

ENG 572 – Professional Practicum

(Updated July 26, 2022)

Graduate Program Director: Prof. Michael Oelze

Faculty Advisor/Instructor: Prof. Wei He, Prof. Thomas Moon, Prof. Jonathon Schuh

Program Manager/Academic Advisor: Stacy Walker

ENG 572 (*Engineering Practicum or Internship*) is selected to carry out an internship at a location away from campus. It is characterized by the supervision of a non-faculty site supervisor (Mentor), and a faculty advisor/instructor.

Each student participant must have a mentor at the site of the practicum. Once a practicum, corresponding site, and site supervisor have been identified, an ECE faculty advisor for the practicum must be identified. The course instructors are the default faculty advisors. Next, a proposal needs to be developed to outline the scope of the practicum, then this proposal should be approved by the site supervisor, faculty advisor, and the student. In addition to normal reporting of the work carried out at the internship, the ECE Practicum should include how experience in an internship relates to pertinent course work.

ENG 572 Practicum involves component or system-level conceptual design studies, design-and-build activities, feasibility studies, experimental work, detailed numerical simulations, or detailed theoretical analyses of physical phenomena, related to any aspect of the broad field of electrical and/or computer engineering. Through the initial plan/proposal, intermediate progress reports, and occasional oral presentations, students are expected to develop good project management and communication skills. Teamwork is also emphasized (e.g., teamwork at the internship site). The main output of the practicum will be a final report that describes in detail what was done, why it was done, what avenues were not pursued, and why, and makes appropriate recommendations, and as appropriate, suggestions for further work.

Steps for ENG 572:

- Select an ECE-related internship
- Identify an appropriate non-faculty site supervisor, and create a proposal for approval by the Faculty Advisor/Instructor
- Survey associated literature and state-of-the-art research
- Conduct, as appropriate, system-level or conceptual design studies, design and build activities, feasibility studies, experimental work, detailed numerical simulations, or detailed theoretical analyses of physical phenomena
- Meet the requirements as laid out in the step-by-step checklist (below)
- Always discuss with the program director and coordinator

Checklist for ENG 572:

- A 1-2 page proposal that outlines the scope of the internship/project. This should be submitted as soon as the student, faculty advisor/instructor, and non-faculty site supervisor identify and agree on the scope of the internship. When appropriate, the few most pertinent references or reports should be cited.
- A 5-6 page interim progress report. This progress report should further focus the scope beyond what was in the original proposal, followed by a review of current understanding including a discussion of relevant literature. It should then describe the progress made, and summarize the remaining work.

- A 10-page minimum comprehensive final report. This should include an ABSTRACT, Introduction, Literature Review, explanation of Work done, Summary and Conclusions, and suggestions for Future Work. A Bibliography is also an essential part of the final report.
- A 10-minute oral presentation summarizing practicum work. Presentation is given the semester practicum is complete (2-3 weeks before the end of the semester). The presentation should include a 5-8-minute PowerPoint slideshow and a 2-minute Question and Answer moderated by the student. If the student is unable to be on campus for the presentation, a Skype or Zoom presentation date will be offered. Peer evaluations of presentations will be used to assist in the evaluation.

Note that the Proposal, Progress Report, and Final Report may go through a few revisions before they are finalized.

Reports should be submitted by email as both pdf and MS Word file. **Email must be cc-ed to the graduate program director, faculty advisor/instructor, and off-site internship supervisor.**

Time Lines

Fall and Spring Semester Timeline:

Proposal: Submit by Noon CDT on the 1st Friday of the semester**

Interim Progress Report: Submit by 4:00 pm Central on the 10th Wednesday of the semester

Comprehensive Final Report: Submit by 4:00 pm Central 15th Wednesday of the semester

Summer Semester Timeline:

Proposal: Submit by Noon CDT on the 1st Friday of the semester

Interim Progress Report: 8th Wednesday of the semester

Comprehensive Final Report: 11th Wednesday of the semester

****If the course is taken in the fall semester relating to an internship completed in the summer semester, all assignments and deadlines should follow the FALL and SPRING SEMESTER TIMELINE, EXCEPT all proposals for those intending to enroll must be submitted and approved by the Faculty Advisor/Instructor identified BEFORE Reading Day at the end of the Spring Semester. If this is not submitted before the end of the spring term, enrollment is allowed at the discretion of the Faculty Advisor AND the Graduate Program Director.**

Rubric for Presentation:

Following rubric is used to evaluate class presentations:

Grading Rubric for ENG 572 Presentation	
Technical quality of the project	/25
Depth of work carried out	/25
Quality of presentation	/15
Quality of visual aid	/10
Appropriate duration	/10
Quality of Q/A	/15
Total	/100

**ENG 572 - Practicum
Plan / Proposal**

STUDENT NAME: _____ **UIN:** _____

UIUC FACULTY ADVISOR / INSTRUCTOR: _____

PRACTICUM COMPANY: _____

OFF-SITE SUPERVISOR/MENTOR: _____

Attach a 1-2 page proposal that outlines the expected scope of the internship.

Information to include:

- Professional Learning Objectives
- Project Learning Objectives
- Plan for Conduct as it relates to achieving overall internship objectives such as conceptual studies, design and build activities, feasibility studies, experimental work, and result analysis.
- Anticipated Deliverables
- Possible literature and state-of-the-art research to be used

APPROVALS:

Faculty Advisor / Instructor: _____ **Date:** _____

Site-Supervisor: _____ **Date:** _____

Director of Graduate Studies: _____ **Date:** _____

Notes: _____