REPORT OF ACADEMIC STANDARDS COMMITTEE
Report #F2021–2; Nov. 2021

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

A. **TRSM – Bachelor of Commerce (Business Technology Management) program 2-Year Public Ontario College Diploma Graduate - Degree Completion (Full-Time and Part-Time) – Exception to Senate Policy #2: Program Balance**
B. **FEAS – Department of Architectural Science – Honours degree designation**
C. **LIBERAL STUDIES – new course additions to Liberal Studies elective tables**
D. **FEAS – Multiple Programs – Exception to Senate Policy #2: Program Balance**

A. TRSM – Bachelor of Commerce (Business Technology Management) program 2-Year Public Ontario College Diploma Graduate - Degree Completion (Full-Time and Part-Time*)* – Exception to Senate Policy #2: Program Balance

Introduction and Rationale – The Ted Rogers School of Information Technology Management (TRSITM) 2-Year Public Ontario College Diploma Graduate - Degree Completion program offers graduates of approved three-year Business Administration Advanced Diploma programs a 20 course program of study to complete the Bachelor of Commerce (Business Technology Management) degree. Degree completion students enter the degree completion program with a business background and complete the core Business Technology Management (BTM) curriculum while at TRSITM. This program enables students to supplement their general business diplomas with specialized education in Business Technology Management, allowing them to earn the Bachelor of Commerce (BTM) designation with two years of study at the Ted Rogers School of Management.

The Degree Completion program offers a pathway for students who have completed general business studies at an Ontario college to earn the specialist Bachelor of Commerce (Business Technology Management degree). This is possible through a program design in which students complete the core Business Technology Management courses in their two years at Ryerson. Specifically, students in the 2-year degree completion program take 16 Information Technology Management (ITM-code) courses, 1 critical thinking (SSH) course (in close alignment with the curriculum for the four-year BTM program which includes 18 ITM courses and 1 SSH course) and 3 upper-level liberal studies courses. **This design recognizes that degree completion students have completed core business courses and some electives in their Business Administration Advanced Diploma program, and complete their core ITM-coded courses while at Ryerson**. Degree completion students have not completed upper-level Liberal Studies courses in their Diploma program, thus these courses are necessary to fulfil the University's liberal studies requirements for undergraduate students. Table 1 shows that this program design necessitates a higher range of core studies courses, with no open electives.

Degree to which the program(s) vary from Senate Policy:			
	Senate Policy 2: Expected Range (%)	**# Courses in Program**	**% Courses in Program**
Core Studies (required + core elective)	**60-75**	17	85
Open Electives	**10-25**	0	0
Liberal Studies	**15-20**	3	15
Total	**100**	20	**100**

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Recommendation
Having satisfied itself of the merit of this proposal, the Academic Standards Committee recommends: ***that Senate approve this exception to Senate Policy #2 – Program Balance.***

B. FEAS – Department of Architectural Science – Honours degree designation
Introduction and Rationale – The Bachelor of Architectural science curriculum has been through the Periodic Program Review process in 2018/19 and assessed and approved by the Senate. The process of mapping the learning outcomes to the Undergraduate Degree Level Expectations met the Quality Assurance standards for Bachelor's Degree: Honours, and as such, the Department of Architectural science would like to apply to have the 'honors' designation added to the BArchSc degree.

Rationale:

1. The main rationale for the degree title change is that the program's curriculum already meets the requirements since it has already been assessed (through the PPR process) as meeting the Quality Assurance standards for a Bachelor's Degree Honours. The curriculum has been mapped according to the provincial Honours Undergraduate Degree Level Expectations (UDLEs). The Periodic Program Review was approved by the Senate on April 2, 2019.
2. Furthermore, the degree title change may clarify ambiguities for prospective students and current students who intend to apply to graduate school. An honours degree may be required for admission to some graduate (Master's) programs and is considered to be a study with enhanced focus on the area.
3. In terms of reputation and competition, the closest competitive school to Ryerson Architectural Science is at the University of Waterloo, which has an honours designation, It is therefore incumbent on us to update our BArchSc degree with a well-deserved Honours designation. Changing our degree title will put us at par with our main competitor school and enhance Ryerson's BArchSc degree. This requires no changes as the curriculum has been mapped and assessed as meeting the requirements and criteria.

Comparator Programs:
Accredited architecture programs in Canada can be combined undergraduate and graduate, or a longer graduate only programs. Some schools in Canada such as University of Toronto, McGill University, and University of British Columbia offer a graduate only program which is not a direct comparator. The most relevant comparator for an accredited architecture program in the region is at the University of Waterloo which offers an undergraduate plus graduate program similar to Ryerson, and includes an Honours Bachelor of Architectural Studies degree. As they are our closest comparator and we compete for attracting top students with them, the case can be made that it is incumbent on us to update our BArchSc degree with a well-deserved Honours designation. Also, for students who plan to go on to graduate school (especially those outside of Ontario/Canada), a University with the Honours designation is more appealing and provides an additional 'signal' that their program has met the expectations as preparation for graduate study.

A scan of other comparator schools shows that many institutions already offer Honours degree programs. These programs include:

University	**School/Faculty**	**Degree Granted**
University of Waterloo	Faculty of Engineering/The School of Architecture	Honours Bachelor of Architectural Studies
University of Guelph	School of Environmental Design and Rural Development	Honours Bachelor of Landscape Architecture

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University of Toronto	John H. Daniels Faculty of Architecture, Landscape, and Design	Honours Bachelor of Arts
Illinois Institute of Technology	IIT College of Architecture	B.Arch. in Architecture
Penn State University	College of Arts and Architecture/Stuckeman School	B.Arch. in Architecture

Recommendation
Having satisfied itself of the merit of this proposal, the Academic Standards Committee recommends*: That Senate approve the Honours degree designation for the Bachelor of Architectural Science – Department of Architectural Science* – Faculty of Engineering and Architectural Science.

C. LIBERAL STUDIES – New Course Proposals
The Liberal Studies Curriculum Committee (LSCC) met on September 22, 2021 to review 7 new liberal studies course proposals. The LSCC voted in favour of recommending 5 of the course proposals and declined 2. While two of the proposals were not recommended for approval, feedback was provided to the originating departments, and they were invited to revise and resubmit the proposals in the future. The ASC reviewed the 5 recommended and two declined course proposals submitted by the LSCC, and upheld the LSCC recommendation. The courses recommended for inclusion in the Liberal Studies curriculum effective Fall 2022 are listed in the table below, along with their calendar descriptions and requisites, where appropriate.

Proposed New Liberal Studies Courses (with calendar descriptions)

Course Code	Course Name + Calendar Description
AER150 (Department of Aerospace Engineering)	Aerospace History - Aerospace technologies have shaped our life and culture and are at the centre of some of the greatest changes faced by our highly technological society. This course describes the non-technical aspects of history of aviation and space exploration in Canada and worldwide. The technological issues associated with flight are discussed in detail. The memorable historical events, past, present, and future trends in aerospace are presented. Some basic concepts of aerospace engineering, including how aircraft and rockets work, will also be discussed. (LL)
ASC121 (Department of Architectural Science)	Sustainable Architecture - This course introduces non-architecture students to how the principles of sustainability can be applied to the built environment. Examples of architectural projects that demonstrate sustainable futures are presented and discussed. Students become familiar with the environmental and social impacts of the built environment and approaches for implementation of environmentally conscious design. Various behavioral, cultural and technical strategies to reduce the impact of the built environment are discussed as are the means of measuring their success. (LL)
HST430 (Department of History)	Food History - This lower-level Liberal Studies course offers an interdisciplinary introduction to the broad field of food history. From our earliest ancestors to the present, food has defined (in one way or another) nearly every aspect of people's everyday lives. We can't survive without it. The quality and quantity of the food we eat plays a central role in determining our overall health and wellbeing. But we also define our culture and identities, in both subtle and overt ways, based on the foods that we eat—as well as those foods that we refuse to eat. Empires and nations, alike, rise and fall based on their ability to adequately feed their citizens. And, at the same time, food has always been one of the most devastating and effective weapons of war and conquest.

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	In order to understand the place of food in history, then, it's necessary to take a multidisciplinary and multi-national approach. By exploring the ways in which specialists in fields like environmental history, economic history and the history of medicine have approached the history of food in comparison with those studying topics like gender history and the history of settler colonialism—to name just a few of the approaches we'll be examining—we can start to tease out some of the multiple ways in which food history offers a unique means of understanding the nature of historical change at a variety of different scales, from the global to the deeply individual and personal. And by looking at examples from nearly every continent in both readings and lectures, this course takes a genuinely global perspective on the origins of our shared food history. (LL)
PHL 561 (Department of Philosophy)	Philosophy of Social Science - This course explores philosophical issues concerning the methodology, history, aims and status of the social sciences, such as: Are there laws governing human behaviour? Do social groups have a reality and agency in their own right, beyond that of the individuals that comprise them? What is the relation between the social and natural sciences? How should we understand social norms? Are objectivity and political neutrality possible, or desirable, in the social sciences? (UL)
N/A (Centennial College)	The History of Medical Cannabis - This course reviews thousands of years of medical cannabis history from archeological evidence that continues to be discovered through to early modern history. Students learn how cannabis, as a medical treatment, evolved when it travelled from Eastern regions of the world to the West, and was widely accepted by medical professionals of the time before prohibition took effect in the early 1930s in North America. Students examine how medical cannabis is coming out of the 'dark age' and out of the closet, into people's living rooms and medicine cabinets in a wide variety of form factors. This course discusses issues of race, gender, and class as they continue to intersect in the everyday lives of individuals, who consume cannabis, work in the cannabis industry, or whose work is relevant to having formal education in medical cannabis. (LL)

Centennial College offers lower-level liberal studies to students in the collaborative Nursing program. There are three degree programs offered in partnership by Ryerson University, Centennial College, and George Brown College. Students admitted at each campus complete the same program. Students admitted to the Ryerson campus of the program complete their four years at Ryerson. Students admitted to a college campus complete the first two years of their studies at the college and the final two years of their studies at the Ryerson campus with the teaching shared by university and college faculty in all years.

Centennial College offers Table A courses to students in their first two years and it must be approved by Ryerson. They must go through the same process as any department/school wishing to offer a course on Table A (or Table B). These Centennial College courses are only available to Centennial College students in the joint Collaborative Nursing Program. They are not available to Ryerson students.

Recommendation
Having satisfied itself of the merit of this proposal, the Academic Standards Committee recommends: *that Senate approve the new course proposals for addition to the Liberal Studies elective tables.*

D. FEAS – Multiple Programs – Exception to Senate Policy #2: Program Balance
Introduction and Rationale
Engineering Programs - Each engineering program in Canada accredited by the Canadian Engineering Accreditation Board (CEAB) is required to include the following minima for each of its curriculum components:

- Mathematics: Minimum 195 Accreditation Units (AU);
- Natural sciences: Minimum 195 AU;
- Mathematics and natural sciences combined: Minimum 420 AU;
- Engineering science: Minimum 225 AU;
- Engineering design: Minimum 225 AU;
- Engineering science and engineering design combined: Minimum 900 AU;
- Complementary Studies: Minimum 225 AU;
- Laboratory experience and safety procedures instruction.

Each program must have a minimum of 1,850 AU. The accreditation unit is defined as follows: one hour of lecture (corresponding to 50 minutes of activity) = 1 AU, and one hour of laboratory or scheduled tutorial = 0.5 AU. Complementary studies include humanities, social sciences, arts, languages, management, engineering economics and communications. To meet the standards of professional engineering accreditation by CEAB, the curriculum of each engineering program at Ryerson is organized and categorized in the aforementioned components and each curriculum component exceeds the required minimum AU.

In terms of the complementary studies curriculum component, each engineering program at Ryerson at least contains a course each on engineering economics (ECN 801), communications (CMN 432), and law and ethics in engineering practice (CEN 800), and four Liberal Studies courses (as authorized by Senate Policy 2 in Footnote No. 7). In terms of the engineering science and engineering design curriculum components, each engineering program at Ryerson has required core studies courses and core elective courses.

In terms of comparator programs at other universities in Canada, as noted earlier, every Canadian engineering program accredited by CEAB is required to meet the curriculum structure constraints and minimum curriculum component contents established by CEAB.

Architectural Science Program - The undergraduate Bachelor of Architectural Science (B.Arch.Sc.) program comprises a four-year, integrated, interdisciplinary, pre-professional architectural science degree program. It has a studio-based curriculum supplemented by lecture courses that draw from the liberal arts, physical sciences, social sciences and humanities, as well as engineering and building technology. The first three years of the program provide students with a common academic foundation to develop comprehensive knowledge of the fundamentals of architectural science. In the fourth-year students can choose to specialize in Architecture, Building Science or Project Management. The inclusion of these three concentrations within the program expresses the department's core belief in the holistic nature of architectural education, as well as the importance of an integrated design approach.

This multidisciplinary approach is unique in North America in that it prepares students for a variety of roles in the Architecture, Engineering and Construction (AEC) industry. Graduates of the B.Arch.Sc. program enjoy access to multiple professional pathways and enter industry with a comprehensive body of knowledge. The long-standing reputation of the program rests in large part on its unique curricular structure. Industry endorses the program's strong multidisciplinary background, with specific reference to our graduates being well prepared for roles in the industry.

One of the principles of the program is that all students, whichever concentration they choose are suitably prepared to apply to the department's graduate programs. This makes the B.Arch.Sc. program particularly demanding with a wide scope and more technical and process components compared to architecture programs.

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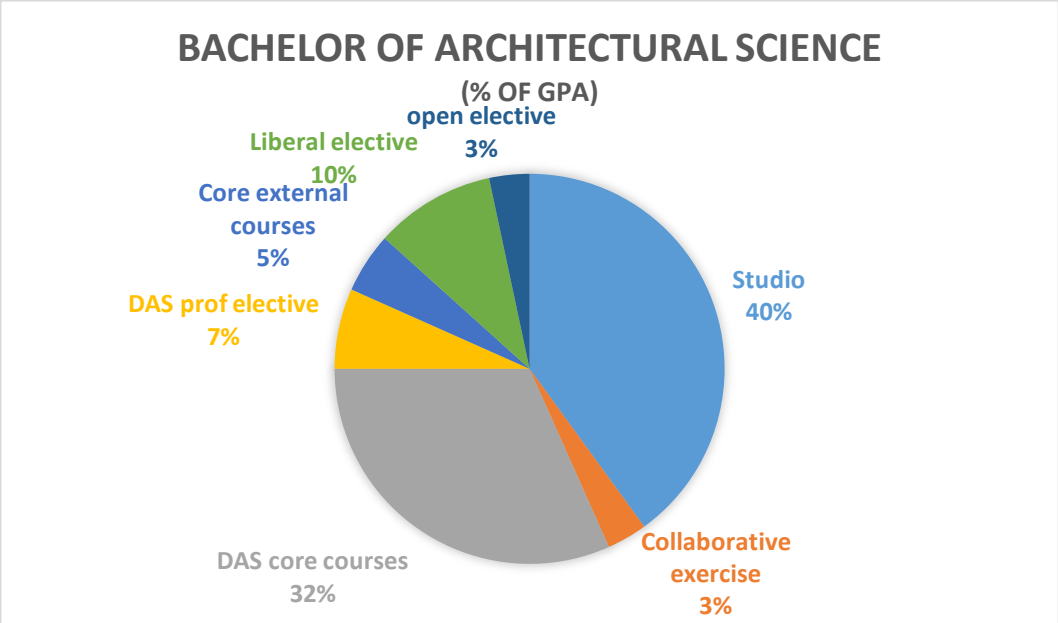
In addition, the B.Arch.Sc. program together with the Master of Architecture is accredited by the Canadian Architectural Certification Board (CACB). This allows students who complete these programs to eventually become licensed architects in Canada and is an important feature of the program. The CACB requires programs to provide its students with a well-thought-out curriculum related to the subject area with educational opportunities that include general studies, professional studies, and elective studies. Accredited programs must meet six Program Performance Criteria and 24 Student Performance Criteria (SPCs) in the following categories: design (eight SPCs); culture, communications, and critical thinking (five SPCs); technical knowledge (five SPCs); comprehensive design (one SPC); and professional practice (five SPCs).

To meet the requirements of the CACB, the curriculum of the B.Arch.Sc. program at Ryerson is organized to address all the aforementioned components. The program is also heavily studio based due to the expectations of the CACB. These characteristics place a particular burden on the program to meet all the accreditation requirements while maintaining diversity of opportunity beyond the traditional "architecture" curriculum. The program has a high number of total course hours (180 hrs) and the first three years include only required elements and liberal courses. The fourth year is organised to allow students to explore and gain expertise in an area of knowledge that will prepare them with some expertise for employment. Students choose appropriate studios and professional elective courses.



To allow sufficient scope for the above objectives students need to take one elective studio and 2 professional electives each term during their final year. This leaves them the option of one course per term as an "Open Elective' for a total of two open electives.

Degree to which the programs vary from Senate Policy

The following eight tables show the degree to which eight Engineering programs vary from Senate Policy 2:

Table 1. Aerospace Engineering Program

	Senate Policy 2: Expected Range (%)	# Courses in Aerospace Engineering Program	% Courses in Program

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Core Studies (required + core elective)	60-75	42*	91
Open Electives	10-25	0	0
Liberal Studies	15-20	4	9
Total	100	46	100

*Not including CEN 199 Writing Skills Test, which is a milestone, not a course.

Table 2. Biomedical Engineering Program

	Senate Policy 2: Expected Range (%)	# Courses in Biomedical Engineering Program	% Courses in Program
Core Studies (required + core elective)	60-75	42*	91
Open Electives	10-25	0	0
Liberal Studies	15-20	4	9
Total	100	46	100

*Not including CEN 199 Writing Skills Test, which is a milestone, not a course.

Table 3. Chemical Engineering Program

	Senate Policy 2: Expected Range (%)	# Courses in Chemical Engineering Program	% Courses in Program
Core Studies (required + core elective)	60-75	42*	91
Open Electives	10-25	0	0
Liberal Studies	15-20	4	9
Total	100	46	100

*Not including CEN 199 Writing Skills Test, which is a milestone, not a course.

Table 4. Civil Engineering Program

	Senate Policy 2: Expected Range (%)	# Courses in Civil Engineering Program	% Courses in Program
Core Studies (required + core elective)	60-75	41*	91
Open Electives	10-25	0	0
Liberal Studies	15-20	4	9
Total	100	45	100

*Not including CEN 199 Writing Skills Test, which is a milestone, not a course.

Table 5. Computer Engineering Program

	Senate Policy 2: Expected Range (%)	# Courses in Computer Engineering Program	% Courses in Program
Core Studies (required + core elective)	60-75	41*	91
Open Electives	10-25	0	0
Liberal Studies	15-20	4	9
Total	100	45	100

*Not including CEN 199 Writing Skills Test, which is a milestone, not a course.

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Table 6. Electrical Engineering Program

	Senate Policy 2: Expected Range (%)	# Courses in Electrical Engineering Program	% Courses in Program
Core Studies (required + core elective)	60-75	41*	91
Open Electives	10-25	0	0
Liberal Studies	15-20	4	9
Total	100	45	100

*Not including CEN 199 Writing Skills Test, which is a milestone, not a course.

Table 7. Industrial Engineering Program

	Senate Policy 2: Expected Range (%)	# Courses in Industrial Engineering Program	% Courses in Program
Core Studies (required + core elective)	60-75	41*	91
Open Electives	10-25	0	0
Liberal Studies	15-20	4	9
Total	100	45	100

*Not including CEN 199 Writing Skills Test, which is a milestone, not a course.

Table 8. Mechanical Engineering Program

	Senate Policy 2: Expected Range (%)	# Courses in Mechanical Engineering Program	% Courses in Program
Core Studies (required + core elective)	60-75	41*	91
Open Electives	10-25	0	0
Liberal Studies	15-20	4	9
Total	100	45	100

*Not including CEN 199 Writing Skills Test, which is a milestone, not a course.

Table 9. Architectural Science Program

	Senate Policy 2: Expected Range (%)	# Courses in Architectural Science Program	% Courses in Program
Core Studies (required + core elective)	60-75	36	81%
Open Electives	10-25	2	5%
Liberal Studies	15-20	6	14%
Total	100	44	100

Recommendation

Having satisfied itself of the merit of this proposal, the Academic Standards Committee recommends: ***that Senate approve this exception to Senate Policy #2 – Program Balance.***