

SYLLABUS
ENGR 491: Engineering Internship
Spring 2023

Instructor: Il-Seop Shin
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Office Hours: M/W 12:00-01:00 P.M. and T 11:00 A.M.-01:00 P.M.

CATALOG DESCRIPTION

Off campus work experience in engineering. written weekly reports and copies of all projects, analysis, other work is required. Recommend completion before entering last term on campus.

COURSE PREREQUISITES

Senior standing; a minimum GPA of 2.00, a minimum GPA of 2.00 from courses completed within the major, and approval of program coordinator.

REQUIRED TEXTBOOK

The Mayfield Handbook of Technical and Scientific Writing, L. C. Perelman, J. Paradis, and E. Barrett, MIT. Available at: <http://www.mhhe.com/mayfieldpub/tsw/home.htm>

REFERENCES

Additional material posted to WesternOnline as needed.

COMPUTER/SOFTWARE SKILLS

Office software such as MS Office and engineering analysis software as needed.

TOPICS COVERED

- Application of knowledge of mathematics, science, and engineering to the solution of engineering problems.
- Working effectively on a team to design a process, component, or experiment, or solve a problem.
- Identify and document areas for self-improvement either in acquisition of knowledge, effective use of engineering tools, or performance.
- Keep a daily journal of activities, issues, problems worked on and solutions.
- Submit a final summary report in accordance with instructions received from the course coordinator.

**COURSE LEARNING OBJECTIVES AND RELATIONSHIP TO STUDENT
OUTCOMES (ABET Criteria 3, 1-7)**

Outcome-Related Course Learning Objectives	1	2	3	4	5	6	7
Identify, formulate, and solve complex engineering problems	E						
Apply engineering design to produce solutions		E					
Communicate effectively with a range of audiences			E				
Recognize ethical and professional responsibilities				E			
Function effectively on a team					E		
Develop and conduct appropriate experimentation						E	
Acquire and apply new knowledge as needed							E
<p>Criterion 1: an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics</p> <p>Criterion 2: an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors</p> <p>Criterion 3: an ability to communicate effectively with a range of audiences</p> <p>Criterion 4: an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts</p> <p>Criterion 5: an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives</p> <p>Criterion 6: an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions</p> <p>Criterion 7: an ability to acquire and apply new knowledge as needed, using appropriate learning strategies</p>							

CONTRIBUTION OF COURSE TO PROFESSIONAL COMPONENT

This course contributes to the engineering science and design component of the Engineering curriculum.

Prepared by: Dr. Shin

Date: 01/10/2023

Last Updated: 01/13/2023

COURSE ORGANIZATION

- **Classroom Work**
There are no regularly scheduled class meetings.
- **Class Attendance**
Any scheduled workshops or meetings MUST be attended. Absence without prior arrangements will not be permitted. Attendance at the place of internship employment is required and all absences must be approved through the employer.
- **Due Dates**
Reports and other required documentation are due prior to Final Examination Week. All work will be submitted as a .PDF file to Assignment Submission Folder on the WesternOnline course website.
- **Course Grade**
The Engineering Internship Course is graded as Satisfactory/Unsatisfactory (S/U). The internship involves completing at least 80 hours of engineering related work in an industrial, commercial, government, construction or consulting environment. The following three artifacts are required to satisfactorily complete the internship:
 - **Journal**: Regularly document the completion of at least 80 hours of engineering activities
 - **Summary Report**: Write an overview of the internship experience – objectives, proposed work, what was learned, accomplishment, etc.
 - **Certificate of Completion**: Obtain a supervisor's statement of work performance

The **Journal** and **Summary Report** are prepared by the student and submitted as .PDF files to Assignment Submission Folder on the WesternOnline course website. The **Certificate of Completion** is prepared and signed by the student's supervisor or mentor, preferably on company letterhead, and sent/emailed to the Instructor (WIU School of Engineering, Attn: Dr. Shin, RF-201, 3300 River Drive, Moline IL 61265; i-shin@wiu.edu). Once received, a .PDF file of the supervisor's statement will be made and sent to the student to submit to Assignment Submission Folder. The student will be able to access the certificate.

In the **Journal**, the student records activities completed on a daily basis and comments on the internship experience. In the **Summary Report**, the student provides an overview of the work completed during the internship, including objectives, proposed work, what was learned, accomplishment, etc.

In the supervisor's **Certificate of Completion**, the supervisor evaluates the student's performance during the internship period of employment commenting on timeliness, attention to work and work-related details, the student's ability to use engineering knowledge, and the development of new skills and knowledge. The supervisor should state that the student's performance during the internship period of employment was either Satisfactory or Unsatisfactory.

Please submit all .PDF files using the following filename convention:

ENGR 491 * (LastName, FirstName).pdf, where * is Journal, Summary and Certificate

DISCLAIMER STATEMENT

- Information contained in this syllabus, other than grading, late assignment and attendance policies, *may be subject to change* with advance notice, as deemed appropriate by the instructor.

COVID-19 INFORMATION AND POLICY

- Please, visit the following link to see COVID-19 related policies and information.
 - http://www.wiu.edu/vpas/risk_management_and_emergency_preparedness/coronavirus/index.php

WIU-QC UNIVERSITY WRITING CENTER

- The U.S. Bank WIU-QC University Writing Center is available to assist you with general and specific questions on writing assigned in any discipline and at any academic level. The one-on-one assistance available is valuable for generating ideas, talking about global-level issues such as organization, and even working through grammatical problems. The writing center is in Riverfront 2219. Visit www.wiu.edu/uwc for an appointment and follow the instructions.

ACADEMIC INTEGRITY POLICY

- Scholastic dishonesty will not be tolerated and will be prosecuted to the fullest extent. Plagiarism and/or use of solution manuals on assignments are strictly forbidden.
- You are expected to have read and understood the current issue of the student handbook regarding student responsibilities & rights, policy information about procedures and what constitutes acceptable on-campus behavior. For more information, please see:
 - www.wiu.edu/provost/students.php
 - www.wiu.edu/policies/acintegrity.php

DISRUPTIVE STUDENT BEHAVIOR POLICY

- Disruptive Student Behavior is defined as inappropriate student behavior that a reasonable faculty member would view as interfering with the ability of the instructor to teach and students to learn whether in a classroom or other learning environment (such as an online course, laboratory, site field experience, internships, instructor's office, computer lab, or other setting whether it is an on-campus or off-campus location), which disrupts the educational process.
- It is also considered disruptive behavior for a student to exhibit threatening, intimidating, or other inappropriate behavior toward the instructor or classmates outside of the learning environment.
- Students will face disciplinary action if they are found to be non-compliant with WIU's COVID-19 Health and Safety Policy (http://www.wiu.edu/policies/covid_safety.php). Non-compliance may be considered disruptive student behavior and disciplinary action will follow general process outlined in disruptive student behavior procedures (<http://www.wiu.edu/policies/disrupst.php>) and/or other applicable enforcement measures applicable to the Code of Student Conduct.

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT POLICY

- The Family Educational Rights and Privacy Act (FERPA) afford students certain rights with respect to their education records. (An "eligible student" under FERPA is a student who is 18 years of age or older or who attends a postsecondary institution.). For more information, please see:
 - www.wiu.edu/policies/privact.php

AMERICANS WITH DISABILITIES ACT

- In accordance with University values and disability law, students with disabilities may request academic accommodations where there are aspects of a course that result in barriers to inclusion or accurate assessment of achievement.
- To file an official request for disability-related accommodations, please contact the Disability Resource Center at 309-298-2512, disability@wiu.edu or 143 Memorial Hall.
- Please notify the instructor as soon as possible to ensure that this course is accessible to you in a timely manner.

SEXUAL MISCONDUCT & GENDER NON-DISCRIMINATION POLICY

- University values, Title IX, and other federal and state laws prohibit sex discrimination, including sexual assault/misconduct, dating/domestic violence, and stalking. If you, or someone you know, has been the victim of an of these offenses, we encourage you to report this to the Title IX coordinator at 309-298-1977 or anonymously online at: http://www.wiu.edu/equal_opportunity_and_access/request_form/index.php
- If you disclose an incident to a faculty member, the faculty member must notify the Title IX Coordinator. The complete Title IX policy is available at: <http://www.wiu.edu/vpas/policies/titleIX.php>

DIVERSITY AND INCLUSION STATEMENT

- The School of Engineering and Technology is committed to diversity, equity, and inclusion for all students, faculty and staff. We consider inclusion as a core component of our mission.