

REPORT OF ACADEMIC STANDARDS COMMITTEE

Report #F2012–3; December 2012

In this report the Academic Standards Committee (ASC) brings to Senate its evaluation and recommendation on a number of items.

- Curriculum Modifications to the BEng program in Aerospace Engineering from the Department of Aerospace Engineering
- Addition of a Music Industry Module to the BA program in Creative Industries from the Faculty of Communication and Design
- A Minor in Ethics from the Department of Philosophy

A. CURRICULUM MODIFICATIONS TO THE AEROSPACE ENGINEERING PROGRAM

Proposal and Rationale: The Department of Aerospace Engineering is proposing modifications to its four-year undergraduate degree. The proposal involves (i) the renaming of program ‘options’ to program ‘streams’, (ii) introduction of a new course to support the Spacecraft stream, (iii) a course replacement to ensure students get sufficient coverage of vector calculus (iv) elimination of one course from the avionics stream and (v) introduction of a formal CGPA threshold to admission to the thesis course (research course as opposed to capstone course).

According to the Canadian Engineering Accreditation Board (CEAB) guidelines, a program ‘option’ provides a full semester of technically distinct elective courses, and is indicated on the graduate’s record. A program ‘stream’ is not required to meet these guidelines and has no recognition on the student’s record. The Aerospace Engineering current program options do not have sufficient technical depth to meet the CEAB definitions. To preserve accreditation the present options, Aircraft option, Spacecraft option, and the Avionics option, would be renamed as streams, Aircraft stream, Spacecraft stream and the Avionics stream. It should be pointed out that these proposed streams involve just 4 courses, so the use of the term ‘stream’ is not incompatible with the new curriculum framework’s definition of sub-disciplinary ‘concentrations’ (defined as 6 – 12 courses and worthy of note on the transcript).

Other program changes deemed necessary to improve technical coverage include:

- Replacement of MTH 309 (Differential Equations) with MTH 425 (Differential Equations and Vector Calculus) addresses the absence of vector calculus in the program which caused a large gap in coverage of advanced fluid dynamics.
- A calendar entry outlining a CGPA admission restriction placed on AER 870 (Aerospace Thesis). This change help the program foster student success in this research thesis course
- The course AER 509 (Control Systems) will have a laboratory component added to enhance student understanding of the material.

- The course AER 721 (Orbital Dynamics) is removed as an optional technical elective from the Avionics Stream in the seventh semester to ensure understanding of aircraft stability.
- Changes in the Spacecraft stream are designed to bolster its enrolment. To support the stream, a high profile new course AER 627 (Introduction to Space Robotics) is placed early in the program to enhance student interest.

These changes will come into effect for the 2013 – 2014 academic year.

Curriculum: The current and proposed curricula are presented below.

First Year

First Semester		Second Semester	
Course	Description	Course	Description
CEN 100	Introduction to Engineering	AER 222	Engineering Design and Graphical Communication
CHY 102	General Chemistry	CPS 125	Digital Computation and Programming
MTH 140	Calculus I	ECN 801	Principles of Engineering Economics
MTH 141	Linear Algebra	MTH 240	Calculus II
PCS 211	Physics: Mechanics	MTL 200	Materials Science Fundamentals
Liberal	Lower-level Liberal Studies	PCS 125	Physics: Waves and Fields

Second Year

Third Semester		Fourth Semester	
Course	Description	Course	Description
AER 309	Basic Thermodynamics	AER 403	Mechanisms and Vibrations
AER 316	Fluid Mechanics	AER 404	Introduction to Aerospace Engineering Design
AER 318	Dynamics	AER 416	Flight Mechanics
AER 320	Statics and Introduction to Strength of Materials	AER 423	Thermodynamics and Heat Transfer
CMN 432	Communication in the Engineering Professions	EES 512	Electric Circuits
MTH 425	Differential Equations and Vector Calculus	MTH 410	Statistics

Third Year

Fifth Semester	
Course	Description
AER 504	Aerodynamics
AER 507	Materials and Manufacturing
AER 520	Stress Analysis
EES 612	Electric Machines and Electronics
MTH 510	Numerical Analysis
Liberal	Lower-level Liberal Studies

Introduction of Modified Streams: Left hand tables contain the proposed new curriculum, while right hand tables contain the old.

Proposed New Program

6th Semester	
Course	Description
AER 509	Control Systems
AER 606	Component Design and Material Selection
AER 615	Aircraft Performance
AER 621	Aerospace Structural Design
AER 622	Gas Dynamics
Aircraft Stream:	
AER 626	Applied Finite Elements
Avionics Stream	
EES 604	Electronics and Sensors
Spacecraft Stream:	
AER 627	Introduction to Space Robotics

Old Program

6th Semester	
Course	Description
AER 509	Control Systems
AER 606	Component Design and Material Selection
AER 615	Aircraft Performance
AER 621	Aerospace Structural Design
AER 622	Gas Dynamics
Aircraft/Spacecraft Option:	
AER 626	Applied Finite Elements
Avionics Option	
EES 604	Electronics and Sensors

Proposed New Program

7th Semester	
Course	Description
AER 715	Avionics and Systems
AER 817	Systems Engineering
Liberal	Engineering Liberal
Aircraft Stream:	
AER 716	Aircraft Stability and Control
AER 722	Aeroelasticity
Avionics Stream:	
EES 508	Digital Systems
AER 716	Aircraft Stability and Control
Spacecraft Stream:	
AER 721	Orbital Dynamics
AER 723	Space Systems Design

Old Program

7th Semester	
Course	Description
AER 715	Avionics and Systems
AER 817	Systems Engineering
Liberal	Engineering Liberal
Aircraft Option:	
AER 716	Aircraft Stability and Control
AER 722	Aeroelasticity
Avionics Option	
EES 508	Digital Systems
One of:	
AER 716	Aircraft Stability and Control
AER 721	Orbital Dynamics
Spacecraft Option:	
AER 721	Orbital Dynamics
AER 723	Space Systems Design

Proposed New Program

8th Semester	
Course	Description
AER 710	Propulsion
CEN 800	Law and Ethics in Engineering Practice
Liberal	Upper-level Liberal Studies
One of:	
AER 818	Manufacturing Management
AER 821	Spacecraft Attitude Dynamics and Control
AER 870	Aerospace Engineering Thesis
Aircraft Stream:	
AER 814	Aircraft Design Project
Avionics Stream:	
AER 822	Avionics Design Project
Spacecraft Stream:	
AER 813	Space Systems Design Project

Old Program

8th Semester	
Course	Description
AER 710	Propulsion
CEN 800	Law and Ethics in Engineering Practice
Liberal	Upper-level Liberal Studies
One of:	
AER 818	Manufacturing Management
AER 821	Spacecraft Attitude Dynamics and Control
AER 870	Aerospace Engineering Thesis
Aircraft Option:	
AER 814	Aircraft Design Project
Avionics Option:	
AER 822	Avionics Design Project
Spacecraft Option:	
AER 813	Space Systems Design Project

Recommendation: Having satisfied itself of the merit of this proposal, ASC recommends: *That Senate approve the proposed curriculum modifications to the Bachelor of Engineering (Aerospace) program.*

B. A MUSIC INDUSTRY MODULE FOR THE BA (CREATIVE INDUSTRIES)

Proposal: This is a proposal to add a 'creative-content module' to the list of twelve modules in the new interdisciplinary BA program in Creative Industries, approved by Senate in 2012. The Creative Industries program requires all students to complete two creative-content modules consisting of six courses each. Each module is intended to introduce students to the historical and aesthetic aspects of a creative discipline while also examining how that discipline functions as a business, domestically and globally. This module focus on the music industry has been devised as a partnership between the RTA School of Media and the Creative Industries program.

Rationale: This module introduces students to the music industry. Students will study the historical, cultural, business, legal, and technical aspects of the music business, will gain an understanding of the many uses of music in media, and will explore the future of this rapidly-changing industry. It had been planned that a module dedicated to music would be part of the original program proposal, as the music industry is an integral part of the Creative Industries; however, this particular module required a longer developmental period than the others.

Learning Objectives:

1. Students will gain historical perspectives on sound media and contemporary popular music.
2. Students will gain knowledge of the development of music and music institutions, funding models and cultural diversity in contemporary performances.
3. Students will learn how the music industry is organized and how music is used in different media.

4. Students will be introduced to the business functions and the various personnel roles and employment opportunities within the music industry.

Structure of the proposed Module: The Music Industry Module will consist of three required and three elective courses.

Curriculum:

Select three (3) of the following required courses:

BDC 927 Business of Music I

BDC XXX History & Culture of Popular Music

One course from the following:

CRI 530 Talent Management

CRI 620 Live Entertainment and Event Marketing

Select three (3) of the following elective courses:

BDC 937 Business of Music II

BDC 975 Sound Synthesis

BDC XXX Sound in Media

CRI 530 Talent Management or

CRI 620 Live Entertainment and Event Marketing

Recommendation: Having satisfied itself of the merit of this proposal, ACS recommends: *That Senate approve the proposed new Music Industry Module for the Bachelor of Arts (Creative Industries) Program.*

C. A MINOR IN ETHICS

Proposal: The Department of Philosophy is proposing the creation of a six-course Minor in Ethics. The Department of Philosophy will have the responsibility for ongoing curricular oversight and advising students with respect to the Minor in Ethics.

Rationale for the Minor: The Minor in Ethics is designed to provide conversancy with the major ethical theories and traditions, along with problem solving and analysis of cases, thus enabling students to prepare themselves for the ethical challenges they may face. The importance of a theoretical and practical knowledge of morality and ethics for both private and public life is increasingly being recognized by individuals and the public in private and public organizations and institutions of many sorts. Much like critical thinking, problem solving, numeracy, scientific, and technical literacy, “ethical literacy,” to give it a name, is increasingly being required of citizens and professionals in order to contend with the complex and charged moral issues they inevitably face. The Department of Philosophy currently offers a Master of Philosophy, and it will be launching a Bachelor of Arts degree in Philosophy in the Fall of 2013. In addition, the Department (through the Steering Committee) oversees the delivery of a Continuing Education Certificate in Ethics through The Chang School.

Learning Outcomes of the Minor:

- (i) Conversancy with the major ethical theories and traditions and appreciation of their relative merits;
- (ii) a basic comprehension of the philosophical foundations of ethical and moral theories;
- (iii) an awareness and appreciation of ethical dimensions of personal, social, and professional life;
- (iv) a capacity for morally sensitive decision making and problem solving;

- (v) exposure to, and familiarity with, conceptual resources for critically examining the ethical implications of a wide range and variety of practices, policies, and procedures in the context of professions, occupational niches, and organizational and institutional settings;
- (vi) an appreciation that vast societal changes introduce new frontiers of moral issues that force us to rethink morality;
- (vii) an appreciation of the inter-disciplinary nature of ethical issues; and
- (viii) practice in addressing moral issues in rational, reasonable, and cooperative ways.

Structure of the proposed Minor: The Minor in Ethics consists of 1 required course and 5 elective courses. All courses in the minor currently exist. The Minor in Ethics is not available to Philosophy program students, nor to students in Arts and Contemporary Studies – Philosophy Option. Program students in Arts and TRSM have been identified as being in a position to pursue the minor under the existing policy, and the Department of Philosophy is committed to collaborating with other programs to ensure that the minor will be available to students of all interested programs at Ryerson.

Consistency with the Ryerson policy on Minors: The minor is consistent with Policy 148.

Curriculum: The proposed curriculum is presented below.

A maximum of two (2) liberal studies * courses may be selected.

One (1) of the following:

- PHL 400 Human Rights and Justice
- PHL 503 Ancient and Modern Ethics *
- PHL 603 Modern and Contemporary Ethics *

Up to two (2) of the following:

- PHL 214 Critical Thinking I *
- PHL 306 Freedom, Equality and Limits to Authority *
- PHL 406 Issues of Life, Death and Poverty *
- PHL 503 Ancient and Modern Ethics *
- PHL 509 Bioethics *
- PHL 603 Modern & Contemporary Ethics *
- PHL 612 Philosophy of Law *

Up to five (5) of the following:

- CRM 322 Ethics In Criminal Justice
- PHL 302 Ethics in Health Care *
- PHL 307 Business Ethics
- PHL 334 Ethics in Professional Life
- PHL 400 Human Rights and Justice
- PHL 420 Philosophy, Diversity and Recognition
- PHL 449 Philosophy of Punishment
- PHL 507 Ethics and Disability
- PHL 530 Media Ethics
- SSH 105 Critical Thinking I *
- BUS 221 Ethics in Commerce: Persons, Organizations, and Markets
- BUS 223 Analytic Thinking and Business Decision-Making

Recommendation: Having satisfied itself of the merit of this proposal, ACS recommends: *That Senate approve the proposed new Minor in Ethics.*

Respectfully Submitted,



Chris Evans, Chair for the Committee

ASC Members:

Chris Evans, Vice-Chair and Vice Provost Academic
Heather Lane Vetere, Interim Registrar and Vice Provost Students
Mark Lovewell, Interim Secretary of Senate
John Turtle, Faculty of Arts, Psychology
Andrew Hunter, Faculty of Arts, Philosophy
Kelly McKay, Ted Rogers School of Management, Hospitality & Tourism
Ian Baitz, Faculty of Communication and Design, Graphic Communications Management
Jean Bruce, Faculty of Communication & Design, Image Arts
Jennifer Poole, Faculty of Community Services, Social Work
Nick Bellissimo, Faculty of Community Services, Nutrition
Medhat Shehata, Faculty of Engineering and Architectural Science, Civil Engineering
Noel George, Faculty of Science, Chemistry and Biology
Trina Grover, Library
Des Glynn, Chang School of Continuing Education
Eszteella Vezer, Faculty of Arts, Psychology
Melissa Palermo, Faculty of Communication & Design, Image Arts – New Media

REPORT OF ACADEMIC STANDARDS COMMITTEE - ADDENDUM

Report #F2012–3; December 2012

In this report the Academic Standards Committee (ASC) brings to Senate its evaluation on the following item:

- Modification to the admission requirements for the Bachelor of Arts program in Creative Industries.

Background: The admission requirements for Creative Industries approved by Senate in 2012 *required* the high school English course ENG4U or equivalent. Only two other programs require this course for admission: Journalism and RTA. All other programs accept any Grade 12 U or M English course.

The implication of listing ENG4U as a requirement is to screen out a considerable number of potentially high quality and desirable applicants. The program proposers are therefore requesting that Senate approve a modification to bring the admission requirements for Creative industries in line with those of other programs in FCAD and, indeed, across Ryerson.

Proposal: That proposal involves a modification of the admission requirements for the BA (Creative Industries) from its current wording:

“Ontario Secondary School Diploma (OSSD) or equivalent with a minimum of six Grade 12 U or M courses including Grade 12 U English (ENG4U)/Anglais (EAE4U).

NOTES: A grade of 70 percent or higher will be required for ENG4U/EAE4U English/Anglais.

Subject to competition, candidates may be required to present averages/grades above the minimum.

Candidates are encouraged to include one Grade 12 U/M Arts course and/or Grade 11 U/M or Grade 12 M Business Studies course in their Grade 11/12 course selection”

To the following revised wording:

“ADMISSION INFORMATION

DEGREE: Four years of study following Grade 12 U/M graduation.

ADMISSION: O.S.S.D. with six Grade 12 U/M courses, including Grade 12 English.

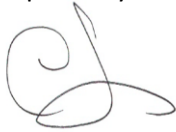
Candidates are encouraged to include one Grade 12 U/M Arts course and/or Grade 11 U/M or Grade 12 M Business Studies course in their Grade 11/12 course selection.

NOTES:

1. ENG4U/EAE4U is the preferred English.
2. A minimum grade of 70% in the English prerequisite is required.
3. Subject to competition, candidates will be required to present overall averages and grades above the minimum. ”

Recommendation: Having satisfied itself of the merit of this proposal, ASC recommends: *That Senate approve the proposed modification to the admission requirements for the Bachelor of Arts program in Creative industries.*

Respectfully Submitted,



Chris Evans, Chair for the Committee

ASC Members:

Chris Evans, Vice-Chair and Vice Provost Academic
Heather Lane Vetere, Interim Registrar and Vice Provost Students
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Jean Bruce, Faculty of Communication & Design, Image Arts
Jennifer Poole, Faculty of Community Services, Social Work
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