Full-Time Faculty Position Request Form 2027- 2028

This form is used by departments and programs to request new or unfilled faculty positions relying on Program Review and/or other justifications. Submit one form for each position requested. For multiple positions, indicate priority of request (e.g., Subject Position 1, Subject Position 2, etc.). Forms are due to Division Deans by September 16, 2026.

Position Requested: Physics Faculty

Contact Person: Robin Rehagen

Discipline/Division: STEM **Starting Term: Fall** 27 **Spring**

This form requires the use Enrollment Management Tool data, which can be found at the following link: http://www.laspositascollege.edu/researchandplanning/FacultyPrioritization.php (If you have any questions about the data, please contact Rajinder Samra 925-424-1027 or rsamra@laspositascollege.edu) or your Dean. The data will be verified by the Dean. Do not attach data spreadsheets.

Check if position is a: Replacement ☐ **or New** ☑

If replacement: What is the position code? (see Dean)
Name of the person being replaced:
Length of time position(s) unfilled:
Date Retirement/Resignation is Board Approved:
If position is categorically funded, indicate source and duration of funding:

CRITERIA

1. **Number of Full-Time Faculty currently in Discipline:** 2
   If requesting more than one position, add 1 to this number for each subsequent position requested.

2. **Percentage of FTEF taught by full-time faculty as load for the past six semesters, and projected for one year assuming a successful hire. (Use data from link above. If requesting more than one position, see Rajinder Samra to determine the projected numbers.)**
   Projected

Fall 2023	Spring 2024	Fall 2024	Spring 2025	Fall 2025	Spring 2026	Fall 2027	Spring 2028 *
49.0%	53.1%	42.8%	45.7%	39.2%	36.2%	70.1%	65.0%

3. **a. For Instructional Faculty: WSCH per FTEF for the past six semesters (use data from link above):**

Fall 20233	Spring 2024	Fall 2024	Spring 2025	Fall 2025	Spring 2026 *
510.0	494.6	589.3	501.8	547.6	494.9

*Data presented in Q2 and Q3 are Physics and Astronomy combined, as these function as a single Department.

b. For non-instructional faculty (librarians and counselors): Student/Faculty ratio for the past six semesters, and projected for one year assuming a successful hire. Divide headcount by number of full-time faculty. For example: 8000 students divided by 3 full-time faculty. 1:2666

(If requesting more than one position, see Rajinder Samra to determine the projected numbers).
Projected

Fall 2023	Spring 2024	Fall 2024	Spring 2025	Fall 2025	Spring 2026	Fall 2027	Spring2028

4. Program Characteristics:

a. List the courses taught and/or work performed in the discipline.
(Be brief and specific. Use your Program Review to complete this section.)

Courses taught by full-time physics & asstornomy faculty span three disciplines: Astronomy, Physics, & Environmental Science.

PHYS 10 (general education lecture)
PHYS 10L (general education lab)
PHYS 2A (health sciences; lecture/lab)
PHYS 2B (health sciences; lecture/lab)
ASTR 31 (general education lecture)
ASTR 32 (general education lecture)
ASTR 30L (general education lab)
PHYS 1A (scientists & engineers; lecture/lab)
PHYS 1B (scientists & engineers; lecture/lab)
PHYS 1C (scientists & engineers; lecture/lab)
PHYS 1D (scientists & engineers; lecture/lab)
EVST 5 (lecture: gen-ed AND Env. Science majors)
EVST 5 (lab)
*Note: The numerical statistics calculated for this form are based on combined data for Physics and Astronomy only. Environmental Science is an interdisciplinary field and draws its faculty from several disciplines. However, EVST still uses physics faculty as a resource; both part-time and full-time faculty in physics have taught EVST 5.

b. Total number of primary sections as identified in data taught in the discipline in each of the last six semesters (use data link from page 1):

Fall 2023	Spring 2024	Fall 2024	Spring 2025	Fall 2025	Spring 2026
18	16	18	15	19	17

c. Student enrollments (FTES) in the classes taught (use data link from page 1)or number of students served in each of the last six semesters:

Fall 2023	Spring 2024	Fall 2024	Spring 2025	Fall 2025	Spring 2026
76.49	66.74	86.22	72.42	94.68	90.34

d. List special characteristics of the discipline such as: (Be brief and specific. Use your Program Review to complete this section.)

- **Mandated class size limits due to state, contract, and accreditation standards.**
- **Facilities**
- **Number of courses out of the total number of courses in the discipline that meet General Education Requirements**
- **Number of courses out of the total number of courses offered that are required as part of an associates degree, certificate or transfer**
- **Discipline provides basic skills courses**
- **Discipline provides mandated and specialized services to students**
- **<u>If position is categorically funded please add source and duration of funding</u>**
- **Other**

Physics courses are required core for nearly all STEM disciplines. Without sufficient staffing for physics, the entire STEM pipeline becomes bottlenecked and students are unable to complete their transfer degrees

- **The PHYS 1A-1D series** is our most impacted series. It is required core for the Physics AS, Chemistry AS, and Environmental Science AS, along with 6 AS degrees and 6 certificates in various engineering specialties. Courses from the PHYS 1 series also serve as electives for the Mathematics AS-T and Computer Science AS. The demographics of Physics 1 students is divided roughly equally: 1/3 science students, 1/3 engineering students, and 1/3 computer science students. A significant portion of our students in this series (~20%) are part of the Middle College program.
- **PHYS 10 and 10L** are required core for the Engineering Technology AS and certificate, which are programs that train technicians who apply directly to local employers such as LLNL. PHYS 10 and 10L also support students in various other fields, such as students training to be K12 educators or sonographers with Kaiser.
- **The PHYS 2A-2B series** is required core for the AA and AS-T for Biology and the AS in Chemistry Education.
- **Transfer and GE:** Nearly all students enrolled in our courses do so with the intent to transfer. All our courses meet the Physical Science and/or Physical Science Lab GE requirements. PHYS 10 & 10L, and ASTR 31, 32, & 30L are popular classes taken to fulfill GE science requirements.

Facilities Requirements: All physics, astronomy, and environmental science courses are offered **face-to-face** with the exception of ASTR 31 and 32, for which we offer both in-person and online sections. Lecture courses are capped at 44 students (gen-ed) or 48 students (majors courses). **Lab courses are capped at 24 students due to safety requirements.** The Physics 1 and 2 series offer "double sections": one lecture (48 students) split into two labs (24 students per section). Thus, we have a high demand for large classrooms (seating 48+) and laboratory space. **There is only one dedicated physics lab room, which has been insufficient for the past 9 years** (since Fall 2017). We currently share lab space with the engineering department (giving us access to two overbooked rooms), with plans to expand to 3 or more new lab rooms after the renovation of the 1800 building.

5. **Describe how courses and/or services in this discipline impact other disciplines and programs. (Be brief and specific. Use your Program Review to complete this section.)**

	Number of Lab Sections	Number of Students Served	Number of Students Turned Away
Fall 2015	**5**	**129**	**0**
Fall 2026	**12**	**307**	**150+**

- **Physics courses are required for 22+ degrees and certificates (nearly every STEM degree).** As Computer Science, Biology and other STEM majors grow, physics enrollments skyrocket. We need more FT faculty to support this increase in student need!
- **The number of students needing physics has more than doubled in the last 10 years.** (See chart below) But it's been 30 years since the Physics Department has obtained a new faculty position.
- **In response to student need, the FTEF allocation for physics has risen more than 60% over the past 10 years.** But a single physics class (9.25 CAH) will max out a part-timer. The two FT physics faculty have been working overload and summers for several years.
- **Part-Time Faculty Can't Help.** 7 out of 9 current PT faculty are not interested in teaching huge lecture/lab courses (9.25 CAH); they have full-time jobs. We constantly struggle to find capable part-time faculty who are willing to take on the time commitment.
- **Demand for physics is still increasing.** Student demand is 50% higher than current course offerings. Our fill rates are >100% with long waitlists. We've requested emergency adds every semester for several years, but we have maxed out on our ability to staff additional classes.
- **We had to turn away 150+ students this fall.** The extra FTEF to staff classes for those 150 students alone would require 2 new full-time faculty!
- **Waitlisted STEM students who don't get into required physics classes have delayed transfer and graduation.** Missing access to a single class causes a domino effect for students. Nearly all STEM courses are arranged in sequences with prerequisites, so if a student can't enroll in the first class, their progress towards their degree is halted.

It is essential for the entire STEM division that the physics department obtains the necessary full-time faculty to match student demand.

6. **If this is the first full-time position in the discipline, discuss: (Be brief and specific. Use your Program Review to complete this section.)**

   a. **Justification for the position.**
   b. **Projected start-up costs for equipment, facilities, and support staff for the first three years.**
   c. **Projected enrollment growth for the next three years, starting with the first semester of the projected faculty hire.**

7. **What are the impacts on students, the discipline and the college of NOT filling this faculty position? What are the programs/courses/services that have not been or cannot be offered due to the vacancy? (Be brief and specific. Use your Program Review to complete this section.)**

If this faculty position is not filled:

- Students across all STEM disciplines will experience delayed transfer and graduation
- Growth across all STEM disciplines will become stagnant
- Access to courses will become inequitable (only students with priority registration will be able to enroll)
- Student success will suffer because full-time faculty are stretched too thin and inexperienced part-time faculty must be hired and trained each semester.
- Student safety is jeopardized because of overcrowded lab facilities.
- Honors program participation will decrease due to faculty workload
- Grants and external partnerships with LLNL and local industry will be impossible due to faculty workload

8. Any additional information that addresses justification of the position. If multiple positions are being requested, this is an opportunity to differentiate the justifications for additional positions.

The physics and astronomy department is requesting two positions. This form is for the SECOND position.

- The first position is needed to help keep the program running at its current size. The two full-time faculty are teaching <40% of the allotted FTEF and are overloaded every semester. Qualified part-time faculty are nearly impossible to find, and most refuse to teach the large physics lecture+lab classes (9.25 CAH each).
- The second position is needed to support the growth of the physics department to meet the huge unmet student demand. The waitlisted students we turn away either experience delayed graduation or leave LPC and go to a different school.

Signatures:

Robin Rehagen — Requestor

9/15/26 — Date

Paula Checchi — Dean

9/16/26 — Date

Nan Ho — Vice President

10/1/2026 — Date