EPICS Individual Evaluation Instructions

# Overview

Assessments of students in EPICS consider an individual’s holistic body of work in the context of a larger team environment. The assessment practices are also intended to replicate personnel reviews in industry to help equip students to thrive in their careers after graduation. Each student is evaluated on five outcomes: *Accomplishments, Process, Reflective/Critical Thinking, Teamwork/Leadership,* and *Communication*. Grades are determined by the advisor(s) with input from the teaching assistant, and are based on the student’s completion of course requirements and documentedmastery of the five outcomes. Mid-term assessments are not factored as a percentage of the final grade, but are formative and intended to help students and advisors to calibrate expectations, correct poor performance, and reinforce good practices. EPICS students come from different majors, years, and areas of expertise, and may be taking EPICS for a varied number of credit hours, and these factors must be taken into account in the assessment process.

## Discipline/Major

Students are evaluated based on their contributions from their own discipline, and should not be expected to conform to the primary discipline of the team. A student from Liberal Arts, for instance, would not be expected to function as an engineer working on detailed technical work. Similarly, a mechanical engineering student would not be expected to be an expert in electronics nor would the electrical engineer be expected to be an expert in mechanics. All students are expected to learn the design process and participate as a productive member of the design team based on the phase of the design work in that semester. While students are not expected to become experts outside their discipline, multidisciplinary design work requires ALL students to contribute within and outside of their own areas of expertise, and often requires learning new skills outside of traditional disciplinary boundaries.

## Number of Semesters in EPICS

Students in their first semester of EPICS may have a slower start as they acclimate to the EPICS environment. There are not lower standards, but in the formative evaluation there may be behaviors or documentation practices that need to be corrected. A new student may be able to improve their final grade more than a returning student from mid-term to the final assessment. A more experienced student would not have such a transition period, and is expected to work at a high level from the beginning of the semester.

## Number of Credit Hours

The minimum expectation for average hours worked outside of the formal lab session each week is 3.5 hours for one-credit and 5 hours for two-credit hour students. This difference in workload is the biggest difference between expectations for a one- vs. two-credit student. Two-credit students should be able to show evidence of accomplishments and work activities beyond their one-credit colleagues. Additionally, one-credit hour students must complete five Professional Development Hours (PDHs) and two-credit students must achieve ten PDHs.

## Academic Level:

#### First year students (EPCS 10100, 10200, 11100, 12100)

First year students are expected to contribute to the design project with measurable progress each week. They have not had disciplinary courses at the university level, and are not expected to bring disciplinary expertise to the project. They can achieve excellence by completing tasks assigned to them by the team’s leadership and often require mentorship. Leadership, independent decision-making, and initiative is possible, welcome, and nurtured, but not required to be scored as excellent.

#### Sophomores (EPCS 20100, 20200

Sophomores are beginning to take disciplinary courses and can start to bring disciplinary expertise to their projects. They can achieve excellence by completing tasks assigned to them by the team’s leadership and often require mentorship. Leadership, independent decision-making, and initiative is possible, welcome, and nurtured, but not required to be scored as excellent.

#### Juniors (EPICS 30100, 30200)

Juniors bring disciplinary knowledge from their core disciplinary courses, but may not have advanced disciplinary knowledge. Individual initiative, independent decision-making, and contributions to the design are expected above and beyond the assigned tasks by the leaders and advisors to be scored as excellent. Leadership, in a formal or informal role, is expected for an excellent score.

#### Seniors (EPICS 40100, 40200, 41100, 41200, 49000)

Seniors bring significant disciplinary expertise and knowledge to the design work. Individual initiative, independent decision-making, and contributions to the design are expected above and beyond the assigned tasks by the leaders and advisors to be scored as excellent. The level of independence should be transitional to that expected of a new hire in industry. Leadership, in a formal or informal role, is expected for an excellent score.

# Instructions:

* The Individual Evaluation Rubric (IER) should be completed first by the student, and then by the Advisor.
* The student should indicate the completion of each item on the Requirements Checklist that is relevant for the timing of the review (e.g. Final Reflection would not be relevant during a mid-term review).
* The student should assess themselves in each of the five outcomes, and the advisor should review these assessments and discuss any differences with the student.
* The grading guidelines
* The Individual Evaluation Rubric (IER) should be completed at minimum twice per semester.
	+ Week 4: Preliminary evaluation for establishing good practices for NEW students to EPICS.
	+ Week 8: Required after mid-semester design review
	+ Week 16: Required after final design review
* Following mid-term reviews, a discussion should be held between the student and advisor or TA to outline areas for improvement and to reinforce positive performance.