



INTERNSHIP PROGRAM

DEPARTMENT OF CIVIL ENGINEERING AND ENGINEERING
MECHANICS
THE UNIVERSITY OF ARIZONA
TUCSON, ARIZONA

PHILOSOPHY

- *Benefits to the Student* – The primary goal of the Internship Program is to allow civil engineering students to incorporate and emphasize the lessons learned in the classroom into a real-world experience set in a professional practice-oriented environment, with the intern’s work preferably overseen by a licensed professional civil engineer. In addition to offering students the opportunity to demonstrate and develop their technical skills, participation in the program allows students to develop professional skills such as teamwork, effective communication, social interaction and professional networking, an understanding of business procedures, leadership, and critical thinking. Finally, the program is designed to provide students with a paid work experience within a semi-formal academic framework that carries with it official course credit from The University of Arizona. Credit for this course may not be used to fulfill degree requirements nor is it obtainable through transfer credit.
- *Benefits to the Employer* – The Internship Program provides employers with an effective way to outreach a qualified and motivated group of students. This program, however, has a goal beyond that of matching up employers with prospective employees. The primary goal of this program as stated above has educational and mentoring components that can be satisfied only through a formal partnership between the employer and the Department of Civil Engineering at The University of Arizona (CEEM). It is the intent of the program that this partnership will provide a meaningful learning experience to students who are developing to be future engineers. In this manner, the employer becomes an important asset in the development of students who participate in this program. As a secondary benefit, an employer involved in the program will have access to well-qualified students as potential candidates for full-time employment after graduation. As a tertiary benefit, the program will allow employers to evaluate prospective long-term employees under actual working conditions at minimal cost. Initial contacts through the Internship Program may lead to recruitment and eventual hiring, upon graduation, of a civil engineer who has experience with the employer’s operating procedures. In addition, multiple internships with the same student over his/her academic career may enable the intern to function at a higher level that will free full-time professional staff for other, more complex work.
- *Benefits to the Department of Civil Engineering and Engineering and Engineering Mechanics, the College of Engineering and Mines, and The University of Arizona* – The Internship Program supports the essential partnership between academia and the practicing profession. It does so not only by providing qualified students with a “hands on” learning experience, but also by enhancing communication of faculty with business, industry and government. The Internship Program is an excellent complement to the Department’s program for continuous improvement, as required by ABET’s Criteria 2000. The faculty advisors will benefit by involvement in two ways. First, they will forge relationships with employers that participate in the program. Second, in terms of tenure, promotion, and/or annual reviews, their participation will be accounted for in the area of Departmental Service.

PROGRAM CHARACTERISTICS

- Type of Program – The “Internship” course description given in the University of Arizona electronic Catalog is:

Internship (1-3 units)

Description: *Specialized work on an individual basis, consisting of training and practice in actual service in a technical, business, or governmental establishment.*

May be repeated: *an unlimited number of times, consult your department for details and possible restrictions.*

Usually offered: *Fall, Spring, Summer.*

As stated previously, the primary goal of the program is to give student participants an opportunity to incorporate and emphasize the lessons learned within the classroom. It is not intended to be a substitute for it. Hence, student participants in the program are expected to maintain full-time status and continue in good standing towards their BSCE degree. Internship students may enroll in up to 3 units of Internship (CE 293, 393, or 493) per semester. Also, students may not register for more than 18 units (including the 3 internship program units) in a semester in which they are enrolled in the program without the approval of their academic advisor. In addition to the requirements discussed below, participation in the program requires formal registration in the course through the university. The length and dates of the internship (not necessarily the employment duration) shall coincide with the semester in which the student is enrolled in the program.

- **Program Requirements – Students**

Because the internship carries with it academic credit, the Department seeks to ensure the long-term quality of the program. Hence, the Department will maintain high standards for both the student participants and employers. In this way, participation in the program is seen as a reward or privilege. To enroll in the Internship Program, students must meet all of the following requirements:

- Currently enrolled in the Department of Civil Engineering and Engineering Mechanics at the University of Arizona.
- Completed at least two full-time semesters in the Department.
- Attained sophomore status by having completed all required courses listed in the CEEM curriculum for the freshman year.
- Must be in good academic standing with the University of Arizona and have maintained at least a 2.60 grade point average (major and cumulative) at the University of Arizona.
- Must fulfill all of the reporting requirements of the Internship course as detailed below in **Course Reporting Requirements** in order for a grade to be assigned that completes the academic requirements of the internship. Note: The University Catalog defines the grades available for the University-wide “house-numbered” course named “Internship” as S (superior), P (passing), C (average), D (poor), E (failure), I (incomplete), W (withdraw). Consequently, it is possible for a student intern to receive a poor or failing grade for the course. Completion of any non-academic requirements as imposed by the employer is by agreement between the student and the employer

- **Program Requirements - Employers**

Ideally, the employer will initiate the Internship (prior to having a student participant). In order to participate in the Internship Program, prospective employers are expected to provide CEEM with a “Memorandum of Understanding” (MOU) for its approval. Additionally, a Job Description Form suitable for posting on the Department’s bulletin board and for inclusion in the

Department's Internship Manual should be provided. This documentation is intended to clarify the internship and is not meant to require an overwhelming or program-detering amount of paperwork. In most cases, a one or two page memorandum should suffice.

Memorandum of Understanding (MOU)

The MOU should address the employer's understanding of the internship(s) it intends to offer typically under the following headings (at a minimum) if they are applicable:

- Purpose of the Internship - A brief statement that describes the purpose of the internship and includes a statement on how the Philosophy of the program will be maintained.
- Status of the Intern – A brief description of the intern's status within the firm, i.e., expected number of hours per week, hourly or salaried, eligible for benefits or not, eligible for promotion or not, etc.
- Job Description – A broad statement of the job function that describes the intern's duties and responsibilities including the identification of a "chain of command" for reporting purposes. Also include the name and professional registration information of the expected supervisor.
- Firm-Specific Guidelines and Requirements for Interns – A detailed list of what the employer expects from the intern and a definition of the employer's obligations to the intern. The former may include items such as the intern's specific job functions and/or the intern's professional responsibilities with regard to the employer's policies for office conduct, etc. The later may include items such as conditions of continued employment, potential for full-time employment after graduation, mentoring by full-time engineers in the firm or agency, formal communication lines between mentor and intern, etc.

Before the internship position will be advertised, the MOU shall be submitted and approved by the Department Head. The MOU shall become the basis for a contract between the student, the employer, and the Department.

Job Description Form

Regarding the job description, prospective employers are asked to review the document ***Employer Guidelines for Academic Internships*** available from the Department. The Job Description Form should be on company or agency letterhead and include the following headings at a minimum, if applicable:

- Position Title.
- Summary of Job.
- Specific Duties and Responsibilities
- Division/Department.
- Reports To.
- Location of Job.
- Work Schedule.
- Number of hours per week expected.
- Salaried/Hourly.
- Pay Range (Interns should be paid at an hourly rate commensurate with their academic grade level and experience. The Department recommends a starting salary in the range of 60-70% of the hourly rate equivalent of an entry-level salary for full-time, permanent, newly graduated engineers. Employers should refer to the ***Employer Guidelines for Academic Internships*** for further information.
- Minimum Qualifications:
 - Education
 - Experience
 - Attitudinal aspects
 - Specialized skills/knowledge
- Physical Demands/Work Environment.

- Equipment/Machinery Used.
- Other.

The above-mentioned “employer requirements” have been developed by the Department in order for the Department to establish some level of uniformity to the academic side of the program and to help assure the quality of the internship experience for both our students and their employers.

Employers will have the opportunity to interview student candidates. They will negotiate the terms and conditions of any employment offers directly with the student interns including start/end dates, work schedule, salary, and benefits. If an offer for employment is made to the student intern, it must be in writing. The student will not be allowed to register for the course unless he/she has an offer for employment in writing. The specific job duties, in general, shall follow those described in the MOU. If prospective employer participants in the Internship Program have any questions about academic requirements or appropriate terms and conditions of employment from the Department’s viewpoint, please contact the Department. Once a student has accepted an employer’s offer, both the student and employer will sign the MOU and turn in a copy to the Department before the student will be allowed to register for the course.

COURSE REPORTING REQUIREMENTS

Any Internship course with the “CE” prefix requires the following actions on the part of the student. The forms to be submitted can be found on the Department’s website and are MS-Word-formatted to make it easier for the student to complete and submit to his/her Faculty Advisor.

- ❑ **Work Information Form** (on-line form)
Due: By the end of the second week on the job
 This form asks for the student’s address while on work assignment and his/her initial impressions of the job.
- ❑ **Progress Reports** (on-line guidelines and form) – Due Monthly
 Used to assist students in evaluating the overall internship experience. Students are required to report their monthly progress to their Internship Faculty Advisor. If there are any immediate problems or concerns, students should contact their Internship Faculty Advisor directly by phone or e-mail.
- ❑ **Professional Report** (on-line guidelines) - Due: At the end of the work assignment
 The Professional Report gives the student experience in writing both professional and general reports and encourages the student to reflect on the experience and educational benefits of the internship.
- ❑ **Student Evaluation** (on-line form) - Due: At the end of the work assignment
 This form allows students to evaluate how much their Internship experience affected the clarity of their career plans and goals, and their present level of skill in specific learning outcome areas.
- ❑ **Supervisor Evaluation** (on-line form) - Due: At the end of the work assignment
 This form allows the student’s immediate on-job supervisor to provide the student and faculty advisor with a realistic assessment of the student’s present level of skill in specific learning outcome areas.
- ❑ **Debriefing**
 During the first week back at school, the student schedules a one-hour “Debriefing Session” with his/her Internship Faculty Advisor. All remaining paperwork is usually submitted at this time, i.e., an original and copy of the Professional Report, Student Evaluation and Supervisor’s Evaluation forms.

□ **Grading**

Internship is an academic assignment and the grade will be determined based on the following criteria:

<u>Course Requirements</u>	<u>Percent</u>
Supervisor's Evaluation	30%
Internship Professional Report	30%
Work Information Form	5%
Progress Reports	15%
Student Evaluation	5%
Debriefing	5%
Internship Faculty Advisor Evaluation	10%

The student will be given a grade of "I" (Incomplete) on the report card until he/she completes the Internship assignment and all reporting requirements. Upon completion of all requirements, the student's Internship Faculty Advisor will submit a grade change form to Academic Records to change the "I" to an appropriate grade, which will then be reflected on the student's updated transcript.

Extensions

If a student decides to extend his/her Internship, the student must check with his/her Internship Faculty Advisor for approval. Note: The grade of "I" is valid for a limited time only (1 year); it automatically changes to "E" after that time limit has been reached. It is the student's responsibility to make sure that all requirements are satisfied before such a change takes place or that an extension is sought for the "I" to continue.



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WORK INFORMATION FORM

Complete this Work Information Form and e-mail it to your Internship Faculty Advisor by the end of the first week into your work assignment. A delay in returning your Work Information Form may result in a delay in registration for the course. It is important that you keep in touch with your Internship Faculty Advisor during your work assignment. This open communication will promote a positive Internship experience and enable your Internship Faculty Advisor to respond to work-related problems or concerns.

<i>STUDENT INFORMATION</i>	<i>EMPLOYER INFORMATION</i>
Major :	Student ID #:
Student Name:	Company Name:
Address:	Address:
City, State, Zip:	City, State, Zip:
Telephone (home):	Supervisor's Name:
Telephone (work):	Telephone:
E-mail Address:	E-mail Address:

Salary (monthly):	Benefits:
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1. Describe your orientation:
2. Describe the job responsibilities that have been outlined to you:
3. Describe the steps you have taken to ensure that you will have challenging work: