The following proposals, received on DAP between October 1-15, 2009, have now been approved.
For more information on the DAP process see the Academic Handbook at http://www.uwo.ca/univsec/handbook

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FACULTY OF ARTS AND HUMANITIES

COMPARATIVE LITERATURE AND CULTURE

*Effective **September 1, 2009**, the line "3.0 CLC courses at the 2200 level" in the Major in Comparative Literature and Culture be amended to "3.0 CLC courses at the 2200-2999 level" at the Department of Modern Languages and Literatures on Main Campus.*

MAJOR IN COMPARATIVE LITERATURE AND CULTURE
Revise: 3.0 CLC courses at the 2200 level to read:
3.0 CLC courses at the 2200-2999 level.

HINDI

*Effective **September 1, 2009**, Hindi 1010 – Hindi 1 at Huron University College be considered as antirequisite to Hindi 1030 — Hindi for Beginners at the Department of Modern Languages and Literatures on main campus.*

Hindi 1030 — Hindi for Beginners
Introduction to oral and written Hindi for students with little or no previous knowledge of the language.
Antirequisite(s): Hindi 1010 – Hindi 1 at Huron University College
4 hours, 1.0 course.
Those students with Grade 12U Hindi must consult the Department before registering for this course.

JAPANESE

*Effective **September 1, 2009**, revise Japanese 2260 to remove the sentence "Oral/aural practice is supplemented by weekly language laboratory sessions" from the course description in the Western Academic Calendar.*

Japanese 2260 – Intermediate Japanese
This course is designed to build on all four language skills (reading, writing, listening, and speaking) in Japanese developed in earlier courses. Emphasis is on the expansion of Japanese vocabulary, grammatical structures and kanji. Prepares students for progression to Japanese 4450.
Antirequisite(s): Japanese 2250, 3350, the former Japanese 020, 026, the former International and Comparative Studies 026, 126.
Prerequisite(s): Japanese 1036 or the former Japanese 006 or permission of the Department.
4 hours, 1.0 course.

SPANISH

*Effective **September 1, 2009**, Spanish 4000F/G-4005F/G: Special Topics in Spanish Literature and Spanish 4006F/G-4010F/G: Special Topics in Spanish-American Literature be introduced into the Western calendar.*

Spanish 4000F/ G-4005F/G: Special Topics in Spanish Literature
Please consult the Department for current offerings. Taught in English.
Prerequisite(s): Spanish 2202F/G
3 hours, 0.5 course

Spanish 4006F/ G-4010F/G: Special Topics in Spanish-American Literature
Please consult the Department for current offerings. Taught in English.
Prerequisite(s): Spanish 2203F/G
3 hours, 0.5 course

VISUAL ARTS HISTORY

*Effective **September 1, 2009**, VAH 1054F/G: Introduction to Visual Culture will be introduced.*

VAH 1054F/G: Introduction to Visual Culture
A theme-based introduction to the complex and engaging world of historical and contemporary visual culture as it relates to the history of art.
3 lecture hours, 0.5 course.

DON WRIGHT FACULTY OF MUSIC

*Effective **September 1, 2010**, Music 3790: Issues in Musicology, be withdrawn.*

*Effective **September 1, 2010**, Music 3791A/B/Y: Issues in Musicology, in the Don Wright Faculty of Music, be introduced.*

Music 3791A/B/Y: Issues in Musicology
A consideration of various issues in and approaches to musicological studies.
Antirequisite(s): Music 3790
Prerequisite(s): Music 1711F/G and Music 2710F/G
3 hours, 0.5 course

BACHELOR OF MUSIC WITH HONORS IN MUSIC HISTORY: WESTERN ART MUSIC

Old Calendar Copy	New Calendar Copy
Second Year Music 2635A/B, 2636A/B, 2649A/B, 2650A/B, 2710F/G, 2711F/G, 2920. Ensemble: One, or more, of Music 2901, 2902, 2903, 2904, 2905, 2906, 2910, 2911, 2912, 2913. Two full-courses or equivalent from faculties other than Music. (One should be a language other than English.)	Second Year Music 2635A/B, 2636A/B, 2649A/B, 2650A/B, 2710F/G, 2711F/G, 2920. Ensemble: One, or more, of Music 2901, 2902, 2903, 2904, 2905, 2906, 2910, 2911, 2912, 2913. Two full-courses or equivalent from a Faculty or Faculties other than Music.
Third Year Music 3649A/B, 3650A/B. Music 3920 and Ensemble* (Music 3901, 3902, 3903, 3904, 3905, 3906, 3910, 3911, 3912, 3913), or one music elective. ~~Music 3790 or 4790.~~ ~~One full-course or equivalent from Music History.~~ One full-course or equivalent from any Faculty.	Third Year Music 3649A/B, 3650A/B. Music 3920 and Ensemble* (Music 3901, 3902, 3903, 3904, 3905, 3906, 3910, 3911, 3912, 3913), or one full-course or equivalent music elective. **Music 3791A/B/Y or 4791A/B/Y** **One and one half full-courses or equivalent in Music History.** One full-course or equivalent from any Faculty.
Fourth Year ~~Music 3790 or 4790~~. Music 4920 and Ensemble* (Music 4901, 4902, 4903, 4904, 4905, 4906, 4910, 4911, 4912, 4913), or one music elective. ~~One full-course or equivalent from Music History.~~	Fourth Year **Music 3791A/B/Y or 4791A/B/Y** Music 4920 and Ensemble* (Music 4901, 4902, 4903, 4904, 4905, 4906, 4910, 4911, 4912, 4913), or one full-course or equivalent music elective. **One and one half full-courses or equivalent in Music History.**

One full-course ~~from~~ Music History or Music Theory and Composition. One senior full-course or equivalent from any Faculty.	One full-course in Music History or Music Theory and Composition. One senior full-course or equivalent from any Faculty.

* ~~The ensemble requirement becomes an optional elective for those students not registered in Music 3920.~~

*The ensemble requirement becomes an optional elective for those students not registered in Music 3920 or 4920. [a single asterisk below Year 4 for consistency with the BMus Honors in Music History: Popular Music program]

BACHELOR OF MUSIC WITH HONORS IN MUSIC HISTORY: POPULAR MUSIC

Old Calendar Copy	Suggested New Calendar Copy
Second Year Music 2635A/B, 2636A/B, 2649A/B, 2650A/B, 2710F/G, 2711F/G, 2920. Ensemble: One, or more, of Music 2901, 2902, 2903, 2904, 2905, 2906, 2910, 2911, 2912, 2913. One full-course or equivalent in Popular Music Studies*. ~~One full-course or equivalent from faculties other than Music.~~	Second Year Music 2635A/B, 2636A/B, 2649A/B, 2650A/B, 2710F/G, 2711F/G, 2920. Ensemble: One, or more, of Music 2901, 2902, 2903, 2904, 2905, 2906, 2910, 2911, 2912, 2913. One full-course or equivalent in Popular Music Studies*. One full-course or equivalent from a Faculty or Faculties other than Music.
Third Year Music 3649A/B, 3650A/B. Music 3920 and Ensemble** (Music 3901, 3902, 3903, 3904, 3905, 3906, 3910, 3911, 3912, 3913), or one full-course or equivalent music elective. ~~Music 3790~~ One full-course or equivalent in Popular Music Studies. One full-course or equivalent from any Faculty.	Third Year Music 3649A/B, 3650A/B. Music 3920 and Ensemble** (Music 3901, 3902, 3903, 3904, 3905, 3906, 3910, 3911, 3912, 3913), or one full-course or equivalent music elective. **Music 3791A/B/Y** **One half-course in Music History.** One full-course or equivalent in Popular Music Studies. One full-course or equivalent from any Faculty.
Fourth Year Music 4920 and Ensemble** (Music 4901, 4902, 4903, 4904, 4905, 4906, 4910, 4911, 4912, 4913), or one full-course or equivalent music elective. One full-course or equivalent in Popular Music Studies.* One full-course or equivalent ~~from~~ Music History or Music Theory and Composition. One senior full-course or equivalent from any Faculty.	Fourth Year Music 4920 and Ensemble** (Music 4901, 4902, 4903, 4904, 4905, 4906, 4910, 4911, 4912, 4913), or one full-course or equivalent music elective. One full-course or equivalent in Popular Music Studies.* One full-course or equivalent in Music History or Music Theory and Composition. One senior full-course or equivalent from any Faculty.

* Courses in Popular Music Studies may be chosen from the following: Music 2700A/B, 2701A/B, 2702A/B, 3730A/B, 3731A/B, 3737A/B, 3733A/B, 2734A/B, 3735A/B, 2736A/B, 4733A/B, MIT 3352F/G, and the former MIT 136F/G. Selected special Topics Courses (check with the Department of Music Research and Composition for suitability).

** The ensemble requirement becomes an optional elective for those students not registered in Music 3920 or 4920.

FACULTY OF ENGINEERING

*Effective **September 1, 2010**, CEE 2218a/b be withdrawn from the course offerings in the Faculty of Engineering.*

*Effective **September 1, 2010**, MME 4419 be withdrawn from the course offerings. MME will no longer differentiate between industrial and non-industrial capstone design projects.*

*Effective **September 1, 2010**, CEE 2219a/b be added as an antirequisite to CBE 2291a/b.*

CBE 2291A/B – Computational Methods for Engineers
This course is designed to introduce the student to technical computing for Engineers and Scientists using the high level, interactive, computational tools provided by the Matlab-Simulink Environment. Students will learn both the object oriented programming and command line modes of Matlab and apply them to the solution of a variety of problems involving optimization and dynamic simulation of Engineering processes.
Antirequisite(s): CEE 2219a/b
Prerequisite(s): ES 1036A/B or Computer Science 1026A/B or the former Computer Science 036a/b.
3 lecture hours, 2 tutorial hours, 0.5 course.

*Effective **September 1, 2010**, CEE 2219a/b be introduced and added to the second year requirements for all options in Civil Engineering.*

CEE 2219a/b Computational Tools for Civil Engineers
A first course in numerical methods for civil and environmental engineers, emphasizing problem formulation, solution algorithm design and programming application. Methods for solving nonlinear algebraic equations, ordinary differential equations, and differential-algebraic systems. Introduction to the systems approach, and system analysis terminology, for application to engineering planning, design and operations.
Prerequisite(s): ES 1036a/b, AM 1411a/b, AM 1413.
Corequisite(s): Applied Math 2411 or 2415.
Antirequisite(s): CBE 2291a/b, the former CEE 2218a/b.
3 lecture hours, 2 design lab/tutorial hours, 0.5 course.

*Effective **September 1, 2012**, CEE 4418a/b be introduced as a fourth year technical elective in Options A (Civil and Structural Engineering), B (Environmental Engineering) and F (Civil and International Development) in Civil and Environmental Engineering as shown below.*

CEE 4418a/b – Systems Approach for Civil and Environmental Engineering
Use of systems approach in civil and environmental engineering planning, design and management. Course topics include: systems thinking; simulation; optimization; and multi-objective analysis. Exposure to and use of computer-based simulation and optimization tools in solving civil and environmental engineering problems.
Prerequisite(s): CEE 2219a/b or CBE 2291a/b
Antirequisite(s): the former CEE 2218a/b
3 lecture hours, 2 tutorial hours, 0.5 course.

*Effective **September 1, 2010**, the title of CEE 3361a/b "Water Resources Systems Management" be revised to "Water Resources Management" and the course description and prerequisites be revised to read as shown below.*

CEE 3361a/b – Water Resources Management
Introduction to water resources management for engineers. Water resources management principles and tools; regulatory issues; economic analysis; water supply; water demand; sustainable development; climate change;

extremes (floods and droughts); water management in the Upper Thames River basin. Exposure to and use of computer-based tools in solving water resources management problems.
Prerequisite(s): CEE 2218a/b or CEE 2219a/b
Corequisite(s): Earth Sciences 3340a/b.
3 lecture hours, 2 tutorial hours, 0.5 course.

*Effective **September 1, 2010**, the title of Civil and Environmental Engineering 3384a/b "Finite Element Procedures" be revised to "Finite Element Methods in Solid Mechanics" with the course description and prerequisites as shown below.*

CEE 3384a/b – Finite Element Methods in Solid Mechanics
Linear finite element analysis including equilibrium through the principle of minimum potential energy, assembly of stiffness matrices and the imposition of boundary conditions, isoparametric formulation, natural coordinates and numerical integration, numerical solution of equilibrium equations, applications of the Raleigh-Ritz method.
Antirequisite(s): MME 3360a/b.
Prerequisite(s): ES 1036a/b, CEE 2202a/b, CEE 2218a/b or CEE 2219a/b
2 lecture hours, 2 laboratory hours, 0.5 course.

*Effective **September 1, 2010**, CEE 3386a/b be introduced and added to the third year requirements for Option B (Environmental Engineering) and the Fourth Year requirements for Option F (Civil and International Development) in Civil and Environmental Engineering as shown below*.

CEE 3386a/b - Numerical Modeling for Environmental Engineers
Principles of model development and solution for environmental systems including river and lake water quality, groundwater flow and contamination, and atmospheric pollution. Application of these principles using a range of numerical techniques, including current commercial software packages, through all stages of the modeling process from conceptualization to calibration and validation.
Prerequisite(s): CEE 2218a/b or CEE 2219a/b.
3 lecture hours, 3 design lab/tutorial hours, 0.5 course.

*Effective **September 1, 2010**, CEE 4429a/b be introduced as a fourth year technical elective in Options A (Civil and Structural Engineering) and B (Environmental Engineering) in Civil Engineering as shown below.*

CEE 4429a/b Selected Topics in Civil Engineering II
This course deals with topics of current interest in Civil and Environmental Engineering. Topics and course outline will be available at the time of registration.
Prerequisite(s): Completion of third year of the Civil Engineering program.
2 lecture hours, 2 tutorial hours, OR 3 lecture hours, 0.5 course.

*Effective **September 1, 2010**, revise CEE 4458a/b to include "completion of third year of the Integrated program" in the prerequisites.*

CEE 4458a/b – Risk Analysis and Decision Making in Engineering
Engineering systems are analyzed using probability theory and statistics to evaluate system performance under uncertainty. Risk based methods are used to make decisions under uncertainty.
Prerequisite(s): Completion of third year of the Civil or Integrated Engineering program, Statistical Sciences 2141a/b or 2143a/b.
2 lecture hours, 2 tutorial hours, 0.5 course.

*Effective **September 1, 2010**, revise ECE 2238a/b to include AM 2411 as co-requisite to permit Green Process Engineering students to enroll in the course.*

ECE 2238a/b – Introduction to Electrical Engineering
DC circuit analysis, fundamentals of DC circuit analysis, Ohm's Law, KCL, KVL, Thévenin and Norton Equivalent circuits, maximum power transfer; linear analog circuits, diodes, transistors, operational amplifiers, biasing, gain, frequency response.
Antirequisite(s): ECE 2205A/B, ECE 2231A/B.
Prerequisite(s): Applied Mathematics 1411A/B, Applied Mathematics 1413, Physics 1026, Computer Science 1026A/B or ES 1036A/B or the former Computer Science 036a/b.
Corequisite(s): Applied Mathematics 2415 or 2411.

3 lecture hours, 1 tutorial hour, 1 laboratory hour, 0.5 course.

*Effective **September 1, 2010,** revise ECE 4434a/b to update the prerequisites for ECE 4434a/b to include "or Integrated Engineering program".*

ECE 4434a/b – Advanced Digital Systems
Memory units, coders, decoders, adders, multipliers, clocks, synchronous and asynchronous sequential circuits, algorithmic state machines, microprogrammed synthesis of ASM designs, advanced microprocessor organization.
Prerequisite(s): ECE 2277a/b or the former ECE 3339a/b, ECE 3375a/b, completion of the third year of the Electrical or Integrated Engineering program.
3 lecture hours, 1.5 laboratory hours, 0.5 course.

*Effective **September 1, 2010**, revise ECE 4437a/b to remove ECE 3370a/b as a prerequisite.*

ECE 4437a/b – Communications Theory
Introduction to communication systems and information theory. Classification of signals and systems. Fourier series and transform applications. Power spectra and spectral density. Band-limited signals and noise. Sampling theory and digital transmission. Modulation techniques; pulse code modulation. Selected topics.
Prerequisite(s): ECE 3330A/B, ECE 3331A/B, ECE 3375A/B, Statistical Sciences 2141A/B, Applied Mathematics 3415A/B.
3 lecture hours, 1 tutorial hour, 0.5 course.

*Effective **September 1, 2010**, revise ECE 4460a/b to include the following as prerequisites: CS 1027a/b or CS 1037a/b, CS 2211a/b or SE 2250a/b, ECE 3375a/b as well as successful completion of the third year of the Engineering program.*

ECE 4460a/b – Real Time and Embedded Systems
Review of embedded processors, memory systems, basic peripherals; real-time kernel configurations, task control blocks, interrupt service routines, real-time clocks/timers, multi-tasking, schedulability analysis, inter-task communication, signals, message queues, cooperative/pre-emptive multi-tasking, priority scheduling, priority inversion problems, timing considerations, deadline handing, input-output handling; practical issues in computer control; design, development, and testing techniques.
Prerequisite(s): CS 1027a/b or CS 1037a/b, CS 2211a/b or SE 2250a/b, ECE 3375a/b as well as successful completion of the third year of the Engineering program.
3 lecture hours, 1.5 laboratory hours, 0.5 course.

*Effective **September 1, 2010**, revise MME 2273a/b to include Applied Mathematics 2415 in the corequisites.*

MME 2273a/b – Fluid Mechanics I
Fluid properties, fluid statics including buoyancy and stability, one dimensional flow including continuity, energy, and momentum. Dimensional analysis and modelling. Flow in pipes and flow measurement. Some aspects of open channel flow. The drag and lift of bodies.
Antirequisite(s): CBE 2221a/b or CEE 2224
Corequisite(s): Applied Mathematics 2413 or 2415.
3 lecture hours, 2 tutorial hours, 0.5 course.

*Effective **September 1, 2010**, to update the prerequisites for MME 4487a/b to include "ECE 2277a/b or the former ECE 3339a/b".*

MME 4487a/b – Mechatronic System Design
An overview of electrical, mechanical, optical and control technologies for system integration. Topics include: intelligent products and processes; design methodology; system modeling; sensors and actuators; microcontrollers; knowledge-based control.
Prerequisite(s): ECE 3373A/B, ECE 3374A/B, MME 3380A/B, or ECE 2277A/B or the former 3339A/B, ECE 3330A/B, ECE 3375A/B or completion of third year of the Integrated Engineering program.
2 lecture hours, 3 laboratory hours, 0.5 course.

*Effective **September 1, 2010**, to update the corequisites for MME 4492a/b to include "or registration in Option B of the Integrated Engineering program".*

MME 4492a/b – Production Management for Engineers
This course examines lean production principles and practices adopted by world-class manufacturers. Topics include: continuous improvement; total quality management; statistical process control; setup reduction; total productive maintenance; just-in-time and pull production; group technology; cellular manufacturing; standard operations; level production scheduling; process balancing; supply chain management; activity based costing; agile manufacturing.
Corequisite(s): Business Administration 2299 or registration in Option D of the Mechanical Engineering program or Option B of the Integrated Engineering program.
3 lecture hours; 2 laboratory/tutorial hours. 0.5 course.

*Effective **September 1, 2010**, to update calendar copy for MME 4499 to better reflect course content and remove reference to industrial sponsorship, and remove ES 1050 prerequisite.*

Mechanical and Materials Engineering 4499 - Mechanical Engineering Design Project
Students develop and practice engineering design skills by working on a team-based project. The students will experience all phases of the design process, including: problem definition, generation and evaluation of concepts, engineering analysis and testing, and preparation of design documentation. Project management and communications skills are emphasized.
Antirequisite(s): CBE 4497, CEE 4441, ECE 4416, SE 4450, ES 4499.
Prerequisite(s): Completion of the third year of the Mechanical Engineering program.
1 lecture hours, 4 laboratory/tutorial hours, 1.0 course.

*Effective **September 1, 2010**, to remove MME 4419 from the antirequisites for CBE 4497.*

CBE 4497 – Chemical Process and Plant Design
A design is prepared for a full-scale chemical process. This involves the detailed design of all major pieces of equipment, an estimate of the requirements for new materials and energy, and a calculation of total costs. Problem formulation, alternative design solutions and professional decision making are emphasized.
Antirequisite(s): CEE 4441, ECE 4416, MME 4499, SE 4450, ES 4499.
Prerequisite(s): CBE 3325A/B, CBE 3317A/B or the former CBE 3397, CBE 3323A/B, CBE 2220A/B, CBE 2224A/B, CBE 3315A/B, CBE 3322A/B.
Corequisite(s): Business Administration 2299 or registration in Option C of the Chemical Engineering program.
1 lecture hour, 6 tutorial hours, 1.0 course.

*Effective **September 1, 2010**, to remove MME 4419 from the antirequisites for CEE 4441.*

CEE 4441 – Civil Engineering Design Project
Students undertake a comprehensive engineering design project which involves the creative, interactive process of designing a structure/system to meet a specific need subject to economic, health, safety, and environmental constraints. Each student is required to write an engineering report and deliver a public lecture.
Antirequisite(s): CBE 4497, ECE 4416, MME 4499, SE 4450, ES 4499.
Prerequisite(s): Completion of third year of the Civil Engineering program.
1 lecture hour, 4 laboratory hours, 1.0 course.

*Effective **September 1, 2010**, to remove MME 4419 from the antirequisites for ECE 4416.*

ECE 4416 – Electrical/Computer Design Project
Selection and investigation of an engineering problem. Analytical and/or experimental work is carried out by individual students or project groups under the supervision of a faculty member. Progress reports and a final engineering report are prepared; each student must deliver a public lecture.
Antirequisite(s): CBE 4497, CEE 4441, MME 4499, SE 4450, ES 4499.
Prerequisite(s): Completion of third year of the Electrical, Computer or Integrated Engineering programs.
6 laboratory hours, 1.0 course.

*Effective **September 1, 2010**, to remove MME 4419 from the antirequisites for SE 4450.*

SE 4450 – Software Engineering Design II
Design and implementation of a large software engineering project. Design, coding, testing and implementation are carried out by individual students or project groups under the supervision of a faculty member. Progress

reports and a final engineering report are prepared; each student must deliver a public lecture on the work performed.
Antirequisite(s): CBE 4497, CEE 4441, ECE 4416, MME 4499, ES 4499.
Prerequisite(s): Completion of third year of the Software Engineering program.
Corequisite(s): SE 4452A/B, SE 4453A/B.
6 laboratory hours, both terms, 1.0 course.

*Effective **September 1, 2010**, to remove MME 4419 from the antirequisites for ES 4499.*

ES 4499 – Interdisciplinary Engineering Design Project
Students develop and practice engineering design skills by working on an interdisciplinary team-based project. The students will experience all phases of the design process, including: problem definition, generation and evaluation of concepts, engineering analysis and testing, and preparation of design documentation. Project management and communications skills will also be emphasized.
Antirequisite(s): CBE 4497, CEE 4441, ECE 4416, MME 4499, SE 4450.
Prerequisite(s): Completion of third year of the Integrated Engineering program or permission of the department.
4 tutorial hours, 1.0 course.

*Effective **September 1, 2010**, Civil Engineering Option A (Civil and Structural Engineering), be revised by (a) in the second year, removing CEE 2218a/b and adding CEE 2219a/b, and (b) in the fourth year, by adding as technical electives: CEE 4429a/b and, effective September 2012, CEE 4418a/b.*

CIVIL ENGINEERING OPTION A (CIVIL AND STRUCTURAL ENGINEERING)
Second Year Program
Applied Mathematics 2411, CEE 2202a/b, CEE 2217a/b, CEE 2219a/b, CEE 2220a/b, CEE 2221a/b, CEE 2224, Earth Sciences 2281a/b, ES 2211F/G, Statistical Sciences 2141a/b*.
*__Note:__ A student may, with the permission of the department counselor, substitute Statistical Sciences 2143a/b for Statistical Sciences 2141a/b.

Note: CEE 3324a/b (Surveying). This course is available each summer (15 days) and must be completed before a student may graduate from the Civil Engineering program.

Third Year Program
CEE 3326, CEE 3340a/b, CEE 3341a/b, CEE 3342a/b, CEE 3346a/b, CEE 3347a/b, CEE 3348a/b, CEE 3358a/b, CEE 3369a/b, CEE 3384a/b, 0.5 non-technical elective.
Selection of the non-technical elective must be approved by the Departmental 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
CEE 4441, CEE 4426a/b, CEE 4478a/b, CEE 4490, ES 4498F/G, Business Administration 2299, three 0.5 technical electives.

Technical Electives: Civil and Structural Engineering Option:
CEE 4440, CEE 3355a/b, CEE 4418a/b (effective September 2012), CEE 4428a/b, CEE 4429a/b, CEE 4458a/b, CEE 4461a/b, CEE 4465a/b, CEE 4476a/b, CEE 4477a/b, Earth Sciences 3340a/b, Earth Sciences 4440a/b.

*Effective **September 1, 2010**, Civil Engineering Option B (Environmental Engineering), be revised by: (a) in the second year, removing CEE 2218a/b and adding CEE 2219a/b; (b) in the third year, by removing CEE 3340a/b, CEE 3384a/b, and CBE 2290a/b and adding CEE 3361a/b, CEE 3362a/b and CEE 3386a/b; and (c) in the fourth year, by adding as technical electives: CEE 4429a/b and, effective September 2012, CEE 4418a/b.*

CIVIL ENGINEERING OPTION B (ENVIRONMENTAL ENGINEERING)
Second Year Program
Applied Mathematics 2411, CEE 2202a/b, CEE 2217a/b, CEE 2219a/b, CEE 2220a/b, CEE 2221a/b, CEE 2224, Earth Sciences 2281a/b, ES 2211F/G, Statistical Sciences 2141a/b*.
*__Note:__ A student may, with the permission of the department counselor, substitute Statistical Sciences 2143a/b for Statistical Sciences 2141a/b.

Note: CEE 3324a/b (Surveying). This course is available each summer (15 days) and must be completed before a student may graduate from the Civil Engineering program.

Third Year Program
CEE 3326, CEE 3347a/b, CEE 3348a/b, CEE 3355a/b, CEE 3361a/b, CEE 3362a/b, CEE 3369a/b, CEE 3386a/b, CBE 3363a/b, Earth Sciences 3340a/b, 0.5 non-technical elective.
Selection of the non-technical elective must be approved by the Departmental 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
CEE 4426a/b, CEE 4441, CEE 4465a/b, CEE 4476a/b, CEE 4478a/b, ES 4498F/G, Business Administration 2299, three 0.5 technical electives.

Technical Electives: Environmental Engineering Option:
CEE 4440, CEE 4405a/b, CEE 4418a/b (effective September 2012), CEE 4428a/b, CEE 4429a/b, CEE 4458a/b, CEE 4461a/b, CEE 4477a/b, CBE 4463a/b, Earth Sciences 4440a/b.

*Effective **September 1, 2010**, Civil Engineering Option F (Civil and International Development), be revised by: (a) in the second year, removing CEE 2218a/b and adding CEE 2219a/b; (b) in the third year, by removing CEE 3340a/b and adding CEE 3361a/b; and (c) in the fourth year, by changing Geog 2220a/b from a required course to a technical elective, adding CEE 3386a/b to the core program, and removing MME 4491a/b from and, effective September 2012, adding CEE 4418a/b to the list of technical electives.*

CIVIL ENGINEERING OPTION F (CIVIL AND INTERNATIONAL DEVELOPMENT)
Second Year Program
Applied Mathematics 2411, CEE 2202a/b, CEE 2217a/b, CEE 2219a/b, CEE 2220a/b, CEE 2221a/b, CEE 2224, Earth Sciences 2281a/b, ES 2211F/G, Statistical Sciences 2141a/b*.

***Note:** A student may, with the permission of the department counselor, substitute Statistical Sciences 2143a/b for Statistical Sciences 2141a/b.

Note: CEE 3324a/b (Surveying). This course is available each summer (15 days) and must be completed before a student may graduate from the Civil Engineering program.

Third Year Program
CEE 3326, CEE 3327a/b, CEE 3328a/b, CEE 3347a/b, CEE 3348a/b, CEE 3355a/b, CEE 3361a/b, CEE 3362a/b, CEE 3369a/b, CBE 3363a/b, Earth Sciences 3340a/b.

Fourth Year Program
Business Administration 2299, CEE 3386a/b, CEE 4404a/b, CEE 4426a/b, CEE 4441, CEE 4465a/b, CEE 4478a/b, ES 4498F/G, two 0.5 technical electives.

Technical Electives: International Development Option
CEE 4405a/b, CEE 4418a/b (effective September 2012), CEE 4427a/b, CEE 4440, CEE 4458a/b, CEE 4461a/b, Earth Sciences 4440a/b, Geography 2220a/b, Geography 2230a/b.

*Effective **September 1, 2010**, Civil Engineering Option C (Civil Engineering and Management) be revised in the second year by removing CEE 2218a/b and adding CEE 2219a/b.*

CIVIL ENGINEERING OPTION C (CIVIL ENGINEERING AND MANAGEMENT)
Second Year Program
Applied Mathematics 2411, CEE 2202a/b, CEE 2217a/b, CEE 2219a/b, CEE 2220a/b, CEE 2221a/b, CEE 2224, Earth Sciences 2281a/b, Business Administration 2257.

Effective September 1, 2010, Civil Engineering Option D (Civil Engineering and Law), be revised by (a) in the second year, removing CEE 2218a/b and adding CEE 2219a/b; and (b) in the fifth and sixth years, by removing 0.5 technical elective.

CIVIL ENGINEERING OPTION D (CIVIL ENGINEERING AND LAW)

Second Year Program
Applied Mathematics 2411, CEE 2202a/b, CEE 2217a/b, CEE 2219a/b, CEE 2220a/b, CEE 2221a/b, CEE 2224, Earth Sciences 2281a/b, ES 2211F/G, Statistical Sciences 2141a/b*.

***Note:** A student may, with the permission of the department counselor, substitute Statistical Sciences 2143a/b for Statistical Sciences 2141a/b.

Note: CEE 3324a/b must be completed before a student may graduate with a BESc degree from the Civil Engineering program.

Third Year Program
CEE 3326, CEE 3340a/b, CEE 3341a/b, CEE 3342a/b, CEE 3346a/b, CEE 3347a/b, CEE 3348a/b, CEE 3358a/b, CEE 3369a/b, CEE 3384a/b, 0.5 non-technical elective.
Selection of the non-technical elective must be approved by the Departmental 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
CEE 4441, CEE 4426a/b, CEE 4465a/b, CEE 4476a/b. In years five and six students must complete the following requirements for the JD:

- The two compulsory upper-year Law courses
- At least three Law core-group courses (must include Law 5220)
- Additional Law courses equaling at least 25 credit hours (must include one of the optional course listed below under "The Impact of Technology on Society")
- One Law course must have an essay requirement of at least two credit hours.

Notes: Fulfillment of the Faculty of Engineering requirement of courses that expose students to the impact of technology on society, ethical issues, and economics must be taken as follows:

- Ethical Issues: Law 5130 "Legal Effects and Professionalism" – part of the first year Law curriculum
- The 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", the former Law 453 "Internet Law", Law 5625 "Intellectual Property", Law 5630 "International Protection of Intellectual Property" or Law 5610 "Advanced Patent Law".

In addition, there may be a Selected Topics course which may be approved on an individual basis.

- Economics: Law 5220 "Income Taxation"

*Effective **September 1, 2010**, Civil Engineering Option E (Civil Engineering and Medicine) be revised in the second year by removing CEE 2218a/b and adding CEE 2219a/b.*

CIVIL ENGINEERING OPTION E (CIVIL ENGINEERING AND MEDICINE)
Second Year Program
Applied Mathematics 2411, Business Administration 2299, CEE 2202a/b, CEE 2217a/b, CEE 2219a/b, CEE 2220a/b, CEE 2221a/b, CEE 2224, Earth Sciences 2281a/b, ES 2211F/G, Statistical Sciences 2141a/b.

*Effective **September 1, 2010**, the Mechanical Engineering program be revised by removing MME 4419 from the fourth year program.*

MECHANICAL ENGINEERING PROGRAM
Fourth Year Program
Business Administration 2299, ES 4498F/G, MME 4499.
Six of the following technical electives: MME 4401Y, MME 4414A/B, MME 4422A/B, MME 4423A/B, MME 4424A/B, MME 4425A/B, MME 4427A/B, MME 4428A/B, MME 4429A/B, MME 4443A/B, MME 4445A/B, MME 4446A/B, MME 4450A/B, MME 4452A/B, MME 4453A/B, MME 4459A/B, MME 4460A/B, MME 4464A/B, MME 4469A/B, MME 4473A/B, MME 4474A/B, MME 4475A/B, MME 4479A/B, MME 4480A/B,

MME 4481A/B, MME 4482A/B, MME 4483A/B, MME 4485A/B, MME 4486A/B, MME 4487A/B, MME 4491A/B, MME 4492A/B.
Students may elect to substitute technical electives from other engineering disciplines or from the Faculty of Science, provided they have the required prerequisites, and provided at least half of their technical electives are chosen from the above list. A maximum of two 0.5 courses may be taken from the Faculty of Science and used towards the BESc degree. All courses outside of the MME list must be approved by the Department of Mechanical and Materials Engineering.

*Effective **September 1, 2010**, Mechanical Engineering Option B (Mechanical Engineering and Law) be revised by removing MME 4419 from the fifth (and sixth) year program.*

MECHANICAL ENGINEERING OPTION B (MECHANICAL ENGINEERING AND LAW)
Fourth Year Program
First year Law curriculum. No courses outside Law may be taken during this year.

Fifth and Sixth Year Programs
MME 4450A/B, MME 4425A/B
MME 4499

In years five and six students must complete the following requirements for the JD:
• The two compulsory upper-year Law courses
• At least three Law core-group courses (must include Law 5220)
• Additional Law courses equaling at least 25 credit hours (must include one of the optional courses listed below under “The Impact of Technology on Society”)
• One Law course must have an essay requirement of at least two credit hours.

Notes: Fulfillment of the Faculty of Engineering requirement of courses that expose students to the impact of technology on society, ethical issues, and economics must be taken as follows:

• Ethical Issues: Law 5130 “Legal Ethics & Professionalism” – part of the first year Law curriculum.

• The 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”, the former Law 453 “Internet Law”, Law 5625 “Intellectual Property”, Law 5630 “International Protection of Intellectual Property”, or Law 5610“Advanced Patent Law”. In addition, there may be a Selected Topics course offered which may be approved on an individual basis.

• Economics: Law 5220 “Income Taxation”.

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.

*Effective **September 1, 2010**, Mechanical Engineering Option C (Mechanical Engineering and Medicine), be revised by removing MME from the seventh year program, replaced by MME 4499.*

MECHANICAL ENGINEERING OPTION C (MECHANICAL ENGINEERING AND MEDICINE)
Fourth Year Program
MME 4425A/B, MME 4450A/B.
Regular Year 1 of the MD program.

Fifth Year Program
Regular Year 2 of the MD program.

Sixth Year Program
Regular Year 3 of the MD program.

Seventh Year Program
Regular Year 4 of the MD program less the Advanced Communication Skills course.

MME 4499 (will count as an "elective" credit in the fourth year of the MD program).

*Effective **September 1, 2010**, Mechanical Engineering Option D (Mechanical Engineering and Business), be revised by removing MME 4419 from the fifth year program.*

MECHANICAL ENGINEERING OPTION D (MECHANICAL ENGINEERING AND BUSINESS)
Fifth Year Program
MME 4499, MME 4492A/B, ES 4498F/G
Two 0.5 technical electives
Business Administration 4415Q/R/S/T, 4466A/B, 4505A/B, three 4400 level Business half course equivalents.

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 Richard Ivey School of Business in Year Five. This will require advanced planning and approval of both faculties.

FACULTY OF INFORMATION AND MEDIA STUDIES

*Effective **September 1, 2010** (for students entering the program in 2010-2011) the module requirements for programs in the Faculty of Information and Media Studies be revised*

HONORS SPECIALIZATION IN MEDIA, INFORMATION AND TECHNOCULTURE
Module
9.0 courses:
2.5 courses required in second year: MIT 2000F/G, 2100F/G, 2200F/G, 2500A/B, Writing 2121F/G.
1.0 course required in third year: MIT 3000A/B and 3100F/G.
3.0 additional courses in MIT at the 2000 level or above.
2.0 additional courses in MIT at the 3000 level or above.
0.5 course required in fourth year from: MIT 4030F/G-4039F/G.

MAJOR IN MEDIA, INFORMATION AND TECHNOCULTURE
Module
7.0 MIT courses:
2.5 courses required in second year: MIT 2000F/G, 2100F/G, 2200F/G, 2500A/B, Writing 2121F/G.
2.5 additional courses in MIT at the 2000 level or above.
2.0 MIT courses at the 3000 level or above.

HONORS SPECIALIZATION IN MEDIA AND THE PUBLIC INTEREST (MPI)
Module
9.0 courses:
3.0 courses required in second year: MIT 2000F/G, 2100F/G, 2200F/G, 2500A/B, 2901F/G, Writing 2121F/G.
1.0 courses required in third year: MIT 3000A/B, 3100F/G.
1.0 course required in fourth year: MIT 4999F/G and 0.5 course from MIT courses numbered 4030F/G-4039F/G.
1.0 courses: MIT 3901F/G, 3902F/G.
1.0 additional course in MIT at the 3000 level or above.
1.5 courses chosen from the approved list of MPI elective courses at the 2000 level or above.
0.5 additional course in MIT at the 2000 level or above.
An approved list of MPI appropriate electives is available from the Faculty of Information and Media Studies.

MAJOR IN MEDIA AND THE PUBLIC INTEREST (MPI)
Module
7.0 courses:
3.0 courses required in second year: MIT 2000F/G, 2100F/G, 2200F/G, 2500A/B, 2901F/G, Writing 2121F/G.

1.5 courses: MIT 3901F/G, 3902F/G, 4999F/G.
2.0 courses chosen from the approved list of MPI elective courses at the 2000 level or above.
0.5 additional course in MIT at the 3000 level.
An approved list of MPI appropriate electives is available from the Faculty of Information and Media Studies.

SCHULICH SCHOOL OF MEDICINE AND DENTISTRY

*Effective **September 1, 2010**: Medicine 5204 (Genitourinary System) be renumbered Medicine 5104 and taught in Year 1 of the Doctor of Medicine (MD) Program instead of Year 2. The course description will remain unchanged.*

*Effective **September 1, 2011**: Medicine 5118 (Musculoskeletal System) be renumbered Medicine 5218 and taught in Year 2 of the Doctor of Medicine (MD) program instead of Year 1. The course description will remain unchanged.*

*Effective **September 1, 2010**:*

DOCTOR OF MEDICINE
Year 1 Courses
Medicine 5115 (weight 1.0), Introduction to Medicine Medicine 5116 (weight 1.0), Infection & Immunity Medicine 5117 (weight 0.25) Skin Medicine 5119 (weight 1.0), Respiration & Airways Medicine 5120 (weight 1.0), Heart & Circulation Medicine 5121 (weight 1.0), Blood Medicine 5139 (weight 1.0), Patient Centered Clinical Methods I Medicine 5114 (weight 1.0), Community Health 1 Medicine 5104 (weight 1.0), Genitourinary System

Year 2 Courses for students enrolled in Year 2 September 2010 Medicine 5202 (weight 1.0), Endocrine and Metabolism Medicine 5203 (weight 1.0), Digestive System & Nutrition Medicine 5204 (weight 1.0), Genitourinary System Medicine 5205 (weight 1.0), Reproduction Medicine 5206 (weight 1.0), Neurosciences, Eye, & Ear
Medicine5207 (weight 1.0), Psychiatry & the Behavioural Sciences Medicine 5208 (weight 0.25), Emergency Care Medicine 5224 (weight 0.5), Community Health II Medicine 5246 (weight 1.5), Patient Centered Clinical Methods II

Year 2 Courses for students enrolled in Year 2 September 2011 Medicine 5202 (weight 1.0), Endocrine and Metabolism Medicine 5203 (weight 1.0), Digestive System & Nutrition Medicine 5205 (weight 1.0), Reproduction Medicine 5218 (weight 1.0), Musculoskeletal System Medicine 5206 (weight 1.0), Neurosciences, Eye, & Ear
Medicine5207 (weight 1.0), Psychiatry & the Behavioural Sciences Medicine 5208 (weight 0.25), Emergency Care Medicine 5224 (weight 0.5), Community Health II Medicine 5246 (weight 1.5), Patient Centered Clinical Methods II

FACULTY OF SOCIAL SCIENCE

ECONOMICS

*Effective **September 1, 2009**, Economics 2189A/B, and Economics 2190A/B will be created and listed in the calendar.*

2189A/B Special Topics in Economics and Economic Policy
An analysis of current topics in Economics.
Prerequisite(s): Economics 1021A/B and Economics 1022A/B; or Economics 1020.
3 lecture hours, 0.5 course.

2190A/B Special Topics in Economics and Economic Policy
An analysis of current topics in Economics.
Prerequisite(s): Economics 1021A/B and Economics 1022A/B; or Economics 1020.
3 lecture hours, 0.5 course.

BRESCIA UNIVERSITY COLLEGE

*Effective **September 1, 2009**, Interdisciplinary Studies 0015 will be introduced by Brescia University College*.

Interdisciplinary Studies 0015 – Success in the University Environment
This course is designed to provide students who are registered in the Brescia University College Preliminary Year with opportunities to learn new abilities and upgrade skills needed to achieve success in the university environment. Successful completion of Interdisciplinary Studies 0015 is required to pass Preliminary Year at Brescia.
Prerequisite: Enrolment in Preliminary Year at Brescia University College.
1.5 hours, No Credit (Brescia)

REGISTRAR'S UPDATE

The following minor changes were approved:

Anatomy and Cell Biology
Change Course hours to as follows:

Anatomy and Cell Biology 4410A (Discovery-Based Cell Biology I)
This course focuses on advanced cell biological principles and the research pathways that lead to new discoveries in protein trafficking diseases, cytoskeletal regulation and cancer cell biology. Students will also be trained in effective verbal and written scientific presentations.
Prerequisite(s): Biology 3316A/B with a minimum mark of 70%.
3 lecture hours
0.5 course

Anatomy and Cell Biology 4411B (Discovery-Based Cell Biology II)
This course focuses on cell specialization, stem cells, cloning and the cell biology of aging. Students will examine the controversial social/ethical parameters that guide bench-to-bedside experimentation and clinical translation. Students will also be trained in effective verbal and written scientific presentations.
Prerequisite(s): Anatomy and Cell Biology 4410A.
3 lecture hours
0.5 course