

INDIVIDUAL ENGINEERING ACCOUNTABILITY LOGS

Accountability Log Submission

10% of course grade

Midterm Feedback Opportunity - Optional, feedback only.
Due: Friday, October 7, 2022 - by 8pm ET on LEARN

End-of-Term Evaluation - 10%
Logbook Pass/Fail, 10% Reflection

Due: Tuesday, December 6, 2022 - by 8pm ET on LEARN

Objectives of Individual Engineering Accountability Logs:

1. Describe and/or illustrate individual contributions to the team design project:

What did you do? How do we know you did it?

- Proof may be in terms of handwritten entries; annotated illustrations or pictures; select emailed communications; etc. To provide a coherent picture of the project, you may need to provide some context of what others on the team have done. CLARIFY, when efforts were collaborative, and when they were your contributions.

2. Comment on individual academic/technical learning from design project task outcomes:

What did you learn?

- Learning could be interpretation of results; could be better understanding of skill or resource limitations; could be realization that project is not headed in a productive direction – be honest. Honesty is part of professional practice. It is not uncommon to have to explain and own up to why a project has not proceeded as planned. Being accountable and responsible for project decisions are part of professional practice, too.

3. Identify and track personal management of assigned project tasks:

What were you assigned to do, or take the initiative to do? Did you complete it? If no, why not?

- Be honest. What do you need to do next? Can you reasonably meet new targets, or is project re-scoping needed.
- How does your work fit into the group's overall plan, and how is that plan changing over time? Where is your group trying to go, and how will you get there? How are you individually contributing to achieving that objective?

Frequency of Engineering Accountability Entries:

Students are expected to document work and individual contributions as a work in progress. Dates associated with entries must be clearly stated. Retrospective entries must be clearly identified as such. Better Engineering Accountability Logs will have frequent entries as would be expected in a project log similar to what might be kept in an Engineering Design Notebook. This is your Engineering record of your work on the project. NOTE: Providing minimum entries with minimal content does not guarantee a passing grade.

Format of Engineering Accountability Logs:

The keeping of a formal Engineering Notebook is recommended for those conducting projects involving innovative product design and/or engineering research. Entries should include components 1, 2, and 3 listed above. We appreciate that not all design projects will lend themselves well to being tracked through the traditional bound Engineering Notebook. For this reason, we are also permitting students to keep their Engineering Accountability Logs in an electronic format. This might be in the form of a “Word-style” or “PowerPoint-style” document that allows for the inclusion of annotated illustrations or pictures, code-sample and calculations (as appropriate), comments, and hyperlinks to on-line appendices (e.g. photo collection, videos, more comprehensive code, simulations, etc.).

Weekly summaries are not required, but may be a way to recap your learning and provide structure to your logbook. You may also want to provide some coding scheme or indications in your logbook to help identify the components above.

To be clear, we don't want you to spend hours upon hours editing and formatting your logbook, but we do want you to keep a clear and well documented record of your work in progress. Use the EAL as a tool for capturing learning and synthesizing ideas.

Ultimately the the Engineering Accountability Log must be submitted as a PDF document submitted on LEARN.

NOTE: The evaluator reserves the right to compare entries across team members, speak directly with the team, and/or consult the named supervisor for clarification of entries before finalizing grades.

EAL Notebook Grading

The EAL notebook component will be graded holistically with regards to the required three categories of content. You will either pass or fail this component of the deliverable, with your overall numeric grade assigned from the corresponding reflection components. If the logbook content is assigned a grade of “fail”, because it does not show enough individual work or contribution to the project, then the instructor reserves the right to apply a penalty of up to 100% to the overall grading of the deliverable. The instructor also reserves the right to request a meeting with a student to explain the content, or lack thereof, in the logbook.

Midterm Feedback due: Friday, October 7, 2022 - by 8pm ET on LEARN

Submit as a single PDF file to get feedback. This submission is optional.

End-of-Term Evaluation: Due: Tuesday, December 6, 2022 - by 8pm ET on LEARN

Submit as a single PDF file, graded Pass/Fail. This submission is MANDATORY.

GRADING RUBRICS:

Descriptions and Illustrations of Contributions

Outstanding	Contributions: Comments/Annotation differentiates between contributions made as individual work and that done in collaboration. Evidence provided suggests outstanding contribution to the project. Details: Impressively detailed entries that chronicle the evolution of the designed solution.
Excellent	Contributions: Individual contribution is clear. Collaborations are noted. Evidence provided suggests meaningful participation and contribution to the project. Details: Text, sketches, diagrams, etc. provide an excellent overview of design team progress. Most entries are detailed. Text and sketches are clear and legible; diagrams and tables are appropriately labeled. All entries are signed and dated (can be electronic).
Very Good	Contributions: Individual contributions are usually clear. Evidence provided suggests good participation and contribution to the project. Details: Text, sketches, diagrams, etc. provide a good overview of design team progress. Most entries are signed and dated (can be electronic).
Satisfactory	Contributions: Contributions to project are generally noted but difficult to tell whether student really did the work. Evidence provided suggests basic participation in team project. Details: Entries provide general information or general progress of project.
Minimum	Contributions: Student contribution appears to be very limited. Details: Minimum requirements for number of entries are met but details are sparse.
Fail - Unsatisfactory	Contributions: Unclear as to what student has done to contribute to project. Details: Student has not met the minimum requirements.

Individual Academic/Technical Learning

Outstanding	Comments/annotations reflect in-depth knowledge of design project as well as strong insight into the strengths and weaknesses of personal contributions to the project.
Excellent	Comments/annotations reflect strong knowledge of design project as well as good reflection and insight into personal learning or skill development through the teamwork-based project.
Very Good	Comments/annotations suggest good knowledge of the overall progress of the project as well as personal learning or skill development through the design project.
Satisfactory	Comments/annotations suggest basic reflection and basic insight into personal learning or skill development through the design project. Some answers seem contrived.
Marginal	Comments/annotations suggest shallow reflection and limited insight into personal learning or skill development through the team project. Answers are overly similar to those of teammates, suggesting limited independent thought.
Fail - Unsatisfactory	Comments/annotations are too brief or vague to assess whether or not the student has learned from the project experience to date.

Individual Task Management and Planning

Outstanding	Hours: Evident student is working diligently and efficiently in the time frame expected each week. Planning: Evident student has strong grasp of appropriate next steps and efficient resource management.
Excellent	Hours: Evident student is working effectively on project each week. Planning: Evident student has excellent grasp of appropriate next steps and resource management.
Very Good	Hours: Evident student is working on project each week, and is meeting expected time commitments. Planning: Evident student has very good grasp of appropriate next steps resource management.
Satisfactory	Hours: Evident student is working effectively on project most weeks. Planning: Evident student has reasonable grasp of appropriate next steps and resource management.
Minimum	Hours: Evidence suggests student is spending some time each week on project but may not be effective. Planning: Evident student has some grasp of appropriate next steps and efficient resource management.
Fail - Unsatisfactory	Hours: Not enough evidence to suggest that student is meeting minimum course expectations. Planning: Little evidence to support basic task planning and time management skills.

NOTE: The evaluator reserves the right to compare entries across team members, speak directly with the team, and/or consult the named supervisor for clarification of entries before finalizing grades

End of Term Reflection Submission - 10%

Due: Tuesday, December 6, 2022 - by 8pm ET on LEARN

Submit a separate PDF document, in addition to your EAL, that directly answers these questions:

1. How well did you incorporate the iterative engineering design process so far in your project?
2. What aspects of the project have gone well, and what were the major reasons that these aspects were so successful?
3. What aspects of the project have gone poorly, and what were the major causes for the issues?
4. What was the most important thing you personally contributed to your project this term? Explain its importance.
5. What skills will you personally need to learn to finish your project in 462?

You may also include any other relevant information you want as part of this final reflective entry, but keep in mind the expectation for this entry is 2-3 normal typewritten pages worth of text. Submissions over 3 pages in length won't be accepted.

Reflection Components

Outstanding 9 – 10	All questions are answered and student learning is obvious. Insight is communicated in a clear, concise manner which strongly conveys the experiences which have led to personal growth.
Excellent 8 – 9	All questions are answered and student learning is obvious. Discussion uses clear and concise language to effectively communicate personal growth.
Very Good 7– 8	All questions are answered and student learning is obvious. Discussion uses clear language and examples to aide in communication.
Satisfactory 6 – 7	All questions are answered and student learning can be interpreted from the responses. Discussion could uses more depth and insight.
Minimum 5 – 6	All questions are answered at a minimal level. Learning can be interpreted from the responses, but they are brief and lack discussion.
Unsatisfactory 0 – 5	Some questions are not answered, or answers are too brief or vague to assess if any real learning has occurred.

Your overall grade for this component will then calculated as:

EAL Notebook: Pass
 + Reflection: out of 10
 = overall grade out of 10

or

EAL Notebook: Fail
 + Reflection: out of 10
 - Penalty: up to 100%
 = overall grade out of 10