

Proposal for Changes to Engineering Regulations on Work Terms

Draft #7

RESOURCE IMPLICATIONS

There are no resource implications to this change in regulations on work terms.

Instructional Costs

Not applicable.

Library Holdings and/or Other Resources Required

Not applicable.

Signature of the Dean:

Date:

EXECUTIVE SUMMARY

These Calendar changes address several objectives:

- 1) to return key regulations from the Co-op handbook to the Calendar;
- 2) to decouple work term progression from academic term promotions;
- 3) to remove some details of the evaluation of the communications components from the Calendar descriptions of the six work terms; and
- 4) to correct minor typographical errors and update titles and web links.

DETAILED RATIONALE**1) Return key regulations from the Co-op handbook to the Calendar**

Several years ago the decision was made to restrict the Calendar entries on work terms to essential items (such as a prohibition on dropping work terms without consent, the Calendar descriptions for each work term and the grading structure for work terms). The operational details of work terms were placed in the Engineering Student Co-op Handbook and were given the authority of the Calendar by the wording in Calendars up to 2012 “Students in the Engineering program are governed by the Co-operative Student Handbook ...”.

In the old program (Classes of 2012 and before), six work terms were a graduation requirement. Any student who failed any work term had to repeat it successfully in order to qualify for graduation. However, the minimum number of work terms for graduation has decreased to four (out of six opportunities) for the Classes of 2013 onwards. A student now needs to pass Work Terms 1 to 4 in order to be eligible for graduation, but Work Terms 5 and 6 are now electives. A few cases have arisen of students who opted in (and therefore committed) to Work Term 5 or 6 but who then failed it. Accreditation does not approve of unresolved failures on the transcript of a graduating student.

At present this situation is covered by a combination of the delegation in Engineering Calendar regulation 3.4 of authority to the Handbook and Section 3.3 “Opting Out of a Work Term” of that handbook, which states “Students who do not successfully complete a work term will be required to repeat it, even if it is Work Term 5 or 6”.

Such an important regulation belongs properly in the Calendar, where it is subject to approval by Senate, rather than to the Handbook, which has a much lower level of approval. Another provision that belongs in the Calendar is the possible penalty of a failed work term for a student who declines all job offers without permission. The Division of Cooperative Education is responsible for revisions to the handbook, which should be developed in consultation with an appropriate body external to the Division. Here it is proposed that that body be the Committee on Undergraduate Studies of the Faculty of Engineering and Applied Science.

Some other information, (assignment of the performance component of work term grades, consequences of not meeting deadlines, etc.), is also being stated in Calendar regulations.

DETAILED RATIONALE (continued)**2) Decouple work term progression from academic term promotions**

As noted in the rationale for item (1) above, the former structure of the B.Eng. programme led to a rigid progression between academic and work terms. The vast majority of graduating students completed a chain of promotions

Academic Term 1 → AT2 → Work Term 1 → AT3 → WT2 → AT4 → WT3 → AT5
→ WT4 → AT6 → WT5 → AT7 → WT6 → AT8

A student who was unsuccessful in finding employment could seek exemption from (or deferral of) a missing work term, preserving this chain of promotions.

In the present programme Work Term 1 can occur in any of the three semesters immediately preceding Academic Terms 3, 4 or 5. Work Terms 2, 3 and 4 can likewise occur in any of three semesters. Work Terms 5 and 6 are electives (although students are encouraged to take them, if possible). Work terms can no longer be taken out of sequence. A clear prerequisite structure is now in place. A practical constraint is that work term grades are usually not available until well after the add deadline in the following academic term. The concept of promotion from a work term into a succeeding academic term (or vice versa) is therefore obsolete. All that is required from work terms for graduation is that the student pass all work terms attempted and at least the first four work terms within the six semesters available. **However, given their importance in the mandatory co-op program, the concept of promotions from one work term to the next is still considered to be important. [this principle continues to be debated!]**

A similar situation occurred some years ago for complementary studies. Many years ago, each of these electives was tied to a specific academic term and counted towards that term's promotion average. In response to several problems that this rigid structure caused, flexibility was introduced into the set of complementary studies courses until they were decoupled from the academic semesters almost completely. Most of these courses can now be completed at any time prior to graduation. Most students complete at least one elective during a work term. As a result, complementary studies courses are excluded from promotion averages. Instead a student must obtain an average of at least 60% across the set of complementary studies courses and pass all of them prior to graduation.

In the new programme the major of Ocean and Naval Architectural Engineering has a unique set of courses known as the "focus stream", which can be taken at any time prior to graduation. Here too a student must obtain an average of at least 60% across the set of focus stream courses and pass all of them prior to graduation.

It therefore makes sense to delete the concept of promotion between academic and work terms. Promotion from one academic term (except Term 8) should be to the next academic term **and promotion from one work term should be to the next work term. [this may change!]**

DETAILED RATIONALE (continued)**3) Remove details of the evaluation of the communications components from the Calendar descriptions of the six work terms**

The Calendar descriptions of all six work terms (ENGI 001W to 006W) exceed the usual Calendar limit of 75 words, some by a factor of 2 or more. Some details of the evaluation of the communications component are best left to the Engineering Student Co-op Handbook, which is analogous to a course outline in an academic term. However, each work term is equivalent to four or five academic courses. A more generous limit on the word count in the Calendar entries is therefore appropriate.

4) Correct minor typographical errors and update titles and web links.

The opportunity is being taken to correct various minor typographical errors that have been detected, to correct an out-of-date web link and to update the title of the handbook from the “Co-operative Student Handbook” to the “Engineering Student Co-op Handbook”.

Benefits to Students

The regulations governing work terms will be more explicit in the University Calendar.

CONSULTATIONS

These Calendar changes affect students in the Faculty of Engineering and Applied Science only. The Division of Co-operative Education and the Office of the Registrar have been involved in the development of this set of Calendar changes.

Consultations with the Grenfell and Marine Institute campuses and the Library are in progress.

PROGRAM TITLE

Bachelor of Engineering (B.Eng.)

SUMMARY OF CHANGES TO CALENDAR REGULATIONS

Engineering regulations 3.4 (Work Terms), 6.3 (Promotion Status beyond Engineering One), 6.4 (Other Information) and 9.1 (Work Terms and Non-Credit Courses) are to be amended as indicated below.

CALENDAR REVISIONS

Page references are to the 2012-13 edition of the Calendar.
Additions are identified by underlined text and deletions by ~~strikethrough~~.

Amend the first paragraph of Engineering regulation 3.4 on page 234 as follows:

Engineering work term registration, grading, and tuition fee charges and payments are governed by the **UNIVERSITY REGULATIONS** in this Calendar and those outlined below. Engineering work term placement and opt-outs, conduct, and evaluation are governed ing by the *Engineering Student Co-op Handbook* which is available at www.mun.ca/coop/homeprograms/engineering/enghandbook.pdf. Any changes to the *Engineering Student Co-op Handbook* shall be developed in consultation with the Committee on Undergraduate Studies.

Amend Engineering regulation 3.4.1 on page 234 as follows:

3.4.1 General Information

- During work terms students are brought into direct contact with the engineering profession, exposed to the work place setting, expected to assume ever-increasing responsibility in employment situations as their education advances, and introduced to experiences beyond the scope of those which could be provided in the classroom.
- Students are responsible for finding suitable work placements. The Division of Co-operative Education provides resources to assist in this process. Students who obtain a work placement outside the job competition must have that work placement approved by the Division of Co-operative Education prior to accepting it.
- Students who cannot meet the demands of the work term may be required by the Faculty to withdraw from the work term until they can demonstrate an ability to continue in the program.
- Following the date of automatic registration for a work term, only students who are registered for that work term will be approved to join the job placement process and be approved to begin a work placement.
- Students in the job competition who refuse all job offers without the prior consent of the Division of Co-operative Education may be subject to penalties that may include the assignment of a grade of FAL (fail) for that work term.
- Students are not permitted to drop work terms without prior approval of the Committee on Undergraduate Studies, on the recommendation of the Division of Co-operative Education. Students who drop a work term without permission, or who fail to honour an agreement to work with an employer, will be assigned a grade of FAL (fail) for that work term.
- Students who conduct themselves in such a manner as to cause their termination from the job, will may be assigned a grade of FAL (fail) for that work term.
- Students who are registered for a work term and who do not opt out from that work term must complete that work term successfully as a requirement for graduation.
- Students who opt out from a work term are not permitted to work for a co-op employer during that work term.
- A student who opts out from a work term and who works for a co-op employer during that work term may be considered to have committed an academic offence.
- Students in a work term who do not meet the deadlines stated by the Division of Co-operative Education for the submission of forms and documentation may be awarded a reduced grade for one or both components of that work term.
- The work term performance grade is assigned by the student's Coordinator based upon feedback from the employer and other information gathered from contact with the student.

Amend Engineering regulation 3.4.2 on page 234 as follows:

Amend the first paragraph of
“3.4.2 Evaluation of Work Terms”
to:

Two components are considered in work term evaluation: work performance and a communications component, as described in the Engineering Student Co-op Cooperative Student Handbook which is available at www.mun.ca/coop/homeprograms/engineering/enghandbook.pdf.

Amend Engineering regulation 6.3 on page 243 as follows:

6.3 Promotion Status (Beyond Engineering One)

A student's eligibility for promotion from semesters beyond Engineering One will be determined at the end of each term. Promotion from each academic semester will be based upon the student's Promotion Average for the semester. The Promotion Average, which will appear on the transcript, is calculated to be the overall average of courses completed in the semester excluding complementary studies, focus stream electives and free elective courses. Promotion from work terms will be determined based upon the grade awarded in that work term.

A student's promotion status will be determined beyond Engineering One and at the end of each academic semester term in one of the following three categories:

[Note: reference to promotions from work terms might be deleted from 6.3.1 but is not currently part of this proposal.]

Amend Engineering regulation 6.3.2 on page 243 as follows:

At the end of
“6.3.2 Probationary Promotion”
add a new clause (with the appropriate number):

A student who has failed the communications component of a work term and who, in the opinion of the Division of Co-operative Education, can benefit from a remedial program, may be permitted an extension of time, not to exceed the end of the registration period of the subsequent semester, to complete the requirements of the work term.

Amend Engineering regulation 6.3.3 on pages 243 and 244 as follows:

6.3.3 Promotion Denied

Promotion Denied status is awarded when a student does not meet the requirements for Clear Promotion or Probationary Promotion.

The student's Promotion Denied status will be reflected on the University Transcript under the Promotion Average for the semester.

1. A student with Promotion Denied status will be required to withdraw from the Faculty.
2. A student with Promotion Denied status may apply for readmission to the program after two semesters. Subject to space being available, a student will be readmitted into the term from which promotion was denied. An academic term may be repeated only once, and not more than two academic terms may be repeated in the entire program.
3. A student who is denied promotion for failing a work term may be considered for readmission. A student readmitted under this clause must successfully complete four work terms prior to graduation.
4. Any individual work term may be repeated only once.
- ~~4. A student who has been denied promotion as a result of having failed a work term and who, in the opinion of the Faculty, can benefit from a remedial program, may be permitted an extension of time, not to exceed the end of the registration period of the subsequent semester, to complete the requirements of the work term. [**]~~
5. A student who is denied promotion from an academic term will be required to repeat all required courses in which the student obtained a numeric grade of less than 60% in that term. A technical elective course in which the student obtained a numeric grade of less than 60% may be replaced by a course acceptable in the student's program.
6. A student who is denied promotion from an academic term may not continue to the subsequent work term unless both the employer and the Division of Co-operative Education grant permission.
- ~~6.7.~~ A student with Promotion Denied status at the end of the final academic term will not be recommended for graduation until the student's status is changed to Clear Promotion.

[** = moved to 6.3.2, with reference to promotion deleted]

Amend Engineering regulation 6.4.2 on page 244 as follows:

6.4 Other Information

2. To be recommended for graduation, a student must have clear promotion from Academic Term 8, must have successfully completed at least the four mandatory work terms, any elective work terms undertaken and must have an average of at least 60% in the 21 credit hours in complementary studies as described in **Description of Program, Complementary Studies**.

Amend Engineering regulation 9.1 on page 245 as follows:

9.1 Work Terms and Non-Credit Courses

001W Engineering Work Term 1 represents, for most students, their first experience in an engineering or related work environment. Students are expected to learn, develop and practise the basic standards of behaviour, discipline and performance normally found in a professional work environment. Students are ~~also~~ expected to learn the basics of technical writing and to become familiar with the various communications tools used in a technical work environment. The communications component for Work Term 1 will include a daily diary, and a written document.

~~Two documents must be submitted for evaluation for the communications component for Work Term 1. Additional communication requirements such as technical reports or manuals may be requested by the employer. The two documents to be submitted to the Engineering Co-operative Education Office are the Personal Job Diary and the Work Term Journal or Short Technical Report or Portfolio. Detailed guidelines for the preparation of these documents are provided in the *Co-operative Student Handbook*. These documents shall be submitted or postmarked no later than the last official day of the work term as shown in the University Calendar.~~

CH: 0

LC: 0

PR: ENGI 200W

002W Engineering Work Term 2 requires students to ~~have sufficient academic grounding and work experience to contribute in a positively manner~~ to the engineering design and problem solving processes practised in the work environment. Students are expected to show greater independence and responsibility and function as a more effective team member in their assigned work functions than in Work Term 1. An ability to deal, under supervision, with complex work-related concepts and problems should also be demonstrated. Students can become better acquainted with their chosen discipline, and ~~can observe and appreciate the attitudes, responsibilities, and ethics normally expected of engineers.~~ The communications component for Work Term 2 consists of a formal, descriptive technical report on a topic chosen from the student's work environment.

~~The communications component for Work Term 2 consists of a formal, descriptive technical report describing a technical process, project, procedure or investigation chosen from the student's work environment. Students are also expected to keep a job diary, which will not be submitted but must be available for review during monitoring.~~

~~Guidelines for the preparation of a descriptive technical report are provided in the Co-operative Student Handbook. The report shall be submitted or postmarked no later than the last official day of the work term as shown in the University Calendar.~~

CH: 0

LC: 0

PR: ENGI 001W, ENGI 3101

003W Engineering Work Term 3 requires greater participation in the student's selected engineering discipline. Students become more experienced and proficient with the appropriate design procedures than in the preceding work terms. Students are expected to acquire improved speed and accuracy in their work and ~~at the same time~~ accept greater responsibility and be able to function with less direct supervision. Self-confidence and initiative as well as improved analytical skills are expected to develop at this stage in the student's engineering education. The communications component for Work Term 3 consists of a formal technical report on a topic chosen from the student's work environment.

~~The communications component for Work Term 3 consists of a formal technical report on a topic related to a specific theme prescribed by the Faculty and the Co-operative Education Office. Examples of themes would be sustainable development and environmental stewardship. Ideally the report would relate to the student's work in the areas of process, project, procedure or investigation.~~

~~Guidelines for the preparation of a descriptive technical report are provided in the Co-operative Student Handbook. The report shall be submitted or postmarked no later than the last official day of the work term as shown in the University Calendar.~~

CH: 0

LC: 0

PR: ENGI 002W

004W Engineering Work Term 4 requires students to engage in various facets of engineering, such as design, analysis, project management, specifications, plans, formal proposals, tender documents, etc. Participation in their selected engineering discipline is expected. Students should continue to gain an appreciation of the use and importance of acquired analytical skills in engineering analysis as well as the application of specifications and codes. Students should have a level of responsibility commensurate with their academic background and experience. The communications component for Work Term 4 consists of an oral presentation, and written summary on a technical subject taken from the student's work environment.

~~The communications component for Work Term 4 consists of an oral presentation on a technical subject taken from the student's work environment and preferably related specifically to the student's work. The presentation should be of 10 minutes duration and will be given on campus in a formal setting after students have returned to class. A written summary is also required. Guidelines for the preparation of this oral presentation are provided in the Co-operative Student Handbook.~~

CH: 0

LC: 0

PR: ENGI 003W

005W Engineering Work Term 5 requires students to engage in various facets of engineering, such as design, analysis, project management, specifications, plans, formal proposals, tender documents, etc. Participation in their selected engineering discipline is expected. Students should continue to gain an appreciation of the use and importance of acquired analytical skills in engineering analysis as well as the application of specifications and codes. Students should have a level of responsibility commensurate with their academic background and experience. ~~The promotion criteria for this work term will be determined by the Committee on Undergraduate Studies. Students in the new program can apply to enter Work Terms 5 and 6.~~ The communications component for Work Term 5 consists of a written report, or oral presentation on a topic chosen from the student's work environment.

CH: 0

LC: 0

PR: ENGI 004W

006W Engineering Work Term 6 requires students to engage in various facets of engineering, such as design, analysis, project management, specifications, plans, formal proposals, tender documents, etc. Participation in their selected engineering discipline is expected. Students should continue to gain an appreciation of the use and importance of acquired analytical skills in engineering analysis as well as the application of specifications and codes. Students should have a level of responsibility commensurate with their academic background and experience. ~~The promotion criteria for this work term will be determined by the Committee on Undergraduate Studies. Students in the new program can apply to enter Work Terms 5 and 6.~~ The communications component for Work Term 6 consists of a written report, or oral presentation on a topic chosen from the student's work environment.

CH: 0

LC: 0

PR: ENGI 005W

200W Professional Development Seminars are offered during the Fall and Winter semesters prior to a student's first work term. These seminars introduce the co-operative education process and prepare the student for work terms. These seminars are graded PAS or FAL ~~based on attendance, participation and assignments.~~

AR: attendance is required

CH: 0

LC: as scheduled

Consultations

These Calendar changes affect students in the Faculty of Engineering and Applied Science only. Consultation requests were sent to the Grenfell and Marine Institute campuses and to the Library.

[letter requesting comments here]

[responses here]

SUMMARY PAGE

Approval Form for New Courses or Course Changes

[to be completed]