UNIVERSITY OF TORONTO
FACULTY OF APPLIED SCIENCE & ENGINEERING

Report No. 3342

MEMORANDUM

To: Executive Committee of Faculty Council

From: Dr. Graeme Norval
Chair, Undergraduate Curriculum Committee

Date: March 15, 2012 for April 26, 2012 Faculty Council Meeting

Re: Procedure for Granting Transfer Credits

REPORT CLASSIFICATION

This is ***Minor Policy Matter*** that will be considered by the Executive Committee for approving and forwarding to Faculty Council for information.

BACKGROUND

This procedure covers the granting of transfer credits for students taking courses on Letters of Permission, students entering the Faculty on Advanced Standing and also students taking courses through the International Student Exchange program. All programs are covered by this procedure. It is noted that the Faculty of Applied Science and Engineering using a Letter of Permission system for many years, as well as offering International Student Exchanges and admitting students on Advanced Standings. This policy is a codification of existing practice.

STRUCTURE

The Procedure that has been developed is attached.

PROCESS

The Undergraduate Curriculum Committee is composed of representatives from each program; the Vice-Dean, Undergraduate Studies; the Chair, First Year; the Associate Dean, Cross-Disciplinary Programs; and the Registrar's Office. The Committee meets regularly, and reviews changes to the curriculum.

PROGRAM

All programs are involved in these changes, and the impact on students in the various programs has been considered.

PROPOSAL/MOTION

For information.

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UNIVERSITY OF TORONTO
FACULTY OF APPLIED SCIENCE & ENGINEERING

Procedure for Granting Transfer Credits

1.0 General

1.1 There is one framework for the granting of Transfer Credits. This framework provides the consistent set of principles that the Faculty will follow. Validation of the courses and the institution depend on the nature of the course and the institution.

1.2 In all cases, a minimum of 50% of the courses that a student takes must be completed at the University of Toronto.

1.3 The procedure is the responsibility of the Undergraduate Curriculum Committee. Modifications to the procedure are to be proposed to the committee, which will review them, and makes recommendations to the Executive Committee, with final approval of changes decided by Faculty Council.

1.4 For the purpose of comparison, a "Full Course" is considered as a course with at least two lecture hours each week for a 24-week academic year. A normal engineering course is a "Half Course", and consists of at least 2 lecture hours (typically 3 lecture and 1 tutorial hours) per week for a 12-week term.

1.5 A program Designated Authority (D.A.) is either the program Undergraduate Coordinator or Director or Option Chair, depending on the program.

1.6 Exchange courses must be "substantially equivalent", but need not exactly equivalent.

1.7 Copies of all completed forms are retained in the student's permanent files in the Office of the Registrar.

2.0 Granting of Transfer Credits for Complementary Studies Courses

2.1 Complementary Studies courses include humanities, social sciences, arts, management, engineering economics and communications (S3.4.5 of Canadian Engineering Accreditation Board Accreditation Criteria and Procedures 2011). At the University of Toronto, there are two sub-categories: Humanities and Social Science (HSS) electives and Complementary Studies (CS) electives, and the definition is provided in the Undergraduate Calendar. Students are permitted to take HSS or CS core or electives courses offered at any of the 3 campuses.

2.2 Students are entitled to take HSS and/or CS core or elective courses at any allowable Higher Educational Institution (HEI), following the Letter of Permission or International Student Exchange process. Allowable HEIs include any accredited university in Canada, as well as any university with which the University of Toronto has an international exchange agreement. The Letters of Permission must be pre-approved by the program Associate Chair.

2.3 All requests for course approvals at universities which do not meet the requirements of S2.2 must be approved by the Faculty Registrar (or the Assistant Registrar on behalf of the Registrar) and the Chair of the Undergraduate Curriculum Committee (or Vice-Chair if the Chair is absent).

2.4 The distinction of whether the course is an HSS or CS will be made at the date of prior approval.

2.5 Course approvals are not restricted to courses that are on the Faculty's pre-approved list. Any course that meets the HSS or CS definition could be approved.

2.6 Approvals for Advanced Standings transfer credits for HSS and CS courses follows the principles of S2.2.

2.7 Although the Engineering Economics course is a Complementary Studies course, approval for course equivalency follows the rules of S4 below.

3.0 Granting of Transfer Credits for Natural Science and Mathematics Courses

3.1 Natural Sciences and Mathematics courses are defined by the Canadian Engineering Accreditation Board. This section relates to courses that are at least 50% NS or MATH content.

3.2 Students are entitled to take NS and/or Math core or elective courses at any allowable Higher Educational Institution (HEI), following the Letter of Permission process or International Student Exchange. Allowable HEIs include any accredited university in Canada, as well as any university with which the University of Toronto has an international exchange agreement. The Letters of Permission must be pre-approved approved by the program D.A, who will confirm that the course content matches the program's required course content.

3.3 All requests for course approvals at universities which do not meet the requirements of 3.2 must be approved by the Faculty Registrar (or the Assistant Registrar on behalf of the Registrar) and the Chair of the Undergraduate Curriculum Committee (or Vice-Chair if the Chair is absent).

3.4 Approvals for Advanced Standings transfer credits for NS and Math courses follow the principles of 3.2.

4.0 Granting of Transfer Credits for Engineering Science and Engineering Design Courses

4.1 Engineering Science and Engineering Design courses are defined by the Canadian Engineering Accreditation Board. This section relates to courses that are at least 50% ES or ED content.

4.2 Students are entitled to take ES and/or ED core or elective courses at any allowable Higher Educational Institution (HEI), following the Letter of Permission process or International Student Exchange. Allowable HEIs include any accredited engineering program in Canada, as

well as any university that is accredited by a Washington Accord signatory. The Letters of Permission must be pre-approved approved by the program D.A, who will confirm that the course content matches the program's required course content.

4.3 All requests for course approvals at universities which do not meet the requirements of S4.2 must be approved by the Faculty Registrar and the Vice-Dean – Undergraduate.

4.4 Approvals for Advanced Standings transfer credits for ES and ED courses follow the principles of 4.2, with the exception of APS105/APS106, for which any introductory computer programming course would suffice.

5.0 Auditing of AU Credits

5.1 On an annual basis, the Registrar's Office will generate a list of students on International Student Exchange, and the schools they attended. The licensure status of faculty teaching those courses will be obtained primarily through a review of the academic calendar, followed by direct contact with the program.

5.2 For programs at HEIs which are not accredited in accordance with the Washington Accord, the licensure status of the faculty instructing in the program will be obtained.

5.3 All courses taken by Engineering Science students are subject to AU analysis for the purpose of individual accreditation. Transfer credits will be assessed as follows:

5.3.1 When an equivalent course at the University of Toronto is identified, the AUs of the equivalent course at the University of Toronto will be used. Students will be directed to use these equivalent courses in completing their tracker by the Engineering Science student counselor.

5.3.2 When an equivalent course at the University of Toronto is NOT identified, the Engineering Science student counselor will instruct the student to provide a full course syllabus for AU analysis by a Divisional Senior Lecturer or Associate Chair. Students will be directed to use the assigned values in completing their tracker by the Engineering Science student counselor.

6.0 Special Cases

6.1 First Year courses are not eligible for equivalency under the Letter of Permission or International Student Exchange, unless the student is repeating or taking a course to obtain credit for a missing requirement.

6.2 Students entering the Faculty with Advanced Standing are eligible to receive credit for the First Year "Engineering Strategies and Practice" courses if they have completed a degree program at a HEI, or if they have completed 5 or more HEI full courses for which they do not receive transfer credits, and so long as the program contains sufficient communication and design content to allow students to bridge any gaps.

6.3 It is understood that course availability and timetable limitations may prevent a student from taking the pre-approved courses at the other HEI. It is the responsibility of the student to notify the Faculty of Applied Science and Engineering about such issues and to propose changes. All changes to the student's program need to be approved by the program D.A.; students should not be unduly penalized by such unexpected course scheduling problems. The student is responsible for prompt notification.

6.4 A student's "Significant Design Experience' can be taken at other HEIs under the following circumstances:

6.4.1 By Letter of Permission at an accredited engineering institution in Canada,

6.4.2 For individual-projects (thesis or design), at any accredited engineering institution in Canada or at an HEI for which the Faculty has an International Exchange Agreement, and which is accredited under the Washington Accord, so long as there is co-supervision of the significant design experience by a University of Toronto professor (who holds an engineering license) and the evaluation of the significant design experience is done according to the program's guidelines, and that the student provides a report and makes an oral presentation about the experience in the foreign jurisdiction.

Figure 1: A Completed Letter of Permission Form

Print Form

UNIVERSITY OF TORONTO
FACULTY OF APPLIED SCIENCE & ENGINEERING

Request for a Letter of Permission

The Faculty of Applied Science and Engineering
Engineering Undergraduate Admissions Office
University of Toronto
Rm 153, 35 St. George Street, Toronto ON M5S 1A4
Tel: (416) 978-0120 Fax: (416) 946-7027

** Please note that students who are not currently registered in the Faculty are not eligible for the Letter of Permission **

TO BE COMPLETED BY STUDENT: *(Please print clearly)*

Student Number: 999123456

Ms. **Surname:** Sarah **Given Names:** Smith

Full Address: 123 Home Address

Phone : 416-555-0123 **Email:** email@email.com

Program : Chemical Engineering

Year: ☐ First ☐ Second ☒ Third ☐ Fourth

Request to study at: University of Waterloo (Name of University)

Session: Summer 2012 (May-August) (e.g. Summer 2010)

LIST COURSE(S) FOR WHICH THE LETTER OF PERMISSION IS REQUESTED

Requested Course Code & Title	Type of Course (Circle one)	U of T Engineering Course Equivalent	Year of Study, Credit to be Granted and Weight (Office Use Only)
MATH1000	HSS/CS ☐ Core ☒ Extra ☐	MAT186H1	1st Year, 0.5 credit
	HSS/CS ☐ Core ☐ Extra ☐		
	HSS/CS ☐ Core ☐ Extra ☐		

Signature: _____ **Date:** _____

IMPORTANT: A copy of the official Calendar description for each course is required. In addition, a fee of $30.00 is payable by the student for a Letter of Permission. Cheques/Money orders should be made payable to "The University of Toronto." If Letter of Permission is approved we require an official transcript from the host Institution to be sent to our office once the course is complete.

Please return to:
Engineering Undergraduate Admissions Office
35 St. George Street, GB 153
Toronto, Ontario M5S 1A4

☐ Fee Paid
☐ Fee Owing

Please Turn Over

Figure 2: A Completed Transfer Credit/Advanced Standings Form

UNIVERSITY OF TORONTO
FACULTY OF APPLIED SCIENCE AND ENGINEERING
Transfer of Credit Assessment Form

NAME:	Sarah Smith	**STUDENT NUMBER:**	999123456
PROGRAM:	Chemical Engineering	**Date:**	1-Apr-12
COURSES TAKEN AT:	University of Toronto		

ADVANCED STANDING CREDIT RECOMMENDATION

☐ The exemptions shown below are granted on the condition that you obtain grades of at least B+ in the relevant courses, and are therefore subject to revision on the basis of your final results.

☐ You are responsible for pre-requisite material not covered in assessed equivalent courses.

☐ The Admissions Committee has reviewed your application and is pleased to offer you admission into the **First Year** of our Engineering program FULL-TIME.

☐ The Admissions Committee has reviewed your application and is pleased to offer you admission into the **Second Year** of our Engineering program.

☐ You will be required to carry a full course load of five credit courses in each of the fall and winter terms of your first year of study.

☐ Second year core courses in Engineering may not be selected until the entire first year program is complete.

☐ Third year core courses in Engineering may not be selected until the entire first and second year programs are complete.

☐ When making your decision to accept this offer, please be aware that no further transfer credits shall be awarded. We understand that you may be repeating some material, however, it has been our experience that this approach provides you with the best transition into our Engineering program.

Please note: If the course exemptions shown below create a reduced program load (i.e. four courses), you may be considered as a part-time student. Please consult the current calendar, page 35, for further information. You will be required to complete all required courses prior switching to full-time studies.

APSC Course	Course Code	Assessed Equivalent Course
Engineering Strategies & Practice I	APS111	Exempt
Mechanics	CIV100	PHYS1050
Physical Chemistry	CHE112	CHEM1050
Calculus I	MAT186	MATH1000
Linear Algebra	MAT188	MATH2050
Fundamentals of Computer Programming	APS106	ENGI1020
Calculus II	MAT187	MATH1001
Concepts in Chemical Engineering	CHE113	CHEM1051
Applied Science: Materials	MSE101	Exempt
Electrical Fundamentals	ECE110	PHYS1051
Engineering Strategies & Practice II	APS112	Exempt

Authorization: _____ Date: _____
Admissions Office

c.c. Departmental Counsellor
Registrar's Office

Figure 3: An Example of Course Descriptions to be Attached to Any Form

Engineering Undergraduate Admissions Office
Faculty of Applied Science and Engineering
University of Toronto

1010 Engineering Statics

is the first course in Engineering mechanics. Forces and moments are described with vector algebra, leading to a description of the equilibrium conditions for particles and solid bodies. The importance of free body diagrams is highlighted. This knowledge is then applied to the analysis of trusses, frames and machines. Additional topics include an examination of friction and the concepts of centre of force, centroids and second moments of area.

1020 Introduction to Programming

is an introduction to algorithmic problem solving techniques and computer programming, including basic program control structures (sequence, call, branch, loop) and data representations, functional decomposition, and design by contract. Exercises and examples are drawn from a variety of engineering disciplines and are implemented using a standard modern programming language.

1030 Engineering Graphics and Design

provides two complementary competencies. Firstly, it provides an introduction to the fundamentals of graphic communication, including orthographic projections, three dimensional pictorials, sectioning and dimensioning. Both sketching and CAD are utilized. Secondly, the course introduces students to standard design methodologies. The graphics and design competencies are reinforced through lab and project exercises.

1040 Mechanisms and Electric Circuits

is offered in two serial modules, including laboratory and workshop practice, and a team project to expose students to the concept of system integration involving electrical and mechanical systems. The electrical module provides an introduction to dc circuits, with an analysis of dc circuits used in control, measurement and instrumentation systems. The mechanism module provides an introduction to machine components such as belts, pulleys, gears, and simple linkages. The laboratory and workshop component introduces students to hands-on practice in basic laboratory instruments, tools and safety procedures. A team project involves the construction, assembly and testing of a simple mechanism.

Figure 4: An Example of an International Exchange Pre-approval Form

Print Form

UNIVERSITY OF
TORONTO

CENTRE FOR INTERNATIONAL EXPERIENCE

Pre-Departure Course Authorization form

NOTE: This form is for students participating in an CIE Exchange or Study Abroad program ONLY.

The purpose of this form is to provide transfer credit guidance to students who will be studying elsewhere in the near future. We ask that departments indicate the transfer credit that the student would receive for successful completion of the proposed course(s), along with possible exclusions. Students have been asked to calculate the approximate weight of each course they intend to take. Please make your assessment based on this estimate.

Please note that assessments below are final, unless the course material changes significantly between the assessment and completion of the course. Finalization of all credits will take place upon the student's return.

Guide for assessing credit equivalents:

1. If the host course matches the UofT course almost exactly: RLG241Y1
2. If the host course is similar but not exact: RLG2**Y – Exclusion: RLG241Y1
3. If the course is not similar but should still be credited: RLG2**Y – No exclusion
4. If the course should not receive credit from this dept: N/A
5. If the course should not receive credit from UofT: No credit
6. If there is not enough information to assess the course: TBD

Student Name	Sarah SMITH	Student Number:	999123456
Host Institution	University of Queensland	Session Abroad:	2011-12

Section for Students to Complete		Section for Departments to Complete	
Proposed Course (Title & Code – if any)	Approx. UofT Credit Value	Possible UofT Equivalent	Possible Exclusion(s)
CHEM1231 Introductory Chemistry	0.5	CHE112	No Exclusion

Comments:

Authorization: I authorize the above student to pursue the courses listed. The host institution courses appear to be satisfactory equivalents to those offered by this department.

Name of Department/Program: Department of Chemistry

Name of Department/Program Representative: Representative Name

Signature of Representative: _____ Date: 1 Mar 2012

PLEASE RETURN FORM TO STUDENT

Cumberland House, 33 St. George Street, Toronto, ON, M5S 2J7 Canada
Tel: +1 416 978-2564 Email:student.exchange@utoronto.ca Web:www.cie.utoronto.ca

Figure 5: A Second Example of an International Exchange Pre-approval Form

Print Form

UNIVERSITY OF
TORONTO

CENTRE FOR INTERNATIONAL EXPERIENCE

Pre-Departure Course Authorization form

NOTE: This form is for students participating in an CIE Exchange or Study Abroad program ONLY.

The purpose of this form is to provide transfer credit guidance to students who will be studying elsewhere in the near future. We ask that departments indicate the transfer credit that the student would receive for successful completion of the proposed course(s), along with possible exclusions. Students have been asked to calculate the approximate weight of each course they intend to take. Please make your assessment based on this estimate.

Please note that assessments below are final, unless the course material changes significantly between the assessment and completion of the course. Finalization of all credits will take place upon the student's return.

Guide for assessing credit equivalents:

1. If the host course matches the UofT course almost exactly: RLG241Y1
2. If the host course is similar but not exact: RLG2**Y – Exclusion: RLG241Y1
3. If the course is not similar but should still be credited: RLG2**Y – No exclusion
4. If the course should not receive credit from this dept: N/A
5. If the course should not receive credit from UofT: No credit
6. If there is not enough information to assess the course: TBD

Student Name	Sarah SMITH	Student Number:	999123456
Host Institution	Lund University	Session Abroad:	2011-12

Section for Students to Complete		Section for Departments to Complete	
Proposed Course (Title & Code – if any)	Approx. UofT Credit Value	Possible UofT Equivalent	Possible Exclusion(s)
PHYS5462 Mechanics	1.0	PHY254H1 +	No Exclusion
		PHY2**H1	

Comments:

Authorization: I authorize the above student to pursue the courses listed. The host institution courses appear to be satisfactory equivalents to those offered by this department.

Name of Department/Program: Department of Physics

Name of Department/Program Representative: Representative Name

Signature of Representative: _____ Date: 1 Mar 2012

PLEASE RETURN FORM TO STUDENT

Cumberland House, 33 St. George Street, Toronto, ON, M5S 2J7 Canada
Tel: +1 416 978-2564 Email:student.exchange@utoronto.ca Web:www.cie.utoronto.ca