

#16

COMPLETE

Collector: Web Link 1 (Web Link)
Started: Thursday, December 28, 2023 9:00:01 AM
Last Modified: Thursday, December 28, 2023 9:27:52 AM
Time Spent: 00:27:51
IP Address: 75.25.163.251

Page 1: Full-Time Faculty Position Form

Q1

Please enter the following:

| | |
|----------------|-------------------------------------------|
| Department | Physics & Astronomy |
| Position Title | Physics & Astronomy Instructor |

Q2 **No, the position has not yet been funded**

If this position has already been funded, do you want to continue with the current request?

Page 2

Q3

1. Describe why this position is essential to your program and/or service area. How has the lack of this position impacted your program and/or service area? What will be the impact to the program and/or service area if this position is not filled? (Rubric Criterion 1, 3)(300 words or less)

We are witnessing a substantial surge in demand that is challenging to manage with our current staffing levels. This increase can be attributed to the strategic improvements we've implemented in our courses, aimed at enhancing their flexibility, equity, and relevance. These changes have notably increased our popularity, primarily through word-of-mouth recommendations, but also we have made the move of starting to get our course POOCR certified. At present, our full-time instructors in Physics and Astronomy are managing significant work overloads. Moreover, as indicated, the student demand generated by our new initiatives shows no signs of diminishing. We are fortunate and proud that our efforts have been so successful, yet this success has brought about a pressing need for an additional full-time instructor to sustain and support this growing interest.

Q4

2. What are the racial and gender demographics of the faculty within your program? What steps will your program take to ensure this position will promote faculty diversity to reflect the students the college serves, for example: (Rubric Criterion 1)- Participating in professional development related to equity and diversity in hiring- Participating in professional development related to equal employment opportunity (EEO)- Completing EEO Representative Training- Employing strategies to recruit diverse applicants(300 words or less)

Please note that even with our current faculty being primarily white and male, we have still made significant progress for students. We have significantly reduced racial equity gaps in physics while simultaneously fixing our racial and gender representation issues (see question 3).

In addition, we are still dedicated to improving the racial and gender demographics of our faculty so that it is more inline with the students we serve is an extremely important value and an essential part of the program we are building here at Cuyamaca. We have several thoughts about how to promote this value, including:

+We have a list of recruiting spaces for posting job listings specifically for physics and astronomy that include professional organizations for faculty of color.

+We have carefully rewritten our hiring questions using equity-minded guidelines.

Q5

3. How will this position improve student learning and achievement, and close equity gaps in access and outcomes in your program? What steps are you taking to close equity gaps in access and outcome, for example: (Rubric Criterion 2)- modify curriculum to reflect the college's diverse student population- close equity gaps- ensuring equitable access to courses that have pre-requisites- removing barriers for students, especially those from historically marginalized groups- adopt/create no cost/low cost textbooks and course materials(300 words or less)

We have actively promoted participation in the EMTLI program among our faculty, both through encouragement and financial support. As a result, all our physics faculty with more than a semester's experience have either completed or are currently enrolled in the program.

In the field of physics, where representation of students of color and women has traditionally been low, we have achieved remarkable inclusivity. Our department now closely mirrors the college's demographics, with a near-equal representation of Black and Hispanic students and significant progress towards gender parity. This achievement is particularly notable given that, less than ten years ago, we had 30% female students and a 10% lower representation of Hispanic students compared to the college. Additionally, we have made strides in reducing equity gaps across race and gender.

While astronomy has always been inclusive, efforts are ongoing to address remaining racial equity gaps. The potential addition of a new faculty member is poised to further enhance student success and retention. This collaboration aims to expand on our curriculum advancements, drawing insights from EMTLI, Humanizing STEM, POCR, and Strong Workforce programs. Our goal is to develop more equity-focused and student-centered courses, leveraging our experience from the SEED community of practice developed over three years. We believe these efforts will continue to bridge equity gaps and build upon our recent progress.

Furthermore, we plan to work with the new instructor to create and adopt high-quality, no-cost resources and course materials, as successfully done with physics 130/131. This approach is intended to provide equitable access to education for a broader range of students.

Q6

4. Has there been or is there evidence to demonstrate that there will be an increase in student demand for your programs and/or services? How are students being adversely impacted without this position? Please discuss supporting data from recent semesters. For example, enrollment trends, waitlist pressures, or wait time for appointments and support services, students served, etc. as they apply to this position. (Rubric Criterion 2)(300 words or less)

Enrollment for Physics and Astronomy: 279 students (55.83 FTES) in 2018 to 611 students (103.77 FTES) in 2023. The trend for our enrollment has been continuous since 2018 with a small dip for the pandemic. We currently have significantly better enrollment than pre-COVID and we expect demand to remain strong. This is not an accident and our growth has significantly outpaced the region. Our program has been VERY proactive in creating and continuously improving high quality online, hybrid, and HyFlex course modalities (we have only one traditional course left in our offerings) because our students have made it clear that this is what they want.

Although we carefully select and train our part time faculty to be great instructors in these modalities -- utilizing EMTLI, Humanizing STEM, and our own community of practice -- the bulk of the course materials are developed and maintained by our full time faculty. We have put thousands of hours into writing, filming, and editing high quality video content for our courses and labs that can be done remotely. Our Physics 130 and 131 courses have been fully redeveloped over the last 5 years to better serve our life science students in an online format and are now POQR certified.

This is not work that can be expected of adjunct faculty. When we have time to recruit and train them instead of just throwing them into classes at the last minute to meet demand, we expect good student interaction and support, but freely provide our materials. Although we do not require them to be used, most choose to use them even if they plan to develop their own.

Q7

5. Which program review goal(s) is this request supporting? Please state how the position will help advance the specific goal(s). Please explain how this position would support historically marginalized groups. (Rubric Criterion 3)

This request supports all of our program review goals. We have spent the last five years increasing representation, narrowing and closing equity gaps, and increasing enrollment in the process. We are radically student-centered in a way that no other physics department in the region can touch. This is not a drop in standards, it is the result of years of sustained effort to reinvent what we do. What we need are more resources to continue the work .

Q8

6. Is this a new position, replacement for a retirement/upcoming retirement or replacement for internal promotion (faculty to administrator), or replacement for other circumstances? Please explain. (Rubric Criterion 3)(100 words or less)

No, this is to support enrollment growth.

Q9

7. Which strategic priority/priorities is this request supporting? Please state how the position will help advance the specific priority/priorities and the College's mission, vision and values. Note: the more goals addressed the stronger the request (Rubric Criterion 4) Increase equitable access (enrollment) Eliminate equity gaps in course success (passing grade in class) Increase persistence eliminate equity gaps (re-enrolling the subsequent semester or year) Increase completion and eliminate equity gaps (graduating with a degree/certificate, or transferring) Increase hiring and retention of diverse employees to reflect the students and communities we serve (300 words or less)

Increase Equitable Access (Enrollment): The addition of a new faculty member will enable us to offer more sections and varied course times, significantly increasing enrollment opportunities for students. This expansion is particularly vital in accommodating diverse schedules and needs, ensuring that education is accessible to all, regardless of their personal circumstances.

Eliminate Equity Gaps in Course Success (Passing Grade in Class): Our initiative to build equity-based and student-centered courses, as demonstrated with the success in our Physics and Astronomy programs, directly contributes to this goal. The new hire will play a crucial role in continuing to develop and refine curriculum and teaching methods that address the diverse learning styles and backgrounds of our students, thereby helping to eliminate equity gaps in course success.

Increase Persistence & Eliminate Equity Gaps (Re-enrolling): By offering engaging, relevant, and supportive courses, we aim to boost student morale and commitment to their studies. This approach not only encourages persistence in their current academic journey but also reduces equity gaps by providing tailored support and resources to those who might otherwise struggle to continue their education.

Increase Completion and Eliminate Equity Gaps (Graduating/Transferring): Through our focused efforts on course relevance, engaging teaching methods, and comprehensive support, we aim to enhance student achievement. This leads to increased rates of completion, whether it's graduating with a degree/certificate or transferring to continue education, especially for underrepresented groups.

Increase Hiring and Retention of Diverse Employees: By recruiting a new full-time instructor, we are actively contributing to this goal. The new hire will not only reflect the diversity of our student body but also bring unique perspectives and experiences that enrich our educational environment and community.

Q10

8. Please confirm that you have discussed this faculty position request with the Division Dean and that you understand that Division Deans will be providing feedback to help inform the prioritization process. Note: The Division Dean will be providing feedback to help inform the prioritization process

Yes, I have discussed this position request with the Chair of the Department

Q11

If you would like to attach data to support your request in light of the rubric criteria, please upload a PDF, Word, or image file using the button below.

fa23-au-PHYSASTR-FIGURES.pdf (765.7KB)