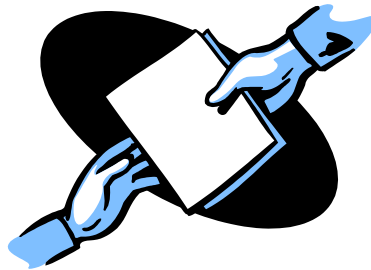




Engineering Student Co-op Handbook



Prepared by:
**Co-operative Education Office -
Faculty of Engineering and Applied Science**

Effective Date: Sept 2016

TABLE OF CONTENTS

1	CO-OPERATIVE EDUCATION.....	1
1.1	Purpose of Co-operative Education	1
1.2	Partners in the Co-operative Program.....	1
1.3	Work Term Opportunities	2
1.4	The Engineering Co-Operative Education Office	3
2	WORK TERM REGULATIONS.....	5
2.1	Minimum Number of Work Terms	5
2.2	Work Term Eligibility	5
2.3	Work Term Length	5
2.4	Work Term Remuneration.....	6
2.5	Opting Out of a Work Term.....	6
3	MARKETING, EMPLOYER DEVELOPMENT, WORK TERM SEARCH.....	7
3.1	Work Term Development and Search	7
3.2	Work Related Skills	7
3.3	Finding a Work Term Outside of the Competition	8
3.4	Funding or Award Programs	9
3.5	Entrepreneurship on Work Terms	10
3.6	Guidelines for International Students	11
4	CO-OP PLACEMENT COMPETITION	13
4.1	Co-op Postings	13
4.2	Applications to Co-op Positions	14
4.3	Interviews	14
4.4	Offers	15
4.5	Overseas Placements.....	16
4.6	Student Conduct.....	16
5	GETTING HIRED	17
5.1	Researching the Employer	17
5.2	Résumé Writing	17
5.3	Preparing the Cover Letter	19
5.4	Interviewing.....	20
6	PREPARING FOR THE WORK TERM.....	24
6.1	Contacting the Employer	24
6.2	Additional Work Requirements	24
6.3	International Students.....	24
6.4	Student Insurance	24
6.5	Working Internationally.....	25
6.6	Student Packages.....	25
6.7	Daily Diary	26
6.8	PEG-NL Log Book.....	26
6.9	Registering for the Work Term	26
6.10	Registration to Take Courses During a Work Term	27
6.11	Academic Standing – Engineering One	27
6.12	Academic Standing – Academic Terms 3-7	28
6.13	Work Term Ethics	28
7	WORK TERM PROCEDURES.....	30
7.1	Expectations for the Work Term	30
7.2	The First Week on the Work Term	31
7.3	Work Term Objectives.....	31

7.4	Work Term Oral and Written Communications Requirements	32
7.5	Employer Policies and Regulations.....	35
7.6	Problems on the Work Term.....	36
7.7	Work Term Evaluation	37
7.8	Exit Interview.....	39
7.9	Promotions.....	39
7.10	Appeals.....	40
7.11	Work Term Awards	40
APPENDIX A	CAFCE RECRUITING ETHICS.....	A-i
APPENDIX B	HOW TO FIND YOUR OWN WORK TERM POSITION.....	B-i
APPENDIX C	SAMPLE COVER LETTERS AND RESUMES	C-i
APPENDIX D	ENGINEERING RELATED ACTION WORDS	D-i
APPENDIX E	PERSONAL SKILLS CHECKLIST	E-i
APPENDIX F	CODE OF PROFESSIONAL ETHICS.....	F-i
APPENDIX G	WORK TERM EXPECTATIONS	G-i
APPENDIX H	S.M.A.R.T. OBJECTIVE WRITING	H-i
APPENDIX I	COMMUNICATIONS GUIDELINES – DIARY	I-i
APPENDIX J	COMMUNICATIONS GUIDELINES –PORTFOLIO AND JOURNAL	J-i
APPENDIX K	COMMUNICATIONS GUIDELINES –TECHNICAL REPORT	K-i
APPENDIX L	COMMUNICATIONS GUIDELINES – ORAL PRESENTATION	L-i
APPENDIX M	THE COUNSELLING CENTRE AND CHAPLAINCY	M-i
APPENDIX N	OCCUPATIONAL HEALTH AND SAFETY	N-i
APPENDIX O	POLICY ON SEXUAL HARASSMENT	O-i
APPENDIX P	WORK TERM EVALUATION.....	P-i

REVISION RECORD

Revision Date	Sections Revised	Revision Description
Jan 2013	3.4.5 3.7 3.10, Apx A 5.5 5.9 5.10 5.11 6.9 6.11 Apx D Apx J throughout throughout	New section on International Placements New section for student awards and Chevron scholarships Removal of sections on ROTP Added info for briefing sessions and US visa Update information concerning auto-registration Updated to reflect auto-registration Clarification of rules for EO students in the job competition Updates to information about promotions, and repeating of work terms Updated to reflect changes to three awards New PEGNL Code of Ethics updates Added info on presentations Changed optional to elective when referencing WT5 and 6 Minor updates to formatting, typos, etc.
Jan 2016	Throughout Throughout throughout Introduction 2.3 3.4 3.5 3.6 4.0 6.2 6.5 6.10 6.11 7.0 7.7 7.11 Apx A Apx B Apx C Apx I Apx K	Replaced DCE by ECEO, Coordinator by ASM-CE Replace job with appropriate terms where applicable Material relocated to improve flow New Introduction from the Dean Clarification on rules for leaving work term early Updated funding programs with current list Updated with new material on entrepreneurial work term opportunities Updated material from ISA office Added timeline More information on medical tests Updates Clarification about additional courses Added 70% rule and note on 200W Added timeline Note on preparing for monitoring Added new award Moved CAFCE Ethics to new Apx A New Apx on Finding your own work term Updated with new jobs, cover letters, resumes New sample diary entries Changed referencing to IEEE
Apr 2016	Throughout 4	Minor changes to formatting, or clarity. Changed to reflect new continuous match process
Sept 2016	4.4 Addendum Revision record	Change time of job offers from noon to 4pm Added addendum concerning academic year 2016-2017 Removal of revision record prior to 2013.

WELCOME

Welcome to this updated version of the Co-op Handbook of the Faculty of Engineering and Applied Science! Our Faculty has a long, proud tradition and reputation of excellence in co-operative engineering education. Our undergraduate co-op programs were among the first in Canada. They provide our graduates with the skills needed by employers to succeed and become leaders of tomorrow.

Our Faculty's vision is to be one of the most distinguished engineering faculties in Canada and beyond, and to fulfill our special obligation to the people of Newfoundland and Labrador. Our professors and staff members are dedicated to the highest quality of teaching and learning, research, service and external engagement, in order to make a significant positive impact on society. We're pleased to provide a vibrant learning environment and valuable experiential learning through co-op work terms.

The Faculty of Engineering and Applied Science is experiencing an exciting period of expansion. The Province of Newfoundland and Labrador has thriving offshore oil, ocean, energy, information technology and mining sectors, among others. These have driven a need and demand for more engineering capacity at Memorial. Since 2012, the Faculty has been on a rapid growth trajectory with a projected increase from 170 to 250 undergraduates per year by 2020 and 300 additional graduate students. Recent new initiatives include new science and engineering building infrastructure, exceeding \$300 million, and a new \$7 million Suncor Energy Offshore Research and Development Centre. Also, CARD (Centre for Arctic Resource Development) at C-CORE is a new \$12 million centre that positions Memorial University among the foremost global leaders in Arctic engineering research and development.

Our co-op students have valuable work term experiences in industry and other organizations, both within the province, across Canada and internationally. For example, co-op students have contributed to major projects that are transforming the provincial economy, such as the Hebron offshore oil development of Exxon Mobil, Suncor, Chevron and other partners in the Jeanne d'Arc basin. Offshore developments involve complex structures that have not been designed or built in such challenging environments anywhere else in the world at such a large scale previously. Co-op students have worked on difficult technical and non-technical challenges, involving a wide range of engineering disciplines. In some projects, operations at depths of over 1,000 meters and harsh ocean environments have motivated the development of transformative new subsea technologies. These are just some of the examples of exciting projects undertaken by our co-op students.

I'm confident that your co-op work terms will bring some of the most enjoyable and memorable experiences of your university education. You will gain confidence in your abilities, build your leadership and communication skills, learn about the practical realities of companies in a globally competitive environment, gain new friendships, and much more. I personally welcome you to visit me anytime as I would be glad to discuss your work terms. Best wishes for a wonderful co-op educational experience!

Sincerely,



Greg Naterer, PhD, PEng, FCSME, FEIC, FASME
Dean, Faculty of Engineering and Applied Science

Memorial University of Newfoundland's Engineering Co-operative Education Program

Welcome to Memorial University of Newfoundland's Co-operative Education Program in Engineering. The next five years will be some of the most challenging and exciting in your life. Co-op work terms allow you to put knowledge learned in your academic terms into action, to 'try out' different types of companies and tasks, and to help you make decisions about your future career. They show you what the 'real world' looks like, where all the information you need to solve the equation isn't available and ideal conditions never govern. They allow you to explore the province, the country and the world, and to form professional networks and friendships that will last a lifetime.

This handbook aims to help you maximize your learning from your co-op experiences. While much of the handbook deals with preparing you for your first work term, its purpose is to provide answers and support for your entire program.

To enhance your chances of successfully completing the co-op program and obtaining valuable work experience, you must:

1. Consider your long-term goals and apply to work term placements that will give you suitable experience.
2. Prepare for and attend all interviews you are offered.
3. Use all of your resources and initiative in looking for work term opportunities both within and outside of the work term competition.
4. Use professional judgment in your dealings with the Engineering Cooperative Education Office (ECEO) and employers.
5. Discuss all work term issues with an Academic Staff Member in Cooperative Education (ASM-CE).

The ECEO solicits employers and develops many positions. There is no guarantee, however, that you will be offered a work term position through the work term competition. Since the co-op work term is an integral part of your undergraduate engineering education at Memorial, missing an important component of that education through missed work terms can delay your graduation from our programs.

While you are on a work term, you are a full time student at Memorial and you are considered an ambassador of the co-op program. Your interaction with employers, the university, co-workers and the wider community will determine your success in the program. It will also reflect poorly on everyone else who is involved in Co-op if you behave inappropriately. Please refer to the regulations in the University Calendar as well as this handbook on specific issues.

If you need assistance on work term issues, please contact the ECEO:

Director, Co-operative Education Office – Faculty of Engineering and Applied Science

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ADDENDUM

For the 2016-2017 Academic Year only:

I. Post Academic Term 8 Waiver

Calendar Regulation 7.4.4 – 7.4.7 defines the minimum number of work terms a student must have to proceed to the next academic term. For the 2016-17 academic year critical students in the class of 2017, 2018, 2019 who will be unable to complete four work terms prior to Academic Term 8 are able to complete the fourth work term or service learning/research opportunity after completion of Academic Term 8.

II. Research or Service Learning Experience

Students can only complete one Research or Service Learning experience during their engineering program. These experiences will be designated as such on the student's transcript. They could be for any of the four mandatory work terms. All other work term deliverables are required including objectives, communications component, and final evaluation.

As with regular work terms alternative work experiences would have to be approved by the co-op office

Students will receive a stipend for the experience not less than \$1500 for either the Research or Service Learning experience. This is an accreditation requirement.

Students would be expected to complete not less than the equivalent of 10 weeks full time work. This may be completed as part time to allow the student to work in a non-co-op experience at the same time.

III. Community Based Service Learning

This experience would be developed by the student. Examples of the types of things that might be considered Service Learning are:

1. Engineering Students In-Residence

- Engineering students placed in local primary, elementary, junior high and high schools for a semester.
- Students, or teams of students, work with the school (or a group of schools) to enhance the curriculum through designing and implementing activities to engage students in STEM subjects.
- Students could assist with extracurricular activities like robotics clubs, programming clubs, etc.

2. Working with local non-profit groups.

- Non-profit groups often find that completing a preliminary design and proposal can facilitate obtaining funding and approvals.
- Engineering students may be capable of producing preliminary documents aimed at helping non-profits further their goals.
- Reach out to the local non-profit sector to determine if there are any suitable projects and assign a student, or team of students, with the required skill set.

3. Organize and coordinate engineering design competitions.

- New competitions could be created, and formerly popular competitions could be resurrected. For example, the cardboard boat competition was run by the NL Science Centre, which is no longer in operation. This competition was very popular with students and teachers.
- A team of engineering students could organize and coordinate a similar competition.
- Engineering students could provide coaching and instruction on design principles, buoyancy, etc. for junior high school students at participating schools in the weeks leading up to the competition.

IV. Updates to existing Handbook Entries.

All rules regarding Engineering Work Terms in the student handbook (April 2016) will remain the same except for additions as noted below. Section numbers are provided to improve navigation.

2.2 Work Term Eligibility

For the 2016-17 calendar year students who are unable to complete the required four work terms prior to Academic Term 8 may request a waiver of regulations through CUGS. This will allow them to complete the work term after Term 8.

2.3 Work Term Length

Students completing the alternative work experiences, designated Research, or Service Learning must complete the equivalent of 10 weeks of full time work to count as a suitable work term

2.4 Work Term Remuneration

Students completing the alternative work experiences in Research, or Service Learning must receive a stipend of no less than \$1500.

1 CO-OPERATIVE EDUCATION

1.1 Purpose of Co-operative Education

The skilled professional engineer has always been recognized as that person who can combine a sound theoretical knowledge of the principles of engineering with the practical skills of applying those principles to the task at hand. The co-operative program in the Faculty of Engineering and Applied Science (the Faculty) at the Memorial University of Newfoundland (Memorial) allows the undergraduate to develop knowledge and practical skills by providing a completely integrated pattern of academic study and applied experience in various phases of engineering. Graduation requires satisfactory performance in both areas.

The degree program covers almost five calendar years, comprising eight academic terms and the opportunity for six work terms (during which time students must do a minimum of four). The work terms bring the student into direct contact with industry and the engineering profession, and provide practical exposure to problems typical of those encountered in practice. Through personal experience in industry, the student's educational environment is extended and the total education advanced. The maturing prospective engineer, provided with an opportunity for self-discipline and direction, gains an early appreciation of the social and personal aspects of engineering.

1.2 Partners in the Co-operative Program

The co-operative program has three partners - the employer, the student and the university. All three co-operate towards a common education goal and all three benefit from the program.

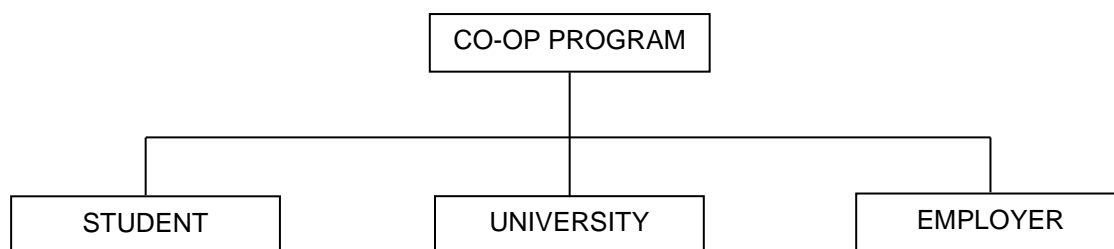


Figure 1. Co-op Partners

Student Benefits

One of the most important benefits to students is the opportunity to better evaluate their career choices. Career choice and the choice of final discipline are often based on exposure during the early years of the program.

Students also have the opportunity to gain experience in a variety of industries and types of engineering work as well as to evaluate specific companies. This makes for a mature graduate who is more informed and therefore able to make better choices on graduation.

University Benefits

The University benefits from the co-op programs in a tangible way as they provide a pipeline into the industrial world, which enables the University to evaluate the effectiveness of course material and to keep up with current practice.

The University and faculties can maintain contact with industry through the Co-operative Education Office in each participating faculty.

Because of the scheduling of alternative academic and work terms throughout the year, the University facilities, laboratories and equipment are used year-round, resulting in more economical operating cost per student.

Employer Benefits

One of the most important benefits to the employer is the opportunity to see students in the working environment for several terms during their careers. This clearly makes for more reliable graduate recruiting, since both employer and student make their choices based on actual experience. The employer benefits in other ways:

- co-op students can relieve and assist other employees in many duties,
- Memorial co-op students are available on a year-round basis, assistance is not restricted to the summer months,
- students may be aware of new technologies or processes that the employer might take advantage of,
- students may be employed at other times of the year; so many 'summer' duties can be rescheduled to take advantage of the available talent.

Often, the technical expertise of work term students is of a high order, for two reasons: firstly, the level of commitment to perform effectively is high, and secondly, students tend to develop a high level of personal and professional skills early in their careers.

1.3 Work Term Opportunities

Work terms in a co-operative education program, by definition, have the following characteristics¹.

- *"Each work term situation is developed and/or approved by the co-operative educational institution as a suitable learning situation.*
- *The co-operative student is engaged in productive, authentic and full-time work rather than merely observing.*
- *The co-operative student receives remuneration for the work performed.*
- *The co-operative student's progress on the job is monitored by the co-operative educational institution.*
- *The co-operative student's performance on the job is supervised and evaluated by the student's co-operative employer.*
- *The total cooperative work experience is at least thirty percent of the time spent in academic study."*

¹ CAFCE (2006). *CAFCE Accreditation Standard and Rationale*. Retrieved November 24, 2015 from http://www.cafce.ca/_Library/_documents/AC-ESR07.pdf

Work terms are a great way to ‘try on’ different career paths. Even if a student knows what discipline he or she wants to pursue, there are still many choices to make, including: location, company/organization size, office or field work, and design or management.

Students are encouraged to actively plan their work terms and to make choices to expose themselves to a variety of experiences:

- Private industry and public service,
- Not-for-profit organizations,
- Small companies and large,
- Owners and consulting firms,
- Office work and field work,
- Local employers and employers in other parts of Canada, the US, or abroad; or,
- Design, manufacturing/construction, and project management.

While students are encouraged to explore a variety of work term employers, they are also encouraged to return to an employer for a second work term – either in the next work term opportunity or later in their program. Students are usually given significantly more responsibility when they return to an employer; their learning curve is much reduced, and the employer feels more confident in the student’s abilities.

Students are not normally recommended to do more than two work terms with the same employer as that would reduce the opportunities for obtaining a variety of experiences; exceptions do occur, if students are very focused on what they want to do, or are getting particularly good and varied experience with an employer. Students considering returning to a firm for a third or fourth work term should discuss the pros and cons with an ASM-CE before committing to the employer.

1.4 The Engineering Co-Operative Education Office

The Engineering Co-operative Education Office (ECEO), reporting to the Dean, Engineering and Applied Science, is responsible for managing the work term aspect of the engineering program. These responsibilities include:

- promoting the co-op program to prospective employers,
- providing career related work term opportunities to students,
- providing professional development lectures and workshops to students,
- monitoring students during work terms,
- giving professional feedback and guidance to students,
- providing professional advice on employment trends to Faculty, and
- evaluation and making recommendations to the Executive of the Committee on Undergraduate Studies on the promotion of each student to the next work term.

Memorial also offers co-operative education options in Business, Human Kinetics and Recreation, Economics, Applied Social Psychology, Computer Science, and others. These programs are managed by Co-operative Education Offices in the appropriate faculties.

The ECEO has ASMs-CE covering all of the engineering disciplines available at Memorial. The ASMs-CE are integrated within the Engineering Faculty and serve on Faculty Council, undergraduate studies, continuing engineering education, admissions, promotions, and appeals committees.

The office also has a Student Placement Administrator who coordinates the work term competition and provides support services. Administrative staff are also available to answer any questions and direct students to the appropriate ASM-CE.

The Co-operative Education Services Centre, located in UC4000, provides support to the Co-operative Education Offices in all faculties.

The ASMs-CE are also members of the Canadian Association for Co-operative Education (CAFCE), a national organization established to promote high standards of co-op in Canada. CAFCE has developed codes of ethics for the employers, the students and the university². These codes ensure that all three parties will be treated in a professional manner. Students should be aware of these guidelines and report violations to the Co-op Office. This code of ethics can be found in APPENDIX A .

² CAFCE (nd). *Recruiting Ethics*. Retrieved April 9, 2008 from www.cafce.ca/downloadables/RecruitingEthics.pdf

2 WORK TERM REGULATIONS

2.1 Minimum Number of Work Terms

The engineering program requires students to complete a minimum of four work terms to graduate. Due to the significant benefits of the co-op work experience, the ECEO strongly encourages students to complete all six work terms.

The ECEO recognizes and endorses the educative and professional growth opportunities of the work term, and therefore highly encourages students to complete as many work terms as they can. The ECEO shall provide full support for the completion of all six work terms. Section 2.5 later in this document describes the procedure for opting out of a work term opportunity.

The ECEO also recognizes the benefits to students in completing their first work term as early as they can. Students who complete their first work term in the first available semester (i.e. in the Spring of their first year) will be more competitive in future work term competitions, and obtain more relevant work sooner. While the ECEO recognizes that not all students are eligible for a work term in the first available semester, it encourages those who are eligible to actively participate in the competition.

2.2 Work Term Eligibility

Calendar regulations require students to complete at least four work terms prior to Academic Term 8. In order to continue in the program there is a minimum number of work terms that students must complete prior to each academic term starting with Academic Term 5. Students are also not permitted to complete more than six work terms, so they may not complete them early. The following grid indicates the minimum and maximum number of work terms a student may have completed prior to each academic term.

	Minimum Number of Work Terms	Maximum Number of Work Terms
Academic Term 3	0	1
Academic Term 4	0	2
Academic Term 5	1	3
Academic Term 6	2	4
Academic Term 7	3	5
Academic Term 8	4	6

2.3 Work Term Length

A standard work term is 16 or 17 weeks of full time employment. Occasionally students may be offered a position less than that amount. Students should continue looking for work opportunities until the ECEO indicates that there is no longer sufficient time to complete a suitable work experience. Students who find a work position of less than 14 weeks should contact the ECEO prior to accepting the position.

Students are expected to work until the last day of the work term, as specified in the University Calendar. If mutually agreed to with their employer, they may work beyond this day. Students who for some reason wish to finish before the last day of the work term must get approval in writing in advance from their assigned ASM-CE.

Students may occasionally be offered work terms of length longer than the standard four months. This may require a student to leave the program and later apply for re-entry. Students in this situation should speak with an ASM-CE for more advice.

2.4 Work Term Remuneration

To be a valid work term, the student must be paid for his or her work. No minimum wages are imposed, and the ECEO can provide guidance to an employer on average salaries.

2.5 Opting Out of a Work Term

Students have the opportunity to complete up to six work terms, and the ECEO shall provide full support for all six work terms.

Although it is mandatory for students to complete four work terms prior to graduation, due to the significant benefits of the co-op work experience, the ECEO strongly encourages students to complete all six work terms if possible.

For each work term, students must notify the ECEO within one week of the beginning of classes in the preceding academic term if they intend to opt out from the next work term. The ECEO will issue a form to all students who wish to opt out with clear instructions, including:

- The deadline for the return of the form.
- A binding undertaking by the student that the student will not work for any engineering employer if the student is opting out of the work term.
- An undertaking that should the student find work with a non-co-op employer, that he or she will indicate in writing to the employer that he/she is not a co-op student.
- A reminder that failure to follow the undertakings will constitute an academic offence of submitting false information and may result in a significant academic penalty.

Students who do not complete the Opt-Out Form by the deadline must successfully complete the work term. Students who do not successfully complete a work term will be required to repeat it, even if it is Work Term 5 or 6. Students are required to successfully complete at least one work term prior to entry into Academic Term 5. See the table in Section 2.2 for more information.

If a student initially intends to complete a work term and then decides for some good reason prior to securing a position that he or she would like to opt out, he or she may be permitted to at the discretion of the ECEO. The student will be expected to complete an Opt Out form, and abide by its regulations. If a student initially opts out of a work term, and then decides for some good reason he or she would like to complete the work term, he or she may be permitted to, at the discretion of the ECEO. In each instance, the student is required to discuss his or her plans with an ASM-CE.

3 MARKETING, EMPLOYER DEVELOPMENT, WORK TERM SEARCH

3.1 Work Term Development and Search

Staff members in the ECEO are actively involved in marketing the engineering co-op program and in continuing development of new employers. All ASMs-CE, when doing on-site monitoring, maintain and service relationships with long-standing employer-clients and, through referrals and networking, regularly add new and potential employers to the existing list.

The ECEO provides professional development seminars to students on job search and professional skills that will make students nationally and internationally competitive. Professionals from the University and engineering communities are often invited as guest speakers.

Students are encouraged to seek their own work term opportunities from the start of their academic programs; there is no requirement to wait for the work term competition operated by the ECEO. Full placement can only occur if all students are pro-active in their own placement searches. Students who take an active search role are developing lifetime employment skills. If a student finds his or her own work term, he or she must get a written job description from the employer and bring it to the Co-op Office to be approved by an ASM-CE before accepting the work term, to ensure that the position is suitable.

ASMs-CE are available at any time to help students identify their own individual and unique contacts, write effective résumés and cover letters, and develop techniques for increasing the likelihood of being interviewed.

3.2 Work Related Skills

Students are encouraged to develop and strengthen work skills before and during their work terms.

Some work term positions require that the student has a driver's licence so that he or she can use a company or rental vehicle to travel to field sites or other company offices. Students without valid licences are encouraged to get them as soon as they are able. A few work terms may require that the student has his or her own vehicle.

Many work terms require the use of standard word processing and spreadsheet software (such as MS Word and MS Excel); some also require the use of databases (such as MS Access), presentation software (such as MS PowerPoint) and computer aided design packages (such as AutoCAD). If students have no prior experience with these types of software, they are encouraged to undertake tutorials to become familiar with their capability. Tutorials and courses are available through The Commons at the Queen Elizabeth II library and other service providers.

Students with interest in field or plant work should consider taking first aid and other related safety training.

3.3 Finding a Work Term Outside of the Competition

The ECEO will do as much as possible to develop work term opportunities for students; however, the University does NOT guarantee placement, and securing a work term position is the student's responsibility. Students need to take appropriate ownership of their work term search. More information can be found in APPENDIX B .

3.3.1 Organizing Your Own Search

All students are strongly encouraged to contact employers on their own. Some regular work term employers prefer students who have the initiative to contact them directly. General letters of application will most likely be discarded so students should:

- select companies that are of interest to them and that will offer good experience,
- research the organization,
- identify, through on-line research or by phoning the organization, the name of the manager, human resource director, or other appropriate person and address the letter to him/her,
- send or hand deliver the application, asking if it is possible to speak to the person to whom the letter is addressed to introduce him/herself (but this will not likely be possible),
- follow up in a few days with a phone call inquiring if the application was received and whether an interview can be expected.

When time does not permit this approach, another technique is to phone and attempt to speak to the individuals identified in the job search process. Should this be possible, there will only be a few minutes to get a clear message across as to the purpose of the call. Students should emphasize:

- name, program and discipline,
- reason for interest in obtaining employment with this organization,
- request for an interview,
- appreciation to the employer for his or her time.

If an interview is granted and a co-op placement is offered, the student should notify the ECEO as soon as possible. A short description from the employer must be submitted to the ECEO for approval before the work term is accepted as a co-op position. The description should include:

- organization's name, address and telephone number,
- organization's basic line of business,
- duties and responsibilities of the position,
- contact person's name, title and telephone number,
- anticipated duration of work,
- an indication of remuneration for the position.

Many jobs are advertised outside the ECEO that may be appropriate for a work term. Some areas to check are listed below.

3.3.2 Centre for Career Development and Experiential Learning

Jobs may be posted at the Centre for Career Development and Experiential Learning and not be forwarded to the ECEO (e.g., certain jobs in Physics, Mathematics, Computer Science, etc.) but

could be appropriate work terms. Students should check “MyMUNLife” and apply for any positions that interest them and that appear suitable, but should remember that an ASM-CE must approve the work description before a student can accept the position.

3.4 Funding or Award Programs

When searching for co-op placements, students should make eligible employers aware of some of the funding options that may be available to them. These funds are administered through the Cooperative Education Services Centre (CESC). Note that not all funding vehicles described below may be available each semester, and occasionally there may be other opportunities. Students or employers should contact the ECEO, CESC, or check the website if they require more information including eligibility requirements.

3.4.1 SECPAP

The Small Enterprise Co-operative Placement Assistance Program (SECPAP) funding program will support 50% of a student’s salary up to \$6.00 per hour. This fund is provided by the Newfoundland and Labrador government and is available to Newfoundland and Labrador based companies who have 50 employees or less. More information is available at <http://www.mun.ca/coop/employers/funding/>

3.4.2 Chevron Award

This scholarship is funded by Chevron Canada and has been set up to assist students taking international work terms. Further information about eligibility is available from the ECEO.

3.4.3 Entrepreneurial Co-op Subsidy

The Memorial Centre for Entrepreneurship (MCE) has established a co-op subsidy for NL based start-up organizations to subsidize 70% of a student’s salary up to \$12/hr. Student’s will be required to submit for review a work term description supplied by their employer to the ECEO. See the MCE web page for more details <http://www.mce.mun.ca>

3.4.4 NSERC

The Natural Sciences and Engineering Research Council of Canada provides funding to small and medium sized companies to hire undergraduate science and engineering students for 12-16 week research and development based work terms. This funding in some instances may also be combined with the National Research Council Industrial Research Assistance Program. The combined funding may be as much as \$6500 per student per semester. Applications are due at least one month prior to the start of the work term. See the NSERC web page for additional details www.nserc-crsng.gc.ca and look for information about the ISRA and IUSRA programs under the Students and Fellows tab.

3.4.5 Federal Government Summer Employment Programs

In the spring semester, the federal government offers positions under the Federal Student Work Experience Program (FSWEP) program. Many of these, although paid out of a non-co-op budget, are considered appropriate as co-op positions.

FSWEP gives full-time secondary school, CEGEP, college, technical institute and university students:

- fair and equal access to student jobs offered by the Public Service of Canada (PSC),
- opportunities to learn about federal government and gain valuable experience while developing and improving their employability skills.

More information can be found at

<http://www.servicecanada.gc.ca/eng/goc/fswep.shtml>

Students should also check Service Canada's web site at www.jobbank.gc.ca for jobs posted there.

Student Employment Centres (operated by Service Canada) are set up each summer in key centres around the province; many summer jobs placed through these centres may be suitable work term positions.

3.5 Entrepreneurship on Work Terms

Some students may choose to start their own business as an alternative to working for an established company during a work term. Students should be genuinely interested in this kind of activity, and not rely on entrepreneurship because they are unable to get placements during the competition.

3.5.1 Memorial Centre for Entrepreneurship

The MCE is a new initiative by the faculties of Business and Engineering and Applied Science that focuses on fostering an entrepreneurial culture and supporting students who want to start their own business. They provide networking opportunities, host events with successful entrepreneurs, mentor student entrepreneurs and connect businesses to services they might need.

The MCE also supports entrepreneurial work terms through their center. Students with at least one work term, and preferably at least four completed work terms are encouraged to apply. Mentors will be provided to guide the student, and space will be provided in an office environment. Students will be required to complete an expression of interest and business plan, with the process starting early in the academic semester. The MCE is available to help students develop these plans, and business ideas. More information is available at <http://mce.mun.ca>

3.5.2 Student Guided Entrepreneurship

Students wishing to follow this route should discuss their plans with an ASM-CE early during the academic term to get guidance. They are also encouraged to have a well-developed business plan prepared before the start of the work term and to submit this plan to the ECEO for final approval. This plan might include short and long term goals, work plans, budget, and an investigation of market and competition. While the ECEO is primarily concerned with the engineering experience obtained during an entrepreneurial work term, the business side is important as well. Students are encouraged to investigate business insurance and taxation issues prior to starting their own business.

Student's wishing to complete an entrepreneurial work term will be expected to seek a suitable mentor/supervisor for the work term, usually from the engineering faculty, and will be expected to receive some form of remuneration for the work term.

3.6 Guidelines for International Students

Many international students attend the co-op engineering program at Memorial on special educational visas. All requirements of the co-op program apply to international students with a few additions.

International students should make an appointment and visit the International Student Advising Office to discuss student work permits, health insurance options, and Canadian taxation issues prior to the work term.

Some co-op opportunities advertised by the ECEO will be clearly marked "Must be a Canadian citizen and/or permanent resident." These positions are advertised as such at the request of the employers. Co-op placements requiring a high level of security clearance are usually not available to international students because of the length of time it takes to do security checks internationally. Students should check with the ECEO if they are unsure of their eligibility for a particular position.

Immigration Regulations

International students have to obtain a Co-op Work Permit from Citizenship and Immigration Canada before going on a work term. Because the work term is a mandatory part of the degree program, the fees for this authorization are waived. Application forms are available on-line at www.cic.gc.ca. The ECEO will provide a letter to support the application. It is the student's responsibility to obtain this work authorization as early as possible and the student will not be able to work in a co-op placement position without it. It may take as few as three or four weeks for the authorization to be issued, but wait times may be in excess of three months. Students will then need to apply to Service Canada for a Social Insurance Number (SIN) with their valid work permit. Students do not need a confirmed co-op placement in order to obtain their SIN number.

International students without a valid Co-op Work Permit will not be permitted to go on a work term, and may be prevented from applying to co-op placements via MyMUNLife.

Tax

International students who have an address in Canada and who are working in Canada are considered "Canadian residents" for Canadian income tax purposes – students should indicate this on salary and benefit forms they fill out when starting jobs.

Health Insurance

MCP does not cover international students while they are on work term outside of Newfoundland and Labrador (<http://www.health.gov.nl.ca/health/mcp/international.html>). International students whose work terms are outside of the province are required to purchase the foreign health insurance. Please visit the Internationalization Office (Corte Real 1000A) and see the Health Insurance Coordinator for details.

Professional Skills Development Program for International Students (PSDP)

This program helps to prepare international students for professional employment in NL and throughout Canada. The program will take place once a week and will cover themes of communication, culture, volunteering and interactive professional skill development. The goal is

to instill a level of Canadian job search knowledge and preparation to assist students throughout their academic study and after graduation. For details, please visit <http://www.mun.ca/isa/employment/psdp.php>

4 CO-OP PLACEMENT COMPETITION

The figure below provides a high level example of the timelines for the continuous offer co-op competition. Students should check with the ECEO, or the co-op web page for specific dates each semester.

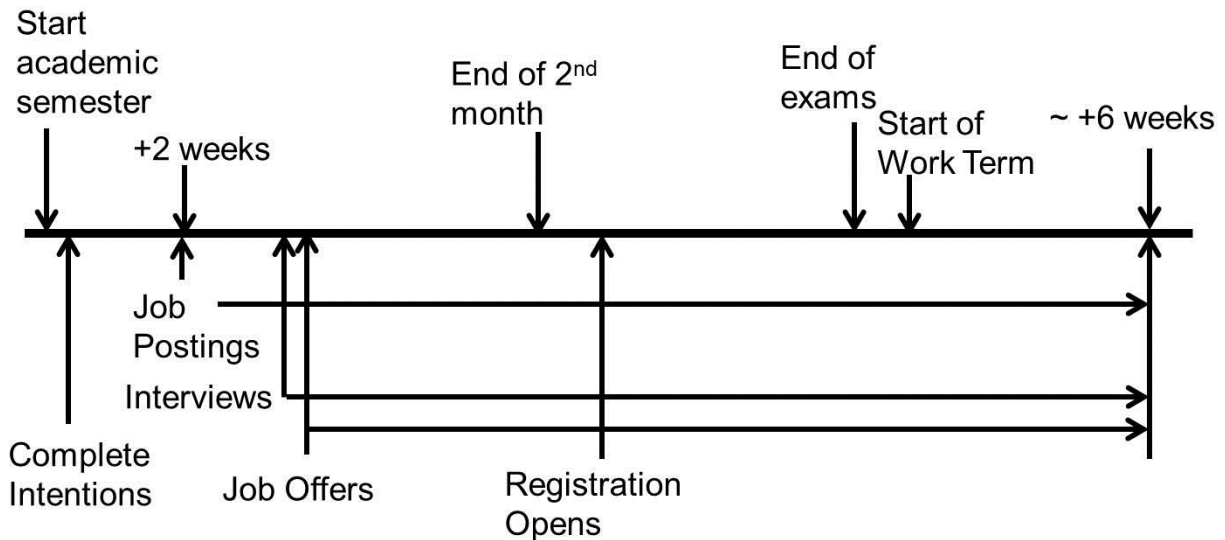


Figure 2. Competition Timeline

4.1 Co-op Postings

The co-op competition starts early in the academic term and students should check their MUN email at least daily for messages about work term postings.

The co-op competition is managed via the my.mun.ca web portal. Students should log in through this web portal and search for the link to MyMUNLife. In their first year, all students will be required to confirm that the ECEO may send applications to employers on behalf of the student via the Co-op Consent Form. MyMUNLife will be used by students throughout their time in the engineering faculty to view and apply for co-op placements and manage their interview schedules.

Prior to the start of the co-op competition, students must notify the ECEO whether or not they intend to pursue a work term during the following semester using the “Intentions Form” within MyMUNLife. This indicates if the student is returning to their previous placement, or wants to join the job competition. Work Term Competition postings typically take place on a weekly basis (usually Thursdays); however, towards the last part of the semester postings may be more frequent, and for shorter periods of time. Students should check with the ECEO for the posting dates for each semester. All co-op opportunities are posted electronically via MyMUNLife.

4.2 Applications to Co-op Positions

Students should make sure that their résumés are updated and available in MyMUNLife in advance of the start of the competition and should ensure that their personal information is always current and accurate. Note that some data, such as address and phone number, is pulled directly from the MUN primary student database. If that data is inaccurate, the student should update it in that tool.

Students should review all posted co-op opportunities and prepare cover letters and resumes according to the guidance provided during Professional Development seminars and in Section 5 of this Handbook. Most applications also require copies of students' transcripts which are uploaded to the database by the ECEO.

Students should only apply for opportunities in which they have an interest and which they would be willing to accept if offered. See the section on Co-op Offers for more details.

Students should be as flexible as possible about the type of work terms they apply for, and about work location and work environment (office, field, plant, etc.).

To ensure that the competition runs smoothly, all postings will have a deadline for applications. Application deadlines are rigid, and late applications will not be accepted.

The ECEO forwards all applications to the employers, who will send back lists of students they wish to interview. In some instances employers may interview all applicants, but in most cases they will screen applicants and interview only a portion of the applicants.

4.3 Interviews

Students invited to an interview should research the jobs prior to the interview; this research, together with information learned at the interviews, should allow for an informed acceptance or rejection decision should the student be offered the co-op placement. Interviews will normally take place on campus or via electronic communications, occasionally they may be held at a local employer's place of business.

Students will be notified that they have been invited to an interview, and the date of the interview, through MyMUNLife. Students are then required to select a time slot and sign in for an interview in MyMUNLife on a first come/first served basis. In some circumstances, interview schedules will be made available in the ECEO in which case students will be notified via e-mail.

If, for any reason, a student determines that he or she is unable to attend a scheduled interview, he or she must inform the ECEO immediately. **Students cancelling or failing to attend interviews for other than justifiable reasons will be prohibited from participating in the rest of the work term competition.** Such information is documented and kept in students' files and can influence performance grades for the work term. Missing an interview is disrespectful, and can damage the relationship between Memorial and the employer.

If students apply for co-op placements during the competition, but find their own work term before a scheduled interview, they should inform the ECEO as soon as possible so that the employer can be notified. Students should also send a note of explanation and thanks to the interviewers, to leave a positive impression in case they want to work for that organization sometime in the future.

If, following an interview, a student decides he or she is no longer interested in being considered for that position, he or she should notify the Student Placement Administrator in the Co-op Office immediately (within 30 minutes of completing the interview). This must be in writing, and must include a reason for withdrawing from consideration for this position. The ECEO will then notify the employer who will adjust their student rankings accordingly.

Students who have applied to a number of postings, but are not securing many interviews, should schedule an appointment with an ASM-CE who may be able to review their applications to help make improvements.

4.4 Offers

When interviews have been completed, employers submit their rankings and sometimes also provide feedback on how well students performed. This feedback can be used to counsel students in areas where weaknesses may exist. If students are concerned, they are encouraged to seek the advice of an ASM-CE on matters related to their interviews.

A student has the right to *decline* one offered job during each work term competition. This must be done in writing to the ECEO prior to the deadline as indicated below. This right to *decline* expires on the first day to register for the upcoming work term as noted in the University Calendar, and cannot be carried over to the next competition.

Employers will provide to the co-op office student rankings after they have completed the interview process. This could be immediately after the interview, or up to several weeks later. Once the ECEO receives a list of rankings they will contact students via email to pick up their offer. Student offers will be made at 4:00pm and must be accepted or *declined* by 9:00am the next morning. Students who do not respond by the deadline will forfeit their offers to the next available student on the employer's list. A student who fails to respond by the noted deadline will be considered to have *declined* the position, or if they have already exercised their *decline* will be assumed to have refused the offer and will be penalized as per below.

Once a student has exercised their right to *decline*, or after registration has begun for the work term they will be expected to accept offers made. **If a student in this situation wishes to refuse an offer, they must speak with an ASM-CE before making his or her final decision. The penalty for refusing offers may vary from immediate removal from the work term competition, up to being assessed a grade of Fail for the work term.**

When a work term placement has been accepted, the student is committed to that position for the work term.

In the case of a student *declining* a position, the position will be offered to the next ranked student following the same rules as indicated above.

Students are not to contact an employer to discuss ranking or anything else associated with the competition without consulting an ASM-CE.

By the beginning of the third month of the academic semester unplaced students should consider discussing their work term search strategy with an ASM-CE who may be able to offer suggestions to help the student be more successful.

Work Term postings will continue as long as employers submit positions to the ECEO. Interviews rarely take place during exams; however, positions may be posted during this time period, and it is the student's responsibility to be aware of this. The work term competition will typically continue through at least the first month of the work term, or until the ECEO determines there is insufficient time left to constitute a viable work term.

Late in the competition an employer may request that ECEO staff forward résumés of students who have the interest and background for a proposed co-op position without a specific job description being posted. Staff will attempt to consult students prior to sending their résumés, and students not interested in specific positions may advise ECEO staff without penalty.

Unplaced students should check with the ECEO on a regular basis to keep up to date on current events. Students should also check MyMUNLife and their e-mail accounts at least daily.

4.5 Overseas Placements

Students have the opportunity to apply to positions outside of North America. Typically ECEO will post a general position early in the work term competition to have a pool of ready resumes. Specific positions will be posted only if time permits. Local interviewers normally screen the applicants and the employers make final decisions.

Students wishing to work overseas should ensure they understand the rules that apply, and if they are unsure should seek direction from an ASM-CE. They should also review and follow the information under Working Internationally section 6.5

4.6 Student Conduct

Students should be aware that their conduct during the work term competition is monitored, and may be recorded in their files. Disregarding the regulations during the work term competition can result in a poor performance grade for the term. Persistent disregard of the regulations over several work terms could ultimately lead to a grade of ***Fail*** for a work term.

5 GETTING HIRED

Students should be aware that "[The one] who gets hired is not necessarily the one who can do the job best but the one who knows the most about how to get hired."³ This means developing proficiency in researching employers, preparing a résumé, submitting a job application and conducting an interview.

5.1 Researching the Employer

Students should research employers to help decide which jobs to apply for in the work term competition, or outside it, and then to prepare an application. This research is essential since job descriptions are generally brief. Employers expect students to have a basic knowledge of what the organization does.

Information on potential employers can be found on-line, in news media or from students who have already worked with that organization. Students may also learn more about organizations from career fairs, industry fairs, or information sessions at the University.

Employers will know how much research a student has done from their job application and their performance in an interview, if granted. Feedback from employers indicates that when the students know very little about the organization or the job it is interpreted as a lack of interest and it will be counted against the student.

5.2 Résumé Writing

A résumé is a synopsis of an individual's educational background, employment record, extra-curricular activities, achievements and skills. A résumé should be accurate, factual and concise and should demonstrate good written and organizational abilities. In most cases, a résumé should not exceed two pages.

The cover letter and résumé are the first contact that a student has with a prospective employer and both should make a positive first impression. Their purpose is to secure an interview by providing the employer a background of the writer's background, skills, and interest in the job. They are the first impression made on an employer. The purpose of the cover letter is to introduce the applicant and their résumé. It provides a summary of the skills and experiences listed on the résumé that are relevant to the advertised position. The résumé is a written summary of the applicant's education, work experience, achievements, skills, and interests. It introduces the applicant as a potential employee and demonstrates their suitability for a particular job. The résumé should be designed to stimulate interest and result in an interview.

Numerous books and web sites are available to help job seekers prepare a résumé; students are encouraged to consult several references before selecting a format appropriate for them.

The format favoured by many co-op employers is the modified chronological résumé, with sections described below. The order of the various sections should be chosen to present the most important information early in the résumé. A sample résumé is included in APPENDIX C .

³ R.N. Bolles. November 1972. *What Color is Your Parachute?* Berkeley, California: Ten Speed Press.

Students should remember that a résumé is a dynamic document and will be edited regularly throughout not only their academic career, but their whole life. Some individuals will even create different résumés to highlight different skill sets for different industries. It is essential that students update their résumés shortly before, or just after finishing a work term to ensure it is updated while the tasks completed, and skills achieved are fresh in their minds. It is important to always have an updated résumé since one never knows when a job opportunity may arise.

Personal

This section includes:

- student name,
- address, both local and home (if different),
- telephone number, local, home, and cell (include area codes),
- email address.

Students should only include their @mun email address and ensure that they check it regularly. This is the official address for university correspondence, and helps maintain a level of professionalism.

Human rights legislation prohibits discrimination on the basis of marital status, height, weight, age, sex, and religious or political belief. This type of information should not be included on a student's résumé.

Education

The student should indicate his or her discipline and current academic term (Engineering One if applicable). Including the expected year of graduation helps employers not familiar with Memorial's program.

The student should list other post-secondary schools attended and degrees or diplomas obtained prior to starting engineering. The student should state what high school was attended, but not junior high or elementary schools.

Awards and Scholarships

This section should list any scholarships the student has earned, noting what they are for (e.g. academic excellence, community involvement, sports). If academic marks are worthy of note, they should be listed in this area.

Work Experience

Junior students should list all work experiences but, as students proceed through the co-op program, non-technical jobs should be given less emphasis, or removed. Jobs should be listed in reverse chronological order, beginning with the most recent. For each position, major duties and achievements/accomplishments should be listed in point form. For non-technical jobs in particular, the descriptions should focus on skills developed rather than the tasks undertaken, and action verbs should be used to start each point: supervised, constructed, analyzed, researched, prepared, evaluated, planned, etc. A sample list of Engineering related action words is included in APPENDIX D .

The following three sections are very important, especially for students with little work experience. These items give the employer information on leadership abilities, organizational and communications skills, and interests.

Extra-Curricular Activities

This section includes memberships in societies, professional organizations, clubs or sporting organizations and should emphasize any leadership roles that the student may have had (for instance, coaching, event planning or chairing committees). Volunteer work may be included here, or in a separate section.

Skills

This section lists knowledge of computer languages and software, any mechanical or trade skills, drafting and surveying skills, driver's license, additional languages, etc. APPENDIX E includes a list of personal skills that can be used to generate the skills section of a student's résumé.

Interests

Students can list any other interests including sports, reading, travel, etc.

References

The ECEO recommends against including references on a résumé. Students; however, should have a list of references available to provide to employers during an interview.

5.3 Preparing the Cover Letter

Each application submitted for a work term position should have a unique cover letter, linking the student's unique skills and experience to the job description and qualifications requested, and include information found during the student's research into the organization. "Form letters" are strongly discouraged as they may indicate to the employer that the student is not interested enough in the position to complete an individualized letter.

The cover letter provides the first opportunity to express personal interest and to highlight to the employer what the student can offer. The letter should not exceed one page and should contain all of the items outlined below and included in the example.

- student contact address, phone number and email address, as on the résumé,
- organization/company contact information,
- what job is being applied for and where was it advertised (during the competition it will generally be ...as advertised through the ECEO at Memorial University of Newfoundland...). Students should remember not to mention MyMUNLife in their cover letters,
- brief summary of information about the organization, not quoted verbatim from the job description or the company/organization website,
- description of what the student has to offer the organization, specifically what skills he or she has that address the requirements of the position and how they were obtained (this is the most important section of the letter), and
- a thank-you and request for an interview.

A sample cover letter with instructions can be found in APPENDIX C .

Students applying to work term placements posted through MyMUNLife should pay close attention to the instructions provided by the employer in the work term posting. Job posts may specifically ask for a student's driving record, references, or other information. Failure to provide these may result in the student being overlooked. Some employers ask that the student apply directly on the employer's

web site. Students who apply to these positions are also asked to apply on the MyMUNLife site in order for the ECEO to track applications, and make interviewing easier.

5.4 Interviewing

Students should be pleased to receive an invitation to an interview – it means the employer has reviewed the job applications and résumés and feels that the student may have the background and interest to meet the organization's needs.

The next step is generally a formal interview when the student has the opportunity to discuss his or her qualifications and interest in the position with a representative from the organization. This interview may be face to face, via video conference, Skype, or telephone. The employer will elaborate on the job and will ask many questions to determine if the student is suitable and has sufficient skills, interest and enthusiasm for the job.

A job applicant who has thoroughly researched the organization and who asks informed questions at the interview has the best prospect for employment. To make the most of an interview opportunity, students should observe the guidelines discussed in the following sections.

5.4.1 Preparing for the Interview

When preparing for their interviews students should be aware of some common mistakes to avoid⁴:

- Not preparing properly for the interview
- Arriving late
- Stumbling over interview answers
- Failing to ask questions
- Talking too much
- Not displaying a positive attitude
- Allowing distractions

Students should use the following checklist when preparing for and attending an interview.

- Dress appropriately. Attire should be suitable for both the position and the work environment. Dress plays a significant role in first impressions, and research concludes that a significant percent of one's lasting impressions are based on visual perceptions.
- Arrive on time or even a little early for the interview.
- Walk into the interview with a positive mental attitude.
- Take a list of references and/or reference letters, as well as extra copies of their résumé and transcript.
- Use a firm handshake - interviewers perceive a weak handshake as characteristic of a weak personality.
- Sit upright, facing the interviewer and always maintain eye contact.
- Ask questions about the organization and the job.
- Show interest in the job and the employer.

⁴ How to Avoid Common Job Interview Mistakes, <http://www.best-job-interview.com/job-interview-mistakes.html>, accessed 28 April 2011

- Speak clearly and with confidence.
- Ask well-thought-out questions.
- Project a positive image even when discussing situations that have had a negative impact; this indicates maturity.
- Thank the interviewer(s) when leaving and shake hands.

The student **should not**:

- Fidget with objects, chew gum or stare around the room during an interview. Note that shuffling papers during phone or video conferences can be very distracting to the interviewer.
- Try to become overly friendly,
- Speak in a negative manner about past employers, schools attended, or home town.
- Answer questions with a yes or no or interrupt to ask or answer a question.
- Offer information non-essential to the interview.
- Ask unrelated questions or provide flippant remarks.
- Smoke during, or immediately before the interview.
- Speak too quickly or too slowly.

Students may wish to bring personal portfolios, containing items that they have personally created or produced, to interviews to showcase their abilities. Guidelines for preparing a portfolio are included in APPENDIX J .

5.4.2 Questions to Expect

It is a good idea to consider, in advance, questions that might be asked in an interview and to have formulated some possible answers. The objective is not to appear rehearsed, but well organized and motivated.

Typical Questions

A list of possible questions is provided below. Job search websites will have other lists. Students should strive to keep answers positive and always bring the conversation back to their specific achievements.

- Tell me about yourself.
- Give me an example of a time you reached a desired result by setting priorities.
- What was your biggest accomplishment in high school or university?
- Tell me about a technical skill you learned, either in university or during a job, something that you later used with good results.
- What are your strengths and weaknesses?
- Tell me about a creative idea you contributed to a project or activity. How did it make a difference?
- How does your work experience relate to the job we have available?
- How would a previous employer describe you?
- Describe a situation in which you worked well with other people to reach an important goal.
- What do you know about our organization? Why do you want to work here?

The first question is usually a warm up question, but it can be difficult to answer because it is so broad. Students should consider this a good opportunity to tell the interviewer some good things which are not on the application. This valuable opportunity should not be wasted with flippant remarks or unrelated information.

Other types of questions pose a hypothetical situation and ask for an analysis. This may be a conflict situation with staff or a problem with a client. This gives the employer the opportunity to assess the candidate's ability to think on his or her feet.

Prohibited Questions

An interviewer should not ask questions relating to areas of discrimination as defined under the Human Rights Code, and candidates are not required to answer these questions if they are asked. Subjects that should **not** be questioned include:

- national origin,
- credit rating,
- specific age,
- mother tongue,
- religious beliefs,
- birth place,
- political beliefs,
- marital status, spouse, number of children, pregnancy, family plans, and
- mental disabilities or health problems.

If a question has no bearing on the interview or the job being applied for, the candidate should politely inform the interviewer. The response should be "I am sorry, but I feel that such information is not necessary to evaluate my qualifications for this position." Students should report such questions to the ECEO.

5.4.3 During the Interview

During the interview, candidates will normally have an opportunity to ask questions. These questions could relate to information the employer has offered, but students should also include other questions. It is a good idea for candidates to develop some default questions that can be asked at any interview, in case no others come to mind. Questions may be written down and brought to the interview, and notes may be taken during the interview. A rule of thumb says that in a good interview the applicant and the employer should each do about one half of the speaking.

The employer usually closes the interview by asking if there are any further questions. This should be a clue to ask any final questions and thank the employer for the interview. In most cases a handshake will be offered.

5.4.4 After the Interview

If, as a result of the interview, a student decides he or she would not want to be considered for the position, he or she should inform the ECEO immediately after the interview. **If a student without a placement wishes to refuse all offers they must speak with an ASM-CE before making his or her final decision. The penalty for refusing all work term offers may vary from immediate removal from the work term competition up to being assessed a grade of fail for the work term.**

The following written comments have been received by the ECEO from employers and are presented to illustrate what employers observe.

Negative

- "appears somewhat nervous and lacked confidence",
- "should be more talkative",
- "does not appear to be very interested",
- "abrupt style of speech",
- "concerned about having to do work not done before",
- "student did not do homework to learn about our organization; I think this is essential for the interview process",
- "not very communicative, nervous",
- "very few questions, difficult to tell how interested the student was in the job",
- "student was late and I considered not interviewing him", and
- "needs help in structuring application and résumé".

Positive

- "confident, experienced and will gain a good deal from this work term",
- "good interview, very mature",
- "well-spoken in the interview",
- "excellent presentation",
- "expresses herself/himself well",
- "communicates well",
- "very personable",
- "honest and frank discussion".

6 PREPARING FOR THE WORK TERM

There are several steps that must be followed to ensure that the student is prepared for the work term. ASMs-CE are always available to answer questions that students may have when getting ready for their work terms.

6.1 Contacting the Employer

Students will be notified when to contact their employers and should come to the Co-op Office to pick up the contact details that contain the employer's name and phone number. Students can then confirm to the employer that they have accepted the co-op placement offer and begin to arrange for starting work, including travel to the job site, if required. Items for discussion include:

- start date and time,
- dress code,
- accommodations (if applicable – note that employers typically subsidize accommodations only in more remote locations),
- if relevant, how transportation will be paid, what method to use, etc. (note that not all employers pay travel),
- where to go upon arrival at the office or job site,
- who to contact on arriving at the office or job site,
- any other questions that will make the first day less confusing.

6.2 Additional Work Requirements

Students should be aware of any added clearance requirements from their employer. Some employers may require a student to get security clearance prior to starting work. This may take from several weeks to several months to obtain, and will be initiated by the employer. Some employers, especially those in industrial settings, may also require the passing of additional medically based screening tests for the purposes of ensuring health and safety at work. This might include tests such as hearing, lung capacity, or drug testing. Students should be aware of these tests and prepare accordingly.

6.3 International Students

International students require a Co-op Work Permit to work in Canada. This permit may take from several weeks to over three months to acquire. International students should apply for this permit as soon as they have been accepted into the Engineering program. **International students will be required to prove they have, or have applied for their co-op work permit prior to being released into MyMUNLife, and will not be permitted to work without one.**

6.4 Student Insurance

Students should consider their needs for medical insurance before going on a work term. A student accident and sickness plan is available at the Student Union, or there are other plans that offer protection in the event of an illness or accident. Students working in Canada must opt-in to the MUNSU health plan should they wish to use it. Some employers will offer some medical

coverage to students. Students who will be working outside of Canada are advised to contact TravelCuts or a similar organization if they wish to acquire secondary health insurance.

6.5 Working Internationally

Even if a student's primary work location is in Canada, sometimes their employer may decide to send them to work abroad, or they may be sent to another country even if they are already working outside of Canada. Students should notify their ASM-CE immediately if this should occur – with locations and dates – so that Memorial University knows where they are should an unforeseen event require Memorial's assistance.

Students working outside Canada will require a passport; application forms can be obtained on-line and at most post offices. Applications can take several weeks to process at the local passport office of Passport Canada, so students actively looking for an overseas work term are encouraged to apply for their passports early in the academic term. Students are reminded to keep their passports up-to-date – some countries require that passports be valid for six months following the departure date from that country in order to allow entry.

Students accepting co-op placements outside Canada must meet with an ASM-CE as soon as possible after acceptance of the position for a briefing interview and to be directed to the appropriate group to determine the requirements for Visas and other supporting documents. Students should also be aware of any regulations of their work permits or visas and may only stay in the host country as long as indicated on their permits.

After meeting with an ASM-CE, students accepting work terms outside of Canada (including the US) should immediately contact the Co-operative Education Services Coordinator to complete the mandatory pre-departure process and documentation. This process is required by all students accepting a work term outside of Canada regardless of co-op location, citizenship, visa/work permit requirements, returning to a previous work term, etc. More information for placements outside of Canada is available on the MUN coop page under the students tab.

There are many opportunities for students to work in the US. The majority of these positions are in the Houston area in the Oil and Gas sector. Most employers use the TN visa to permit students to work in the US. Typically, these Canadian students would have to have a minimum of two four-month work terms to qualify for the necessary work visa along with their passport.

6.6 Student Packages

Course outlines for each of the Work Terms, as well as all required forms are available on-line, or students may pick them up from the ECEO before going out to work. The work term forms include:

- a list of important dates for the work term,
- a work term confirmation form,
- a work term objectives form,
- a communications component outline form,
- the work term evaluation form (to be completed by student and employer), and
- other forms and documents as necessary.

It is the student's responsibility to complete (or have completed by the supervisor) all of the necessary documents for the work term and to return them at the assigned times. All forms are available on-line at www.mun.ca/coop/programs/engineering/docs_forms.php.

6.7 Daily Diary

A work term diary is an evaluation requirement in Work Term 1, and students are required to complete one during Work Term 2 to be presented during the monitoring meeting. Students are also encouraged to keep a hand written daily diary on all work terms. These diaries are fundamental to good time management and legal or personal recourse, and may be useful during future job searches. More information on maintaining a diary, including samples from actual students can be found in APPENDIX I .

6.8 PEG-NL Log Book

Engineering students in their last three work term slots, which must come after Academic Term 4, are encouraged to begin making entries in the log book available through the Professional Engineers and Geoscientists of Newfoundland and Labrador (PEG-NL) as part of the application for a Professional Engineer (P.Eng.) designation. Up to one year maximum of pre-graduate experience may be accepted towards Member-in-Training requirements. Further information is available at www.pegnl.ca.

6.9 Registering for the Work Term

Students must register for the work term and pay a work term fee regardless of their initial employment status. In order to be registered for the upcoming work term a student must not have a financial hold on their account. It is important for students to check their accounts prior to the first day of registration for the upcoming work term to ensure they do not have any holds. Students who anticipate that they may have a hold should consult with the Financial Services Office to understand their options prior to the last day to register for the academic semester prior to that work term.

On the first day of registration for the upcoming work term all students in Academic Terms 3-7 who have not opted-out will be automatically registered for that work term.

On the first day of registration for the upcoming work term any student in Engineering One who:

- is taking ENGI 200W; and
- is on track to complete Engineering One during the Winter Semester; and
- has the permission of the Committee on Undergraduate Studies to undertake a work term in the Spring Semester

will be automatically registered for that work term.

Following the date of auto-registration any student who has a hold on their account which prevents registration will be removed from the competition until they have cleared the hold. This means that access to MyMUNLife will be removed, and any interviews cancelled. The Co-op office will also contact the employer of any student who has secured a work term but is not registered and will indicate that the student is not currently eligible to go on a work term.

Students who are not registered will not be permitted to go on a work term.

6.10 Registration to Take Courses During a Work Term

Employers have the right to assign work term hours to meet the needs of the job. Students must therefore obtain prior approval from an employer before registering for an academic course during the work term. If the job commitment makes it inappropriate, then the employer has the right to refuse such permission. Failure to obtain appropriate employer authorization for such courses will be noted and considered in the student's performance evaluation.

Students should also consider that they have communications requirements from the ECEO during each work term. Employers do not have to allow students to complete these requirements during work hours, so students must not undertake courses if the workload will interfere with timely completion of their co-op requirements.

Students should be aware that a work term is considered as a full course load. The ECEO recognizes the work term as a significant effort, and a student's primary focus should be on the requirements of their position. The ECEO discourages students from taking an additional course during their work term, and students should consider the expected work load before registering for even one additional course. In order to take an additional course a student must **first get written permission from their employer, and seek written permission from the ECEO.**

The ECEO **strongly** discourages students from taking more than one additional course during their work term due to the extra work load. In order to take more than one course a student must **first get written permission from their employer, and seek written permission from the ECEO.** This permission will only be granted upon discussion with an ASM-CE who will review the student's past performance and discuss why the student wishes to register for the additional courses. Once the student has received permission they must then submit a course load waiver as found at www.mun.ca/engineering/undergrad/forms/ to the office of the Associate Dean for Undergraduate Studies. This request must be received prior to the add/drop date, otherwise permission may be withheld.

Students should consider the information above throughout their program and ensure they are taking necessary courses and electives as appropriate. The ECEO may refuse a student's request to take additional courses during the work term, even if that prevents the student from graduating on time.

6.11 Academic Standing – Engineering One

In order to be eligible for the spring semester work term at the end of the Engineering One year students must have completed the PD seminars (ENGI 200W), they must have also completed all courses for Engineering One, and have met the promotion requirements for Engineering One by the end of the Winter Semester.

To be eligible to enter the Work Term Competition in the second semester of Engineering One students must have achieved a cumulative average of 70% in all Engineering One courses attempted to date. Students who are not expected to complete a work term in the Spring Semester after Engineering One should complete ENGI 200W in the fall semester of Academic Term 3.

If a student is not eligible for the work term because they have not met the promotion requirements, their employer will be notified. The employer may choose to rescind the employment offer.

No student will be permitted to complete more than one work term prior to entering Academic Term 3.

6.12 Academic Standing – Academic Terms 3-7

Students failing an academic term should speak with the Director of the ECEO, or the Student Placement Administrator in the ECEO as soon as possible after they receive their marks.

In general, a student must have been promoted from the previous academic term in order to do a work term. However, if a student who has a confirmed work term fails the preceding academic semester, but is not required to withdraw, he or she may make a request to the ECEO to continue in the subsequent work term. The request may be granted if the following conditions are all true at the start of the work term:

- The student is registered for the work term;
- The student has a confirmed work term position; and
- The employer is willing to retain the student despite the academic failure.

However, after the student has successfully completed the work term, the student will not be permitted to attempt that work term a second time and will not be permitted to attempt a subsequent work term ahead of schedule.

A student who fails to be promoted from the previous academic term, and has not yet secured a confirmed work term will be immediately removed from the competition, and will have any scheduled interviews cancelled.

6.13 Work Term Ethics

Students should consider that positions acquired through the ECEO's work term competition have been developed by the ECEO and are effectively on loan to the student to enhance their co-op experience. Students are thus expected to treat these positions with the greatest of care, so that other students may gain similar benefit in later terms.

While on a work term every student is an ambassador of Memorial's Engineering Co-op Program. Students' actions will create in the mind of the employers a positive or a negative impression of Memorial's program and co-op students in general. This impression determines whether that employer will continue to participate in the program at Memorial or look to other institutions.

Co-op students on their way to becoming professional engineers are expected to act in a manner that will leave a positive impression, no matter what the circumstances. Students should:

- abide by organization rules and regulations with respect to safety, work habits and work hours.
- respect company/organization property.
- maintain good relations with fellow employees, management, clients and the general public, even when confronted with stressful situations.
- follow regulations as set out by the University regarding work term deadlines, registration, work reports and presentations, and on-site interviews.

- maintain professional behaviour consistent with the Code of Professional Ethics of PEGNL (included in APPENDIX F).

Students who behave inappropriately risk losing their work term position and may face academic penalties, including receiving a failing grade for the work term.

7 WORK TERM PROCEDURES

The work term component of the engineering program requires the same level of commitment as the academic component. Work terms must be completed in sequence, and successful completion of each work term undertaken is a prerequisite to registering for the following work term.

This section elaborates on aspects of the work term requirements and will give the student adequate knowledge to deal with situations as they arise. Students should also refer to the regulations in the University Calendar which govern the work term requirements.

A high level sample of the work term timelines is provided in the figure below. Students should check the co-op web page and student guides to determine specific dates each semester.

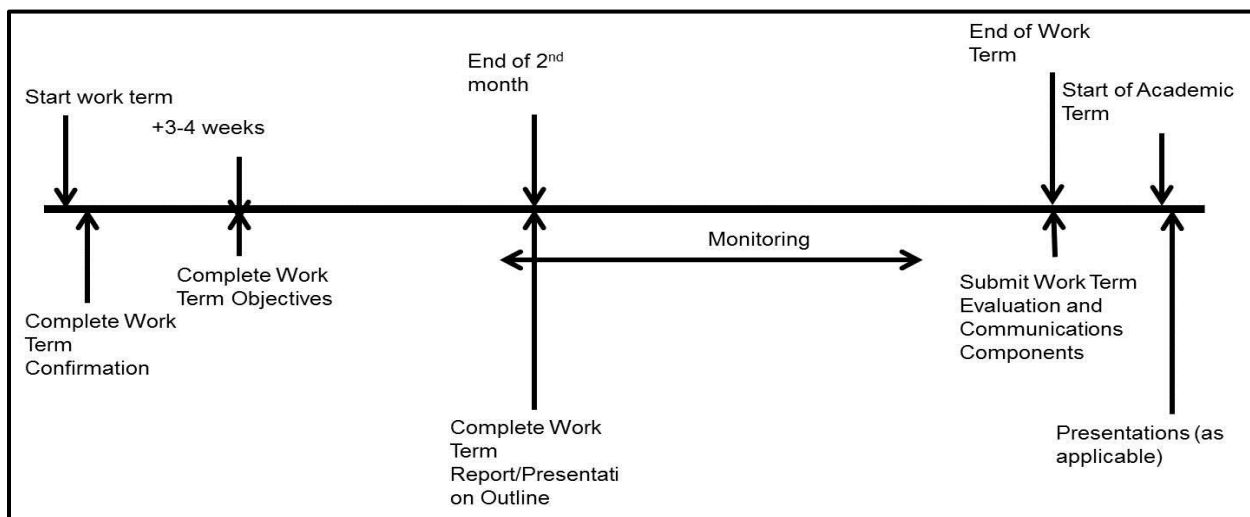


Figure 3. Work Term Timeline

7.1 Expectations for the Work Term

A summary description of the work term expectations for each of the work terms has been developed by the ECEO and provided in APPENDIX G. These expectations reflect a progression towards becoming a professional engineer.

The guidelines have been developed so that:

- students can better assess their progress in relation to their peers,
- the employer can determine students' capabilities and potential, and
- the University has a method of measuring the amount of learning that occurs in the workplace.

ASMs-CE use these descriptions when making assessments at the end of the term. The assessment of the work term is made on two components: student performance; and the quality of the communications requirement.

7.2 The First Week on the Work Term

Students can expect that the first week on the job will include some contact with their employer's Human Resources representative or office to set up contracts and salary payment. Students will also receive some form of orientation, which can be formal or informal, depending on the employer; training in company policies and procedures or safety practices is also likely.

Most employers will provide students with a written offer of employment which should be kept for the student's records. If an employer does not provide an employment offer, the student should request one, especially if it is a co-op placement they found themselves, outside the work term competition.

During the first week, all work term students must complete the Work Term Confirmation Form in the work term record section of MyMUNLife. If they do not have access they may also complete the form as found in the employment package and either fax, mail or e-mail it to the Co-op Office. If some of the information is not known, the form should be sent anyway and students can follow up later with the rest of the information. This form is required whether the student is in a new position, or is returning to a previous employer. If information changes during the work term, students should inform the ECEO.

The form confirms to the ECEO that the student has started work, and provides the required information for the ECEO to communicate with the students and supervisor. Specific location information is important as it helps the ASMs-CE arrange site interviews and follow up on any aspects of the work term. If a student's office is hard to locate, they are requested to include a map, or driving directions, with the Confirmation Form. The office building name, as well as its street name and number should be included. Do not provide only a P.O. Box address.

The section on the salary survey helps the ECEO advise employers of typical work term salaries.

7.3 Work Term Objectives

During the first three-four weeks on the work term, a student will also likely discuss with the employer the duties and responsibilities they will have during the term. At this time, the supervisor and the student should complete the Work Term Objectives form and return a copy to the ECEO prior to the due date indicated. They should keep a copy to refer to during the end of term evaluation.

This form gives both the supervisor and the student the opportunity to set formal learning objectives for the term. By clarifying objectives early in the term, both parties can better plan and derive the maximum benefits from the work term. Objectives help to focus the learning of the work term towards specific goals, what the student and employer want to get out of the work term. An ASM-CE can also evaluate whether the objectives are realistic based on the student's academic record and prior experience.

Two types of objectives should be set: performance objectives, which describe tasks to be completed or technical skills to be learned; and personal/professional objectives, which describe work or people skills to be developed or improved.

An objective should include:

- a statement of the task that the student will be able to perform at the end of the learning process,
- the conditions under which the task will be performed, and
- the standard which will be used to measure the success of the student's performance.

Students should attempt to write SMART objectives which through being specific and measurable make it easier for the employer to evaluate the student's performance during the work term. *SMART* objectives are:

- *specific* (statement),
- *measurable* (standard),
- *attainable* (condition, standard),
- *realistic* (condition), and
- *time limited* (condition).

The work term objectives, and how well they are being met, should be discussed with the supervisor about midway through the term. The objectives should also be used in the final performance evaluation at the end of the work term. APPENDIX H contains some examples of how to write SMART objectives.

7.4 Work Term Oral and Written Communications Requirements

7.4.1 Purpose of the Communication Requirement

The communications requirements are intended to illustrate the understanding and experience students have acquired during their work terms. The reports provide the opportunity to develop good writing skills, an important element in becoming a professional engineer; the presentation provides practice in organizing and presenting material orally. Both provide the forum to complete critical analysis, and to develop organizational, presentation, evaluation and prediction skills. Work term documents are sometimes used by the employer to maintain a record of the past term's work, and are used by the University to measure the amount of learning that has taken place. Without the communications requirement, the work term might be "just another job" instead of the educational experience it is meant to be.

7.4.2 Communications Requirement

Each work term, students are required to submit a communication component, based on some aspect of their job or industry, to the ECEO for evaluation. This may take the form of a written report, oral presentation, diary, portfolio or journal, or some other format as determined by the Faculty Council for the specific work term. Additional information will be provided in the placement package as required. Please note that the written documents must be submitted in hard copy and bound. **No electronic or faxed versions will be accepted.**

The communications requirement varies for each work term but can include the following:

- Personal work term diary and one of a short technical report (APPENDIX K), work term journal, or portfolio APPENDIX J ,
- Descriptive technical report, see APPENDIX K ,
- Formal technical report, see APPENDIX K ,
- Oral presentation, see APPENDIX L .

Work Term 1

- Diary, plus
- one of Journal, Portfolio, or Short Technical Report

Work Term 2

- Descriptive Technical Report

Work Term 3

- Formal Technical Report

Work Term 4

- Oral Presentation, including summary

Work Term 5 and 6

In consultation with, and with the consent of, their ASM-CE, one of:

- formal technical report,
- oral presentation, including summary,
- operations manual,
- proposal,
- research paper,
- or feasibility study

The student's employer may have additional requirements for a presentation or report. Only the University's requirements are listed above.

The communication component must be submitted to the ECEO by the deadline date specified, which is typically the last official day of the work term, as indicated in the University Calendar. In case of unexpected or unanticipated circumstances that would prevent compliance, students should contact their ASM-CE as soon as possible before the deadline.

Employers are under no obligation to provide students with time to prepare their presentations or reports during working hours. Students should be selective about other courses they may choose to do or extra-curricular activities they plan during the work term, to leave themselves enough time for working on their report or presentation.

Students should have their reports completed about two weeks prior to the due date to give their supervisor time to read and evaluate the report. Some employers may require the report to be submitted much earlier for screening purposes, students should check with their supervisors early in the work term to determine when they need to have it completed. The timely submission of all work term documents is taken into consideration in the performance evaluation.

Students will not be considered for ***Pass with Distinction*** unless all of the work term requirements are submitted in a timely manner. All reports, diaries, etc., submitted (or postmarked) after the published date, without prior approval, are considered late and marks will be adjusted accordingly. Circumstances for the delay, if authorized in advance, and explained in the letter of transmittal, will be taken into consideration by an ASM-CE.

7.4.3 Work Report/Presentation Topic and Outline Form

Many employers will require a report for the student's project or will already have some suggestions for discussion. In some instances, students may have to rely on their own initiative to develop an appropriate topic. This topic must be related to the job or the industry in which they are employed and must be discussed with the employer. If, after the second month, students do not have a suitable topic, they should contact their ASM-CE for assistance.

The report or presentation outline forms (as required) must be completed and returned to the ECEO within the second month of the work term. By that time students are expected to have developed enough insight into the operation of their jobs to identify a report topic and have it agreed to by the employer. The outline should include the title, the purpose of the report and a brief description of the major topics to be covered. The outline should be as detailed as possible. This will give the student's ASM-CE the necessary information to review and offer assistance if needed. A tentative table of contents would also be useful.

7.4.4 Confidential Materials

Confidential or proprietary information should not be included in any of the communications requirements unless permission has been received from the employer to submit the confidential material. If the student's report is likely to contain confidential material, the student and employer should complete a Non-Disclosure Request Form, available from the ECEO website. This form should be completed early in the term.

If permission is obtained from the employer to submit a confidential report, the cover and each page of the document should be stamped or watermarked confidential. The submission will be marked by a designated ASM-CE or member of Faculty and the marker will provide assurance that no other person will see the material and that no information will be transmitted to any other person. Following a review with the student, the report will be returned to the student or employer directly, or shredded, depending on the instructions from the employer.

Confidential material that may not be removed from the work place for marking is not acceptable to the University. If such a report is prepared and is designated as such by an employer, the student is required to prepare another (non-confidential) report to be submitted for evaluation.

7.4.5 Joint Submissions

The communication requirement of the work term is meant to give students a forum to do critical thinking, research and analysis and to enhance their written communication skills. It is used by the University to determine the amount of learning that has taken place. Joint reports are not acceptable to the University.

7.4.6 Writing the Report

Learning good technical writing skills is a very important aspect of work terms. Employers frequently comment on the importance of good written skills and some request to see prior work reports during interviews.

It is wise for students to refer to one of numerous available references to assist in preparation of their outline, research and report.

Students should note that a project does not have to be complete for a student to make it the subject of a report. A well written report with evidence of good research is usually sufficient for evaluation.

Students should strive for text that is clear, concise, complete, accurate and objective. Students should consider their audience and ensure that it will be able to follow and understand the report.

The length of the final report will vary with the subject matter but as a general rule it should not be less than 15 typewritten pages, double spaced, excluding appendices, table of contents, diagrams and the summary. The report should reflect a substantial sample of the work carried out over the work term.

7.4.7 University Writing Centre

Students with weaknesses in written communications are encouraged to seek assistance at the University Writing Centre. Professionals are available to assist students correct any deficiencies that they may have in this area. Writing Centre tutors will work online to help students working outside St. John's on their work terms. The Writing Centre has many resources on good writing styles and report writing. These can be found at www.mun.ca/writingcentre/resources/.

An ASM-CE, after reading written submissions, may require students to seek help from the Centre before they can be promoted to the next work term.

7.4.8 Co-operative Engineering Associates Program

Most report evaluations are completed by the ASM-CE who is assigned to the student, however, the Faculty of Engineering and Applied Science in conjunction with the PEGNL has developed a program, known as the Co-operative Engineering Associates Program, to use the expertise of retired professional engineers in the review of the communications components of the co-operative work terms. Under this program, professional engineers become familiar with the various written and oral communications required for the work terms and participate in their review.

Faculty members also assist in report evaluations, when students are working in placements relevant to the professor's field of expertise.

7.5 Employer Policies and Regulations

In the course of the work term students will be informed of a variety of employer policies, procedures and regulations. These are the product of experience in the operation of the particular organization, and govern its activities. Students are expected to follow all policies, procedures and regulations, and should consult their supervisors if they are unsure about appropriate activities.

Most organizations have specific policies governing internet usage, especially with respect to access for personal use and employees may be required to sign statements in which they agree to follow the organization's policy in this area.

Students are often required to meet the requirements of quality management systems, occupational health and safety programs and confidentiality guidelines.

7.6 Problems on the Work Term

The experience of the ECEO is that few students encounter serious problems while at work. If, however, any student has a situation that he or she feels is a problem, the student should first try to resolve it through open dialogue with the employer, if this can be accomplished professionally and safely. If the difficulty is not resolved, the student should immediately contact the ECEO for further advice.

Over the years, relations with virtually all employers regarding pay, benefits and conditions of work have been very professional. For example, most employers treat students as regular full time employees and follow the employment standards for the province or country in which they are located.

From time to time students may have a need to seek help in areas such as wellness, academic support, or personal counselling in areas which may include psychiatric services. APPENDIX M provides more information for students seeking these kinds of assistance.

7.6.1 Health and Safety

Maintaining students' health and safety and that of their colleagues is paramount. APPENDIX N provides some information on the Occupational Health and Safety Regulations and students' rights under this act.

If anything in a student's job site or duties is a matter of concern, the student should discuss the matter with his or her supervisor or the safety officials for the employer or job site. If the matter is not resolved, the student should speak to an ASM-CE.

Ultimately, a worker has the right to refuse to do work that he or she believes is unsafe, however it is rare that refusal is required; most situations can be made safe through modification, proper training and protective equipment.

7.6.2 Labour Disputes

Some students will work in a unionized environment, and many are required to join unions. Students in unions should follow the normal course of action as laid out by that union. If a strike is called, students are expected to follow their co-workers in any strike duties as deemed necessary by the union. Students in this situation should contact the ECEO immediately.

If a strike is called in the workplace, but the students are not part of the union, they should report to work in a normal manner. If they are prevented from entering the workplace, they should leave and call the employer, advising of the situation and asking advice. This course of action should continue for the duration of the strike. Again, the student should advise the ECEO of the situation.

7.6.3 Sexual Harassment

Sexual harassment is a violation of human rights. Memorial University does not tolerate harassment in any form. All members of the University have the right to study and work in an environment that is free from sexual harassment.

Sexual harassment is comments or conduct of a sexual nature and/or abusive conduct based on gender, gender identity, sex (including pregnancy and breast feeding) or sexual orientation,

directed at an individual or group of individuals by a person or persons of the same or opposite sex, who knows or ought reasonably to know that such attention is unwelcome and/or unwanted. Sexual harassment detrimentally affects the work or learning environment or leads to adverse job-related or academic consequences for victims of harassment

Sexual harassment is any sexually oriented behaviour that:

- negatively affects an individual's work performance or creates an intimidating, hostile or offensive environment for learning or working, or,
- explicitly or implicitly endangers an individual's continued employment or impacts upon the conditions of employment or performance evaluation, or,
- undermines an individual's personal dignity or self-worth.

APPENDIX O outlines the ECEO's policy on sexual harassment. It applies to all students of Memorial's co-operative programs who are employed at Memorial and outside of Memorial during work terms.

7.6.4 Difficult Co-workers

Occasionally students find that they have problems working with particular co-workers. Some co-workers may feel a student is trying to take their job, or feel that someone else should have been hired instead of the student. It is the student's responsibility to defuse any situations which may arise and to help develop mutual respect. If problems persist, students should speak to their supervisors and to the ECEO.

7.6.5 Resigning from a Co-op placement or Being Terminated

University regulations state that if a student resigns from a work term without permission from the ECEO, the student will be given a grade of **Fail** for that work term. Any student who is considering this course of action should seek the advice of an ASM-CE as soon as possible.

University regulations state that if a student conducts himself or herself in such a manner that he or she is terminated from a work term, the student will normally be given a grade of **Fail** for that work term. Engineering co-op students have been terminated for various infringements of employer regulations, including safety, internet and travel policies.

7.6.6 Sickness, Injury or Accident

Students who become ill for an extended period of time or are involved in an accident (on or off the work term) are advised to contact the ECEO as soon as possible. The ECEO may be able to offer assistance, especially if they are working away from home.

If the illness or injury is severe, students may be given a medical exemption from the work term if they obtain a doctor's letter outlining the nature of the illness or injury. Students should refer to the University Calendar on this matter.

7.7 Work Term Evaluation

The evaluation for each work term consists of a mark given for the communication component, a mark given for performance and then a final grade. Details of the evaluation scheme are provided in

APPENDIX P . The final assessment is completed by an ASM-CE, who will take into account factors as outlined below.

Deadlines

One of the responsibilities of becoming a professional engineer is being able to meet deadlines. All deadlines will either be published in the University Calendar or will be available at the ECEO and **it is the student's responsibility to be aware of these dates**. Meeting the various university deadlines will be taken into account in the performance and communication component marks.

The communications component must be submitted or post-marked by the deadline date specified. On each work term supervisors are requested to complete performance and communications component evaluations during the last two weeks of work. Students are responsible for giving the required form to their supervisors and for returning the completed form to the ECEO by the date specified.

Students who submit documents late may receive a fail for the work term. Students should apply to the Associate Dean of Undergraduate Studies via the ECEO for an extension if one is required for special circumstances.

Monitoring

ASMs-CE monitor the performance of students while on their work terms. Most students can expect to receive an on-site visit. If an on-site meeting is not possible, telephone interviews, skype, or an email exchange might be held with the student and supervisor.

The purpose of the work term monitoring meeting is to verify that the work term is progressing in a positive manner. More specifically, the objectives of the visit are to:

- activate the reflective learning process,
- monitor the learning that is taking place, and help students and employers to maximize the learning opportunities,
- discuss career plans with the student and provide advice on an as needed basis,
- discuss general academic objectives.

During monitoring interviews students should be prepared to answer questions on duties and responsibilities and to show some of his or her work to the ASM-CE or Faculty member. The communications deliverable will be discussed and the student will be given an opportunity to ask questions on any aspect of the work term. The interviewer will also wish to speak with the supervisor to assess the performance to date. Students should prepare for the meeting by booking an appropriate space, confirming their supervisor will be available, checking with security if there are requirements needed, and reviewing their objectives and work report outline. If a student's work location has changed after the initial confirmation form was completed, they should remind their ASM-CE of this change.

The information acquired in this interview will be used to counsel the student if a weakness is observed and will be used along with the employer's evaluation at the end of the work term to arrive at a performance grade.

On-site interviews are combined with a program of marketing co-operative education to potential employers. The objectives are to:

- review prospects for the employer's continued participation in the Engineering Co-operative Education Program,

- obtain referrals to other potential employers,
- obtain an improved understanding of the co-op work and environment,
- provide feedback to Faculty on the academic components of the engineering curriculum.

Reflective Learning

Reflective learning is the process by which an individual identifies what has been learned from a prior experience. In a co-op term opportunity, some of the learning may have been consciously undertaken based upon objectives set by the student, the employer or both. Equally important is the learning that may have taken place subconsciously as a result of a specific experience.

For example, learning the skill of how to use and apply a software applications package may have been identified as an objective. The reflective learning process would involve the student in evaluating how effectively he or she has learned this skill and subsequently, how this skill can be applied to future experiences.

With respect to an assigned project, the objective may be stated in terms of solving a specific problem. There could be considerable reflective learning when the student identifies how much was learned about time and project management. Further reflective learning may be realized when the student identifies what has been learned about a particular company, organization or industry. This process can be thought of as a continuous feedback loop accelerating learning and performance.

7.8 Exit Interview

Near the end of the work term, students should arrange to have an exit interview with their supervisors. This interview should be used to do the following.

- Discuss how well the objectives set out early in the work term were met,
- Have the employer fill out the "Employer Evaluation" form, if they have not already done so, and discuss it with the student. This will help to point out strengths and weaknesses and areas for improvement.
- Discuss work term placement prospects for the next work term (at the same firm, if the work term is the student's first with the organization, or to request suggestions for other employment).

7.9 Promotions

The promotion from the work term to the next work term follows a similar procedure as the promotion from the academic term to the next academic term. Promotion recommendations are made by the ECEO at a meeting of the Executive of the Committee on Undergraduate Studies for the Faculty of Engineering and Applied Science early in the next academic term. The ECEO may make a recommendation of ***Pass with Distinction***, ***Pass***, ***Incomplete*** or ***Fail***.

A ***Pass with Distinction*** or ***Pass*** means that the student is promoted to the next work term. An ***Incomplete*** indicates that some information is not available to permit a recommendation of a clear pass; it usually means that the employer's evaluation has not been received. If this occurs, these students are requested to contact their employer to obtain the necessary documents.

Students who fail a work term may attempt to repeat that work term only once and no more than two work terms may be repeated during a student's program.

7.10 Appeals

Students who fail a work term may appeal the decision by submitting, in writing, a letter of appeal, to the Chair of the Appeals Committee, Faculty of Engineering and Applied Science, within one month of the issue of the marks by the Registrar's Office.

7.11 Work Term Awards

Awards are available to students who excel in various components of the work terms. For students to be eligible for some of the awards, their supervisors must complete the nomination forms included in the work term package or on-line.

The W.W. Cossitt Award

This award is intended for the Senior Engineering Student (Work Term 4, 5, & 6) who has made the most important contribution to an employer and therefore to the Co-operative Engineering Program. The award is made available by the Professional Engineers and Geoscientists Newfoundland and Labrador (PEG-NL) once per semester and has a monetary value of \$500. PEG-NL issues the final award on recommendation by the Dean, Faculty of Engineering & Applied Science and the Engineering Co-operative Education Office. The recommendation is based upon: a) Supervisor nomination b) Student work performance; c) Student work report, or oral presentation and written summary; d) Student academic standing (must be scholarship standing).

The PEG-NL Eastern Chapter Award

This award is intended for the Junior Engineering Student (completing work terms 1, 2, or 3 prior to Academic Term 5) who has made the most important contribution to an employer and therefore to the Co-operative Engineering Program. The award is made available by the PEG-NL Eastern Chapter once per semester and has a monetary value of \$500. PEG-NL Eastern Chapter issues the final award on recommendation by the Dean, Faculty of Engineering & Applied Science and the Engineering Co-operative Education Office. The recommendation is based upon: a) Supervisor nomination; b) Student work performance; c) Student work report; d) Student academic standing (must be scholarship standing).

Paul S. Batstone Scholarship

This scholarship was established in memory of Paul S. Batstone who spent 20 years promoting co-operative education at Memorial University and was an ASM-CE in the Faculty of Engineering and Applied Science until his death in 2003. Valued at a portion of the income on the investment, it will be awarded to a senior student completing Work Term 3 or 4 during the spring work term who has demonstrated a high level of commitment to Engineering Co-operative Education and has made a significant contribution to their employer in the past work term. The recipient must meet the minimum academic requirements for a scholarship as defined by Memorial University. This scholarship is awarded by the Senate Committee on Undergraduate Scholarships, Bursaries and Awards on the recommendation of the Dean, Faculty of Engineering and Applied Science with a nomination from the student's employer and input from the ECEO

S.P. Raheja Memorial Scholarship

This scholarship, valued at a portion of the income from the endowment, was established through generous gifts from the friends and family members of S. P. Raheja. It is to be presented during National Co-operative Education Week and will rotate annually between the Faculty of

Engineering and Applied Sciences and the Faculty of Business Administration. To be eligible, students must be in scholarship standing, and be enrolled in the co-operative program, having successfully completed work term four in Engineering or work term two in Business in the previous scholarship year. The scholarship will be awarded by the Senate Committee on Undergraduate Scholarships, Bursaries and Awards, upon the recommendation of the Dean and Co-operative Education Office of the Faculty of Engineering and Applied Sciences or the Faculty of Business Administration as appropriate.

Dean's Certificate for Best Presentation

The communications component requirement for Work Term 4 is an oral presentation. One student in each session of the presentations will be awarded the Dean's Certificate for Best Presentation. The award is made by the Dean of the Engineering and Applied Science on recommendation of the ECEO.

APPENDIX A CAFCE RECRUITING ETHICS*Canadian Association for Co-operative Education
Recruiting Ethics*

The successful recruitment of co-operative education students depends upon the collective activities of three parties - the interested employer, the co-op student, and the associated educational institution. All participants must adhere to Provincial and Federal legislation in their recruitment and employment practices. However, the Canadian Association for Co-operative Education supports additional guidelines concerning recruiting ethics that support the development of a mutually beneficial and fair process for all concerned.

A. Employer Ethics

- *Provide accurate job posting information including salary and location*
- *Provide reasonable notice of candidates to be interviewed and of interview cancellations*
- *Respect an institution's schedule regarding job postings, interview arrangements, job offers, etc., and heed the co-operative education policies and procedures of an institution*
- *Not discuss job offers or rankings with candidates before, during, or following an interview*
- *Not seek a candidate's assessment of another candidate*
- *Not make multiple job rankings or offers unless prepared to accept multiple candidates*
- *Honor all matches, and not rescind offers of employment*
- *Confirm all job offers in writing*
- *Not translate a co-op assignment into a full-time position encouraging a student to settle for less education*

B. Student Ethics

- *Abide by the co-op policies of their institution*
- *Ensure that employers have accurate information regarding their qualifications*
- *Notify the co-op office, well in advance, if interviews must be rescheduled or cancelled*
- *Not discuss or mislead employers about their ranking or job acceptance intentions, and not provide information to employers on other students or employers*
- *Honor their acceptance of employment as a contractual agreement with the employer*

C. Institution's Ethics

- *Inform students, employers, and other interested parties of institutional policies and procedures*
- *Provide equal services to all students and employers*
- *Accommodate employers' reasonable requests for job postings, interview space, and presentation facilities*
- *Provide students with accurate information on all recruiting employers*
- *Notify the employer of any hiring limitations prior to them conducting interviews*
- *Notify employers of any students who, after being hired, are not academically eligible to continue in their program*

APPENDIX B HOW TO FIND YOUR OWN WORK TERM POSITION

The following information lists tips which students can use in order to assist in finding successful work term opportunities outside of the co-op competition.

Search the Industry

In order to begin a job search outside of the co-op competition, students must focus on choosing industries and employers that are of interest to them. This can be done through research of specific company websites and becoming educated in the developments and business accomplishments of companies and industries.

Company Websites

Companies publish a wealth of information concerning their past/future projects, company profiles, career information and media centre which involves a wealth of important information to students actively seeking work terms. Taking time to research and become educated in what companies publish on their websites is a very valuable approach in obtaining work term opportunities.

Local, National and International News

Keeping informed on industry related news either locally, nationally and internationally will give students advantages on where and when to search for future opportunities.

Online Career Databases

Searching online career databases is an effective method in which students can view postings and career opportunities for either engineers or co-op placements world-wide. Results of searches can often indicate which employers are seeking to increase their work force, which in turn, may indicate that the possibility of hiring a student is feasible. International databases often post positions for co-op/internship opportunities which if pursued, may often lead to securing successful work term positions.

Career Websites

Some examples of career database websites of interest are listed below. These represent only a small portion of available websites of career databases used in potential employment searches.

<http://www.workopolis.com>

<https://www.careerbeacon.com/>

<http://www.monster.ca/>

<http://www.indeed.ca/>

<http://www.simplyhired.ca/>

<https://www.glassdoor.ca/>

<http://www.jobinnl.ca/>

LinkedIn

LinkedIn is a powerful networking tool used by many potential employers. Students can create current online profiles which can be used to network and connect with employers. Once a profile is created, students can connect with others, follow companies of interest and keep informed of current activities of the company. For more information, please visit <https://www.linkedin.com>.

ECEO

The ECEO can be a beneficial source for students seeking work terms outside of the job competition. ASM-Ce and office staff have the knowledge and tools in order to provide students with input concerning past and present employers, industry related information, cover letter and resume feedback, as well as advice in all areas of developing employment opportunities.

Talk with an ASM-CE

Students can book an appointment with an ASM-CE to discuss a large array of topics including:

- Employer history
- Past and present co-op opportunities
- Region specific employer information
- New and growing industries/markets
- MUN Alumni connections
- Resume and cover letter review
- General advice
- Funding options

Personal Contacts

An effective tool in obtaining a work term outside of the co-op competition is reaching out to a student's personal connections. This involves touching base with relatives, becoming active in industry related, societies, organizations, functions and events and connecting with potential employers through online media sources.

Personal Connections – Relatives, Friends, Secondary Contacts, etc.

Reaching out to relatives, friends, secondary contacts, etc. that work in the industry is a successful method in securing a work term. These contacts can provide students with “inside” information concerning employer contact information, project status and future working information, as well as educate employers concerning MUN's co-operative program while recommending students for positions on their behalf. The chances of securing an interview with an employer could increase dramatically if you were referred by someone they know.

Join a Learned Engineering Society/Organization associated with your Discipline

Students can develop valuable network connections and avail of professional development opportunities through active membership and participation in learned Engineering Societies and Organizations. Often, these societies and organizations host various local events throughout the year where students can attend and meet peers within their chosen discipline. Some examples include:

- Newfoundland and Labrador Oil and Gas Industries Association (NOIA)
- Professional Engineers and Geoscientists of Newfoundland and Labrador (PEGNL)
- Women in Science and Engineering (WISE)
- The Society of Naval Architects and Marine Engineers (SNAME)
- Canadian Society for Civil Engineering (CSCE)
- Canadian Society for Mechanical Engineering (CSME)

- Institute of Electrical and Electronics Engineers (IEEE)
- Canadian Society for Chemical Engineering (CSCHE)
- Mining Industry NL (MINL)
- Newfoundland Association of Technological Industries (NATI)
- Newfoundland Environmental Industries Association (NEIA)
- NACE International (professional organization focused on corrosion engineering)

Attend the Annual Career and Graduate School Fair

The Memorial University annual career fair is usually offered on the last Wednesday of September from 10:00 am to 4:00 pm in the Field House on campus. A majority of employers that participate in this career fair are local and national engineering companies that are targeting Co-op work term students and potential engineering graduates. Students are recommended to dress appropriately and produce hard and soft copies of their resumes for distribution when meeting with representatives of career fair participants and possibly future employers.

Attend Information Sessions Offered During the Academic Term

During the academic term, various local, national and international engineering companies visit campus to offer Information Sessions open to students in which they introduce the company and the services that they offer, as well as potential recruitment opportunities. At times companies focus the session on valuable graduate attribute skills or resume, interview or employment search techniques. Students can source out valuable information relating to the companies' hiring policies and take the opportunity to meet and make contact with engineering and human resource personnel for future employment purposes.

Online Media Sources

Following company websites, receiving newsletters through online sources and connecting with potential employers through online sources are beneficial ways in which students can grow their list of personal contacts.

Potential Employers

If a student is interested in pursuing an employer or company, here are some techniques and tips to follow in order to potentially be successful in securing a co-op work term.

Resume/Cover Letter Modifications

Edit your package to suit the potential employer. Visit a coordinator at the co-op office if assistance is required.

Make Contact

If possible, visit the company in person and ask to speak with a contact; a human resource personnel, personal connection, Alumni or potential supervisor to discuss co-op opportunities and ask if you could submit your resume/cover letter. If a contact is not known, visit the company, introduce yourself and ask to speak to someone who may be able to help.

Follow up 3-5 Business Days

Call or email the contact to follow up with the company and ask if they have had the opportunity to look at your package and possibly consider hiring a student.

Be Polite, Considerate and Professional

Be professional while presenting yourself to potential employers. Dress properly, be kind and considerate and keep in mind that you are representing the university and the Faculty of Engineering and Applied Science and professionalism is expected of you.

If, after contacting an employer, you are told they are not hiring then do not stop there. Ask for an “information meeting”. You might get a chance to meet with an employer in an industry you are interested in to ask questions about the industry which could help you in your search (or future interview) or to obtain other contacts. You may also learn things which may change your mind with respect to the areas or focus of your job search.

Employer Funding Availability

Please refer to Section 3.4 or visit the Co-op office for more information.

APPENDIX C SAMPLE COVER LETTERS AND RESUMES

The first sample is provided by the ECEO. The other samples are based on actual students' work. Also included are the work term descriptions for the students' résumés.

Student Name
Current Address
St. John's, NL A1X 2Y6
(709) 555-5555
studentemail@mun.ca

Date

Company Name
Address/Location

Dear Mr./Ms. Doe:

Introduce your term, discipline, work term and duration, and expected year of graduation. The letter should also state fully the job or jobs applied for, location and where the position was advertised.

State why you are applying for the job. In doing this, you can emphasize that you have an interest in the company/organization and the industry and indicate what you know about the organization. This is important because it indicates to the employer that you took the time to do some research and are genuinely interested in this job and the organization. This section should not quote vague statements or repeat information from the organization web site. Try to speak with students who have worked for the company, to get inside information about current projects, future plans etc. Keep files on companies for future reference.

Describe to the employer what you have to offer and why they should read your résumé. This is a good time to read the job advertisement again. This section of the letter should summarize previous experience and skills that meet the requirements of the advertisement. A good way to start this paragraph is with the statement: "You will see from my enclosed résumé...". The sentence would then tell the employer something about your career that will immediately gain their interest. These paragraphs should focus only on information related to the required experience or skills identified in the job description.

The letter should close with a request for an interview, where further elaboration will be made on the interest and qualifications outlined above.

Yours truly,

(Letters should be signed by hand, if possible)

Sandy Smith

Encl.: Resume, Transcript

SANDY SMITH*Address while attending University*

12 Any St.
St. John's, NL A1X 2Y6
(709) 123-4567
ssmith@mun.ca

Permanent Address

P.O. Box 123
Any Town, NL A1B 2Y6
(709) 765-4321

EDUCATION

- | | |
|--------------|--|
| 2014-present | Memorial University of Newfoundland, St. John's, NL
Faculty of Engineering and Applied Science
Enrolled in Academic Term III Civil, Expected Graduation 2012
Bachelor of Engineering Co-op Program |
| 2014 | ABC High School, St. John's, NL
Graduated with honours from Grade 12 |
| 2013 | DEG School of Arts, St. John's, NL
45-hour course in Shop Practice |

AWARDS AND SCHOLARSHIPS

- Current academic average 82%
- Engineering Dean's List, Engineering One
- Pass with Distinction, Work Term 1
- Award of \$100, highest marks in Grade 12
- James Moore award, highest marks in Grade 11

WORK EXPERIENCE

September - December 2015	HIJ Company, St. John's, NL Work Term 1 Engineering Student
------------------------------	--

- Worked extensively with AutoCAD producing sketches and drawings for survey layout and general construction
- Assisted engineers in underground pipe design and placement
- Completed quantity takeoffs, including concrete, rebar and piping, of buildings and concrete pipe supports
- Kept accurate records of quantities completed on a daily, weekly and monthly basis
- Completed design work for valve access platform foundation and sump drip pans as well as design layout work for main entrance to the site
- Gave oral presentations on work completed to senior manager, and team

Sandy Smith**Page 2 of 2**

June -
September 2013

Rural Development Association, Paradise, NL
Biologist's Assistant

- Collected salmon eggs and scale samples for a salmon hatchery project
- Collected data from fishermen concerning the quantity of fish caught in a specific time period, size and weight of the fish
- Wrote daily, weekly and monthly reports
- Presented reports verbally to the Association

2011 - 2013

Morning News, St. John's, NL
Paper Carrier

- Supplied papers and flyers to 150 customers

2011 - 2013

Babysitter

- Responsible for the care of children during weekend evening hours

EXTRA-CURRICULAR ACTIVITIES

- Active with Engineering Society A, Memorial University
- Member of the intramural soccer team, Memorial University
- Editor of the student newsletter *Advocate*
- Volunteer for the Heart and Stroke Foundation

SKILLS

- Computer skills include Microsoft Office, SolidWorks, C++
- Familiar with surveying procedures
- Knowledgeable with concrete inspection techniques
- Familiar with hydrometric data collection and flow instrumentation
- Familiar with power tools
- Good written and verbal communication skills
- Valid driver's licence

INTERESTS

- Woodworking, reading, skiing, fishing, swimming and travelling

REFERENCES

Available upon request.

STRATOS

Contact: Mr. Stratos

Location: Mount Pearl

PRIMARY FUNCTION:

The Customer Solutions Engineering Group is responsible for engineering and implementation of edge core systems including terrestrial networking and value added services platforms, as well as customized solutions to meet specific customer requirements. Stratos integrates leading edge technologies over IP satellite networks.

You will be tasked with product evaluations, application and performance testing, and implementation of customized solutions where possible. The position will require you to develop and maintain technical documents and produce periodic reports.

COMPETENCIES:

The incumbent must be enrolled in undergraduate engineering program or related discipline. Other skills include;

- Understanding of voice & data communication technologies.
- TCP/IP networking protocols, LAN/WAN technologies – Cisco router experience is a definite asset.
- Knowledge of mobile and fixed satellite technology would be an asset, but is not required
- Computer skills including MS Office, MS Project, MS Visio applications
- Excellent troubleshooting and analytical ability
- Strong written and oral communication skills
- Excellent interpersonal skills contributing team participant
- Independent worker that requires minimal supervision
- Ability to manage multiple tasks and maintain a balance of priorities
- Good customer communication ability

Local address
Local phone number
MUN e-mail

Date

Stratos Gopal
Mount Pearl, NL

Dear Mr. Stratos

I would like to submit my application for the position with the Customer Solutions Engineering Group at Stratos Global as advertised through the Co-op Office at Memorial University of Newfoundland. I have completed Academic Term 3 of Computer Engineering, with expected graduation in 2019.

I am very interested in applying my computer skills to a fast pace, high technology environment which has current applications and benefits in the marine industry. Stratos Global, being a relatively small company, would provide me with the opportunity to see a variety of work related issues thus the learning environment could be open ended. Stratos Global is thus poised to offer a challenging work term where I can demonstrate that I have the skills and attributes as well as the ability to adapt to meet these challenges.

As you can see from my resume, I have Microsoft applications and have used PHP to develop a website at Bob's Warehouse thus expanding my computer abilities. This position also required a high level of interaction with company personal, independent work requiring good interpersonal skills and organizational ability. My Tutor experience has developed my oral presentation skills and showed me the importance of multitasking. My academic achievements has shown that I am highly motivated and enjoy problem solving in a fast pace environment.

I look forward to an interview where I can elaborate in more detail on my interest and qualifications for this exciting position.

Sincerely

Name

Current Address	Student Name	Permanent Address
1 Any Road, Suite 302 St. John's, NL A1A 1A1 (709) 555-1212		PO Box ABC Any Town, NL A0A 1A1 (709) 555-1212
EDUCATION		
Memorial University of Newfoundland Faculty of Engineering and Applied Science, St. John's, NL Completed Academic Term III, Computer Engineering Bachelor of Engineering Co-op Program		2014 - Present
<i>Any Town High School</i> <i>Any Town, NL</i> Graduated with Honors		2014
AWARDS		
Memorial University Entrance Scholarship (\$2000)		2014
Governor General Award for Academic Excellence		2014
<i>Any Town School Council</i>		2014
John Doe Memorial Arts Award		2014
French Award		2014
Male Student of the Year Award		2014
EMPLOYMENT		
BOB'S WAREHOUSE <i>Summer Student</i>		June – August 2014
<ul style="list-style-type: none"> Developed the Bob's Warehouse website to display stock information and company information Maintained stock database, ensuring sales were tracked on a weekly basis 		
ANY TOWN DEVELOPMENT ASSOCIATION <i>Student Project</i>		June – August 2012 <i>Any town, NL</i>
<ul style="list-style-type: none"> Completed outdoor maintenance of cemeteries, tourist attractions and public buildings Communicated with tourists and provided local knowledge in answering queries 		
TUTORING FOR HELP <i>Tutor</i>		September – June 2012 - 2014 <i>Any town, NL</i>
<ul style="list-style-type: none"> Assisted four or more students with difficulties and/or problems with school courses in Mathematics and Science Arranged and scheduled one hour tutoring sessions regularly Maintained an accurate record of total tutoring hours and provided written feedback for each student 		

SPRING CLEANUP

2010 – 2012
Any town, NL

- Helped clean up garbage around local community
- Organized team of three for garbage round-up

EMPLOYMENT RELATED TRAINING

Completed Introduction to C++ Training Seminar
Valid Driver's License

2013

SKILLS

- Able to quickly adapt and learn in fast paced environments
- Excellent problem solving skills
- Proficient with C++, Java, PHP and JavaScript programming languages
- Proficient with HTML, XHTML and CSS
- Experience with MySQL database language
- Experience with Solidworks, Microsoft Word, Microsoft Excel and Microsoft Outlook
- Driver's License

INTERESTS

- Drawing
- Learning new technologies
- Video games
- Skiing
- Travelling
- Basketball

REFERENCES

Available upon request

Student Name Page 2 of 2

Contact: Mr. Works

Location: Corner Brook

Primary Function: The Works Division of the Department of Transportation and Works provides management and maintenance of over 600,000 square metres of floor space at nearly 400 sites across the province; Construction of new building and management of other capital projects for government departments and government-funded bodies; Provision of space for government departments in government-owned buildings and leased accommodations; Acquisition of land on behalf of government departments and agencies for various projects and public works; Disposition of surplus provincial assets and real property with property sales; Provision of environmental services for government buildings; Provision of centralized mail and messenger services for government; Provision of telecommunications services to all government departments.

You will work closely with project managers and engineering staff to provide assistance and support in the management of building construction, renovation and maintenance projects in government buildings. Duties may include initial investigations, researching design solutions, preparing cost estimates and working on tender packages. You will be expected to perform work as part of a team as well as work independently when required. You must also possess effective organizational, analytical and communication skills and will be detail oriented. Please submit a copy of your transcript with your application.

local address
local phone #
MUN e-mail

Date

Department of Transportation and Works
Corner Brook, NL

Dear Mr. Works:

I would like to apply for the coop engineering position with the Department of Transportation and Works in Corner Brook as advertised at the coop office, Memorial University of Newfoundland. I am an Academic Term 3, Civil Engineering Student with graduation in 2019.

My interest in this position stems from a conversation that I had with a coop student who worked in your group recently. The experience outlined by this student contained various aspects of project management which is an area that I plan to focus my education on for the next few work terms. The position posted contains work related to the tender process, supervision and construction which are key elements in project management. The level of responsibility given to the student and the commitment of your group to student's education has also made this position very attractive to me.

As you can see from my resume, my experience as a store clerk and coach has given me the ability to work in a team environment as well as independently. The safe graduation activity highlights my organizational skills as well as my team work. My interpersonal as well as my written and oral communication skills have been enhanced by these activities. In all of my work, attention to detail has always been my focus.

I look forward to an interview, where I can elaborate in more detail on my qualifications.

Yours Truly,

Name

Student Name
Local Address
Phone
Email

Current Address
1 Any Road, Suite 302
St. John's, NL A1A 1A1
(709) 555-1212

Permanent Address
P.O. Box ABC
Any Town, NL A0A 1A1
(709) 555-1212

Education

2014 – date

Memorial University of Newfoundland, St. John's, NL
Bachelor of Engineering Co-op Program
Enrolled in Engineering One; Expected date of graduation: 2019
Current CGPA: 3.6/4.0

2014

X High School, City, Country
Completed grade 12 with GPA of 3.8/4.0

Awards and Scholarships

- Memorial University Entrance Scholarship (\$2500), 2014
- Awarded school certificate for outstanding academic results in high school, 2013
- Awarded regional award for academic achievement in high school, 2013

Work Experience

June 2012 – September 2012

X Convenience Store and Delicatessen, Town, Province
Store Clerk and Store Assistant Manager

- Attended to customer's product inquiries and served food
- Collaborated with other staff members to address customer needs during busy periods
- Cleaned utensils and cooking appliances following safe food preparation practices
- Organized stock in the storage room to maintain a safe working environment free from clutter
- Kept an inventory of all items received and stocked
- Promoted to Team Leader and Assistance Store Manager in three months
- Once promoted, managed other store staff and created work schedules
- Balanced the cash at the end of each work day in the absence of the store Manager
- Calculated the income and expenditure weekly and reported it to the Manager

June 2013 – September 2013

XY Sports, Anytown, NL

- Coached volleyball team
- Formulated and executed practiced plans
- Funding activities for the team

2014

ZX High School, Anytown, NL

- Planned and contributed to the graduation ceremony, safe graduation and funding
- Organized and co-ordinated school events

Skills

- Computer skills include C++, MATLAB, SolidWorks, and Microsoft Word, Excel, PowerPoint and Access
- Fluent in English, German
- Good written and verbal communication skills gained through laboratory and project report writing as well as work related duties
- Budgeting experience gained from tracking school and living expenditures each semester
- Driver's License

Interests

- Photography, travelling, reading, fishing, and running

References

- Available upon request

Student Name – Page 2 of 2

APPENDIX D ENGINEERING RELATED ACTION WORDS

These words can be used to start the tasks/accomplishments bullets used to describe a student's past jobs and volunteer experiences. For each accomplishment/task in the employment history, start with a strong action verb such as those below. State what was done, the outcome, and quantify it if possible (how many, how big...). Providing specific details will allow the reader to gain a good understanding of the student's work.

Accomplished	Documented		Researched
Achieved	Drafted	Learned	Reviewed
Acquired		Led	Revised
Adapted	Edited	Liaised	
Advised	Eliminated		Saved
Analyzed	Enforced	Maintained	Scheduled
Applied	Enhanced	Managed	Selected
Arranged	Ensured	Marketed	Simplified
Assembled	Established	Measured	Solved
Assigned	Estimated	Merged	Strengthened
Attained	Evaluated	Minimized	Succeeded
Authorized	Examined	Modeled	Summarized
	Exceeded	Monitored	Supervised
Balanced	Executed	Motivated	
Budgeted	Expedited	Negotiated	Taught
Built	Explained		Tested
		Observed	Trained
Calculated	Fabricated	Obtained	Traveled
Calibrated	Facilitated	Operated	Troubleshoot
Coached	Finalized	Organized	Tutored
Communicated	Fixed	Oversaw	
Compared	Followed up		Uncovered
Compiled	Forecasted	Participated	Updated
Completed	Formulated	Performed	Upgraded
Composed		Planned	Utilized
Conducted	Generated	Prepared	
Configured	Guided	Presented	Verified
Consolidated		Produced	
Constructed	Headed	Programmed	Wrote
Consulted	Helped	Projected	
Coordinated		Promoted	
Counseled	Identified	Proposed	
Created	Improved	Provided	
	Improvised	Purchased	
Decided	Increased		
Decreased	Informed	Raised	
Defined	Initiated	Received	
Delegated	Inspected	Recommended	
Delivered	Installed	Rectified	
Demonstrated	Integrated	Redesigned	
Designed	Interpreted	Reduced	
Determined	Introduced	Released	
Developed	Investigated	Reorganized	
Directed		Repaired	
Displayed	Judged	Reported	

APPENDIX E PERSONAL SKILLS CHECKLIST

Engineering students often have more skills than they believe they possess. Students may or may not have relevant engineering related skills to showcase on a résumé, but students definitely have many general technical and soft skills that have been gained through various life and/or work experiences over the years that they can highlight on a résumé, in a cover letter, or during an interview.

In fact, engineering students already possess many of the nine skills identified by Human Resources and Skills Development Canada as needed for success in the workplace, as they are used in almost every job.

Reading

Comprehending, critiquing, or analysing notes, letters, memos, manuals, specifications, regulations, books, reports or journals

Writing

Writing text in order to record, explain, inform or persuade, writing in forms

Document Use

Reading, interpreting, producing graphs, lists, tables, blueprints, schematics, drawings, signs and labels

Numeracy

Ability to use/manipulate numbers, thinking quantitatively

Computer Use/Digital Skills

Knowledge of computer hardware, operating systems and other software (e.g., word processing, spreadsheets, and email)

Thinking

Problem solving, making decisions, reasoning, critical analysis, planning, organizing, finding information and researching

Oral Communication

Exchanging thoughts, feelings and information in order to share information, reassure or resolve conflict through conversations or public speaking, ability to converse in multiple languages

Working With Others

Working independently and coordinating with others, working as part of a team, managing people, responding well to supervision

Continuous Learning

Ability and enthusiasm to acquire skills and knowledge on an on-going basis

Human Resources and Skills Development Canada: Key Literacy and Essential Skills

(<http://www.hrsdc.gc.ca/eng/workplaceskills/LES/definitions/definitions.shtml>) retrieved Dec 2013

In addition, the following are more specific skills, drawn from some of the general skill sets above, that are also identified by employers as being highly valuable in the workplace depending on the job being performed:

Machine or Mechanical Skills

Ability to use equipment, make repairs

Flexibility and Adaptability

Ability to manage multiple work tasks, re-prioritize, and quickly adapt to changing work conditions and assignments

Time Management Skills

Ability to create schedules, set priorities and meet deadlines

Leadership Skills

Leading others, problem solving in a group, showing initiative

Instructional Skills

Ability to impart ideas and information to others clearly and convincingly

Persuasive Skills

Ability to sell your ideas, getting people to work together, negotiating

Observation Skills

Listen carefully, perceive and observe, appraise and learn by looking

Creativity

Ability to envision new and innovative answers to problems, inventive, imaginative

Using the essential and sought after skills listed above, students should make a list of the skills and abilities they possess to use when preparing their cover letters, résumé and interview answers.

APPENDIX F CODE OF PROFESSIONAL ETHICS

The following information comes from the PEGNL Code of Ethics Bylaw. Further information about the bylaw including professional misconduct and advertising rules can be found at

http://www.pegnl.ca/documents/bylaw3_final%20Code%20of%20Ethics%20May%2013%202010.pdf

1. Code of Ethics for Professional Engineers and Geoscientists

1.1 Professional engineers and geoscientists shall recognize that professional ethics are founded upon integrity, competence and devotion to service and to the advancement of human welfare. This concept shall guide professional engineers and geoscientists at all times.

1.2 Professional engineers and geoscientists shall conduct themselves in an honourable and ethical manner. Professional engineers and geoscientists shall uphold the values of truth, honesty and trustworthiness and safeguard human life and welfare and the environment. In keeping with these basic tenets, professional engineers and geoscientists shall:

- (a) hold paramount the safety, health and welfare of the public and the protection of the environment and promote health and safety within the workplace;
- (b) offer services or advise on or undertake assignments only in areas of their competence and practice in a careful and diligent manner;
- (c) act as faithful agents of their clients or employers, maintain confidentiality and avoid conflicts of interest;
- (d) keep themselves informed in order to maintain their competence, strive to advance the body of knowledge within which they practice and provide opportunities for the professional development of their subordinates;
- (e) conduct themselves with equity, fairness, courtesy and good faith towards clients, colleagues and others, give credit where it is due, and accept, as well as give, honest and fair professional criticism;
- (f) present clearly to employers and clients the possible consequences if their professional decisions or judgments are overruled or disregarded;
- (g) report to their association or other appropriate agencies any illegal or unethical engineering or geoscience decisions or practices by engineers, geoscientists or others; and
- (h) endeavour to interpret engineering and geoscience issues to the public in an objective and truthful manner.

APPENDIX G WORK TERM EXPECTATIONS

Work Term 1

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 consists of two separate documents which must be submitted for evaluation; additional communications requirements (e.g. technical report, manual) may be requested by the employer. The two documents to be submitted to the Engineering Co-op Office are:

1. Personal Work Term Diary
2. Short Technical Report, Portfolio, or Work Term Journal

These documents should be submitted along with a letter of transmittal and postmarked no later than the last official day of the work term as shown in the University Calendar.

Students who work on the same project for a significant portion of their term are encouraged to prepare short technical reports on their projects for their communications component. Some employers require their students prepare internal reports for their files or draft reports for client; these are generally acceptable as work term reports.

Reports may be primarily descriptive, or could record a feasibility study, investigation, or design. A user's manual for equipment the student built or used, or software they worked with would also be acceptable documentation. The student should discuss with their ASM-CE prior to making any decisions concerning their communications component.

Work Term 2

Work Term 2 requires students to have sufficient academic grounding and work experience to contribute in a positive manner to the engineering design and problem solving processes practised in the work environment. Students are expected to show greater independence and responsibility 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 requirement for Work Term 2 is a descriptive technical report to be submitted to the Co-op Office for evaluation. Work Term 2 students are also required to complete a personal work term diary. The work term diary will not be submitted but should be available for review at the ASM-CE's request.

Work Term 3

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 Work Term 3 requirement is a comprehensive formal technical report. The report should be based on some aspect of the student's job or the industry that he or she is working in. Ideally, the report should illustrate a substantial amount of research, design, or analysis to permit the drawing of detailed conclusions and recommendations; however, if the student's placement does not allow such a study, some other form of report, such as an operating manual or software documentation, may be permissible.

Students should discuss their topic with their employer early in the term as their supervisor may have a particular topic or project that the organization would like documented. The topic and the report should reflect the student's level in the engineering program. Sometimes a report may not be required by the employer, which allows the student the opportunity of exploring a topic of their own interest. If the student has difficulty selecting a topic, he or she should discuss it with their ASM-CE.

Work Term 4

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 requirement for Work Term 4 is an oral presentation, and summary. The presentation will take place on campus usually during the first or second week of the next academic term. All students must present during the time specified. If for some specific reason a student is unable to present at that time, he or she must follow the guidelines established for a deferred exam as stated in the University Calendar. Faculty and students' supervisors will be encouraged to attend the presentations. The length of the presentation is normally 10 minutes with five minutes for questions. The evaluation will be carried out by ASMs, Faculty, employers and students attending the presentation, using the criteria outlined in APPENDIX L .

Note that while Work Terms 5 and 6 are electives, once a student has opted in to these work terms, they are expected to complete all components of the work term.

Work Term 5

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 communications component is expected to be based on a significant project assigned to the student by the employer. It will match, in technical content, structure, and communication skills, those expected of a graduate engineer. The results, conclusions and recommendations of the submission, should reflect the student's application of sound engineering practice.

The communication component for Work Term 5 may be one of the following: formal technical report, presentation, tender document, operations manual, proposal, research paper, or feasibility study. **The decision of which type of communication component to submit should be made in consultation with, and consent of the student's ASM-CE.** The report should be completed according to engineering standards. Guidelines for the preparation of a formal technical report are provided in APPENDIX K and guidelines for the preparation of a presentation are provided in APPENDIX L . Guidelines for other report types should be discussed with the student's ASM-CE.

Work Term 6

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 communications component is expected to be based on a significant project assigned to the student by the employer. It will match, in technical content, structure, and communication skills, the level expected of a graduate engineer. The results, conclusions and recommendations of the submission, should reflect the student's application of sound engineering practice.

The communication component for Work Term 6 may be one of the following: formal technical report, presentation, tender document, operations manual, proposal, research paper, or feasibility study. **The decision of which type of communication component to submit should be made in consultation with, and consent of the student's ASM-CE.** The report should be completed according to engineering standards. Guidelines for the preparation of a formal technical report are provided in APPENDIX K and guidelines for the preparation of a presentation are provided in APPENDIX L . Guidelines for other report types should be discussed with the student's ASM-CE.

APPENDIX H S.M.A.R.T. OBJECTIVE WRITING

Below are samples of weak objectives, then using the template, SMART objectives

Weak – I hope to develop skills in project planning

- S – learn and be able to use Microsoft Project to develop a project schedule for the construction of a new concrete bridge structure on Route 210 (Burin Peninsula).
- M – schedule will be complete, and will not exceed 250 days
- A – an experienced engineer can complete this task in 2 weeks
- R – with assistance I am confident I can complete the task in 22 days
- T – I will present the schedule to the design team in 4 weeks.

Stronger - Working with the design staff, I will learn and be able to use Microsoft Project to develop a project schedule for the construction of a new concrete bridge structure on Route 210 (Burin Peninsula). The schedule should not exceed 250 days. I will present the schedule to the design team for feedback in 4 weeks.

Weak – I wish to learn the manufacturing process in producing paper

- S - I will understand the process and protocols involve in the manufacture of paper and what is involved in making different grades of paper / cardboard.
- M – provide a presentation to co-workers
- A – while complex, this process can be understood in this time period
- R - will achieve this by reading process manuals and working alongside my supervisor during plant inspections
- T – completed in one month

Stronger – By the end of the first month, I will understand the process and protocols involve in the manufacture of paper and what is involved in making different grades of paper / cardboard. I will achieve this by reading process manuals and working alongside my supervisor during plant inspections and successfully giving a presentation on the topic to co-workers.

Weak – I wish to learn about the company and the industry

- S - use company brochures, web page, and personal contacts to develop a company profile to understand how the company functions, the industry, my role, policies, standards, etc.,
- M – a short summary
- A – I can contact a number of people, and there is sufficient information on the web
- R – this can be accomplished, and will be done during a slow time in the office.
- T – will be complete in two weeks

Stronger – During the first two weeks, I will use company brochures, web page, and personal contacts to develop a company profile. The goal is to understand how the company functions, the industry, my role, policies, standards, etc., in order to maximize learning outcomes. I will complete a two page summary of my findings.

APPENDIX I COMMUNICATIONS GUIDELINES – DIARY

The communications component for Work Term 1 consists of preparing two separate documents which must be submitted for evaluation; additional communications requirements (e.g. technical report, manual) may be requested by the employer. The work term diary is a required submission by all students in work term one, and must be presented to the ASM-CE during the monitoring meeting for work term two. It is a good habit for all students to complete a diary each work term.

Personal Work Term Diary

A work term diary (WTD) is an important document for an engineer to maintain. If properly maintained, an engineer's work diary can be used to determine the time and substance of work related activities and events. It may be used to reconstruct events that occurred in the past, if the need arises. Therefore, it must be accurate. In order for the work diary to be accepted as an authentic record, the following guidelines should be observed:

- It should be kept in a date-stamped or numbered, hardcover notebook not a loose-leaf binder or a spiral book. A Lab book or similar is preferred, note books are not permitted. This removes the possibility of losing or replacing sheets, either of which causes doubt about its authenticity. Students should choose a diary of suitable size that will cover the work term time and provide adequate space for detailed entries.
- Entries should be recorded on a daily basis, and must be recorded on the job. If job diary entries are made afterwards based on notes or recollection, the diary loses much of its strength as an authentic record. The requirement applies whether the work takes place in the field or office.
- Entries shall be made in pen. If an error is made in recording an entry in the job diary, the entry should be corrected by drawing a line through the part in error and writing the correct version immediately above it. Erasing, using white-out, or removing parts of the diary is not permitted because it raises doubts about the authenticity of the content.
- Entries should be neatly handwritten or printed; not typed, nor maintained electronically.
- The diary should not be used as a lab book to record data from experiments, tests, etc. or other details that need to remain with the employer after the student leaves. These types of information should be recorded in a separate book. At the time of recording it is not known which items may turn out to be important. Therefore, straightforward, factual entries are preferred to opinion, interpretation or hearsay.
- Events should be recorded as they happen, including:
 - meetings attended, whether formal or informal, and a short description of what was discussed,
 - observations made during the day on matters connected with the job, staff or clients,
 - notes on items to follow up on at a later date,
 - phone calls made that had a direct bearing on the job,
 - hours of work and overtime,
 - project milestones met,
 - problems encountered and how they were resolved, and
 - any other items that may prove useful at a later date.
 - routine details, instructions, decisions, reminders and conditions.

Students may perceive that events related to their own jobs are not important enough to record. Nonetheless this is the area in which they must focus. They should also remember that they are learning to keep a job diary properly. They will be asked to show their job diary during co-operative education monitoring and are expected to keep a job diary on all of their work terms.

A daily diary can be referred to by the student or their employer and may be reviewed by their ASM-CE. The legal community urges all professional persons to record daily events as they pertain to employment.

Students should consider what information will be useful to them – students working for consulting firm should use the diary to record hours on projects, some students use their diaries for making to-do lists or for recording appointments. Names and contact information of people met or spoken to in the course of the students work should be recorded – these contacts could be useful in future job searches. Students working on long projects, or doing repetitive work should find some way to monitor and report progress each day.

Certain characteristics are desirable in a job diary. These include clarity of meaning, neatness and use of drawn illustrations or freehand sketches where appropriate. Point form is acceptable. Pages should be numbered in sequence; this helps establish authenticity. Cramming entries into confined spaces such as a full or part page can lead to the loss of important details and an overcrowded appearance. Students should start each day's entry on a new page, take as much space as is needed, and write or print legibly. Leaving blank lines between entries may make the diary neater in appearance, and easier to read.

Since entries are made on a regular basis, the job diary should end and be submitted on the last official day of the work term.

The personal job diary will be evaluated based on the following features:

- physical features including format, neatness, frequency and uniformity of entry,
- accuracy and integrity, including handling of errors, accuracy of recording events, and frequency of entries,
- communication effectiveness.

The following several pages include sample diary entries from two students at various points in their work terms. These are only meant as samples of good practices not as exact ways to complete a diary.

RECEIVED
AUG 21 2015

May 20th, 2015

8:30-9:00
Site visit with Trevor Peddle to observe placement of catch-basin #11.

9:00-9:15
Visit other sites around town with Trevor.

9:15-9:30
Review plans of Duggan Street with Trevor.

9:30-10:00
Site visit to Duggan Street with Trevor to observe work.

10:00-10:30
Check in at Town Hall with Trevor.

10:30-11:00
Learn about surveying from Chris Eeuer (Penny Paving), who used a total station for the lane addition to access highway off of Duggan Street.

11:00-12:00
Observe work on Duggan Street with Trevor. 14 inches needed to be cut off catch-basin #13 before it could be lowered into the ground.

H.C.

Student 1 - Civil Student in a Municipal position, early in work term

May 20th, 2015 Continued

12:00-1:00
Lunch Break

1:00-2:00
Return to Duggan Street with Trevor to observe work.

2:00-2:30
Return to Town Hall to speak with Nelson concerning infrastructure at Gorge Park.

2:30-3:00
Trip to Gorge Park with Trevor to inspect boardwalks/wharfs that have been eroded by water and ice over the winter.

3:00-4:00
Return to Duggan Street with Trevor to oversee work.

-Herdi Colth

RECEIVED
AUG 21 2015

ENGINEERING CO-OP

H.C.

Student 1 - Civil Student in a Municipal position, early in work term

August 13th, 2015

8:00-8:15
Meet at Town Hall with Roger, Jamera and Derrick. Discuss information needed to be gathered from Crawley Street.

8:15-10:45
Go to Hardy Avenue with Jamera. Speak with Darren about invert elevation of Man Hole #8. Meet up with flag person Glen. Survey Centreline on Crawley Avenue, profile the ditch and pick up the invert elevations of several pipes as well as the top of asphalt elevation for the proposed location of two new catch basins.

10:45-12:00
Return to office to complete calculations from survey work.

12:00-12:30
Lunch Break

12:30-1:45
Go to Main Street Properties with Jamera and complete cross sections.
HC

Student 1 - Civil Student in a Municipal position, late work term

August 13th, 2015 Continued

1:45-2:20
Go to #307 Greenfell Heights with Jamera to investigate pond which may be causing excess water to enter the sanitary sewer system.

2:20-2:45
Go to Hardy Avenue with Jamera to re-check elevation 20m up Crawley Avenue and determine size of CMP.

2:45-3:45
Return to #307 Greenfell heights to take survey shots on clean outs, the water level of the pond, the catch basin as well as other miscellaneous information. Speak with the home owner about weeping tile which connects to sanitary sewer system.

3:45-6:00
Go to Arterial Road with Jamera to do Cross Sections from Station 1+460 to 1+900. (1.5 hours overtime)

-Audi Log

Student 1 - Civil Student in a Municipal position, late work term

Week 1, day 5	Jan 14th, 2015
<ul style="list-style-type: none"> - Created cover and spine for pack 14-12566 ↳ filled proper paper work into this pack including <ul style="list-style-type: none"> ↳ TOC ↳ Different Tabs to space out different sections as shown in TOC. ↳ Scope of work and drawings. ↳ QVP's and list of QVP's created for pack that do not have to be requested. - To tab out the sections in binder, went to Avery website to get template for word. - Co-worker showed me how to use the scanner/printer to create the tabs once template was finished. ↳ Scan plan paper and load tab paper into by pass tray to create tabs. - Told to complete by to track ^{pressure} gauges and IR thermometers and send to head office via Email to get logs approved for use. ↳ hyper link certificates of pressure gauges and IR thermometers to cell in same row as specific item it pertains to. 	

Student 2 – Process Student in a private company position, early work term

Week 14, day 3	April 8th, 2015
<ul style="list-style-type: none"> - Morning quality meeting. Topics included <ul style="list-style-type: none"> ↳ Moving of materials to 222 to begin today or tomorrow. ↳ All ITP's should be accepted as of today when my Mechanical one is returned. ↳ Last check to ensure all welding procedures needed are accepted. - Received ITP back from WLC accepted and ready for use. - Supervisor asked if I was able to create a folder on NI: One and place all accepted ITP's for 222 in it as well as the picture for the hold point. - Completed sending of all A-builts from read contract for EC's EC's to WLC. 	
<p>End of April 7th ^{day} End of April 7th</p> <ul style="list-style-type: none"> - Met with Supervisor to complete work term evaluation. He said that I was a great asset and it would be his pleasure to have me back. - Met and exceeded my goals for the work term. 	

Student – Process Student in a private company position, late work term

APPENDIX J COMMUNICATIONS GUIDELINES –PORTFOLIO AND JOURNAL

The communications component for Work Term 1 consists of preparing two separate documents which must be submitted for evaluation; additional communications requirements (e.g. technical report, manual) may be requested by the employer. The previous appendix specified requirements for a work term diary. This appendix covers the portfolio and work term journal.

The submitted documents should be sent along with a letter of transmittal and postmarked no later than the last official day of the work term as shown in the University Calendar.

Portfolio

A portfolio is a showcase of items that the students has personally created or produced. It is not a list of items in which the student has had limited or cursory input. In some job situations, a portfolio may not be appropriate and will therefore not satisfy the communication requirement for Work Term 1. In most cases a portfolio is not recommended. Students should discuss their job situations with their ASM-CE before starting a portfolio.

Purpose:

The purpose of the portfolio is to demonstrate skills, talents, abilities and accomplishments during the term. The portfolio is a tool that will help document relevant academic, work related and personal achievements.

Content:

The following is a list of items that should be included in a portfolio for Work Term 1:

- A letter of transmittal as outlined in APPENDIX K .
- A two to three page introduction and background on the material presented.
- Description of any training courses and lectures attended whether formal or informal.
- Commendations or written feedback received.
- List of any formal meeting attended and or chaired.
- Sample of original designs, sketches, drawings well indexed and organized.
- Copies of written documents or reports.
- If the student plans to continue the portfolio, he or she should add other items as deemed necessary from the list below.

Students are encouraged to add to their personal portfolios as they progress through the engineering program and into their careers; they can be useful during performance reviews, and job searches. Other items to include might be:

- Personal qualities and employability skills assessments (see skills checklist APPENDIX E).
- A résumé and transcript.
- Samples of work done.
- Samples of achievements in volunteer work, recreational activities, part time jobs, or other extracurricular involvement.
- A summary of work search including lists of contacts, industry research, employer research, etc.
- Job description for each position held.
- Copies of performance review forms.

A portfolio is a personal document; therefore, the contents will depend on the individual student's objectives, goals and experience.

Work Term Journal

The work term diary provides a factual record of job events; the work term journal (WTJ) allows the student to reflect on and interpret job events. A journal is appropriate for students who do not have appropriate projects or documents to write up in a report or portfolio. The WTJ should be prepared with the general learning objectives of the work term in mind as well as specific objectives set by the student and his or her supervisor.

General objectives include the following:

- a clearer understanding and confirmation of career alternatives and choice.
- professional attitudes and behaviour.
- a recognition of workplace learning.
- interpersonal skills and maturity.
- an ability to work as a team person.
- an ability to be self-motivated.
- an understanding of professionalism.
- an understanding of the broader environment.
- an ability to manage a work related project.
- technical skills appropriate to the position.

Specific technical and professional work term objectives related to the job and established in conjunction with the supervisor, as submitted to the Co-op Office, must also be addressed in the WTJ.

The WTJ is not intended to be a repeat of the diary; the focus should be on what the student learned, not on what the student did from day to day, or how the student felt about the work term.

Dated, detailed entries should be made, at least on a weekly basis, and should be typed. The early journal entries should focus on job content, objectives and preliminary observations. Subsequent entries should deal with job progress, realization of work term objectives, feedback from the supervisor, new assignments and any other job elements which the student believes to be significant. The final entry should be reflective of the overall events of the work term including workplace learning, employer feedback, how well objectives were met, a personal assessment of the work term and identified needs to be met in future work terms. This should be a summary of the whole work term. A typical journal should be about 10 to 15 pages long double-spaced and can be bound in any acceptable fashion. Prior to submitting the journal, students should review all entries and remove any duplicate or irrelevant information. A letter of transmittal as outlined in Appendix K should also be included.

The journal should not be written in the same booklet with the personal job diary, since they serve different purposes.

Because entries are being made on a regular basis, the journal should be concluded at the end of the last week of work and submitted to the Co-op Office along with the diary on the last official day of the work term.

Evaluation of the work term journal will be based on the following:

- physical features, including format, structures, neatness, and readability,
- thoroughness of entries, ideas, and actions,
- reflection on the ideas and actions and how they relate to the learning objectives, work place learning, career choice, and future areas for personal or professional development,
- communication effectiveness.

APPENDIX K COMMUNICATIONS GUIDELINES –TECHNICAL REPORT

The technical report is an important document for engineers. Engineers will be expected to write reports throughout their careers. These documents may be written to analyze something, describe an existing process, or to document a decision. During their work terms, students are expected to complete a number of different types of reports. Specific instructions are given for the different work terms, followed by a detailed description of the technical report. Where there are differences between the report types, they will be noted.

Work Term 1

Students who work on the same project for a significant portion of their term are encouraged to prepare short technical reports on their projects for their communications component. Some employers require their students prepare internal reports for their files or draft reports for client; these are generally acceptable as work term reports. Where potential topics are not available, students should discuss this with their supervisor and ASM-CE.

Reports may be primarily descriptive, or could record a feasibility study, investigation, or design. A user's manual for equipment the student built or used, or software they worked with would also be acceptable documentation. Follow the general guidelines below except where noted for WT1.

Work Term 2

The communications requirement for Work Term 2 is a descriptive technical report to be submitted to the Co-op Office for evaluation. Work Term 2 students are also required to complete a personal job diary.

The Work Term 2 report usually describes some process, subject or project relevant to the student's work place. Sometimes descriptive reports are used for training purposes or to upgrade information on some aspect of the job that the student is working in. The report should demonstrate organization and communication skills, and should have a good summary. Follow the general guidelines below except where noted for WT2.

Work Terms 3, 5, and 6

The Work Term 3 requirement is a comprehensive formal technical report. A student in Work Terms 5 or 6 who chooses to complete a formal report should also use this format. The report should be based on some aspect of the student's job or the industry that he or she is working in. Ideally, the report should illustrate a substantial amount of research, design, or analysis to permit the drawing of detailed conclusions and recommendations; however, if the student's placement does not allow such a study, some other form of report, such as an operating manual or software documentation, may be permissible.

Topic

Students should discuss their topic with their employer early in the term as the supervisor may have a particular topic or project that the organization would like documented. The topic and the report should reflect the student's level in the engineering program. Sometimes a report may not be required by the employer, which allows the student the opportunity of exploring a topic of their own interest. If the student has difficulty selecting a topic, he or she should discuss it with their ASM-CE.

An outline of the proposed report should be sent to the Co-op Office on the form provided. This outline should include the title, the purpose of the report and a brief description of the major topics to be covered. A tentative table of contents would also be useful. An ASM-CE will review this outline and discuss it with the student, during the site interview.

There are many good reference books available either in a book store or library to assist in report writing. One good reference is a book *Guidelines for Report Writing* by Ron S. Blicq⁵. Students are encouraged to select a good reference book and use it throughout their undergraduate career.

Report Guidelines

Please follow the guidelines listed below:

- Print the report single sided.
- Use 12 point font; Times New Roman and Arial are the two most common choices. The same font should be used throughout the report, including the letter of transmittal.
- Print double spaced, and leave a 1.5” margin on the left for binding, and 1” margin on the other three sides.
- Acronyms should not be used in the Summary, and must be introduced the first time they are used.
- Report should be 15-20 pages (excluding illustrative figures and tables), 12-15 for Work Term 1. When determining report length, page count begins with the introduction and ends with the recommendations. They do not include appendices, or any front-matter.
- Pages should be numbered, beginning with page 1 for the introduction. Page numbers should be printed on each page.
- Sections and sub-sections should be numbered.
- References/bibliographies/etc. should be sections following the body of the report.
- Bind the report using a suitable method, this does not include a three-ring binder, or stapling.
- Reports written as part of the communications requirements for work terms must be written in the formal style. This means that students should use formal wording, avoid colloquialisms and jargon, and write in **the third person**. Terms such as “I” and “We” should only be used in the letter of transmittal, and contractions are not permitted.

The Formal Report⁵

The word ‘formal’ indicates that a certain formal structure is used for arranging the report. This structure distinguishes the formal report from other types. Formal technical reports usually address substantial subjects such as

- the feasibility of a design or project,
- an evaluation of a new process or product,
- an environmental impact review,
- project reports.

⁵ This guide is based on *Guidelines for Report Writing* by Ron S. Blicq., Prentice-Hall Inc., 1992, pp 8,11, 12

The structure of a formal report in the order that the main sections are found is as follows:

- Cover Page
- Letter of Transmittal
- Title Page
- Summary
- Table of Contents
- List of Illustrations@
- List of Acronyms@
- Statement of Scope@
- Acknowledgement@
- Introduction
- Discussion
- Results@
- Conclusions %
- Recommendations %
- References
- Bibliography @
- Appendices @
- Back Cover

* Items marked @ above are considered optional based on the report, other sections are required for most technical reports.

* Items marked % above are not required for descriptive reports, such as WT2.

Very often parts marked @ above are combined with one of the major parts; for example, the scope and foreword may become part of the introduction. They may also be combined with each other, or they may be eliminated entirely; for example, acknowledgements, list of illustrations, statement of scope, and bibliography are often not included. Whether these parts are included as separate items, combined with one of the major sections or with each other or left out entirely depends on the objectives of the writer, the complexity of the report and the needs of the reader. They should not be included unless there is a reason for doing so. The following treats each part in the order of appearance in the report:

Detailed instructions for technical report sections

Cover Page and Report Title

The cover page of the report may be plain, or specially designed for the project. It may be cardstock with the printing on it, or under a protective plastic page. The cover page of the report is analogous to the cover of a text book, and limited information is provided. The cover page should include the title of the report, and the name of the author at a minimum.

The title is an important feature of the report. It should provide a window into the subject. Telling words like evaluation, feasibility, progress, status and impact are useful in the title. It should be specific enough to give the reader a good idea of what the report will be about but not so long as to become confusing. It is acceptable to take certain grammatical liberties in a title if it improves the result. For example the following title "The Design and Construction of Concrete Structures" may be written as "Concrete Structures: Design and Construction."

Company letterhead (if permitted)

Your address at work

Date of submittal

(Student's ASM-CE this work term)
Co-operative Education Office
Faculty of Engineering and Applied Science
Memorial University of Newfoundland
St. John's, NL
A1B 3X5

Dear Mr./Ms. (ASM-CE's last name):

During this work term (Engineering 004W), I was employed with Town of _____ as a construction inspector with the Works Department. This was my second work term with the town and this time I was supervised by _____ P.Eng., the town's construction engineer.

Since the town currently has a higher capital budget than normal, the Works Department was required to manage an extensive range of projects. I was fortunate to gain exposure to many of these projects, and when the chief surveyor was on annual leave, I supervised the survey crew.

The enclosed work report titled _____ resulted from a request by _____, the town's environmental officer concerning PCBs which were produced by the town's own operation over the years. I was required to become familiar with the relevant provincial regulations and I designed a small enclosure for the municipal depot which is estimated to cost \$17,800.

If there are any questions concerning this report, I would be pleased to discuss them with you.

Yours truly,

(signature, by hand)

Your Name

Letter of Transmittal

The letter of transmittal should be bound with the report inside its cover. The letter is addressed to the person for whom the report was prepared. It usually provides a reference to the reason the report was prepared, the scope of the report, and a brief digest. It may draw attention to specific aspects of interest to the intended reader. A letter of transmittal *must* accompany each work term communications deliverable. A typical letter is shown on the previous page. If permitted, a student may choose to use company letterhead.

Title Page

The essential elements of the title page are as follows:

- the full title of the report,
- the name of the organization for which the report was prepared and sometimes the person for whom the report was prepared,
- the name of the originating organization and sometimes the name of the person preparing the report, and
- the date the report is presented or issued and any other identifying reference such as a report number.

The title page should be neat and simply laid out so that the four essential elements are clearly seen. Visual appeal and dignity of appearance should also be evident.

Summary

The summary is the most widely read section of the report. Many readers rely on it to decide if they need to read the full report.

The summary is placed after the title page in a formal report but before the Table of Contents. It is the first numbered page of the report being given by the Roman numeral 'i'. The summary should be on a page to itself and if the material does not require the full page it is centred top to bottom to give a neat appearance. The summary must be brief, but complete; it should present the essentials of the report, and not refer to it.

The summary should contain some or all of the following:

- a statement of what the report is about (purpose, scope, problem, background),
- a statement of the work that was undertaken,
- a statement of the results obtained,
- a statement of the main conclusion,
- a statement of the main recommendations and their costs.

Do not include information that was not covered in the report.

Although the summary is placed at the beginning of the report, it is not prepared until after the report is written. The summary must stand on its own; it is based on the report and should not give any information, conclusions or suggestions not stated in the report. The summary should not cite any references nor refer to any figures or tables.

Table of Contents

A formal report must contain a Table of Contents which is located just after the summary as page 'ii' of the report. The Table of Contents provides a quick guide to the contents of the report and helps the reader locate specific information quickly. The headings of each main section and subsection are listed according to the page on which they begin. Appendices are usually separated from the other contents and are designated by numbers or letters, the appropriate title or heading and the page number. If the report contains many illustrations, the 'List of Illustrations' follows the Table of Contents. Infrequent illustrations dispersed throughout the report are not listed in the Table of Contents.

List of Acronyms

A report that contains a large number of acronyms may include a list of them at the beginning of the report. This list should be in alphabetical order in order to make the acronyms easier to locate. Acronyms must still be typed out in full the first time they are presented in the body of the report.

Statement of Scope

A separate statement of scope is sometimes included with reports prepared by consultants for a fee. This statement outlines the limitations or scope of the report. These may be imposed by the authority requesting the report or by the person preparing it, and can be related to cost, time, depth of study, methodology, equipment and any factors to be specifically included or omitted. The scope of the report may also be given in the letter of transmittal, introduction and the summary of the report. A separate statement of scope should not be included unless there is a specific need for it.

Acknowledgements

A separate section for acknowledgements can be justified only if there are a great many persons or organizations to be given credit. It is used more for books and publications than for reports.

Acknowledgements, if given, should be specific. Statements like 'I would like to thank everyone who assisted me with this report' are meaningless.

Introduction

The purpose of the introduction is to provide the reader with all the background necessary to properly read the report. It introduces the subject, describes the circumstances leading up to the decision to prepare a report on this subject and presents the reason(s) it was undertaken along with any important limitations.

There are three main components to the introduction.

- The background, which describes the events leading up to the existing situation, what work has been done on the subject previously and by whom, and why the study or project is necessary.
- The purpose defines what the study or project (or report) is to achieve, who authorized it and the specific terms of reference.
- The scope outlines any limitations imposed on the project and states who imposed them. Cost, time, depth and extent of study methods, equipment, factors to be included or omitted, are mentioned here.

Discussion Sections

One or more discussion sections may be required to address the subject. The first discussion section may be started on a new page or continue on after the introduction. Whatever method is chosen should be used consistently throughout. Within the report the title of this section should indicate the material to follow. The section should not be titled "Discussion" the section should be titled using a name that indicates the material included.

It is important to present the information in the discussion logically. The order of subsections and the order of information within each section will determine how easily the reader will follow the text. An author must decide what the reader is most interested in knowing, what else the reader needs to know and must answer any questions that arise.

Students must bear in mind the technical knowledge of their readers – their supervisors and the ASM-CE, faculty member or PEGNL volunteer, and prepare the text accordingly.

Charts, Tables and Photographs

Illustrations do not form a separate section of the formal report but rather are used as required throughout the report. If the report uses many illustrations, it's a good idea to provide a List of Illustrations after the Table of Contents to help the reader find specific illustrations. In technical reports, illustrations often provide vital information they may be difficult to portray using text alone. Illustrations do not replace written text; they supplement it.

The writer must decide whether to use an illustration and, if so, what type of illustration to use and where to locate it. The following guidelines apply.

- Illustrations can include drawings, figures, tables, sketches, schematics, flow charts, diagrams, graphs and photographs.
- An illustration should be used if it will help the reader understand the material.
- Each illustration should be numbered sequentially and provided with an appropriate title or caption.
- The illustration should be simple, neat, clear and easily understood. Large complex illustrations such as folded drawings or charts belong in an appendix. Down-sized versions or schematics can be placed in the text.
- Illustrations meant to assist the reader in understanding the subject belong in the text as close as possible to the point of reference. The narrative at this point must refer to the illustration.

Conclusions

Students completing a descriptive report for WT1 or WT2 are not expected to write conclusions for their reports. A "Concluding Statements" section that permits a wrap up, or area for final comments is permitted.

Conclusions and recommendations are sometimes inadvertently placed in the same section under the heading Conclusions and Recommendations. This practice is not recommended because there is a danger that a conclusion may be taken for a recommendation or that a recommendation may be stated loosely or weakly. Similarly conclusions and results should not be confused; results are obtained by applying a method or approach to the problem under consideration, conclusions are drawn from the results by applying the criteria or guidelines established in the discussion and the introduction. For example, a study of the condition of all concrete bridges in St. John's might find that some were in poor condition with cracks, exposed reinforcement steel, spalling, etc. These are results, not conclusions. If criteria are applied such as safety, maintenance, life expectancy, a conclusion might be that certain bridges are in poor condition and have a limited life expectancy.

Everything presented in the conclusions must have been discussed in previous sections of the report. That is the function of the discussion section.

Conclusions should:

- be as brief as possible with their main points drawn from the concluding paragraph or statement of each section of the discussion,
- satisfy the requirements established in the introduction (background, purpose, scope),
- never advocate action, and
- be presented clearly and accurately in a neat format, for example, in point form and numbered.

Recommendations

Students completing a descriptive report for WT1 or WT2 are not expected to write conclusions for their reports. A "Concluding Statements" section that permits a wrap up, or area for final comments is permitted.

The recommendations section presents the preferred plan of action. Normally several courses of action are open, each with attendant advantages, disadvantages, costs, limitations and ramifications. These should have been previously discussed and conclusions drawn based on the criteria being applied.

In the example of the bridge study previously referred to, the student may have concluded that it will cost \$1.3 million to replace a badly deteriorated bridge. To repair the same bridge to an acceptable standard will cost \$300,000 now and \$20,000 a year in maintenance. The bridge will have to be replaced eventually. The recommendations should state which option is preferred and, briefly, why.

Recommendations should:

- be specific, definite and clearly stated,
- be strong and advocate action,
- satisfy the requirements established in the introduction,
- follow logically from the conclusions, and
- be presented in a logical order, e.g. by importance, chronologically, functionally.

List of References

A list of references must be provided if the work is based on, or refers to, other reports, documents, texts, presentations, discussions, etc. Material found on-line should also be correctly referenced, and students should be careful to rely only on valid, trustworthy sites. Wikipedia, for instance, can be changed by any user and is therefore not a valid site for obtaining technical information. The list of references is only for works cited directly within the report, and must be in the order in which the citations are provided.

Documents that have been read, but not directly or indirectly quoted should be listed in the Bibliography, not the Reference list.

All specific statements from on one or more source documents must be correctly referenced or 'cited'. Statements with openings such as 'It has been shown...', 'It has been demonstrated...', 'Research has shown...', 'It has been proven...' require documentation. Quotations must be attributed to their source by a specific reference and set apart from other text by use of quotation marks. Any direct quotations or information that is essentially a direct quotation must be correctly cited. All diagrams or photographs that are not the student's personal work must also be correctly cited.

General statements summarized from source documents as well as inferences and ideas based on other's work should also be documented to their source. General information that can be considered public knowledge in the field need not be documented. The requirement for precise documentation is greater for academic and scientific reports than for business and other technical reports. However, all reports must be referenced to the level that an interested reader can identify the sources and obtain them if desired.

Guidelines on referencing can be obtained from the library. You may also find more information online at:

- www.ieee.org/documents/ieeecitationref.pdf
- www.mun.ca/writingcentre/plagiarism/
- <http://www.york.ac.uk/integrity/referencing.html>

Referencing Using IEEE

Students may choose any referencing style, however for consistency and versatility, the IEEE style is recommended. Another common style is the APA format. Information on both of these formats may be found at www.york.ac.uk/integrity/ieee.html. An example of the IEEE format from this source is shown below.

Book (2 authors)

[4] F. Giannini and G. Leuzzi, Nonlinear Microwave Circuit Design. Chichester: J. Wiley and Sons, 2004.

Website with author

[47] J. Amos (2012, Feb. 12). "Eavesdropping on the Squid World". BBC News [Online]. Available: <http://www.bbc.co.uk/news/science-environment-17117194>. [Accessed: Feb. 27, 2012].

Telephone conversation/email/etc.

[1] J. K. Author, private communication, Abbrev. Month, year.

Magazine article

[30] "Engineering Doctorate Showcased", The University of York Magazine, p. 5, February 2010.

Bibliography

A bibliography may be included in a formal report. It may be thought of as an expanded reference catalogue for further reading. Bibliography entries are not numbered; they appear in alphabetic order of authors' names. Generally a bibliography is used with professional journal articles, textbooks and academic theses; a list of references is used with technical and business reports. Both may be used if the report justifies it.

Appendices

Appendices contain large, complex drawings, source documents, data, specifications, test results, cost comparisons, etc. This information provides broad base support for what is said in the discussion but the report can be read intelligibly without it. The following criteria apply:

- appendices appear in the order in which they are first referred to in the report.
- appendices are considered to be individual documents; each may be paginated separately, starting at 'i'.
- each appendix is given an identifying letter, e.g., "Appendix A", "Appendix B", etc.

All information provided in an appendix **must** be referred to in the report.

APPENDIX L COMMUNICATIONS GUIDELINES – ORAL PRESENTATION

General

The requirement for Work Term 4 is an oral presentation. Students in Work Terms 5 or 6 who choose to complete an oral presentation should follow the directions in this appendix. The presentation will take place on campus usually during the first or second week of the next academic term. All students must present during the time specified. If for some specific reason a student is unable to present at that time, he or she must follow the guidelines established for a deferred exam as stated in the University Calendar. Faculty and students' supervisors will be encouraged to attend the presentations. The length of the presentation is normally 10 minutes with five minutes for questions. The evaluation will be carried out by ASMs-CE, Faculty, employers and students attending the presentation, using the criteria attached.

In addition to the presentation, students are required to submit a letter of transmittal, three to four pages of summary of the presentation and a paper copy of the slides to be used in the presentation. This summary must be written in the formal style as indicated in APPENDIX K. This implies that the report should be in 3rd person, and be written formally. It should be written as a summary of the presentation, but not a slide by slide description.

The summary cover letter and a copy of the presentation should be bound and be submitted on the last day of the work term as published in the University Calendar. The presentation may be printed in colour or black and white as appropriate and should be limited to no more than two slides per page.

Guidelines

There are three main reasons to give a presentation: to inform, to persuade, as with a sales presentation, and to entertain. The Oral Presentation is to inform.

The following time schedule will be strictly enforced:

Presentation time	10 minutes
Leeway/grace	1 minute
<u>Question and answer</u>	<u>4 minutes</u>
Total Time	15 minutes

Material delivered in an oral presentation should differ from written material in its level of detail, organization and presentation. In a 10-minute presentation, detail will confuse the audience. Students should concentrate on a couple of main points and keep reminding the audience what the central theme is by relating each major section of the presentation to the theme. It is also important that students customize their presentations to the audience – for instance, all industry related terms should be fully explained.

The topic of the presentation should relate to the student's work term activities, but it is not a presentation on the work term duties; **the presentation should focus on the project, not the student's role in the project.**

The strategy should be to: "tell the audience what you are going to say", "say it", and "tell them what you have said". An oral presentation should create awareness and an interest in the topic that should generate questions at the end.

Students must use MS PowerPoint (2003 compatible) or an open-source equivalent to prepare slides for their presentations with the following guidelines:

- Limit the slide to one idea per page.
- Limit the slide to 5-7 bullets per page.
- Use consistent sentence styles on each page – ie. Actions starting with verbs, or descriptions starting with modifiers.
- Use a large enough font to be seen from the back of the room. 35+ point for titles and 18-35 point for bullets.
- Ensure tables and figures are legible from a distance.
- Use a letter style that is easily read by viewers at the back of the room, avoid script fonts.
- Use as few words as possible. Use graphs, charts, a picture or key words.
- No sound, animation, or video is permitted.
- As a general guide, use one slide per minute of presentation.
- Save a copy of the slide package in electronic format on a memory stick to bring to the presentation session. Students are not permitted to present using their own laptops.
- Performing a trial launch of the presentation on a computer other than the one on which it was created will help confirm that the presentation will work on presentation day.
- Reference all material, ie Pictures, Graphs, etc.

The general outline of the presentation should be as follows.

- Introduction – students should introduce themselves and give a brief overview on the company or department they worked with.
- Central idea – an introduction to the topic, its purpose and scope and what the student's role was in the project. The key is to get the audience's attention. The central idea is the minimum that the presenter would like the audience to remember.
- Body – this section discusses some of the details of the topic, again bearing in mind the audience and not getting bogged down in detail.
- Summary and Conclusions – this section is usually a restatement of the central idea of the presentation
- Questions – the presenter sometimes has to encourage the audience to ask questions by posing one him or herself, or asking the audience a question.

Students are permitted to use notes while presenting to keep them on track. These are usually key words or short sentences. It is recommended that students don't write out the entire presentation because they may tend to read from the written page instead of genuinely talking to the audience.

It is helpful to practise a presentation by presenting it to a friend or colleague. This will determine its final duration, allow fine tuning of the presentation and improve confidence.

Students are required to be on time for the start of the session, and to attend the entire session on the day they are to present. Students will be asked to actively participate in each session which includes asking questions and providing feedback to their classmates using the following form.

The reviewer may require a student to give the presentation a second time if it is considered less than adequate. This would have to be done before a final mark is assigned.

WORK TERM PRESENTATION EVALUATION STUDENT'S FORM

Name of Presenter: _____

Date : _____

CONTENT	Strong	Needs Improvement	
	\	/	
Introduction			
Student/role	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Topic <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Objective	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Background <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Organization of Material			
Logical Order	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Main Points Explained <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Internal Summaries/Transitions	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Well Defined Summary <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Technical Content			
Appropriate Subject	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Level of Challenge <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Knowledge of Subject	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Technical Depth <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Delivery			
Posture/Presence/Appearance	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Use of Notes/Cue Cards <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Vocal Ability	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Use/Quality of AV Material <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Speed of Delivery	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Confidence/Enthusiasm <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Mannerisms	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Time Management <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Use of Appropriate Gestures	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Response to Questions <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Eye Contact	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Audience Interest <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

OVERALL

Areas of Strength: _____

Areas of Improvement: _____

How would you rate this presentation?

☐ Excellent ☐ Very Good ☐ Satisfactory ☐ Needs Improvement ☐ Unacceptable

APPENDIX M THE COUNSELLING CENTRE AND CHAPLAINCY

During both academic and work terms, engineering students can avail of the various services offered by Memorial University's Counselling Centre.

Through individualized [personal counselling](#), outpatient psychiatric services and a wide range of [group counselling](#), professional staff and faculty at the Centre, with the assistance of supervised doctoral residents and practicum students from the various training programs on campus, help students to develop their own unique resources.

The Counselling Centre also helps students develop their study strategies through [academic support programming](#). The Centre offers support for study problems in which students learn to apply strategies for managing university level academic work more effectively. Following an intake session, students are provided with access to an online D2L course called, "Academic Skills Portfolio", that facilitates the acquisition and practice of helpful skills. In addition, students can register for the three credit-hour course ([Applied Cognitive and Affective Learning Strategies-UCC 2020](#)) designed to enhance the learning skills of undergraduate students. UCC2020 registration is completed through the Memorial course registration system.

Check out the brand new feature in Current Students if you are seeking help with studying, time management or procrastination.

The Counselling Centre is open Monday-Friday, 9 a.m. - 5 p.m. *With the exception of [special tests](#), [admission testing](#), and [UCC 2020](#)*, all services are **free to registered students**. Appointments can be made in person or by telephone, 864-8874. Appointments cannot be made via email.

A crisis counsellor is available for students who feel they need to be seen immediately Monday - Thursday from 10 a.m. - 1 p.m. and 2 - 5 p.m., Monday – Friday. Students are seen on a first come, first serve basis.

Students in residence, and in crisis after hours, may talk to their Residence RA or Proctor. Students not in residence, and in crisis after hours, may go to a local emergency room for assistance.

The Counselling Centre also offers a Wellness Program, which is designed to educate students about self-care and healthy lifestyles. In addition, the Glenn Roy Blundon Centre for Students with Disabilities, a division of the Counselling Centre, serves prospective and current students on Memorial's St. John's campus whose disabilities involve conditions affecting mobility, vision, hearing, learning (disabilities), chronic illnesses, or mental health. Support is also provided to students with documented temporary illnesses and injuries.

The source of the above information is: <http://www.mun.ca/counselling/home/>. More information can also be found through this link.

For additional resources, guidance and support, students can also contact the Chaplaincy at Memorial. The overriding intent of the Chaplaincy is to provide a forum for interaction, a non-threatening environment, opportunity for fellowship, as well as individual pastoral counselling and support.

The source of this information is: <http://www.mun.ca/chaplaincy/>. More information on the Chaplaincy at Memorial can also be found through this link.

APPENDIX N OCCUPATIONAL HEALTH AND SAFETY

Occupational Health and Safety is concerned with the working conditions and work process at places of employment. All persons at a workplace have a fundamental right to an environment that neither impairs their health nor imperils their safety. It is the responsibility of government, workers and employers to develop and foster awareness of health and safety matters.

The Occupational Health and Safety Act (www.assembly.nl.ca/legislation/sr/statutes/o03.htm) provides for specific obligations on government, employers, workers and self-employed persons, to make the workplace as free from health and safety risks, as possible.

Major points of Occupational Health and Safety Acts in each province include:

- **Duties of Principal Contractor** – The principal contractor engaged in a project shall ensure that employers, workers and self-employed persons performing work in respect of that project comply with the Act and the regulations.
- **Duties of Employer** – An employer shall ensure the health, safety and welfare of his or her workers, provide the necessary personal protective equipment, systems and tools; provide information, instruction and training; and ensure that the workers are familiar with the use of devices and equipment provided for their protection.
- **Duties of the Employee** – A worker shall take reasonable care and cooperate with the employer, to protect his or her health and safety and that of other workers in the workplace.
- **Right to Refuse Work** – A worker may refuse work if that worker has reasonable grounds to believe it is dangerous to their or any other person's health and safety. If the worker is reassigned to other work, or has not been reassigned, the employer shall pay the worker the same wages or salary and grant the worker the same benefits the worker would have received if the worker continued to work, or until he or she is able to return to work.
- **Stop Work Order** – If the conditions of the workplace pose an immediate risk to the health and safety of workers or others near the workplace, a written order to immediately stop work will be imposed and will not be lifted until the remedial measures in the order are in place. The employer shall continue to pay the workers the wages or salary and grant to them the benefits the workers would have received if the order to stop work were not in place.
- **Occupational Health and Safety Committees/Representatives** – A workplace where 10 or more workers are employed must establish an OHS Committee of not less than two nor more than 12 persons, where at least half are representatives of the workers, to monitor the health, safety and welfare of the employees. In the workplace, where less than 10 persons are employed, a worker health and safety representative will be elected.
- **Workplace Hazardous Materials Information System (WHMIS)** – The Workplace Hazardous Materials Information System is a national system designed to ensure that all employers obtain the information that they need to inform and train their employees properly about hazardous materials used in the workplace. Established uniform requirements are in place to ensure that the hazards of materials produced, sold, imported or used in Canada are identified by suppliers and employers using standard classification criteria.

- **First Aid Regulations** – Regulations are in place which govern the level of first aid required, the number of workers required to hold valid first aid certificates, and the quality of first aid kits in each workplace.

When a worker or member of the public files a complaint with respect to possible unsafe working conditions at a particular workplace, the complaint will be investigated by an Occupational Health and Safety Officer. The Branch will investigate all complaints received, whether they are anonymous or if the complainant wishes to leave their name. In any case, the name of the person registering the complaint will be kept in confidence.

APPENDIX O POLICY ON SEXUAL HARASSMENT

Sexual harassment is a violation of human rights. Memorial University does not tolerate harassment in any form. All members of the University have the right to study and work in an environment that is free from sexual harassment.

Sexual harassment is comments or conduct of a sexual nature and/or abusive conduct based on gender, gender identity, sex (including pregnancy and breast feeding) or sexual orientation, directed at an individual or group of individuals by a person or persons of the same or opposite sex, who knows or ought reasonably to know that such attention is unwelcome and/or unwanted. Sexual harassment detrimentally affects the work or learning environment or leads to adverse job-related or academic consequences for victims of harassment

Sexual harassment is any sexually oriented behaviour that:

- negatively affects an individual's work performance or creates an intimidating, hostile or offensive environment for learning or working,
- explicitly or implicitly endangers an individual's continued employment or impacts the conditions of employment or performance evaluation, or
- undermines an individual's dignity or self-worth.

Sexual harassment could include but is not limited to:

- sexually oriented verbal kidding,
- telling or posting of unwelcome jokes or cartoons of a sexually suggestive nature,
- sexist remarks or innuendos,
- subtle pressure for sexual interaction or activity,
- persistent and unwelcome requests for dates,
- inappropriate touching such as patting, pinching, squeezing, or brushing against another's body,
- inappropriate comments about a person's appearance, body, sex, or sexual orientation,
- leering, ogling, or suggestive sounds,
- suggestions about or offers of rewards for sexual favours, or reprisals for not granting sexual favours,
- inappropriate questions or sharing of information about a person's sexuality or sexual orientation,
- sexually oriented behaviour or remarks which create a negative environment.

The ECEO realizes that sexual harassment is serious and can interfere with the concept of co-operative education. The ECEO recognizes that sexual harassment is behaviour that could have a negative impact on a study/ work environment.

In the event that you are unsure whether an incident constitutes harassment or if you have concerns you are encouraged to seek support of the Sexual Harassment Advisor. Confidential consultations can be obtained by calling (709) 864-2015. Students may call collect if necessary, or email sexualharassment@mun.ca.

Memorial University has a responsibility to support students during work terms, placements, internships, instructional field courses or practica outside the University. The Advisor is available to students who wish to discuss incidents and options available to them.

Students are advised to report incidents of sexual harassment or other forms of discrimination that occur outside the University during work terms and can avail of the support, advice and guidance of the Sexual Harassment Advisor to do so. The Sexual Harassment Advisor is available to students during placements, internships, instructional field courses or practica outside the University. Students who are doing placements in non-University workplaces should report incidents of sexual harassment or other forms of discrimination that occur in this context.

Many of the companies, agencies and institutions that regularly employ or supervise students in non-University workplaces will have procedures to deal with sexual harassment or other forms of discrimination that students can use.

In the absence of company, agency and institutional policy, students can file a complaint or seek the advice of the Human Rights Commission or similar institutions to take the appropriate action.

APPENDIX P WORK TERM EVALUATION

The work term will be evaluated on the basis of the work term communications component and work term performance, as described below.

Communications Component

The written (or oral) communication component is intended to develop the following skills:

- the ability to research the subject appropriately, to conduct the necessary analysis and to effectively substantiate conclusions and recommendations,
- the ability to summarize findings and communicate, in writing or orally, in a professional manner, and
- the ability to apply concepts learned in the academic environment to learning objectives in the work environment.

The communication component will be evaluated by an ASM-CE or delegate. Technical reports are evaluated on the following components:

- structure,
- summary,
- use of resources,
- communication effectiveness.

Evaluation of the communication component will result in one of the following classifications:

Outstanding - the communication component quality is exceptional; there is clear evidence of the following:

- comprehensive knowledge of the subject matter and principles used,
- high degree of originality and independence of thought,
- superior ability to organize and critically analyze ideas,
- outstanding ability to communicate,
- good planning,
- outstanding effort put into the production of the communication component.

To be considered outstanding the communication component should have:

- all required sections completed, including letter of transmittal, summary and references,
- very few spelling, grammar and word processing errors,
- a professional presentation, and
- technical content verified by the employer.

Above Expectations - the communication component is of good quality with evidence of:

- substantial knowledge of the subject matter,
- moderate degree of originality and independence of thought,
- good ability to organize and analyze ideas,
- ability to communicate clearly and fluently,
- good planning,
- substantial effort put into communication component production.

Satisfactory - the communication component meets minimum requirements with evidence of:

- acceptable grasp of the subject matter,
- some ability to organize and analyze ideas,
- ability to communicate adequately,
- acceptable planning, and
- acceptable effort put into report production.

Marginal Pass - the written communication component has a number of weaknesses but would meet expectations after modifications are made. The communication component should, as a minimum, demonstrate evidence of:

- adequate knowledge of the subject matter,
- adequate ability to organize and analyze ideas,
- adequate ability to communicate,
- adequate planning, and
- adequate effort put into communication component production.

Fail - the communication component is unacceptable showing evidence of one or more of:

- inadequate knowledge of the subject matter,
- failure to complete required work,
- inability to organize and analyze ideas,
- inability to communicate,
- inability to plan the production of the communication component,
- inadequate effort put into communication component production,
- some or all of the report is plagiarised

At times, an ASM-CE may request that the student revise and resubmit his or her work report rather than be given a ***Fail*** grade.

- When a student has been given the opportunity to resubmit the communication component, the student will not be eligible for a grade other than ***Fail*** or ***Marginal Pass***.
- Normally, a student will be given a two-week period in which to resubmit the communication component.
- If the communication component is not revised to an acceptable standard within the specified time, a ***Fail*** will be recommended.

Work Term Performance

The key ingredient to a successful work term is the student's ability or openness to learn and/or further develop work related skills. These skills are demonstrated in a number of ways, and considered important to an engineer's abilities. These skills are:

- Interest in Work
- Initiative
- Organization and Planning
- Ability to Learn
- Quality of Work
- Quantity of Work
- Creativity / Problem Solving
- Judgement
- Interpersonal Skills / Teamwork
- Response to Supervision
- Written Communications
- Oral Communications
- Leadership

Within the first three weeks of the work term, the student, in consultation with his/her supervisor will establish performance and personal objectives for the work term. This should also include identification of skills necessary for the student to develop in order to perform the duties and responsibilities of his/her position. **The objectives shall be submitted to the designated ASM-CE for review.** The objective is that through the process, the student will acquire new skills which will be reflected in the workplace.

The work term performance will be based upon an ASM-CE's assessment of the employer's evaluation, information gathered from contact with the student, employer, and others in the workplace, and timely receipt of all work term documentation by established deadlines. The ability to plan and to meet deadlines is essential to a professional engineer.

The performance designation is the measure of success in fulfilling the requirements of the work place, taking into account the challenges and opportunities available to the student. It also reflects the working relationship established by the student with the ECEO. Most of the items under each category must be maintained in order to qualify for that designation.

Outstanding - the student has completed an excellent work term, demonstrated by:

- student highly challenged or seeks new challenges,
- high degree of skills and attributes,
- excellent work ethics,
- excellent time management skills, completes assigned task, accurately, ahead of schedule,
- all documentation submitted in a timely manner,
- maintains an excellent working relationship with the ECEO,
- exceeds employer's expectations in all areas.

Above Expectations - the student has completed a very good work term, demonstrated by:

- highly or moderately challenged,
- generally good skills and attributes,
- very good work ethics,
- good time management skills, completes assigned task, accurately and on time,
- all documentation received,
- maintains a good working relationship with the ECEO, and
- exceeds or meets employer's expectations in most areas.

Satisfactory - the student has completed a good work term, demonstrated by:

- acceptable level of challenge,
- acceptable skills and attributes,
- good work ethics,
- acceptable level of time management skills, most assigned tasks completed on time with few errors,
- most documentation received,
- maintains an acceptable working relationship with the ECEO,
- meets employer's expectations.

Marginal Pass - the student meets the minimum requirement of the work term. The student will be monitored and is expected to improve in the next work term. The performance has weaknesses, demonstrated by:

- low level of challenge and student does not seek new challenges,
- some weakness noted in skills and attributes,
- acceptable work ethics,
- time management skills need improvement, some assigned tasks not completed or with errors,
- some of the documentation late or not received,
- working relationship with the ECEO needs improvement,
- did not meet all employer's expectations.

Fail - Performance is unacceptable, demonstrated by one or more of:

- low level of challenge and student does not seek new challenges,
- unacceptable level of skills and attributes,
- poor work ethics,
- poor time management skills, assigned task not completed in acceptable time frame or with high degree of errors,
- most or all of the documentation not received,
- poor working relationship with the ECEO, and
- did not meet employer's expectations.

Overall Work Term Evaluation

The overall evaluation of each work term will be based upon the communication component and work term performance and will result in the recommendation of one of the following grades:

Pass with Distinction - to receive a recommendation of *pass with distinction*, a student needs to obtain an evaluation of *outstanding* in both the communication and work performance components of the work term.

Pass - to receive a recommendation of pass a student must achieve an evaluation of *marginal pass* or better in both the communication component and the performance component of the work term.

Fail - a student receiving a *fail* in either or both the communication and performance components of the work term will receive a recommendation of *fail*.

For promotion from the work term, a student must obtain ***Pass with Distinction*** or ***Pass***.

A student who receives a grade of Fail on any work term will be required to repeat that work term prior to graduation regardless of whether the work term is mandatory or elective.

Students should be aware of the University's policy on plagiarism. More information can also be found on the Writing Centre's web page <http://www.mun.ca/writingcentre/plagiarism/>