ENGR 321 – UNDERGRADUATE ENGINEERING INTERNSHIP COURSE 206-221-8423
http://www.engr.washington.edu/current/careercenter/intern engrice@uw.edu

COURSE DESCRIPTION
The Engineering Internship Program offers students the opportunity to explore and develop their careers through professional practice. The structured plan of education impacts student work-readiness through a number of professional development skill-building activities. These activities include goal setting; analysis and reflection; feedback from employer; informational interviewing and debriefing their experience.

COURSE OBJECTIVES
Engineering internships are intended to provide students with an opportunity to apply theoretical concepts from the classroom to the realities of the field. The student is expected to increase proficiency in the following areas as a result of his/her internship:
- Ability to apply knowledge of mathematics, science and engineering
- Ability to design a system, component or process to meet desired needs
- Understanding of professional and ethical responsibility
- Ability to communicate effectively interpersonally, using technical writing and in formal presentations
- Recognition of the need for, and ability to, engage in lifelong learning
- Ability to use techniques, skills and modern engineering tools necessary for engineering practice
- Ability to think critically
- Ability to manage change
- Understanding office dynamics

Some students will increase proficiency in these areas if their internship provides appropriate opportunities:
- Ability to design and conduct experiments, as well as analyze and interpret data
- Ability to function on multi-disciplinary teams
- Ability to identify, formulate, and solve engineering problems

COURSE REGISTRATION & FEE
The student is required to register for the course during the term in which he/she completes the internship; no retroactive credit will be granted. All assignments must be completed and submitted via Canvas. If requirements are not completed within the allotted time, a student will receive NC/INC on his/her transcript.

A CC@E staff member must manually register each student in ENGR 321, and this is only done after the student submits all requirements & documentation about the internship; a student is not able to add/drop these courses on his/her own. Once registration is complete, the appropriate fee will appear in the student's MyUW account for payment.

Through a special arrangement with the Registrar's Office, a domestic student registered for two credits of ENGR 321 will maintain his/her full-time student status.

Undergraduates on F-1 visa status are required to register in 12 credits each academic/non-vacation quarter; to meet this requirement, these students will be registered in ENGR 321 as described in the table, but also in ten (10) additional ENGR 320 credits for $180 per credit. ENGR 320 credits are not applicable toward the 180 credits required to graduate.

<table>
<thead>
<tr>
<th>ENROLLMENT</th>
<th>FEE</th>
<th>ASSIGNMENTS</th>
<th>GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TWO credits of ENGR 321</td>
<td>$360</td>
<td>1. Learning Objectives</td>
<td>CR/NC</td>
</tr>
<tr>
<td>if working full-time (21+ hrs/wk)</td>
<td></td>
<td>2. Employer Evaluation</td>
<td></td>
</tr>
<tr>
<td>ONE credit of ENGR 321</td>
<td>$180</td>
<td>3. Informational Interview</td>
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<tr>
<td>if working part-time (&lt;20 hrs/wk)</td>
<td></td>
<td>4. Internship Debrief</td>
<td></td>
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</tbody>
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OBTAINING CREDIT

A student is required to submit all assignments via Canvas during the work period in which he/she is registered. After successful completing the program, undergraduate students earn credit applicable toward their degree with ENGR 321 listed on their permanent transcript.

<table>
<thead>
<tr>
<th>DEPARTMENT</th>
<th>MAXIMUM 321 CREDITS/QTR</th>
<th>CATEGORY</th>
<th>MAXIMUM APPLIED TO DEGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aeronautics and Astronautics</td>
<td>2 credits</td>
<td>Technical electives</td>
<td>6 credits</td>
</tr>
<tr>
<td>Bioengineering</td>
<td>2 credits</td>
<td>Engineering Electives</td>
<td>4 credits</td>
</tr>
<tr>
<td>Chemical Engineering</td>
<td>2 credits</td>
<td>Chem Electives</td>
<td>4 credits</td>
</tr>
<tr>
<td>Civil &amp; Environmental Engineering</td>
<td>2 credits</td>
<td>Upper-division Engr &amp; Sci</td>
<td>4 credits</td>
</tr>
<tr>
<td>Computer Science &amp; Computer Engineering</td>
<td>1 credit</td>
<td>CSE Senior Electives</td>
<td>2 credits</td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>2 credits</td>
<td>EE or Engineering Electives</td>
<td>4 credits</td>
</tr>
<tr>
<td>Human-Centered Design &amp; Engineering</td>
<td>2 credits</td>
<td>Required Internship requirements.</td>
<td>4 credits</td>
</tr>
<tr>
<td>Industrial &amp; Systems Engineering</td>
<td>2 credits</td>
<td>Tech Electives or NME Electives</td>
<td>4 credits</td>
</tr>
<tr>
<td>Materials Science &amp; Engineering</td>
<td>2 credits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>2 credits</td>
<td>ME Option Credits</td>
<td>4 credits</td>
</tr>
</tbody>
</table>

OTHER

Financial Aid: A student who has financial aid or scholarships is responsible to inform CC@E staff of his/her status to ensure the required communication with Student Fiscal Services takes place. This communication is usually a letter e-mailed to sfshelp@uw.edu during the pre-work meeting. A student will also receive a copy of this letter, should questions arise during the work period regarding their full-time status.

Campus Housing: In most cases, the student can return to campus housing without losing priority status if he/she contacts Housing & Food Services office immediately after accepting the internship. The student is responsible for requesting a letter from the CC@E staff in a timely manner to retain housing priority. Priority retention for Stevens Court and Nordheim Court is not available.

Student Health Insurance: Each student is advised to have health insurance at all times; an international student is REQUIRED to maintain health insurance (see ADDENDUM: SPECIAL NOTE TO INTERNATIONAL STUDENTS ON F-1 VISA).

U-PASS & IMA Access: Because the student does not pay tuition while enrolled in ENGR 321, he/she is not automatically charged for a U-PASS or IMA membership. If a student is interested in purchasing these, he/she will need to do it in-person at the respective offices:
- U-PASS: UW Transportation Services office at 1320 NE Campus Parkway
- IMA Membership: IMA building at 3924 Montlake Blvd
ASSIGNMENTS

#1: LEARNING OBJECTIVES (Canvas quiz)  DUE DATE: 3rd week
The purpose of this assignment is to help the student identify specific skills to target for improvement during the internship; these skills are more likely to improve if there are specific plans for working on them. At the end of the internship, the student will have a chance to assess his/her improvement in assignment #4.

Assignment #1 is in “quiz” format on Canvas. The student must choose TWO skills under TWO different competencies (see below) and identify the goals and opportunities in his/her workplace to practice those skills. It is expected that the skills are discussed with the work mentor/leader and thoughtful responses are documented; if the answers show little effort on the student's part, he/she will be asked to re-submit.

~Seven Learning Outcome COMPETENCIES (with associated skills)~

- Learning and Reasoning
  - Research
  - Evaluation
  - Problem Solving
  - Analysis
  - Systems Thinking
  - Idea Generation

- Self-Awareness and Development
  - Feedback
  - Contributions
  - Self-Development

- Interpersonal Interaction
  - Collaboration
  - Providing Feedback
  - Helping Others

- Civic Responsibility
  - Diversity
  - Inclusion
  - Social Justice
  - Social Responsibility

- Group Dynamics
  - Organizational Behavior
  - Group Development

- Communication
  - Facilitation
  - Writing
  - Advocating for a point of view

- Personal Behavior
  - Initiative
  - Functioning Independently
  - Responding to Ambiguity
  - Resiliency
  - Responding to change

EXAMPLE:

- Competency: Communication
- Skill: Facilitation
- Objective: My goal is to develop my public speaking skills so that I can be more confident during presentations.
- Opportunity to achieve this objective: I will make an end-of-assignment presentation about my project to other interns and mentors. I will also provide a survey to those in the audience to assess my skills & obtain feedback, then review the results with my mentor.

#2: INFORMATIONAL INTERVIEW  DUE DATE: 5th week
The purpose of this assignment is to get to know a colleague and learn from their experience and perspective. Interview a professional at your internship (who is not your supervisor) and learn about his/her story. You may have to ask your supervisor to introduce you to someone. It is all a part of networking. Make sure to bring a notebook to take notes.

In a 30-minute interview, the student may ask questions such as “How did you get to the position you have now? What has been your career path up until now? What do you like most about your job? What is the most valuable advice you have received? What advice would you give to those who are looking to break into this field? What skills do you look for when hiring employees?” The student should consider asking about the specific skills identified in assignment #1. The student may learn of new methods or opportunities to improve skills or gain a new understanding about why those skills are important.

On the Canvas page, the student will provide the name, position and contact information for the person interviewed. Program staff may contact the individual to verify that the interview was held.

(“Assignments” continued on next page)
ASSIGNMENTS (cont.)

#3: EMPLOYER EVALUATION & REFLECTION (paper)  DUE DATE: 10th week
Interns can find value in completing exit interviews and assessments with their supervisors; these help to understand growth and build awareness about professional skills and development.

The student should print out a copy of the “EMPLOYER EVALUATION” (available on Canvas), have his/her supervisor complete it, and debrief with the student. From this evaluation, the student will write a ONE-PAGE REFLECTION (0.5” margins, double-spaced, 11-point Arial font) on this meeting and skill awareness. The following questions can guide the reflection:

- How did this conversation with your supervisor inform your understanding of your skills?
- What skills do you think you developed during this internship?
- What skills do you think you need to work on more after this internship?
- Were you surprised by anything during this conversation?
- How did you benefit from this conversation?
- What questions do you still have about professional development?

If the host employer provides its own evaluation form and process, those may be used for this assignment, instead of the template. The student should plan his/her (and the manager's) time accordingly, as this assignment may be due prior to the end of the internship.

#4: INTERNSHIP DEBRIEF ASSIGNMENT (paper)  DUE DATE: 10th week
The main purpose of this debrief is to help you recall, analyze, and document the student’s internship experience and how it helped prepare for academic and professional plans. This debrief activity will not only help the student gain more from the internship experience but also prepare the student to describe his/her internship experience articulately and concisely. The debrief should be written as if the audience is a potential employer – fully describe the internship experience to the potential employer and answer the question, “What did you learn during this internship that makes you a competitive candidate?”

Consider the learning objectives that were chosen in assignment #1 and select TWO significant internship experiences where those skills/knowledge were used or developed. (NOTE: If the internship was more than one quarter, the debrief should describe THREE significant experiences.) For example, these experiences might be the management of a project/team or an unexpected challenge that occurred. Bear in mind that the experience could be a setback or a failure, as these can be rich opportunities for learning and professional development.

For each significant internship experience selected, the debrief must address these questions:

- Briefly, what was the experience, and what made it memorable for you?
- How did this particular experience relate to the learning objectives you chose for this internship? (For example, how did you use, develop, and/or recognize the importance of these learning objectives in this experience?)
- How did your prior experiences at the UW or even earlier prepare you for this particular internship experience? (Remember to consider the relevance of different kinds of activities, not just courses but also extracurricular activities like clubs, part-time jobs, and sports.)
- How do you expect this particular internship experience will be valuable to you as you proceed with post-graduate plans?

The debrief should be two pages (0.5” margins, double-spaced, 11-point Arial) and written to a potential employer as to why the student would be a competitive candidate for an open position with that employer.
ADDENDUM: SPECIAL NOTE TO INTERNATIONAL STUDENTS ON F-1 VISA

An undergraduate Engineering student with an F-1 visa should go through the Engineering Internship Program to obtain the required work authorization, or Curricular Practical Training (CPT). A student working full-time (21+ hours per week) will be registered in TWO credits of ENGR 321 (undergraduate) or ENGR 601 (graduate) and thereby maintain their full-time student status through a special arrangement with the Registrar's Office; a student working part-time (20 hours per week or less) will be registered in ONE credit of ENGR 321/601. The ENGR 321 credit fee is $180 per credit, while the ENGR 601 credit fee is $250 per credit.

In order to maintain a student's immigration status, he/she is required to register for an internship course and complete all program requirements to earn credit. After accepting a qualified internship (i.e., the work must be at least 50% engineering-related, paid, and one quarter or longer in duration), the CPT application process consists of three steps:

1. Complete the ENGR 321/601 registration form (https://catalyst.uw.edu/webq/survey/engrice/338601), which will ask for job-related information (e.g., job description, salary, worksite address); please be thorough, as this information will be used to verify the CPT application in completed in step #2c.
   a) In the box, "Department Adviser's Name," type ALICE KIM (note that this is NOT your academic adviser; this is the CC@E staff who will be processing the CPT form)
   b) In the box, "Department Adviser's Email Address," type ENGRICE@UW.EDU
   c) ISS will send you an email when your updated I-20 with CPT authorization is ready for pick-up; a copy of this authorization should be provided to the host employer.
   *Processing time after the student submits the CPT form ~AND~ the CC@E provides confirmation to ISS can take up to 7-10 business days.
3. Participate in a pre-work meeting with CC@E staff and submit documentation of the job offer with worksite address; this must be completed at least one week prior to the first day on the job.

IMPORTANT NOTE:
Failure to complete & get credit for the course may jeopardize the ability of the student to qualify for Optional Practical Training; therefore, completion of all assignments is integral to visa maintenance.

INTERNATIONAL STUDENT HEALTH INSURANCE PLAN (ISHIP)

An international student is required to have health insurance while registered at UW. During the pre-work meeting, the student must inform the CC@E of coverage:

- If ISHIP is needed: The CC@E will contact the ISHIP office on the student's behalf
- If ISHIP is NOT needed: The student must complete the online waiver (https://apps.iss.washington.edu/forms/ishipwaiver/)

EXTENDING YOUR CPT APPLICATION DATES

An international student is only permitted to work during the authorization period indicated on the I-20. ANY EXTENSION OF AN INTERNSHIP MUST BE CLEARED VIA THE CC@E via these steps (to be done 7-10 business days prior to the current expiration of the student's I-20):
1. Contact the CC@E requesting an extension
2. Provide documentation (e.g., e-mail from employer, revised offer letter) with the dates of the extension and the number of hours per week to be worked in that period.
3. If your extension goes through a new academic quarter please fill out a new CPT form with your revised start and end dates.