

# Physics Department: Undergraduate Instruction and Program Review and GE Assessment

December 11, 2023

## 1 Vital Information

<https://academicsenate.ucdavis.edu/committees/undergraduate-council/uipr>

### **General Education Assessment:**

Next Deadline: January 2, 2024

GE Committee Chair: Marina Ellefson Crowder (mecrowder@ucdavis.edu)

GE Committee Analyst: Theresa Costa (tacosta@ucdavis.edu)

### **Undergraduate Instruction and Program Review:**

Dates of the review team visit: January 24-25, 2024

National Reviewer: David Sokoloff, University of Oregon

UC Davis Reviewer: Susan Gentry, Material Science and Engineering

Visit Itinerary Due: December 15 Self-Review Due: January 2, 2024

## 2 Summary

The Physics Department is undergoing an “Undergraduate Instruction and Program Review” and “General Education Assessment” as supervised by the Undergraduate Council Committee. This is *not* WASC accreditation but it is crucial to maintaining it as part of our quality assurance process.

**General Education Assessment:** This assessment has two parts, in-depth assessments of specific courses by the review committee, and a self-assessment of all GE literacy courses.

The specific courses for in-depth assessments have been determined as: PHY 122A (Writing Experience), AST 10G (Visual Literacy), AST 10C (Scientific Literacy). Mulhearn has been working with the instructors of these courses in Spring and Fall quarters to gather the required documentation. For each of these courses we will deliver a one page statement, an example assignment, example student work (one poor, one average, one above average), and the course syllabus. Here’s a summary of the current status:

Course	GE Requirement	Instructor	Documents Collected
PHY 122A	Writing Experience	Mathew Citron	Syllabus, Assignment, Student Work
AST 10G	Visual Literacy	Andrew Wetzel	Syllabus
AST 10C	Scientific Literacy	Lori Lubin	Syllabus, Assignment, Student Work

All of the collected documents have been reviewed by Mulhearn and look adequate for our purposes.

We are only waiting on AST 10G which is in progress. Mulhearn will need to prepare the one page statements for each of these courses. **The deadline for these materials is January 2, 2024.**

The self-assessment deliverable is quite simple: we'll need to fill out a spreadsheet with the name and e-mail of a recent instructor who completed the self-assessment and the result of their assessment (whether the course meets requirements or will be modified). I assume the deadline for this is the same as the material for the in-depth self-assessment, but I couldn't see this listed anywhere. **We are in good shape to finish the preparation for the GE Assessment before the deadline.**

**Undergraduate Instruction and Program Review:** This consists of a self-review, and a two-day visit by the Review Team. There is a template (doc..yeck!) for the self-review that includes these sections:

1. Overview of the major
2. Outcome of Previous Program Review
3. Faculty in the major
4. Instruction, advising, and resources in the major
5. Students in the major
6. Students' Perceptions of the Major
7. Post-graduate Preparation
8. Educational objectives and Assessment
9. Major strengths and weaknesses/problems
10. Future Plans
11. Minors
12. Emergency Remote Instruction

Some supporting data should already have been provided ("We will contact you in September when the BIA data tables for your program are available.") but I have not located it yet. Anyone else, or shall I reach out? I think between the curriculum overhaul documentation and the previous review, we should have a lot of the content here already covered.

I think the fact that we have had (at least one so far) undergraduate program yearly discussion will be useful as well.

The template also mentioned that the following data may be useful to the Review Team:

- data on program class sizes and for related or comparable programs on our campus, including courses offered at introductory, intermediate, and advanced levels
- current and historical faculty-student ratios in your and related/comparable programs, at different levels
- specific courses that serve large numbers of students in majors outside your program
- impacted courses and measures of how impacted they are

- retention rates for cohorts in the major (freshmen, transfers, upper-division)
- transfers into the major from other majors, and what majors they transfer from
- changes in the curriculum for the major over that past 10 years or more
- the role of advisory boards (for example from industry) in shaping the major
- top 5 employers or fields of employment for your graduates
- top 5 graduate programs your graduates attend
- the development of internship programs over the past 10 years or more
- if your faculty have been recruited from elsewhere in the past seven years, from where have they been recruited, and if you have lost faculty to other institutions, where have they gone?

I'd like to see if I can get staff support to gather this data (but note that it is not required.)

Clearly the self-review is the largest bit of work required, but I think it is doable on this timescale.

As for the visit from the Review Team, we need to plan the itinerary for their two day trip which should include meeting with undergraduate students, committee chairs, other unique features of our department. Here's what I am thinking so far:

- Undergraduate Students
- Physics Club?
- Undergraduate Researchers?
- Instruction Support Team: Course Demo Demo?
- Tours (Get Chris cracking on clean up?)
- Instructor Panel: 105,110,112,115
- Capstone Courses Panel?
- UCC Meeting
- TA / hbar panel (graduate students)?
- Computational Physics (40,45,110L,112L,115L)
- DEI, Team Up, UCD Ignites
- UPC Meeting?

We need to get an intinerary together for December 15.

### 3 TODO Lists

For the General Education Assessment:

- Deadline: January 2, 2024
- Collect remaining materials for AST 10G this quarter (Mulhearn)
- Write the one page department statements for the three courses (Mulhearn)
- Identify instructors and work with them on self-assessment (Mulhearn)

For the Self-Review Part of the Undergraduate Instruction and Program Review:

- Deadline: January 2, 2024
- **Gain access to the BIA data tables (promised in September)**
- Make a first draft of the self-review (within one month?)
- Work with staff to gather other data.
- Complete the self-review and submit by the deadline

For the Review Team visit:

- Date of Visit: January 24-25, 2024
- Deadline for itinerary: December 15, 2023
- Plan itinerary and submit by the deadline

I think it will look really bad if our curriculum updates are still stalled by January 24-25, or even January 2... need to get cracking on that too...