Computer Science-FH Computer Science

Annual Program Review Template 2023

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1. Number of full-time faculty in the program.

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2. Number of part-time faculty in the program.

17

3. Number of staff in the program.

0

4. Do the above numbers reflect any staffing changes?

Yes, we hired a full time faculty in Fall 2023.

5. Refer to the most recent Comprehensive Program Review, what were the identified actions for improvement? Identify any current and/or new Strategic Goals.

We need to develop a comprehensive plan to address lack of equal representation in gender and ethnicity in our department.

To improve student representation by gender and race currently we are offering outreach courses such as via tailored classes in Umoja and Puente learning communities, offering introductory courses, attracting and retaining more female students and working with SLI to better dissect the success of our student population.

New strategic goal:

All and Machine Learning have quickly emerged as areas of significant opportunity for our department. We must meet the demand in these areas by developing new courses and certificates, and well as shore up our department by increasing our full-time capacity to teach the courses that are currently in the catalog.

- 6. What actions identified in the Comprehensive Program Review (or most recent Annual Program Review if no Comprehensive Program Review) have you completed this year?
  - Working with Office of Retention Services.
  - Incorporating consistent approach in our courses. For example, SimpleSyllabus, creating assessments for our introductory courses, incorporating GitHub to create more relevance.
  - Lowering cost of entry to CS 49 course by purchasing class set of devices.
  - Partnering with Stanford to adopt their code-in-place model with proven positive outcome.
  - Adding Non-credit Basic Skills (NCBS) 449, mirrored which will allow students to take the class if financial considerations are an issue.
  - Committing to minimal annual in-person course offerings of core language courses.
  - Adding CS 8 introduction to data science for student exposure industry trends.
  - Participating in trainings such as Foothill College Reflective Learning and Faculty Learning Program.
  - Met with current and future dual enrollment students. Continuing to teach dual enrollment courses.
  - Working on STEM 13-55 Implementation activities to help faculty get professional development and classroom materials.
  - Partnering in the NSF Servingness in Computing via a grant with UCSC.
  - Quarterly reflection on recruitment and retention.



7. Explain your implementation timeline and if there have been any changes or updates.

We are working on items in question 6 for next academic year.

We have requested an additional faculty hire to meet our new strategic objective.

8. Explain the evidence the program used to evaluate progress and provide an update on progress.

We have a 5% increase in our student population with Low Income from 1194 to 1262 students over the academic year.

We have an increase in our targeted groups in almost all of our targeted populations.

- increase for our Black population of about 23% from 105 to 130 students;
- increase for our Filipinx population of about 45% from 88 to 128 students;
- increase for our Latinx population of about 16% from 483 to 562 students;
- increase for our female population of about 5% from 1079 to 1139 students.

9. Click the link and follow the instructions to the Disproportionate Impact dataset, then respond to the prompt below.

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<u>my.sharepoint.com/:b:/g/personal/20078222\_fhda\_edu/EctjgGNEurtMlb1n6ZQ5k3kBNTEjiE9G\_kGSHMhfM1tsrA?</u> <u>e=yDcC7c</u>

Identify the groups that are experiencing a disproportionate impact in the most recent year (highlighted in orange). In the text box below, provide the percentage point gap and the number of additional successes needed to erase the percentage point gap for each group.

Black with -30 percentage point gap needs 39 number of additional successes.

Filipinx with -14 percentage point gap needs 18 number of additional successes.

Latinx with -18 percentage point gap needs 101 number of additional successes.

Low Income with -17 percentage point gap needs 217 number of additional successes.

10. Use this opportunity to reflect on your responses in this document. Include your closing thoughts.

We are excited about improvements that we have already in place or in the pipeline:

- Working with office of Office of Retention Services and Foothill Connect.
- NCBS 449 giving students a no-cost, no-grade option to try out or get ready for computer science. This debuts in winter quarter.
- CS 8A, debuting in fall, and expanding our offering in the data science field. There is huge job growth in this area, including entry level jobs that do not necessarily require a BS. Also, this field appeals to a wider, more diverse population in terms of gender and ethnicity than most computer science offerings.
- NCBS 443, which we hope to offer in spring or fall, just-in-time support for CS 3A. We believe that this
  course will reduce the learning curve of CS 3A and improve our success and equity metrics.
- A better understanding on trends in language specific courses via collaboration with institutional research.
- Implementing approaches to tools used in the classroom that are consistent in our introductory language courses.
- Working on STEM 13-55 Implementation activities to determine how we can apply campus wide strategies to classroom material.

We recognize that while these are all great accomplishments that may help us make progress, on their own they will not close the gaps that we see.



- We look forward to stronger partnerships with SLI, Foothill Connect, Umoja, Puente, Women in STEM and MESA.
- We desire a more comprehensive view of how to improve recruitment and retention efforts across our intermediary and advanced courses.
- Approval of our request for one additional full-time faculty would give us all more room to strengthen these relationships.
- We are eager to see where we can go with AI and Machine Learning. Feels like appetites are huge and the sky is the limit for growing the department.

## Click on the link below to view the Annual Program Review Rubric.

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This form is completed and ready for acceptance.



# Rubric Annual Program Review

### Criteria

The program's responses...

- align with the program's goals
- align with data
- are informed by data
- are within the control of the program
- have measurable outcomes

$ \mathbf{Z} $	Meets Expectations
	Needs Improvement

### Feedback

Al/ML - The department submitted a faculty prioritization request to get a new FT faculty hire focusing on Al/ML/Data Science, which was approved by the college. Hiring committee is currently formed and meeting. The department is also now offering NCBS 449 to help students taking CS 49 with financial needs. It is good to see that there is an increase in the number of students from underrepresented populations across the CS classes, but narrowing the success gap is a main priority. The CS department is addressing this issue through their annual PR.

This form is completed and ready for acceptance.

