

2.5 courses: Biochemistry 3380G, 3381A, 3382B, 4410A, 4420A (or the former 4420B)

1.0 course from: Biochemistry 3385A, 3386B, 4400G (or the former 4400F), Biochemistry 4430B, 4435B,

4445F, 4450A, 4463G, 4465A, the former Biochemistry 4440A

#### MAJOR IN MEDICAL BIOPHYSICS

http://www.westerncalendar.uwo.ca/2012/pg702.html

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.

Students pursuing a Bachelor of Medical Sciences (BMSc) degree will not be admitted to Year 2 of the Major beginning in September, 2014. Students in other degrees will continue to be admitted to the Major in Year 2.

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.

2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 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.).

- 1.0 course: Calculus 2302A/B or 2502A/B, and Calculus 2303A/B or 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

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 4.0 (full or half) principal courses below:

- 1.0 course: Biology 1001A\*, 1002B\* (may be deferred until Year 2), or the former Biology 1222 or 1223
- 1.0 course: Chemistry 1100A/B, 1200B^, or the former Chemistry 1020 or 1050 or 023
- 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.
- ^ Chemistry 1301A/B and 1302A/B will be introduced in September 2014 and will replace Chemistry 1100A/B and 1200B in the Admission Requirements.

### Module

6.0 courses:

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
- 1.5 courses: Medical Biophysics 3501F, 3503G, 3970Z
- 1.0 course: Medical Biophysics 3505F, 3507G (or the former Medical Biophysics 3303E)
- 0.5 course: Medical Biophysics 3330F/G
- 1.0 course from: Medical Biophysics 4445A/B, 4455A/B, 4467A/B, 4475A/B, 4535A/B

Note: Students having completed the former Medical Biophysics 3302E will use this course and 0.5 course from the following list, in lieu of Medical Biophysics 3501F, 3503G and 3970Z: Biology 2244A/B, Chemistry 2214A/B, Medical Biophysics 3336F/G, the former Statistical Sciences 2122A/B, Engineering Science 1036A/B or the former Computer Science 036a/b.

#### MAJOR IN MEDICAL CELL BIOLOGY

http://www.westerncalendar.uwo.ca/2012/pg594.html

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.

Students pursuing a Bachelor of Medical Sciences (BMSc) degree will not be admitted to Year 2 of the Major beginning in September, 2014. Students in other degrees will continue to be admitted to the Major in Year 2.

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%:

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2.0 courses: Biology 1001A*, 1002B*, Chemistry 1301A/B, 1302A/B
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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.).

1.5 courses: Biochemistry 2280A, Chemistry 2213A/B, Biology 2382B

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

0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/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\*, 1002B\* (or the former Biology 1222 or 1223)

1.0 course: Chemistry 1100A/B, 1200B\*\* (or the former Chemistry 1020, 1050, 023

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

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

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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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<sup>\*</sup> 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.

<sup>\*\*</sup> Chemistry 1301A/B and 1302A/B will be introduced in September 2014 and will replace Chemistry 1100A/B and 1200B in the Admission Requirements.

#### Module

- 6.0 courses:
- 1.5 courses: Biochemistry 2280A, Chemistry 2213A/B, Biology 2382B
- 0.5 course from: Biology 2290F/G, 2581B
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B
- 0.5 course from: Biology 3316A/B, Physiology 3140A
- 1.0 course: Anatomy and Cell Biology 3309
- 1.0 course from: Anatomy and Cell Biology 3319, Physiology 3120
- 1.0 course from: Anatomy and Cell Biology 4410A, 4411B, 4429A, 4451F/G (or the former 4451A),

4452A/B, 4461B

Note: Some modular courses include a mark requirement in their prerequisite(s). See UNDERGRADUATE COURSE INFORMATION.

#### MAJOR IN MICROBIOLOGY AND IMMUNOLOGY

http://www.westerncalendar.uwo.ca/2012/pg713.html

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.

Students pursuing a Bachelor of Medical Sciences (BMSc) degree will not be admitted to Year 2 of the Major beginning in September 2014. Students in other degrees will continue to be admitted to the Major in Year 2.

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%:

- 2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 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.).

1.5 course: Biochemistry 2280A, Chemistry 2213A/B, 2223B (with a mark of at least 65% in each)

1.0 course: Biology 2382B, 2581B

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\*, 1002B\* (or the former Biology 1222 or 1223)
- 1.0 course: Chemistry 1100A/B, 1200B\*\* (or the former Chemistry 1020, 1050, 023)
- 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

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

- \* 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.
- \*\* Chemistry 1301A/B and 1302A/B will be introduced in September 2014 and will replace Chemistry 1100A/B and 1200B in the Admission Requirements.

### Module

6.0 courses:

3.0 courses: Biochemistry 2280A, Chemistry 2213A/B, 2223B, Biology 2382B, 2581B, Microbiology and Immunology 2100A

2.0 courses: Biochemistry 3381A, Microbiology and Immunology 3300A, 3400B, 3600G

1.0 course from: Microbiology and Immunology 4100A, 4200B, 4300A, 4700B

Note: Some modular courses include a mark requirement in their prerequisite(s). See UNDERGRADUATE COURSE INFORMATION.

## **MAJOR IN PHARMACOLOGY**

http://www.westerncalendar.uwo.ca/2012/pg755.html

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.

Students pursuing a Bachelor of Medical Sciences (BMSc) degree will not be admitted to Year 2 of the Major beginning in September, 2014. Students in other degrees will continue to be admitted to the Major in Year 2.

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%:

- 2.0 courses: Biology 1001A\*, 1002B\*, Chemistry 1301A/B, 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

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.).

1.5 courses: Biochemistry 2280A, Biology 2382B, Chemistry 2213A/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\*, 1002B\* (or the former Biology 1222 or 1223)
- 1.0 course: Chemistry 1100A/B, 1200B\*\* (or the former Chemistry 1020, 1050, 023)
- 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

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
- \* 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.
- \*\* Chemistry 1301A/B and 1302A/B will be introduced in September 2014 and will replace Chemistry 1100A/B and 1200B in the Admission Requirements.

### Module

6.0 courses:

- 2.5 courses: Biochemistry 2280A. Biology 2382B. Chemistry 2213A/B. Physiology 3120
- 1.5 courses: Pharmacology 3620 (or the former Pharmacology 3550A/B and 3560A/B), Pharmacology 3580Y
- 1.5 courses: Pharmacology at the 4000-level (with the exception of Pharmacology 4980E)
- 0.5 course from: Pathology 3240A, 3245B, 4400A/B, Physiology 3140A

Note: Some modular courses include a mark/average requirement in their prerequisite(s). See UNDERGRADUATE COURSE INFORMATION.

\*\*If Pharmacology 2060A/B was completed prior to September 1, 2012, it may be used in lieu of a half course in Pharmacology at the 4000-level.

### **MAJOR IN PHYSIOLOGY**

http://www.westerncalendar.uwo.ca/2012/pg751.html

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.

Students pursuing a Bachelor of Medical Sciences (BMSc) degree will not be admitted to Year 2 of the Major beginning in September, 2014. Students in other degrees will continue to be admitted to the Major in Year 2.

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%:

```
2.0 courses: Biology 1001A*, 1002B*, Chemistry 1301A/B, 1302A/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.).

- 1.0 course: Biochemistry 2280A, Chemistry 2213A/B
- 1.0 course from: Biology 2290F/G, 2382B, 2581B.
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/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*, 1002B* (or the former Biology 1222 or 1223)
```

- 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

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
```

- \* 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.
- \*\* Chemistry 1301A/B and 1302A/B will be introduced in September 2014 and will replace Chemistry 1100A/B and 1200B in the Admission Requirements.

#### Module

6.0 courses:

- 1.0 course: Biochemistry 2280A, Chemistry 2213A/B
- 1.0 course from: Biology 2290F/G, 2382B, 2581B
- 0.5 course from: Biology 2244A/B, Statistical Sciences 2244A/B, the former Statistical Sciences 2122A/B
- 2.0 courses: Physiology 3120, 3130Y, 3140A
- 1.5 courses: Physiology at the 4000-level (with the exception of Physiology 4980E)

Note: Some modular courses include a mark/average requirement in their prerequisite(s). See UNDERGRADUATE COURSE INFORMATION.

<sup>0.5</sup> course from: Calculus 1000A/B, 1100A/B, 1500A/B

<sup>0.5</sup> course from: Calculus 1301A/B, 1501A/B, Mathematics 1600A/B, Applied Mathematics 1201A/B

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

<sup>0.5</sup> course from: Physics 1029A/B, 1302A/B, 1502A/B

<sup>\*</sup> 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.

<sup>1.0</sup> course: Chemistry 1100A/B, 1200B\*\* (or the former Chemistry 1020, 1050, 023)

# Schulich School of Medicine & Dentistry, Faculty of Science, Richard Ivey School of Business Revisions to the Combined BMSc/HBA Program

# **REVISED CALENDAR COPY**

Faculty of Science: http://www.westerncalendar.uwo.ca/2012/pg1676.html

#### **COMBINED BMSc/HBA PROGRAM**

The Ivey Business School, The Schulich School of Medicine & Dentistry, and the Faculty of Science administer these combined degrees.

### Structure of the Combined Degree

The completion of the combined degree program usually takes five academic years. In Year 1, students typically enroll in the Biological and Medical Sciences first-entry program in the Faculty of Science and take the courses required for admission into an Honors Specialization in Medical Sciences. In Year 2, students register in the Faculty of Science and complete the courses as listed below with marks that satisfy the admission/progression requirements for a BMSc (Honors) degree with an Honors Specialization in Medical Sciences.

Students apply for admission to the combined degree program during the first year of the HBA (HBA1), typically their third year of university. Once in HBA1, students must satisfy the following conditions to be eligible for admission to the combined program:

- be eligible for admission to Year 3 of the Bachelor of Medical Sciences (BMSc) Program,
- complete the Admission Requirements for the Honors Specialization in Interdisciplinary Medical Sciences (IMS),
- achieve a minimum average of 80% in the 10.0 courses completed prior to admission to HBA, and
- achieve a minimum weighted rounded average of 78% in HBA1

#### Effective September 1, 2013:

Students will usually complete the MEDICAL SCIENCES FIRST ENTRY PROGRAM in the Faculty of Science (Medical Sciences 1 and 2), as well as Business Administration 2257, to be considered for admission to the Combined BMSc/HBA Program. See ADMISSION TO THE BACHELOR OF MEDICAL SCIENCES (BMSc) PROGRAM for course and average requirements. Students should complete their BREADTH REQUIREMENT FOR BACHELOR DEGREES by the end of Year 2 by including 1.0 course from Category B.

In Year 3, students enroll in the first year of the HBA program. (**dD** emonstrated participation in extracurricular and/or community activities, leadership, and work experience are admission criteria for the HBA, in addition to academic achievement.)

For Years 4 and 5, students register in the Schulich School of Medicine & Dentistry and the Ivey School of Business in the Combined Honors BMSc/HBA program.—(† The Honors Specialization module in Interdisciplinary Medical Sciences (IMS) is the only module involved in the combined program).

### **Admission Requirements**

Students apply for the combined degree program during the first year of the HBA (HBA1). To be eligible for admission to the combined program, students must achieve a minimum weighted rounded average of 78% in HBA1, as well as a minimum average of 80% in the 10.0 courses completed prior to admission to HBA. Within the 10.0 courses completed prior to admission to HBA, students must complete the first year admission requirements for entry into the Honors-Specialization in Medical Sciences, as well as the following courses: Business Administration-2257 (minimum mark of 70% required); Biochemistry 2280A; either Chemistry 2213A/B or 2273A; either Chemistry 2223B or a Chemistry half course at the 2000- or 3000-level; Biology 2581B; Biology 2382B; Biology 2290F/G; 0.5 course from either Biology 2244A/B or Statistical Sciences-2244A/B or the former Statistical Sciences 2122A/B; and 0.5 course from any Faculty (minimum mark of 60% required in option course — see "Notes for the BMSc component" following Years 4 and 5). Students must satisfy the minimum admission/progression requirements and criteria for-

registration in a BMSc degree and the Honors Specialization in Medical Sciences, as outlined under the BMSc PROGRAM.

It is recommended that students do not complete more than two years of course work prior to admission to HBA1. It is possible, however, to undertake the combined program with more than 10.0 courses prior to entry into the first year of the HBA but completion of the program may take more than five academic years. Students in this situation should contact both the BMSUE Coordinator and the Ivey School of Business.

Applications for the combined degrees must be made on-line **during HBA1** to the HBA program **and the BMSUE Coordinator** by the published deadlines for Ivey. The Ivey School's Advanced Entry Opportunity (AEO) students are also eligible to apply to the combined degrees. Entrance to the combined degrees is competitive and limited.

#### Year 1

Completion of first-year requirements with no failures. Students must have an average of at least 70% on the following 3.0 principal courses, with no mark below 60% in any of these (full or half) principal courses:

- 1.0 course: Biology 1001A and 1002B, or the former Biology 1222 or 1223.
- 1.0 course: Chemistry 1100A/B and 1200B, or the former Chemistry 1020, 1050, or 023.
- 1.0 course from: Calculus 1000A/B or 1100A/B or 1500A/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 or the former Calculus 1201A/B, Applied Mathematics 1413, or the former Mathematics 030.

Although it is strongly recommended that the following first-year physics requirement be taken in Year I, it may be delayed until Year 2 (a mark of at least 60% is required in each half course):

- 0.5 course from: Physics 1028A/B, 1301A/B or 1501A/B.
- 0.5 course from: Physics 1029A/B, 1302A/B or 1502A/B.
- 1.0 course from either Category A or B must be included in Year 1.

#### Notes:

- 1. 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.
- 2. Either the former Physics 1020 or 1024 with a minimum mark of 60%, may be used in place of two half courses in Physics listed above.

# Year 2

- 1.0 course: Business Administration 2257.
- 0.5 course: Biochemistry 2280A.
- 0.5 course from: Chemistry 2213A/B or 2273A.
- 0.5 course from: Chemistry 2223B or a Chemistry half course at the 2000- or 3000-level.
- 1.5 courses: Biology 2290F/G, 2382B, 2581B.
- 0.5 course from: Biology 2244A/B or Statistical Sciences 2244A/B, or the former Statistical Sciences 2122A/B.
- 0.5 course from any Faculty (see "Notes for the BMSc component" following Years 4 and 5).

All students, including those admitted via the AEO route, must have completed all the Admission-Requirements for the Honors Specialization in Medical Sciences module as well as all the modular courses listed above and Business Administration 2257, prior to acceptance into the first-year of the HBA.

### Year 3: HBA1

The third year of the undergraduate program in Business Administration consists of an integrated set of courses (8.25 courses) designed to give a basic understanding of the functions and the interrelationships of the major areas of management, as well as to develop problem-solving and action-planning skills.

All students will take: Business Administration 3300K, 3301K, 3302K, 3303K, 3304K, 3307K, 3311K, 3316K, 3321K, 3322K, 3323K.

No substitute for any of the above courses is permitted under any circumstances.

### Years 4 and 5: HBA2 requirements

HBA2 Requirements can be taken over Years 4 or 5 - no course is restricted to either year. 2.0 courses:

- International Perspective Requirement: Business Administration 4505A/B
- 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.
- Applied Project Requirement: At least one of Business Administration 4430 (1.0 course) or Business Administration 4410 (1.0 course).

  Business Administration 4569

3.0 additional business elective courses

Years 4 and 5: BMSc requirements for the Honors Specialization in *Interdisciplinary* Medical Sciences (IMS)

#### Year 4

3.0 courses\* from: Groups A, B and C (see below) with at least 2.0 courses selected from Group A and no more than 2.0 courses from one subject area.

Group A: Anatomy and Cell 3309, Biochemistry 3381A, 3382B, Biostatistics 3100A, 3110B, Epidemiology 2200A/B, 3200A, Medical Biophysics 3330F/G, 3336F/G, 3501F, 3503G, 3505F, 3507G, Microbiology and Immunology 2100A, 3300A, 3400B, Pathology 3240A, 3245B, Pharmacology 3620, Physiology 3120, 3140A

Group B: Anatomy and Cell Biology 3319, Biochemistry 3385A, 3386B, 3390A, Epidemiology 3210B, 3315B, 3500A, Microbiology and Immunology 2500A/B, Pharmacology 2060A/B

Group C: Anatomy and Cell Biology 3309, Biochemistry 3380G, 3387G, Medical Biophysics 3970Z, Microbiology and Immunology 3600G, Pharmacology 3580Y, Physiology 3130Y

Anatomy and Cell Biology 3309, 3319, Biochemistry 3380G or 3387G, 3381A, 3382B, 3385A, 3386B, Epidemiology and Biostatistics 2200A/B, Medical Biophysics 3330F/G, 3336F/G, 3501F, 3503G, 3505F, 3507G, 3970Z, Microbiology and Immunology 2100A, 2500A/B, 3300A, 3400B, 3600G, Pathology 3240A, 3245B, Pharmacology 2060A/B, 3580Y, 3620, Physiology 3120, 3130Y, 3140A, the former Epidemiology and Biostatistics 3330B, the former Medical Biophysics 3302E, 3303E, the former Pharmacology 3550A/B, 3560A/B.

0.5 course from any faculty (see Notes above – may be delayed until Year 5)

- \* The following 'discipline requirement' must be satisfied with these 3.0 courses:
  - A minimum of 1.0 course must be taken from one of the Basic Medical Sciencedisciplines (below), and-
- A minimum of 1.0 course must be taken from a different Basic Medical Science discipline Basic Medical Science Disciplines: Anatomy and Cell Biology, Biochemistry, Epidemiology and Biostatistics, Medical Biophysics, Microbiology and Immunology, Pathology, Pharmacology, and Physiology.

When selecting courses for Year 4, students are advised to consult both the Undergraduate Course Information in the Academic Calendar to ensure prerequisite requirements are met for anticipated 4000-level courses, plus the BMSc website (www.uwo.ca/bmsc) for information about constraints (priority and restricted access) for all Basic Medical Science courses.

#### Year 5

1.0 course: Medical Sciences 4900F/G, 4930F/G

2.0 courses at the 4000-level from at least two of the following subject areas: Anatomy and Cell Biology, Biochemistry, Biostatistics, Epidemiology, Medical Biophysics, Medical Sciences, Microbiology and Immunology, Pathology, Pharmacology, Physiology
1.5 courses from: Anatomy and Cell Biology 4410A, 4411B, 4429A, 4451F/G, 4461B,
Biochemistry 4400G, 4410A, 4420A, 4430B, 4435B, 4445F, 4450A, 4463G, 4465A, Medical
Biophysics 4445A/B, 4455A/B, 4467A/B, 4475A/B, 4535A/B, 4600A/B, Medical Sciences
4100F/G, Microbiology and Immunology 4100A, 4200B, 4300A, 4700B, Pathology 4400A/B,
4500B, Pharmacology 4320A/B, 4340A/B, 4350A/B, 4360A/B, 4370A/B, 4380A/B, 4430A/B,

4540A/B, 4620A, 4630A, 4660A/B, Physiology 4420A/B, 4520A/B, 4530A/B, 4600A/B, 4610A/B, 4620A/B, 4630A/B, 4640A/B, 4650A/B, 4660A/B, 4670A/B, 4680A/B, 4690A/B, 4700A/B, 4710A/B, 4730B, the former Anatomy and Cell Biology 4451A, the former Biochemistry 4400F, 4420B, 4440A.

### Notes:

- 1. See UNDERGRADUATE COURSE INFORMATION for the requisites for 3000- and 4000-level courses, and the BMSc website for information about constraints (priority and restricted access) for all basic medical science courses.
- 2. Both the breadth and essay requirements of a BMSc degree must be satisfied. See GRADUATION REQUIREMENTS FOR HONORS BACHELOR DEGREES.

### **Degree Requirements**

Students registered in the combined degrees are expected to abide by all guidelines associated with each of the individual degrees.

# **Progression Standards**

Students in these combined degrees must meet the following progression standards:

Students enrolled in first year HBA (Year 3) must attain a minimum weighted rounded average of 78%. In Year 4, students must attain a minimum weighted average of 75% in their 4000-level HBA courses and a minimum cumulative modular average of 75% with no mark less than 60% in any modular courses required for the Honors Specialization in *Interdisciplinary* Medical Sciences (IMS). In Year 5, students must attain a minimum weighted average of 75% in their 4000-level HBA courses and a minimum cumulative modular average of 70% with no mark less than 60% in any modular courses required for the Honors Specialization in *Interdisciplinary* Medical Sciences (IMS).

## **Failure to Meet Progression Standards**

A student who fails to meet the progression standards in any year must withdraw from the combined degrees. With permission from the appropriate HBA Program Director and/or the Associate Dean, Basic Medical Sciences Academic Affairs, Schulich School of Medicine & Dentistry, the student may continue in one degree, and request permission from the other School to complete the other degree at a later date.

A student who fails to meet the progression standards in any year of the combined degrees may appeal the decision in writing to either the HBA Program Director or the Associate Dean, Basic Medical Sciences Academic Affairs, Schulich School of Medicine & Dentistry, depending upon the degree in which the progression standards were not met, in accordance with the University's policies on Academic Rights and Responsibilities.

#### **Dean's Honor List**

Students are considered for the Dean's Honor List in the Faculty of Science in Year 1 and 2.

Students who take courses required for the Honors Specialization in *Interdisciplinary* Medical Sciences (IMS) totaling at least six half courses in Year 4 and five six half courses in Year 5 of the combined degrees are considered for the Dean's Honor List in the Schulich School of Medicine & Dentistry in each of those years on the basis of those courses.

At the Richard Ivey School of Business, students are considered for the Dean's Honor List during their first year of HBA. Students enrolled in Years 4 and 5 of the combined degree program are considered for the Dean's Honor List in Year 5 only. Only grades obtained in 4000-level Business courses will be used in calculating averages for the purpose of determination of Dean's Honor List standing. The Dean's Honor List for HBA2 typically includes the top 25% of all of HBA2 and is determined by vote of the teaching faculty. Courses taken outside the Business School are excluded. Calculations for Ivey Scholar and Gold Medals are completed in the same way.

### Graduation

Upon completion of the combined program, students will receive two degrees: a BMSc (Honors) degree with an Honors Specialization in *Interdisciplinary* Medical Sciences *(IMS)* and a BA in Honors Business Administration.

# **Fees**

Students pay the prevailing fees as determined by the University policy on combined degrees.

# **International Exchange Programs**

Students in the combined BMSc/HBA program may be eligible to participate in academic exchange programs (for HBA, only). Interested students should discuss exchange options with the HBA Program Office and the BMSUE Program Office.

# <u>Faculty of Science and Western Continuing Studies</u> <u>Introduction of a Diploma in Computer Science</u>

### **NEW CALENDAR COPY**

Add to the list of Diploma Programs: <a href="http://www.westerncalendar.uwo.ca/2012/pg279.html">http://www.westerncalendar.uwo.ca/2012/pg279.html</a>
Add link to the list of Computer Science programs: <a href="http://www.westerncalendar.uwo.ca/2012/pg653.html">http://www.westerncalendar.uwo.ca/2012/pg653.html</a>

### **DIPLOMA IN COMPUTER SCIENCE**

The Diploma in Computer Science is designed to provide students with science or engineering backgrounds the opportunity to acquire the specific skills and experience necessary to begin a career in information technology or to apply for enrollment in the MSc degree program in Computer Science at Western.

Students will be required to have completed an Honors Bachelor's Degree (or equivalent) in the science and/or engineering fields and admission will be limited, competitive, and determined on a case-by-case basis. Students in the program will be required to maintain a minimum average of 70% in all courses in the Diploma in Computer Science program, with no single mark below 60%. The diploma can be taken on a full-time or part-time basis, and must be completed within three calendar years.

Note for prospective applicants who wish to pursue an MSc in Computer Science at Western: A four-year, honors-level bachelor's degree with high standing from a recognized university, college or institute as determined by the Department of Computer Science is required for entry into graduate school at Western. Applicants must achieve an average of at least 70% in Computer Science 2212, Computer Science 3340, and their selection of 3000 and 4000-level Computer Science courses to be admissible to the MSc program. Please refer to the School of Graduate and Postdoctoral Studies website for more information regarding admission process and requirements. Students planning to pursue an MSc degree after completing the Diploma must consult with the Department of Computer Science before starting the diploma program.

All students will be admitted to the Diploma in Computer Science according to the policies and guidelines for admission to the University. Non-Western students must first apply through the Ontario University Application Centre in Guelph, Ontario Welcome to Western website <a href="http://welcome.uwo.ca/preview/admissions/parttime.html">http://welcome.uwo.ca/preview/admissions/parttime.html</a>. In addition, prospective students must complete the application form for the Diploma in Computer Science provided by Western Continuing Studies. Students who are currently enrolled at Western are required to complete only the Western Continuing Studies application form. Visit the website at <a href="www.uwo.ca/cstudies">www.uwo.ca/cstudies</a> for full program information.

Application deadline: March 1 to be considered for admission for the Fall Term.

# Admission Requirements

Computer Science 1026A/B Computer Science Fundamentals I Computer Science 1027A/B Computer Science Fundamentals II

Note: Typically, Computer Science 1026A/B and Computer Science 1027A/B are offered in the summer as a six-week double-speed back-to-back set of courses as well as in the Fall and Spring of the normal academic year. Should applicants require one or both prerequisites, a conditional offer for admission will be made.

It is recommended that students entering the program have a 1.0 university credit (or equivalent) in mathematics at the first-year level. Students should check with Computer Science academic counseling and/or the online university calendar to ensure they have the necessary mathematical sophistication.

### **Program Requirements**

5.0 courses:

3.5 courses: Computer Science 2208A/B, 2209A/B, 2210A/B, 2211A/B, 2214A/B, 2212A/B/Y, 3340A/B

1.5 courses: Computer Science at the 3000- or 4000- level

# <u>Faculties of Engineering and Law</u> <u>Introduction of a Mechatronic Systems Engineering with Law Option</u>

### **NEW CALENDAR COPY**

http://www.westerncalendar.uwo.ca/2012/pg1525.html

### **MECHATRONIC SYSTEMS ENGINEERING WITH LAW OPTION**

#### Admission

Before entering the combined BESc/JD degree program, students must have completed the first three years of the Mechatronic Systems Engineering program at Western (or equivalent). In addition to applying for the combined degree program through the Office of the Associate Dean - Academic of the Faculty of Engineering, students must also make a separate application to the Faculty of Law for admission into the JD program by the published deadline, May 1. In the application to the Law School, the applicant must indicate that he or she is applying to the combined BESc/JD program.

### **Admission Criteria**

To be eligible for the combined degree program, students must have completed all the requirements of the first-year curriculum in the Faculty of Engineering, and the second and third-year program, Option C of the Mechatronic Systems Engineering Program, with either a minimum cumulative weighted average (CWA) of 80% or stand in the top 10% of the class. In addition, the applicant must meet the minimum LSAT requirement established by the Law School Admissions Committee for all combined degree programs.

Entrance into the combined degree program is competitive and limited. Meeting the minimum requirements does not guarantee a position in the combined program.

### **Progression Standards**

Once admitted to the combined program, students are required to maintain a minimum year weighted average of 75% in their Engineering curriculum courses and a B average in their Law courses.

### **Failure to Meet Progression Standards**

A student who fails to meet the combined program progression standards in any year will be required to withdraw from the combined program. However, a student who has met the progression standards of either the Engineering or JD program, will be allowed to proceed to the next year of that program. If the progression standards of both individual programs have been satisfied, the student may continue in either program and may petition the Faculty whose program was not selected for permission to complete that program at a later date. A student who is required to withdraw from the combined program and wishes to pursue either or both of the individual programs, must complete all the degree requirements of the individual program or programs in order to graduate from that program or those programs.

### First-Year Program

Regular first year curriculum in the Engineering program.

### **Second-Year Program**

Applied Mathematics 2415, Computer Science 1037A/B, MSE 2201A/B, MSE 2202A/B, MSE 2233A/B, ECE 2205A/B, ES 2211F/G, MME 2202A/B, MME 2204A/B, MME 2213A/B, Statistical Sciences 2143A/B.

### Third-Year Program

Applied Mathematics 3415A/B, MSE 3301A/B, MSE 3302A/B, ECE 2277A/B, ECE 3330A/B, ECE 3332A/B, ECE 3331A/B, ECE 3375A/B, MME 3360A/B, MME 3381A/B, MME 3380A/B, 0.5 non-technical elective\*

Selection of the non-technical elective must be approved by the Department Counsellor to satisfy the CEAB requirements of subject matter that deals with central issues, methodologies, and thought processes of the humanities and social sciences. An approved list can be found on the Engineering website.

# **Fourth-Year Program**

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

### Fifth and Sixth-Year Programs

MSE4499, MSE4401A/B, one of ECE4460A/B or ECE4469A/B

In years five and six students must complete the following requirements for the JD:

- 1. The two compulsory upper-year Law courses.
- 2. At least three Law core-group courses.
- 3. Additional Law courses totalling at least 25 credit hours.
- 4. One Law course must have an essay requirement of at least two credit hours.

Requirements 2 and 3 must include one of the courses listed below under "Economics" and one listed under "Impact of Technology on Society."

**Notes:** Fulfillment of the Faculty of Engineering requirement of courses that expose students to the impact of technology on society, ethical issues, economics and the thought processes in the Humanities and Social Sciences must be taken as follows:

- Economics: One of Law 5220 Income Taxation, Law 5555 Corporate Finance, or an approved Law Selected Topics course.
- Ethical Issues: Law 5150 Legal Ethics & Professionalism [part of the first year Law curriculum].
- Impact of Technology on Society: One of: Law 5615 Biotechnology Law, Law 5605
  Advanced Issues in Technology Law, Law 5350 Media Law, Law 5600 Advanced
  Intellectual Property, Law 5620 Information Law, Law 5625 Intellectual Property, Law
  5630 International Protection of Intellectual Property, Law 5610 Advanced Patent Law, or
  an approved Law Selected Topics course.

#### **Exchange Programs**

Students enrolled in the combined program are not eligible for an exchange program with the Faculty of Engineering; however, they may be eligible for an exchange through the Faculty of Law in Year Five or Six. This will require advanced planning with both faculties.

# **2014 Sessional Dates**

\* Note: Any of the following deadlines that occur on a Sat or Sun or Statutory Holiday will be extended to the next working day.

January	6	Classes resume.
January	10	Last day to add a second-term first quarter ('S) course (Kinesiology).
* January	15	Last day to receive admission applications for the Diploma in Accounting, Diploma in Marketing, and the Diploma in Public Relations offered through The Western Centre for Continuing Studies.
January	14	Last day to add a second-term half course, or a second-term full course.
January	17	Last day to drop a second-term first quarter ('S') course without academic penalty (Kinesiology).
January	22	Last day to receive applications for graduation at In Absentia February Convocation.
January	31	Last day to receive admission applications: Business Administration.
* January	31	Deadline to apply for relief against a final grade in a first-term course.
* February	1	Last day to receive admission applications: Social Work (King's University College).
* February	15	Last day to receive admission applications: Collaborative Nursing Program.
February	17	Family Day.
February	17 - 21	Reading Week.
February	24	First day of second-term second quarter ('T') course (Kinesiology).
February	28	Last day to add a second-term second quarter ('T') course (Kinesiology).

April

April

April

April

8

9 - 10

11 - 30

18

		In Absentia February Convocation.
* March	1	Last day to receive admission applications from CEGEP applicants.
		Last day to receive admission applications: Compressed Time Frame BScN Program.
		Last day to receive admission applications for Spring/Summer Distance Studies, Summer Evening and Intersession from students applying for the first time. All supporting documentation must be submitted within seven days of this date.
		Last day to receive admission applications: Certificate & Diploma Programs offered through The Western Centre for Continuing Studies.
March	1	Early Consideration admission application deadline for full-time first year studies for the Fall/Winter 2014-15 term.
March	4	First day for web registration for Summer Evening and Spring/Summer Distance Studies.
March	6	First day for web registration for Intersession.
* March	7	Last day to drop a second-term half course, or a second-term full course without academic penalty.
March	7	Last day to drop a second-term second quarter ('T') course without academic penalty (Kinesiology).
March	11	First day for web registration for Summer Day.
March	15	Last day to receive applications for graduation: Spring Convocation.

Fall/Winter Session classes end.

Final examination period.

Study Days.

Good Friday

Senate Agenda				
December 7, 2012				

April	20	Easter Sunday
April	30	Second term ends for all Faculties except Dentistry, Education, Law, and Medicine.
May	TBA	Huron University College Theology Convocation.
		Master of Business Administration Convocation.
		Doctor of Medicine Convocation.
		Hong Kong Convocation.
* May	1	Last day to receive admission applications for Summer Day courses from students applying for the first time. All supporting documentation must be submitted within seven days of this date.
		Last day to withdraw an application for graduation: Spring Convocation.
May	3	Last day for web registration for Summer Evening and Spring/Summer Distance Studies courses.
May	5	Summer Evening and Spring/Summer Distances Studies courses begin.
May	9	Last day to add a full course, a first-term half course, a first-term first quarter ('Q') course, and a full year half-course in Summer Evening.
		Last day to add a Spring/Summer Distance Studies course.
May	10	Last day for web registration for Intersession courses.
May	12	Intersession courses begin.
		Trois-Pistoles courses begin.
May	13	Last day to add a full course, or a 6-week half course, a first-term first quarter ('Q') course, or a full-year half course in Intersession.
May	14	Last day to add or drop a course at Trois-Pistoles Intersession.

* May	15	Last day for students on exchange or a letter of permission to submit transcripts for graduation at Spring Convocation.
		Last day to receive admission applications for full-time general studies for 2014-15 Fall/Winter Term from candidates outside Canada.
May	15	Last day to drop a 3-week first-term half course in Intersession without academic penalty.
May	16	Last day to drop a first-term half course, or a first-term first quarter ('Q') course in Summer Evening and Spring/Summer Distance Studies without academic penalty.
May	19	Victoria Day.
May	22	Last day to drop a full course, or a 6-week half course, a first-term, first quarter ('Q') course, or a full-year half course in Intersession without academic penalty.
May	30	Last day to drop a full course or full-year half course in Summer Evening and Spring/Summer Distance Studies course without academic penalty.
* June	1	Last day to receive admission applications from new students for Fall/Winter Term 2014-15 for full-time studies, provided that the program requested is open. All supporting documentation must be submitted within seven days of this date.
June	2	Second-term half courses in Intersession begin.
June	3	Last day to add a second-term half course in Intersession.
June	4	Last day to drop a second-term half course in Intersession without academic penalty.
June	10 - 13 16 - 18	Spring Convocation.
June	13	Trois-Pistoles Intersession Ends.

Senate Agenda December 7, 2012		EXHIBIT I, Appendix 6 Page 5
June	16	Second term half courses in Summer Evening and Spring/Summer Distance Studies begin.
June	19	Proposed start date for course registration for 2014-15 Fall/Winter Term.
June	20	Last day to add a second-term half course in Summer Evening and Spring/Summer Distance Studies.
		Intersession courses end.
June	23 - 24	Examinations: Intersession.
June	27	Last day to drop a second term half course, or a second- term, first quarter ('S') course, in Summer Evening and Spring/Summer Distance Studies without academic penalty.
* June	30	Deadline to apply for relief against a final grade in a second- term or a full-year course.
		Deadline to apply for relief against a program eligibility decision.
		Deadline requesting a waiver of the progression requirements.
* July	1	Canada Day.
		Last day to receive admission applications from new students for Fall/Winter Term 2013-14 for courses taught by Distance Studies and for part-time studies in courses taught on campus during the day and evening provided that the program requested is open. All supporting documentation must be submitted within seven days of this date. New students wishing to pursue part-time studies after July 1, should contact the Admissions Office to arrange for an appointment.
July	5	Last day for web registration for Summer Day courses.
July	7	Summer Day Term begins.
		Trois-Pistoles Summer Day Term begin.

Senate Agenda			
December 7, 2012			

July	8	Last day to add a full course, a first-term half course (3-week or 6-week), or a full-year half course in Summer Day.
July	9	Last day to add or drop a course at Trois-Pistoles Summer Day.
July	10	Last day to drop a 3-week first-term half course in Summer Day without academic penalty.
July	16	Last day to drop a full course, or a 6-week half course, or a full-year half course in Summer Day without academic penalty.
July	25	Summer Evening and Spring/Summer Distance Studies Terms end.
July	28	Second-term half courses in Summer Day begin.
July	28 - 29	Examinations: Summer Evening Term.
July	28 - 31	Examinations: Spring/Summer Distance Studies courses.
July	29	Last day to add a second-term half course in Summer Day.
* July	31	Deadline to apply for relief against a final grade in an Intersession course.
July	31	Last day to drop a second-term half course in Summer Day without academic penalty.
August	4	Civic Holiday
August	8	Trois-Pistoles Summer Day courses end.
August	15	Summer Day courses end.
August	18 - 19	Examinations: Summer Day courses.
* August	31	Deadline to apply for relief against a final grade in a Summer Evening course.
September	1	Labour Day.

September	4	Fall/Winter Term classes begin	
September	6	WEB Registration for Fall/Winter term ends.	
September	8	First day of first-term, first-quarter ('Q') courses. (Kinesiology)	
		Last day to receive applications for graduation: Autumn Convocation.	
September	12	Last day to add a first-term first quarter ('Q') course (Kinesiology).	
		Last day for late registration.	
		Last day to add a full course, a first-term half course, a first-term full course, or a full-year half course on campus and Distance Studies.	
* September	15	Deadline to apply for relief against a final grade in a Summer Day course.	
September	19	Last day to drop a first-term first quarter ('Q') course without academic penalty (Kinesiology).	
October	1	Last day for students on exchange or a letter of permission to submit transcripts for graduation at Autumn Convocation.	
		Last day to withdraw application for graduation: Autumn Convocation.	
		(Note: If this date falls on a Saturday or Sunday, the deadline will be the Friday before)	
October	13	Thanksgiving Holiday.	
* October	15	Deadline to apply for relief against a final grade in a Spring/Summer Distance Studies course.	
		Last day to receive admission applications: Medicine for 2015.	
October	20	First day of first-term second quarter ('R') courses (Kin).	

October	23 - 24	Autumn Convocation.
October	24	Last day to add a first-term second quarter ('R') course (Kin).
October	30 - 31	Fall Study Break
* November	1	Last day that students registered in 'W' accelerated language courses may transfer to the equivalent full-year course with the permission of their Faculty.
		Last day to receive official transcripts for courses taken on Letters of Permission during the academic year 2013-14 and the Spring/Summer Terms of 2014.
		Last day to receive admission applications: Law for 2015.
November	4	Last day to drop a first-term second quarter ('R') course without academic penalty (Kin).
* November	5	Last day to drop a first-term half course or a first-term full course (2014-15 Fall/Winter Term) without academic penalty.
* November	30	Last day to drop a full course and full-year half course [on campus day and evening and Distance Studies] without academic penalty.
* December	1	Last day to receive admission applications: Dentistry for 2015.
		Last day to receive admission applications, transcripts, and supporting documentation: Education for 2015. (If December 1st falls on a week-end or holiday, then the deadline date will be decided by the Association of Education Registrar's of Ontario)
December	3	Fall/Winter Term classes end.
December	4 - 5	Study Days.
December	6 - 17	Mid-year examination period.
December	18	First term ends for all Faculties except Dentistry, Education, Law and Medicine.

Senate Agenda			
December 7, 20	12		

# The University of Western Ontario Academic Calendar Sessional Dates 2013

EXHIBIT I, Appendix 6 Page 9

* Note: Any of the following deadlines that occur on a Sat or Sun or Statutory Holiday will be extended to the next working day.			
January	7	Classes resume.	
January	11	Last day to add a second-term first quarter ('S) course (Kinesiology).	
* January	15	Last day to receive admission applications for the Diploma in Accounting, Diploma in Marketing, and the Diploma in Public Relations offered through The Western Centre for Continuing Studies.	
January	15	Last day to add a second-term half course, or a second-term full course.	
January	18	Last day to drop a second-term first quarter ('S') course without academic penalty (Kinesiology).	
January	22	Last day to receive applications for graduation at In Absentia February Convocation.	
January	31	Last day to receive admission applications: Business Administration.	
* January	31	Deadline to apply for relief against a final grade in a first-term course.	
* February	1	Last day to receive admission applications: Social Work (King's University College).	
* February	15	Last day to receive admission applications: Collaborative Nursing	
February	18	Family Day.	
February	18 - 22	Reading Week.	
February	22	In Absentia February Convocation.	
February	25	First day of second-term second quarter ('T') course (Kinesiology).	

Senate Agenda			
December 7, 2012			

# The University of Western Ontario Academic Calendar Sessional Dates 2013

EXHIBIT I, Appendix 6 Page 10

* March	1	Last day to receive admission applications from CEGEP applicants.
		Last day to receive admission applications: Compressed Time Frame BScN Program.
		Last day to receive admission applications for Spring/Summer Distance Studies, Summer Evening and Intersession from students applying for the first time. All supporting documentation must be submitted within seven days of this date.
		Last day to receive admission applications: Certificate & Diploma Programs offered through The Western Centre for Continuing Studies.
March	1	Last day to add a second-term second quarter ('T') course (Kinesiology).
March	5	First day for web registration for Summer Evening and Spring/Summer Distance Studies.
March	7	First day for web registration for Intersession.
* March	7	Last day to drop a second-term half course, or a second-term full course without academic penalty.
March	8	Last day to drop a second-term second quarter ('T') course without academic penalty (Kinesiology).
March	12	First day for web registration for Summer Day.
March	15	Last day to receive applications for graduation: Spring Convocation.
March	29	Good Friday
March	31	Easter Sunday
April	8	Master of Business Administration Convocation.
April	11	Fall/Winter Session classes end.
April	12 - 13	Study Days.
April	14 - 30	Final examination period.

Senate Agenda December 7, 2012		The University of Western Ontario Academic Calendar Sessional Dates 2013	EXHIBIT I, Appendix 6 Page 11
April	30	Second term ends for all Faculties except Dentistry, Education, Law, and Medicine.	
May	TBA	Huron University College Theology Convocation.	
		Doctor of Medicine Convocation.	
* May	1	Last day to receive admission applications for Summer Day courses from students applying for the first time. All supporting documentation must be submitted within seven days of this date.	
		Last day to withdraw an application for graduation: Sprin Convocation.	g
May	4	Last day for web registration for Summer Evening and Spring/Summer Distance Studies courses.	
May	6	Summer Evening and Spring/Summer Distances Studies courses begin.	
May	10	Last day to add a full course, a first-term half course, a first-term first quarter ('Q') course, and a full year half-course in Summer Evening.	
		Last day to add a Spring/Summer Distance Studies Cou	rse
May	11	Last day for web registration for Intersession courses.	
May	13	Intersession courses begin.	
		Trois-Pistoles courses begin.	
May	14	Last day to add a full course, or a 6-week half course, a first-term first quarter ('Q') course, or a full-year half course in Intersession.	
* May	15	Last day for students on exchange or a letter of permission transcripts for graduation at Spring Convocation.	on to submit
		Last day to receive admission applications for full-time g studies for 2013-14 Fall/Winter Term from candidates of Canada.	
May	15	Last day to add or drop a course at Trois-Pistoles Interse	ession.
May	16	Last day to drop a 3-week first-term half course in Intersession without academic penalty.	

Senate Agenda December 7, 2012		The University of Western Ontario Academic Calendar Sessional Dates 2013	EXHIBIT I, Appendix 6 Page 12		
May	17	Last day to drop a first-term half course, or a first-term fir ('Q') course in Summer Evening and Spring/Summer Dis Studies without academic penalty.	-		
May	20	Victoria Day.			
May	23	Last day to drop a full course, or a 6-week half course, a first-term, first quarter ('Q') course, or a full-year half course in Intersession without academic penalty.			
May	26	Hong Kong Convocation			
May	31	Last day to drop a full course or full-year half course in Summer Evening and Spring/Summer Distance Studies course without academic penalty.			
* June	1	Last day to receive admission applications from new studes. Fall/Winter Term 2013-14 for full-time studies, provided to program requested is open. All supporting documentation submitted within seven days of this date.	hat the		
June	3	Second-term half courses in Intersession begin.			
June	4	Last day to add a second-term half course in Intersession.			
June	6	Last day to drop a second-term half course in Intersession without academic penalty.			
June	11 - 14 17 - 19	Spring Convocation.			
June	14	Trois-Pistoles Intersession Ends.			
June	17	Second term half courses in Summer Evening and Spring Distance Studies begin.	g/Summer		
June	20	Proposed start date for course registration for 2013-14 Fa	all/Winter		
June	21	Intersession courses end.			
June	21	Last day to add a second-term half course in Summer Evening and Spring/Summer Distance Studies.			
June	24 - 25	Examinations: Intersession.			
June	28	Last day to drop a second term half course, or a second- quarter ('S') course, in Summer Evening and Spring/Sum Distance Studies without academic penalty.			

Senate Agenda December 7, 2012		The University of Western Ontario Academic Calendar Sessional Dates 2013	EXHIBIT I, Appendix 6 Page 13
* June	30	Deadline to apply for relief against a final grade in a second-term or a full-year course.	
		Deadline to apply for relief against a program eligibility decision.	
		Deadline requesting a waiver of the progression requirements.	
* July	1	Canada Day.	
		Last day to receive admission applications from new stu Fall/Winter Term 2013-14 for courses taught by Distance and for part-time studies in courses taught on campus de and evening provided that the program requested is ope supporting documentation must be submitted within seventhis date. New students wishing to pursue part-time stud 1, should contact the Admissions Office to arrange for an appointment.	e Studies uring the day n. All en days of ies after July
July	6	Last day for web registration for Summer Day courses.	
July	8	Summer Day Term begins.	
		Trois-Pistoles Summer Day Term begin.	
July	9	Last day to add a full course, a first-term half course (3-week or 6-week), or a full-year half course in Summer Day.	
July	10	Last day to add or drop a course at Trois-Pistoles Summer Day.	
July	11	Last day to drop a 3-week first-term half course in Summer Day without academic penalty.	
July	17	Last day to drop a full course, or a 6-week half course, or a full-year half course in Summer Day without academic penalty.	
July	26	Summer Evening and Spring/Summer Distance Studies Terms end.	
July	29	Second-term half courses in Summer Day begin.	
July	29 - 30	Examinations: Summer Evening Term.	
July	29 - Aug 1	Examinations: Spring/Summer Distance Studies courses	S.
July	30	Last day to add a second-term half course in Summer D	ay.
* July	31	Deadline to apply for relief against a final grade in an Int course.	ersession
August	1	Last day to drop a second-term half course in Summer E academic penalty.	Day without
August	5	Civic Holiday	
August	9	Trois-Pistoles Summer Day courses end.	

Senate Agend December 7, 2			EXHIBIT I, Appendix 6 Page 14
August	16	Summer Day courses end.	
August	19 - 20	Examinations: Summer Day courses.	
* August	31	Deadline to apply for relief against a final grade in a Summer Evening course.	
September	2	Labour Day.	
September	8	Last day to receive applications for graduation: Autumn Convocation.	
September	9 (Mon.)	Fall/Winter Term classes begin.	
		First day of first-term, first-quarter ('Q') courses. (Kinesio	logy)
September	10	WEB Registration for Fall/Winter term ends.	
September	13	Last day to add a first-term first quarter ('Q') course (Kinesiology).	
		Last day for late registration.	
* September	15	Deadline to apply for relief against a final grade in a Summer Day course.	
September	17	Last day to add a full course, a first-term half course, a first-term full course, or a full-year half course on campus and Distance Studies.	
September	20	Last day to drop a first-term first quarter ('Q') course without academic penalty (Kinesiology).	
October	1	Last day for students on exchange or a letter of permission to submit transcripts for graduation at Autumn Convocation.	
		Last day to withdraw application for graduation: Autumn Convocation.	
		(Note: If this date falls on a Saturday or Sunday, the dea the Friday before)	dline will be
October	14	Thanksgiving Holiday.	
* October	15	Deadline to apply for relief against a final grade in a Spri Distance Studies course.	ng/Summer
		Last day to receive admission applications: Medicine for	2014.
October	21	First day of first-term second quarter ('R') courses (Kin).	

Last day to add a first-term second quarter ('R') course (Kin).

October

October

October

25

31 - Nov 1

Fall Study Break

31 - Nov 1 Autumn Convocation.

Senate Agenda December 7, 2012		The University of Western Ontario Academic Calendar Sessional Dates 2013	EXHIBIT I, Appendix 6 Page 15
* November	1	Last day that students registered in 'W' accelerated language courses may transfer to the equivalent full-year course with the permission of their Faculty.	
		Last day to receive official transcripts for courses taken of Permission during the academic year 2012-13 and the Spring/Summer Terms of 2013.	on Letters of
		Last day to receive admission applications: Law for 2014	ł.
November	5	Last day to drop a first-term second quarter ('R') course academic penalty (Kin).	without
* November	5	Last day to drop a first-term half course or a first-term fu (2013-14 Fall/Winter Term) without academic penalty.	Il course
* November	30	Last day to drop a full course and full-year half course [o day and evening and Distance Studies] without academi	
* December	1	Last day to receive admission applications: Dentistry for	2014.
		Last day to receive admission applications, transcripts, a supporting documentation: Education for 2014. (If Decer on a week-end or holiday, then the deadline date will be the Association of Education Registrar's of Ontario)	nber 1st falls
December	6	Fall/Winter Term classes end.	
December	7	Study Days.	
December	8 - 19	Mid-year examination period.	
December	20	First term ends for all Faculties except Dentistry, Educat Medicine.	ion, Law and

# DENTISTRY SESSIONAL DATES 2013 - 2014

# 2013

Days, Duration	Dates	Classes/Exams/Activity/Stat Holidays
Mon – Thur	August 26 – 29	Clinic Orientation, Year 3 & ITD1 students
Thur	August 29	Year 1 Kit Orientation
Fri	August 30	White Coat Ceremony, Year 1 & ITD1 students
Mon	September 2	Labour Day, No Classes Scheduled
Tues	September 3	UWO/DSS Orientation Day, Year 1 (No classes) Regular Class and Clinics commence – Year 2, Year 3/ITD1 Year 4/ITD2
Wed	September 4	Year 1 Classes Commence
Fri – Sun	September 27 – 29	Homecoming
Mon	October 14	Thanksgiving - No Classes Scheduled
Fri	November 29	Classes End – Fall Term
Sun	December 1	Last Day for receiving admission applications for Year 1 Dentistry
Mon-Fri Mon-Fri Mon, Tue	December 2 – 18	Exam Period – All Years

# 2014

Days, Duration	Dates	Classes/Exams/Activity/Stat Holidays
Mon	January 6	Winter Term Commences - All Years
Mon	February 17	Family Day
Tues – Fri Mon - Fri (9 days)	February 18 – 28	Supplemental Examinations, Year 4/ITD2 students
ТВА	March (TBA)	NDEB Examinations (Written & OSCE) Year 4 / ITD2 students
Mon - Fri	March 10 – 14	Study Week
Fri	April 18	Good Friday
Fri	May 2	Winter Term Ends – Year 2, 3, ITD 1, Year 4, ITD2
Mon - Fri Mon – Fri Tues - Fri	May 5 – May 23	Final Examinations, Year 2, Year 3/ITD1 students
Mon	May 19	Victoria Day
Tues	May 20	Winter Term Ends – Year 1
Thur, Fri, Mon - Fri (7 days)	May 22 – 30	Final Examination – Year 1
Mon - Thur (5 weeks)	May 26 – June 27	Summer Clinic – Year 3/ITD1
Fri	Dentistry Convocation To Be Determined June 2014	Spring Convocation – To Be Determined
Mon – Fri, Mon - Fri (8 days)	June 30 – July 11	Supplemental Examination Period, Year 1, Year 2, Year 3/ITD1 students
Wed	July 1	Application Deadline for Year 2 Admissions (transfers)

NOTE: Exams for Years 1 and 2 that are scheduled outside of regular exam periods will be posted separately.

(Dates subject to change)

# Sessional Dates 2013-14 – Faculty of Education

2013	
August 29 & 31	Registration and Orientation
September 2	Labour Day
September 3	Classes Begin
September 3-9	1 <sup>st</sup> term Add/Drop
October 14	Thanksgiving
October 7-November 15	Practice Teaching (weeks 1-6)
November 18	Classes Resume
December 20	Exam Day
December 23-January 3	Vacation
2014	
January 6	Classes Resume
January 6-12	2 <sup>nd</sup> term Add/Drop
February 17	Family Day
March 7	Exam Day
March 7-April 25	Practice Teaching (weeks 7-12)
March 10-14	Spring Break
April 18/21	Good Friday/Easter Monday
May 2 - 16	Transition to Professional Practice

FACULTY OF LAW – SESSIONAL DATES 2013-2014		
2013		
September 2	Labour Day Holiday	
September 3	Orientation/Fall Term Begins	
September 3 -10	Fall Term Add/Drop Period	
October14	Thanksgiving Day Holiday	
October 24 -25	Fall Convocation	
November 29	Fall Term Classes End	
December 2 -13	Fall Term Examination Period	
December 13	Fall Term Ends	
2014		
January 6	January Term Begins (1st Year Law)	
January 6	January Term Begins (Upper Year Law)	
January 6-7	January Term Add/Drop Period	
January 31	January Term Ends	
February 3 -7	Law Study Week	
February 10	Spring Term Begins	
February 10 -14	Spring Term Add/Drop Period	
February 17	Family Day Holiday (UWO Holiday)	
April 14	Spring Term Classes End	
April 15 -April 22	Passover	
April 18	Good Friday (UWO Holiday)	
April 17 -30	Spring Term Examination Period	
April 30	Spring Term Ends	
June TBD	Spring Convocation	

# Sessional Dates MD Program 2013-14

2013	MD Program	
August 27, 28, 29	Year 1 Orientation	
September 2	Statutory Holiday – Labour Day	
September 3	Classes Begin all 4 years	
October 14	Statutory Holiday – Thanksgiving	
December 16-20	Assessment Year 1	
December 21	Term Ends Years 1, 2 & 4	
2014		
January 6	Year 4 Integration, Consolidation & Enrichment Begins	
January 6	Years 1 & 2 Classes Resume	
January 13 - 17	Assessment Year 2	
February 17	Statutory Holiday – Family Day	
March 10 – 14	Years 1 & 2 & 3 Vacation	
April 18	Statutory Holiday – Good Friday	
April 25	Year 4 Classes End (inc ACLS)	
May 16	Convocation	
May 19	Statutory Holiday – Victoria Day	
May 20- May 23	Year 1 Assessment	
May 26– June 6	Year 1 Rural & Regional Week	
June 2 - 6	Year 2 Assessment Week	
June 6	Years 1 & 2 Term Ends	
August 22(Friday)	Year 3 Clerkship Teaching Ends	

# FOR INFORMATION

Report of Scholastic Offenses for the period July 1, 2011 – June 30, 2012 prepared by John Doerksen, Vice-Provost (Academic Programs & Students) [Registrar]

FACULTY / SCHOOL / AFFILIATED UNIVERSITY COLLEGE	OFFENSE	SANCTION
Arts and Humanities	Plagiarism (11)	Six received zero on assignment or essay; one received 50% penalty on assignment; four received 30-40% on essay or presentation
	Had another write on-line quiz (4)	Cases are still pending final decision
Business	Gaining unfair advantage / cheating (2)	Both received failing grade and are not eligible for any Ivey honours designations or access to career management services for a duration of time Both appealed (both upheld)
Education	Plagiarism (8)	Five received zero on the essay / assignment; three were required to re-write the paper
Engineering	Cheating (3)	One received zero on final exam, zero on course, and suspension from University until January 2013 due to second scholastic offense; two received zero on assignment
Information & Media Studies	Plagiarism (11)	One received no penalty – faculty and student agreed to one-year medical leave; nine received zero on assignment; one received 30% on assignment
	Falsified documents	Was refused the accommodation requested
Health Sciences	Plagiarism	Received zero on essay
Law	Plagiarism (3)	Two received zero on essay / assignment; one received "F" in course
Medicine & Dentistry / Medical Sciences	Plagiarism	Received zero on essay
	Cheating	Received "F" in course and not permitted to take summer course
Music	Plagiarism (4)	Three received zero on essay/assignment; one was required to re-write the essay and received 15% penalty to essay mark
Science	Plagiarism (3)	All received zero on assignment
	Falsified information	Received zero on assignment
	Cheating (11)	One received "F" in course and not permitted to take summer course in same subject; three received letters of warning; two received zero on test/assignment; five received "F" in course
	Receiving copy of stolen exam	Failed course on their own – no need to assign "F"

Social Science	Plagiarism (47)  Cheating (19)	31 received 0% on essay; three received "F" in course; two received "F" on essay; two received grade of 40% on essay; two given formal reprimand; two allowed to rewrite essay to maximum 75%; one allowed to rewrite essay to maximum 50%; one received 30% deduction in essay grade; one received 25% deduction in essay grade; one received 15% on assignment; one given 0% on first assignment, 40% on second  Twelve received 0% on the exam; three received 50% deduction on exam grade; one received zero on multiple choice section of exam;
	Possession of electronic device (3)	two received formal reprimand; one received zero on latter part of exam  Two received zero on exam; one received formal reprimand
	Added material to appeal exam	Received zero on exam
	Had another write on-line quiz (56)	One received "F" in course; all others still pending final decision
Brescia UC	Plagiarism (4)	One received zero on assignment; one received grade to maximum 50%; two received grade to maximum 40% on assignment
	Cheating	Received failing grade (F) in course
	Possession of electronic devices during exam	Penalized 10% on exam (electronic device detected and removed early during exam)
	Had another write on-line quiz (3)	Cases are still pending final decision
Huron UC	Plagiarism (14)	One received overall grade reduction of 5%; two had grades split evenly following inappropriate collaboration; two received F (40%) on assignment; seven received zero on assignment; one received failing grade for course; one received zero on assignment and further overall grade reduction of 5%
	Cheating (2)	One had grade split evenly with a student from another campus following inappropriate collaboration; one received zero on quiz/test
	Had another write on-line quiz (62)	Cases are still pending final decision
King's UC	Plagiarism (7)	Seven received zero on assignment / essay
	Cheating	Received zero on exam
	Had another write on-line quiz (3)	Cases are still pending final decision

### **New Scholarship and Awards**

Rob Schmidt Memorial Award (Any Undergraduate, Graduate, or Affiliated University College Student - Athletic Award [Men's and Women's Tennis])

Awarded to a full-time undergraduate or graduate student in any year of any degree program at Western, including the Affiliated University Colleges, who is making a significant contribution as a member of the Men's or Women's Tennis Team, after completion of the playing season. The recipient will have demonstrated strong leadership and sportsmanship skills, hard work, dedication, and a team player mentality, active involvement in his or her local community, and academic achievement. As per OUA and CIS regulations, an entering student athlete must have a minimum admission average of 80% and a non-entering student must have an in-course average of 70%. Candidates must be in compliance with current OUA and CIS regulations. The Western Athletic Financial Awards Committee will select the recipient based on its evaluation of academic performance/potential (20%) and the written recommendation from the Head Tennis Coaches assessing athletic performance/potential and team/campus/community leadership (weighted as 60% and 20% respectively). This award was established with Foundation Western and is made possible through the generosity of the family and friends of Rob Schmidt (MA'07 Political Science).

An active member of the tennis community, Rob was loved by all he coached. Rob developed a strong love for tennis at an early age. He grew up playing and coaching tennis at the John Hatch Tennis Centre. His love of the sport spread throughout the entire Schmidt family and followed Rob as he moved to South Korea, Toronto, and North Carolina. Passionate about education, Rob completed his undergraduate and master's programs in Political Science at Western and his Bachelor of Education at the University of Toronto. He had a loving and compassionate soul and touched the hearts of many.

Value: 1 at \$1,000

Effective: 2012-2013 academic year

Men's Soccer Award (Any Undergraduate, Graduate or Affiliated University College Student - Athletic Award [Men's Soccer])

Awarded to full-time undergraduate or graduate students in any year of any degree program at Western, including the Affiliated University Colleges, who are making a significant contribution as members of the Men's Soccer Team. As per OUA and CIS regulations, an entering student athlete must have a minimum admission average of 80% and a non-entering student must have an in-course average of 70%. Candidates must be in compliance with current OUA and CIS regulations. The Western Athletic Financial Awards Committee will select the recipients based on its evaluation of academic performance/potential (20%) and the written recommendations from the Head Coach assessing athletic performance/potential and team/campus leadership (weighted as 60% and 20% respectively). This award was established by Mr. Shaun T. Arnold (BA'90).

Value: 2 at \$1,000

Effective: 2012-2013 to 2016-2017 academic years inclusive

#### CultureWorks Award (Any Undergraduate Program)

Awarded annually to full-time international students in any year of any undergraduate program, based on academic achievement and financial need. Preference will be given to students who have graduated from the CultureWorks ESL program. Applications can be obtained from the International and Exchange Student Centre and must be submitted to Student Financial Services by October 31. The Office of the Registrar will select the recipients. These awards were established by a generous donation from CultureWorks ESL.

Value: 3 at \$1,500

Effective: 2012-2013 to 2013-2014 academic years inclusive

<u>James Alfred (Jim) Parker Track and Field Award</u> (Any Undergraduate, Graduate or Affiliated University College Student - Athletic Award [Men's and Women's Track and Field])

Awarded to a full-time undergraduate or graduate student in any year of any degree program at Western, including the Affiliated University Colleges, who is making a significant contribution as a member of the Men's and Women's Mustang Track and Field Team, based on academic performance and dedication to team above self. As per OUA and CIS regulations, an entering student athlete must have a minimum admission average of 80% and a non-entering student must have an in-course average of 70%. Candidates must be in compliance with current OUA and CIS regulations. The Western Athletic Financial Awards Committee will select the recipient based on its evaluation of academic performance/potential (20%) and the written recommendations from the Head Coach assessing athletic performance/potential and team/campus leadership (weighted as 60% and 20% respectively). This award was established with Foundation Western by alumni, friends and colleagues of Jim Parker in recognition of his contributions as Mustangs Track and Field Coach.

Value: 1 at \$1,000

Effective: 2012-2013 to 2016-2017 academic years (after which the value will be reviewed)

<u>Cullen MBA Scholarship</u> (School of Graduate and Postdoctoral Studies, Business)

Awarded annually to a full-time student entering the Master of Business Administration (MBA) program at the Richard Ivey School of Business, based on demonstrated academic achievement. The recipient will be a Canadian citizen who resides in British Columbia. If there is no candidate from British Columbia, then a Canadian citizen who does not reside in Ontario or Alberta will be selected. Candidates must submit applications for this scholarship at the time of application to the MBA Program at the Richard Ivey School of Business. Final selection of the recipient will be made by the MBA Scholarship Review Committee, with at least one member of the selection committee holding membership in the School of Graduate and Postdoctoral Studies. This scholarship is made possible through the generosity of Mark Cullen (MBA'71).

Value: 1 at \$10,000

Effective: May 2013 to April 2018

### REPORT OF THE SENATE COMMITTEE ON UNIVERSITY PLANNING

(SCUP)

**Sustainable Western Experience Report** 

**Performance Indicators Report** 

#### FOR APPROVAL

# 1. <u>Sustainable Western Experience Report</u>

**Recommended:** That Senate endorse and present for consideration to the Board of Governors the

document Creating a Sustainable Western Experience.

Background:

The President's Advisory Committee on Environment and Sustainability (PACES) has worked over the past year on the development of a strategic plan for sustainability. To assist with this work, PACES engaged Sustainability Solutions Group who are expert consultants in this field. PACES has student, staff and faculty representation (for specific membership please refer to page 2 of the attached document). This initiative under the umbrella of "Imagine 2022" engaged the Western community in a variety of ways (see page 5 of the document) on the directions and priorities for sustainability initiatives. On behalf of PACES we are very pleased to submit for consideration the outcome of this collective effort.

In terms of proposed next steps, once this document has received endorsement by SCUP, Senate and the Board, it is the intention of PACES to establish a framework for its implementation with regular (annual) reports of progress to the University community at large, the Senate and the Board of Governors as provided for in Policy 1.48 Environment and Sustainability. See **Appendix 1** for the Sustainable Western Experience Report.

#### FOR INFORMATION

#### 2. Performance Indicators Report

See Appendix 2.

# **ANNOUNCEMENTS & COMMUNICATIONS**

# **Vice-Provost, School of Graduate and Post-Doctoral Studies**

# **FOR INFORMATION**

# **Appointments**

Vice-Provost, School of Graduate and Post-Doctoral Studies

Linda Miller has been re-appointed Vice-Provost, (Graduate and Post-Doctoral Studies) for a second term (to June 30, 2019).