The following proposals, received on DAP between November 1-15, 2015, have been approved. For more information on the DAP process, see the Academic Handbook here.

### FACULTY OF ENGINEERING

#### MECHATRONIC SYSTEMS ENGINEERING

Effective September 1, 2016, the following courses be introduced.

#### MSE 2200Q/R/S/T – Engineering Shop Safety Training

This course will provide mechatronic system engineering undergraduate students with uniform training in the safe use of Engineering student shops. Antirequisite(s): MME 2200Q/R/S/T. Prerequisite(s): Entry into 2<sup>nd</sup> year of the Mechatronic Systems Engineering program. Non-credit course.

#### MSE 2212A/B – Mechanics of Materials

Stress and strain, Mohr's stress circle, behaviour of structures, axial loading of columns and struts, torsion of shafts, bending of beams, buckling of columns and combined loading of components. Antirequisite(s): CEE 2202A/B, MME 2202A/B. Prerequisite(s): ES 1022A/B/Y, Applied Mathematics 1413.

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

#### MSE 2213A/B – Engineering Dynamics

Topics include: rectilinear, angular and curvilinear motion; kinetics of a particle, a translating rigid body and a rigid body in pure rotation; definitions of different energies and energy balance: power and efficiency; and linear impulse and momentum.

Antirequisite(s): MME 2213A/B.

Prerequisite(s): ES 1022A/B/Y. Pre- or Corequisite(s): Applied Mathematics 2270A/B. 3 lecture hours, 2 tutorial hours, 0.5 course.

#### MSE 2214A/B – Thermodynamics

Properties of a pure substance, first law of thermodynamics, processes in open and closed systems, second law of thermodynamics; ideal gases, compressors and energy conversion systems.

Antirequisite(s): CBE 2214A/B, MME 2204A/B.

Prerequisite(s): Applied Mathematics 1413.

3 lecture hours, 2 tutorial hours, 0.5 laboratory hour, 0.5 course.

#### MSE 3360A/B – Finite Element Methods for Mechatronic Systems Engineering

Overview of the finite element method (FEM) and its use to solve general problems in 2-D and 3-D. Applications include structural mechanics, heat transfer, thermal stress, electromagnetism and radiation. Methods and applications of optimization in support of engineering design are also introduced.

Antirequisite(s): CEE 3384A/B, MME 3360A/B.

Prerequisite(s): ES 1036A/B or Computer Science 1026A/B, Applied Mathematics 2270A/B, MME

2202A/B or MSE 2212A/B, MME 2204A/B or MSE 2214A/B, MSE 2202A/B. 3 lecture hours, 2 tutorial hours, 2 laboratory hours, 0.5 course.

#### MSE 3381A/B – Kinetics and Dynamics of Machines

Displacement, velocity and acceleration analysis of linkage, mechanisms; inertia force analysis of mechanisms; balancing of reciprocating and rotating masses; introduction to vibration analysis of single-degree-of-freedom systems. Antirequisite(s): MME 3381A/B. Prerequisite(s): MME 2213A/B or MSE 2213A/B, Applied Mathematics 2270A/B. 3 lecture hours, 2 tutorial hours, 0.5 laboratory hour, 0.5 course.

Effective **September 1, 2015**, the following courses be revised.

MSE 4499 – Mechatronic Design Project Course description: No change. Antirequisite(s): CBE 4497, the former MME 4419, CEE 4441, GPE 4497, SE 4450, MME 4499, ECE 4415, ECE 4416 ES 4499.

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Effective September 1, 2015, the following modules be revised.

#### MECHATRONIC SYSTEMS ENGINEERING PROGRAM

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#### Second Year Program

Applied Mathematics 2270A, Applied Mathematics 2276B, Computer Science 1037A/B, ECE 2205A/B, ES 2211F/G, MME 2202A/B, MME 2204A/B, MME 2213A/B MSE 2200Q/R/S/T, MSE 2201A/B, MSE 2202A/B, MSE 2212A/B, MSE 2213A/B, MSE 2214A/B, MSE 2233A/B, MME 2200Q/R/S/T, Statistical Sciences 2143A/B.

#### Third Year Program

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

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### **B. MECHATRONIC SYSTEMS ENGINEERING BUSINESS OPTION**

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# Second Year Program

Applied Mathematics 2270A, Applied Mathematics 2276B, Computer Science 1037A/B, ECE 2205A/B, <u>MME 2200Q/R/S/T</u>, <u>MME 2202A/B</u>, <u>MME 2204A/B</u>, <u>MME 2213A/B</u>, <u>ES 2211F/G</u>, <u>MSE 2200Q/R/S/T</u>, <u>MSE 2201A/B</u>, <u>MSE 2202A/B</u>, <u>MSE 2212A/B</u>, <u>MSE 2213A/B</u>, <u>MSE 2214A/B</u>, <u>MSE 2233A/B</u>, <u>Statistical Sciences 2143A/B</u>, <u>Business Administration 2257</u>.

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#### Fourth Year Program

Applied Mathematics 3415A/B, ECE 2277A/B, <del>MME 3381A/B,</del> ECE 3330A/B, ECE 3331A/B, ECE 3332A/B, ECE 3375A/B, <del>MME 3360A/B,</del> MSE 3301A/B, MSE 3302A/B, <u>MSE 3360A/B, MSE</u> 3380A/B, MSE 3381A/B.

Applied Project Requirement: Business Administration 4569

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#### C. MECHATRONIC SYSTEMS ENGINEERING WITH LAW OPTION

#### Second Year Program

Applied Mathematics 2270A, Applied Mathematics 2276B, Computer Science 1037A/B, ECE 2205A/B, ES 2211F/G, MSE 2200Q/R/S/T, MSE 2201A/B, MSE 2202A/B, MSE 2212A/B, MSE 2213A/B, MSE 2213A/B, MSE 2233A/B, MME 2200Q/R/S/T, MME 2202A/B, MME 2204A/B, MME 2213A/B, Statistical Sciences 2143A/B.

#### **Third Year Program**

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

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# FACULTY OF SCIENCE

#### **PHYSICS AND ASTRONOMY**

Effective September 1, 2015, the following course be revised.

### Physics 3151 A/B – Classical Mechanics I

Course description: No change.

Prerequisite(s): (Physics 1028A/B or 1301A/B or 1401A/B or 1501A/B) and (Physics 1029A/B or 1302A/B or 1402A/B or 1502A/B), or the former Physics 1020 or 1024 or 1026; Calculus 2303A/B or 2503A/B, Mathematics 1600A/B or the former Linear Algebra 1600A/B, Applied Mathematics 2402A or 2270A/B or the former Applied Mathematics 2411 or 2413. 3 lecture hours, 0.5 course.

# AFFILIATED UNIVERSITY COLLEGES

#### **FRENCH**

Effective September 1, 2016, the following courses be revised.

#### French 1002 – Intensive French

Grammar, composition, oral practice. This course is designed for students beginning French, or having a limited knowledge of French. Note that students who have successfully completed Grade 11 French or equivalent cannot take this course for credit. Antirequisite(s): The former French 1101, French 1003A/B, the former French 1101, Ontario Grade 11 French (Core, Extended or Immersion) or equivalent. Prerequisite(s): Permission of the Department based on Placement Test. 4 tutorial/laboratory hours, 1.0 course. (Brescia, Huron, King's)

#### French 1010 – Intermediate French

Grammar review, composition, translation, oral practice. (One hour per week in the language laboratory may be required.) Note that students who have successfully completed Grade 12 French or equivalent cannot take this course for credit.

# Antirequisite(s): The former French 1101. French 1011A/B, the former French 1101, Ontario Grade 12 French (Core, Extended or Immersion) or equivalent.

Prerequisite(s): Ontario Grade 11 French (Core, Extended or Immersion) or equivalent, French 1002 or permission of the Department of French Studies.

3 or 4 tutorial hours, 1.0 course.

(Brescia, Huron, King's)

Note: Students who have Grade 11 French but have not taken French courses for more than 3 years, or have an average below 75% in Grade 11 French, should consult the Department of French Studies.

# French 1900E – French Language and Literature

Course description: No change.

Prerequisite(s): Ontario Grade 12 French (Core, Extended or Immersion) or equivalent, or French 1010 or permission of the Department of French Studies.

4 tutorial/laboratory hours, 1.0 course.

(Brescia, Huron, King's)

Note: Students who have Grade 12 French but have not taken French courses for more than 3 years, or have an average below 75% in Grade 12 French, should consult the Department of French Studies.

# French 1910 – University French (Level I)

Course description: No change.

Prerequisite(s): Ontario Grade 12 French (Core, Extended, Immersion or equivalent, or French 1010 or permission of the Department of French Studies.

4 tutorial/laboratory hours, 1.0 course.

(Brescia, Huron, King's)

Note: Students who have Grade 12 French but have not taken French courses for more than 3 years, or have an average below 75% in Grade 12 French, should consult the Department of French Studies.

# French 2600E – Introduction to French Literature

Course description: No change.

Prerequisite(s): French 1900E or French 1910 or permission of the Department based on Placement Test. Placement Test results do not guarantee admission into the course. Written permission must be obtained from the Department.

3 lecture/tutorial hours, 1.0 course.

Note: French 2600 is the prerequisite for further studies in French literature. (Brescia, Huron, King's)

# French 2900 – Language (Advanced Level II)

Grammar, composition, oral practice, phonetics. (One hour per week of oral practice is required in the language laboratory may be required.) This course is required for a concentration in French. Antirequisite(s): French 2101, 2905A/B, 2906A/B, the former French 131.

Prerequisite(s): French 1900E or French 1910, or permission of the Department, based on Placement Test. Placement Test results do not guarantee admission into the course. Written permission must be obtained from the Department.

3 or 4 lecture/tutorial hours, 1.0 course.

Note: French 2900 (or its equivalent) is the required language course for all French modules. (Brescia, Huron, King's)

#### French 2905A/B – Language and Reading

Course description: No change. Antirequisite(s): French 2101, 2900. Prerequisite(s): French 1900E or French 1910 or permission of the Department of Modern Languages, based on Placement Test. Placement Test results do not guarantee admission into the course. Written permission must be obtained from the Department. 3 or 4 lecture/tutorial hours, 0.5 course. (Brescia, Huron, King's)

#### French 2906A/B – Language and Expression

Course description: No change. Prerequisite(s): French 1900E or French 1910 or permission of the Department of Modern Languages, based on Placement Test. Placement Test results do not guarantee admission into the course. Written permission must be obtained from the Department. 3 or 4 lecture/tutorial hours, 0.5 course. (Brescia, Huron, King's)

#### French 3900 – Language (Advanced Level III)

Course description: No change. Antirequisite(s): French 2103, French 3905A/B, French 3907A/B, French 3908A/B. Prerequisite(s): French 2900 or (both French 2905A/B and 2906A/B) or permission of the Department, based on Placement Test. Placement Test results do not guarantee admission into the course. Written permission must be obtained from the Department. 3 or 4 lecture/tutorial hours, 1.0 course. (Brescia, Huron, King's)

#### KING'S UNIVERSITY COLLEGE

#### **CHILDHOOD AND SOCIAL INSTITUTIONS**

Effective September 1, 2016, the following course be introduced.

#### Childhood and Social Institutions 2257F/G – Children and Media

An exploration of debates and issues around children's engagement in and with media, focusing on film, TV, digital and mobile media and advertising and consumerism. Prerequisite(s): Childhood and Social Institutions 1025F/G or the former 1020, or permission of the Program Coordinator. 3 hours, 0.5 course. (King's)

DAP UPDATE: MINOR CHANGES