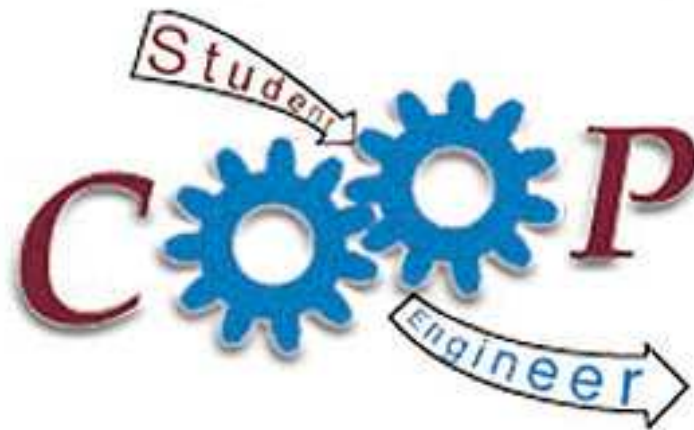


Engineering



UNIVERSITY OF MINNESOTA

University of Minnesota Company Handbook

May 2009

MEMORANDUM

Engineering CO-OP Program
University of Minnesota
1120 Mechanical Engineering Building
111 Church Street SE
Minneapolis, MN 55455

TO: Engineering Company Supervisor
FROM: Virgil A. Marple, Director of Engineering CO-OP Program
SUBJECT: Engineering CO-OP Program Student Work Assignment

This handbook has been written to help companies become more familiar with the purpose of the Engineering CO-OP Program and the requirements that are placed upon both the student and the company.

The purpose of the Engineering CO-OP Program is for the University and industry to CO-OPERate in the education of the student. There are many things a student can learn more effectively at the University and there are many things that a student can learn more effectively at a company. By combining the efforts of both the University and industry, a valuable education can be provided to the student.

I would like to thank you for participating in the Engineering CO-OP Program and hope that it will be as rewarding for you as it is for the student.

Sincerely,

Virgil Marple

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Table of Contents

Accreditation Board of Engineering and Technology Cooperative Education Criteria.....	4
Identification.....	4
Requirements.....	4
Employer Commitment.....	4-5
Hiring and Firing a Student	5
Interview Process.....	5-6
Discharging a Student	6
Alternative Interviewing Options.....	6
Semester Layout	7
Grade Point Average Requirements	7
Program Fee Details.....	7
Professionalism By Students.....	8
Industrial Assignment Requirements.....	8
Student Work Load Requirement	8
Industrial Assignment Reports and Curriculum	9
Supervisor’s Approval of Work Completed.....	10
Performance Reviews	10
Program Calendar	11
Salary Information	12
Program Involvement Statistics	13
Glossary of Terms.....	14
Index.....	15

ACCREDITATION BOARD OF ENGINEERING AND TECHNOLOGY COOPERATIVE EDUCATION CRITERIA

IDENTIFICATION

The requirements which must be fulfilled by students who enter and complete the Cooperative education program should be identified in an official publication of the institution.

REQUIREMENTS

In addition to meeting the general criteria for engineering programs, a cooperative education program should include the following requirements:

1. Admission of students to CO-OP programs must be the responsibility of the educational institution.
2. Formalized alternation of periods of full-time academic college training with periods of full-time work experience of approximately equal length.
3. At least one calendar year of institution supervised work experiences in several industrial periods.
4. Enrollment by the student in the CO-OP program during the periods of employment.
5. Evidence of cooperative education participation, progress and employer evaluation of the student should be maintained as a matter of permanent institutional record.
6. Productive academic relationship between the faculty of the college and the CO-OP program administrators.
7. Efforts should be made to ensure that work assignments are related to academic and career goals, and that progressively more responsible positions are realized in the work experience periods.
8. Students should be informed of the evaluation of their work experiences.

EMPLOYER COMMITMENT

There should be evidence of marked commitment on the part of the institution and the participating employers of the program. The cooperative work experience period should be

more than incidental employment; it should be part of an industry training activity, recognized as an acceptable part of a professional employee development program.

HIRING AND FIRING A STUDENT

INTERVIEW PROCESS

1. Students will apply for the program by within two weeks of the beginning of the semester.
2. Companies and students will indicate to us by September 11 (for the fall semester) or by February 1 (for the spring semester) if they plan on participating in the interview week.
3. Companies will then **register online** to indicate how many days and which days they would like to interview. Interview days will be split in two: 1st session will be from 8AM to 11:30AM. 2nd session will be from 1PM to 4:30PM. Each session consists of 5 – 30 minute interviews.

Note that we feel that we can comfortably have 15 companies interviewing on any given day. At the time the application to participate is submitted, the companies should include a full description about the available CO-OP positions

4. The descriptions provided by the companies will be distributed to all the students. Simultaneously, companies will receive an email with all of the “actively-looking” students’ resumes, transcripts, and applications.
5. Students and companies will then send the CO-OP office a list of who they are interested in.
6. We will take the information provided by the students and companies and set up interview schedules. We will attempt to match the students to the companies by the student's desire, the company requirements of GPA, and students expressed interest in specific areas that appear to match the interest of the companies. Companies will also interview around 50% of students they were interested in.
7. Companies and students will be notified of the interview schedule at least 2 weeks prior to the interview weeks.

8. Interviews are held at the University of Minnesota.
9. Companies can conduct second interviews and on-site visits at any time after the interview.
10. Companies will submit their post-interview student preferences forms online two weeks after the last day of interviews ranking the students they would like to hire and students they would not hire. At the same time students will submit a post-interview preference form ranking the companies they would like to be matched with.
11. The co-op office will notify the companies and students of their match one week after the post-interview preference forms are submitted.

DISCHARGING STUDENTS

If an employer discharges a CO-OP student, or if a student leaves a position without the consent of the Engineering CO-OP Program Director, the student is automatically dropped from the program.

Although there is not a written contract with the companies to guarantee the continued employment of CO-OP students the entire two/three semesters (duration of co-op decided upon hiring student), there is a moral obligation on both sides to continue the program as agreed at the time of hire. There have been a few occasions when companies have eliminated a program before completion. Such decisions are not arrived at lightly and are viewed negatively by everyone involved. If this should occur, Engineering CO-OP Program personnel will do everything possible to reassign that student.

ALTERNATIVE INTERVIEWING OPTIONS

If a company has a need to interview for a CO-OP student at times other than the one-week of interviews, the company should contact the CO-OP office and resumes for students seeking a CO-OP position will be sent. The company can contact these students directly and arrange for interviews at the company. This process is only encouraged for companies that have missed the Spring Break interviews or have a need for a student at a time when it is not convenient to wait for the Spring Break interviews. Companies can also interview for CO-OP students through the Career Center for Science and Engineering. They should be contacted directly for their procedures.

SEMESTER LAYOUT

The duration of the co-op will be decided by the company and student upon hiring. The standard CO-OP program for a student is to work and go to school on alternate semesters for a total of two or three semesters of work. However, in some cases, it is advantageous to have two of the three work periods be back-to-back. That is, a summer/fall work period or a spring semester/summer work period. The third work period will probably be the following summer.

GRADE POINT REQUIREMENTS

The GPA requirement for students getting into the program depends on the GPA requirement to get into upper division for their major. The Mechanical Engineering GPA requirement to get into upper division is 2.5, the Electrical and Computer Engineering GPA requirement to get into upper division is 2.3. This allows all students submitted into upper division a chance to participate in the CO-OP program.

PROGRAM FEES

A program service fee of \$650 per student work semester (about 90 cents per hour) will be charged to the participating companies. Invoices will be mailed shortly after the fourth week of the semester. The income will be used to support the CO-OP program and allow the CO-OP office to provide continuous service to the students and companies, as well as to support the bi-annual intensive one-week interview period, without cutback at the University negatively affecting the program, as has happened in the past. After having abandoned the interview week for several years, we concluded that joining all interested companies and all students on campus for four days during spring semester break is a more efficient and more convenient for all parties.

PROFESSIONALISM BY STUDENTS

Any misunderstanding that a student might have with a company should be discussed with Engineering CO-OP Program personnel.

Lay-offs or enforced absence due to illness, etc., should be reported immediately to Engineering CO-OP Program personnel as well as the employer.

A student on industrial assignment must observe all the rules and regulations of the company and not expect special treatment. For instance, University holidays do not apply during industrial assignment.

INDUSTRIAL ASSIGNMENT REQUIREMENTS

STUDENT WORK LOAD REQUIREMENTS

Students must complete at least two semesters of industrial assignment (6 credits) to receive CO-OP Designation on their transcript. We encourage students to complete three semesters (8 credits) but students can petition to complete only 6 credits of the CO-OP Program curriculum; in this case, students would only complete 3041 and 4043.

The industrial assignment period is set up for full-time employment. A student will not be allowed to take day school courses during the work semester without permission from the CO-OP Company and Engineering CO-OP Program personnel.

Normally CO-OPs are discouraged from working during their academic semesters. However, circumstances sometimes arise in which students are needed for their special skills, knowledge or experience on a specific job. Students should have a somewhat better than average current GPA and should not exhibit a decline in performance. Under any circumstance, school hours should not exceed ten per week.

Whenever students are in doubt concerning their relationship in industry or academic status, it is suggested that they contact Engineering CO-OP Program personnel.

If students are laid off, they will not lose the credits earned for any of the industrial assignments they have completed, even though they may not have the full eight credits.

Students should at all times keep the Engineering CO-OP Program Office and their CO-OP company notified of their current address, e-mail and telephone number.

INDUSTRIAL ASSIGNMENT REPORTS AND CURRICULUM

Students participating in the Engineering CO-OP Program are required to write three reports for which they will earn a total of 8 credits. The course numbers in the order they are to be taken and credits assigned are as follows:

- Engineering 3041 2 credits
 - Summary of an article in a technical journal
 - Draft and outline (snapshot) of paper.
 - Final 8 to 11 page paper
- Engineering 4043W 4 credits
 - Summary of technical article
 - Draft and outline (snapshot) of paper
 - Final 25-page design report
- Engineering 4044 2 credits
 - Technical PowerPoint presentation
 - (20 minute presentation using PowerPoint)
 - 3 page reflection paper about CO-OP experience

The above courses represent the industrial assignment and the accompanying reports become graduation requirements for students participating in the Engineering CO-OP. In order to receive any credit for the industrial assignments, all assignments must be submitted for all work semesters.

Time extensions on reports will not be given. The only excuse will be if the company is holding a report to check for propriety information, or if the report is being held by a company for some other reason beyond the student's control. In this case the company supervisor must either call Engineering CO-OP Program personnel or send a letter explaining these circumstances.

SUPERVISOR APPROVAL OF WORK COMPLETED

Supervisors need to read and sign student's reports for propriety reasons only. Other items such as grammar, punctuation, content, etc. are evaluated by the Director of the Engineering CO-OP Program and an Engineering CO-OP Program Teaching Assistant.

For all reports, the research and writing should occur on the student's own time, not company time. The report itself should not be part of the regular job assignment, although in many cases it may describe a technical job assignment.

PERFORMANCE REVIEWS

At the end of each industrial assignment, a student work rating form should be completed by the student's supervisor and returned to the Engineering CO-OP Program Office. These ratings are a part of the student records. They are available to the student approximately three weeks after the opening date of the academic semester. Students are strongly urged to review their rating forms either in our office or with their work supervisor. These forms are considered confidential and will not be released without written permission from the student.

ENGINEERING CO-OP PROGRAM PRELIMINARY CALENDAR FALL SEMESTER 2009

(Changes may occur to the schedule)

AUGUST						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

AUGUST DATES

- August 1 – Registration for fall interviews opens

SEPTEMBER						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

SEPTEMBER DATES

- September 11 – Company Interview Registration due
- September 11 – Company Profiles due

OCTOBER						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

OCTOBER DATES

- October 8 – Job Fair in MechE/Arch hall
- October 9 – Student Registration due
- October 16 - Student & Company Preferences Due
- October 20 – Interview Schedules Sent out
- October 27 → 30 – On-Campus Interviews

NOVEMBER						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

NOVEMBER DATES

- November 2 & 3 – Overflow interview days
- November 13 – Post Interview Pref lists due
- November 20 – Student and companies matches sent out

DECEMBER						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

DECEMBER DATES

- December 16 → 23 – Final Exams

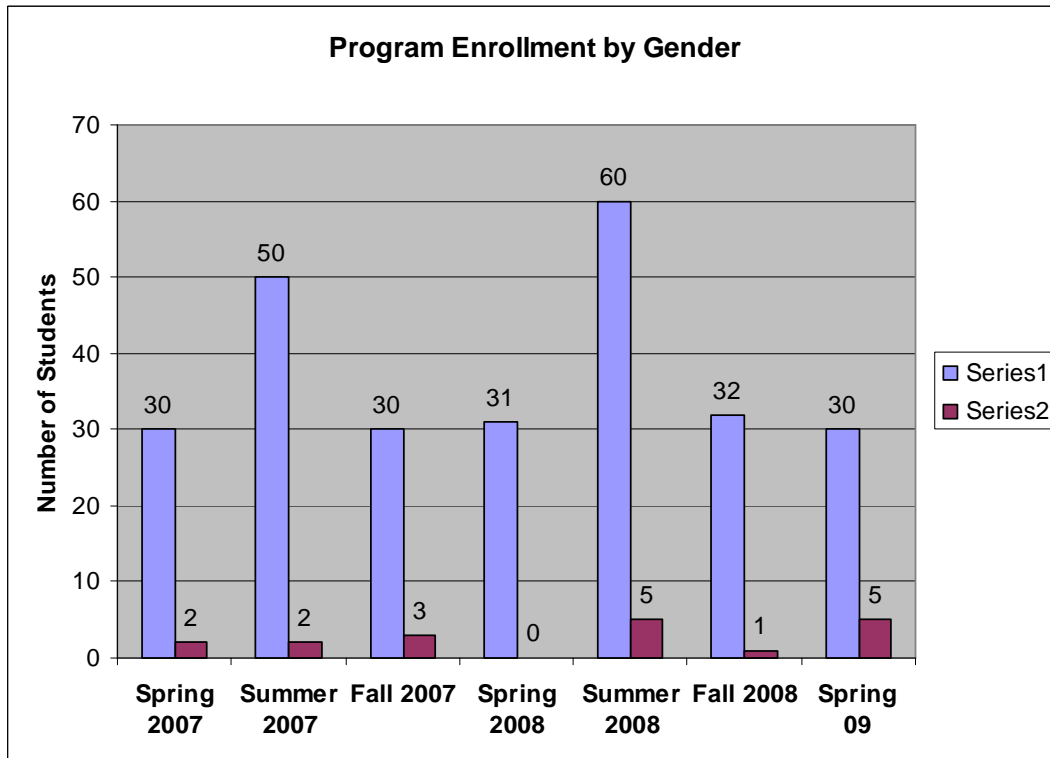
STATISTICAL INFORMATION

SALARY INFORMATION

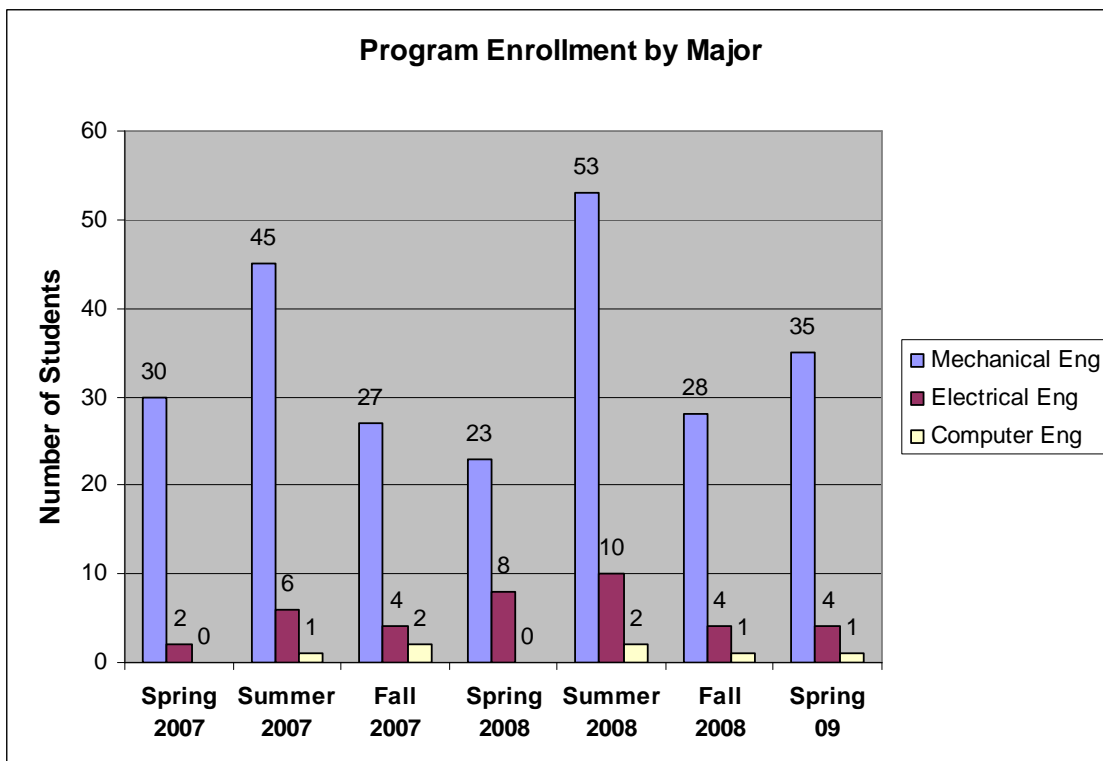
Survey last taken July 2008

Company Names are Confidential	Salary 1st semester	Salary 2nd semester	Salary 3rd semester	Comments
	\$15.00	\$16.00	\$17.00	
	\$16.50	\$17.50	\$18.50	
	\$16.50	\$16.50	\$16.50	
	\$16.00			
	\$15.00	\$16.00	\$17.00	
	\$14.00	\$15.00	\$16.00	
	\$16.00	\$16.00	\$16.00	
	\$21.15	\$21.15 – 22.63	\$21.15 - \$24.33	We pay %100 of our market value at minimum. Increases in subsequent work terms are based on performance.
	\$13.50	\$14.00	\$14.50	
	\$15.00	\$16.00	\$17.00	I am estimating that we will be increasing the wage to \$17.00 for the 3 rd semester. Our co-op student is currently working his 2 nd semester.
	\$ 15.80	\$15.80		
	\$15.00	\$16.00	\$17.50	These are rough guidelines... in general. It does depend some on whether co-ops work summers or not. In general we start folks at \$15.00 and they max out at \$17.50.
\$15.00	\$16.00	\$17.00	←Average	

PROGRAM INVOLVEMENT



*Numbers are based on the number of students registered in Co-op courses 3041, 4043 and 4044 required for all co-op students.



GLOSSARY OF TERMS

Active Student: A student who has already acquired a co-op with a company.

Curriculum : Instruction given to a student to fulfill the requirements for a degree.

Industrial Assignment : An assignment taking place in a location other than a traditional school setting.

Performance Review: A review done by a supervisor to assess the capabilities, strengths and weaknesses of an employee.

Semester : A fifteen week term with in an academic year.

INDEX

Accreditation Board of Engineering and Technology Cooperative Education Criteria, 3

Alternative Interviewing Options, 6

Discharging a Student ,5

Employer Commitment, 4

Glossary of Terms, 14

Grade Point Average Requirements, 6

Hiring and Firing a Student, 4

Identification, 3

Index, 15

Industrial Assignment Reports and Curriculum, 9

Industrial Assignment Requirements, 8

Interview Process, 4-5

Performance Reviews, 10

Professionalism By Students, 7

Program Calendar, 11

Program Fee Details, 7

Program Involvement, 13

Requirements, 3

Salary Information, 12

Semester Layout, 6

Supervisor's Approval of Work Completed, 10

Statistical Information, 12

Student Work Load Requirement, 8