#13

COMPLETE

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Page 1: Classified Position Request Form

Q1

Please enter the following:

Department	**Earth Science**
Position Title	**Science Lab Technician III - Earth Sciences**
Salary Range*	**$4,633 - $5,794**
Annual Salary at Step B*	**$58,800**
Hours/week and # of months (e.g., 10-month, 11-month, 12-month)	**40 hours/week, 12-month, but would accept part time.**

Q2

Current program goal (as listed in comprehensive program review/annual update) this position will directly advance/support:

Previous Goals 1, 2, 3, and 4. Previous Goal 1: Design more Equitable Courses, Previous Goal 2: Update Curriculum, Previous Goal 3: Program Redesign in collaboration with Kumeyaay Studies, Previous Goal 4: GIS Courses & Certificates

Q3

How will this position directly advance/support the goal listed above?

1. Design More Equitable Courses:
Support for Online Labs: The technician can develop accessible and engaging online lab activities that cater to a diverse student body, ensuring equitable learning experiences regardless of location or resources.
Inclusive Lab Design: By designing online labs that include varied learning styles and cultural perspectives, the technician can contribute to a more inclusive and equitable educational environment.
Resource Management: They can ensure that digital lab resources are designed to be universally accessible, supporting students from all backgrounds.

2. Update Curriculum:
Incorporating Online Elements: The technician can integrate the latest scientific research and lab techniques into the Earth Sciences curriculum, ensuring that even online labs are up-to-date and reflective of current industry standards.
Field Trips and Field Courses: They can facilitate the organization of field trips and field courses, providing students with hands-on, real-world experiences that complement online learning.
Technology Integration: The technician can aid in incorporating advanced technologies and software, like Geographic Information Systems (GIS), into both online and field-based parts of the curriculum.

3. Program Redesign in Collaboration with Kumeyaay Studies:
Online Collaboration Platforms: The technician can create online platforms for collaborative projects between Earth Sciences and Kumeyaay Studies, ensuring continuous interaction and integration of knowledge even in an online setting.
Virtual Cross-Disciplinary Labs: By developing online labs that incorporate both Earth Sciences and indigenous knowledge, the technician can help create a unique and comprehensive learning experience.
Respecting Cultural Perspectives: They play a key role in ensuring that both online and field-based program elements accurately and respectfully incorporate Kumeyaay perspectives and knowledge.

4. GIS Courses & Certificates:
Online GIS Training: The technician can develop online GIS lab modules, making this valuable skill accessible to a wider range of students across various disciplines.
Application in Field Courses: They can demonstrate the application of GIS in field courses, showing its practical use in real-world scenarios.
Interdisciplinary GIS Applications: The technician can highlight the relevance of GIS in different academic and professional fields through both online and field-based learning experiences.

By focusing on these aspects, the Earth Sciences lab technician can play a crucial role in enhancing the educational offerings at Cuyamaca Community College, adapting to the evolving needs of online education while maintaining the integrity and hands-on experience of field-based learning.

Q4

Additional general fund position

What type of position is being requested?

Q5

Please attach the description for the position classification (job descriptions are posted on this GCCCD Human Resources webpage).

36%20-%20SCIENCE%20LAB%20TECHNICIAN%20III.docx (27KB)

Q6

What are the actual duties and responsibilities that are specific to this requested position that you would like to highlight to help the Classified Hiring Priorities Committee understand the need for this position?How does the lack of this position impact the program’s or service area’s ability to serve students?(300 words or less)

Online Support for Earth Science Labs:
Enhancing online lab support with specialized kits and resources is a goal for the Earth Science department. However, current staffing levels do not allow for adequate development of these materials, nor the organization and execution of field trips, which are integral to the Earth Science curriculum.

Time Coverage Constraints in Earth Science, Physics, and Astronomy Labs:
The current lab technician is responsible for covering not only Earth Science labs but also Physics and Astronomy labs. This multi-disciplinary role creates a scheduling challenge, as many of these classes occur simultaneously. Due to the technician's divided attention across these disciplines, there are limitations in available lab hours, particularly for Earth Science. This overlap in scheduling has become more pronounced with the increased number of Physics labs, which demand a significant portion of the technician's time. The consequence of this stretched coverage is that it has become challenging to return Earth Science labs to an in-person format. The technician's extensive commitment to Physics, which now has a higher volume of labs than before, means that there is insufficient time and resources to adequately support in-person Earth Science labs. This leads to potential issues in equipment troubleshooting and hands-on support for both faculty and students in Earth Science, as the technician cannot be present across multiple labs at the same time.
Addressing this issue is critical for ensuring the quality and effectiveness of lab experiences in Earth Science, Physics, and Astronomy. The current situation underscores the need for additional staffing or a reevaluation of lab scheduling to provide adequate support for all disciplines, ensuring that students receive the hands-on learning and technical assistance necessary for their academic success.

Q7

* How are the duties of the requested position currently being performed, if at all?

Our Earth Science labs have moved online, supported by part-time faculty. This shift has diminished the hands-on learning experience.

In-person Astronomy and Earth Science labs have been on hold due to equipment issues. Lack of maintenance and lost inventory, stemming from not having a lab technician, have caused significant setbacks in both the design and support of online labs and the return to in-person labs.

Hiring a specialized, part-time lab technician is crucial. They would help in:
1. Salvaging and assessing existing equipment.
2. Identifying needed resources to restore labs.
3. Ensuring continuity and proper management of lab resources.

A dedicated technician is essential for revitalizing in-person labs and enhancing the quality of our Earth Science programs.

Q8

Respondent skipped this question

* OPTIONAL: If duties are being performed by a grant-funded position, when will the grant end?

Q9

Please describe how the program/department has changed over the past 3 to 5 years and how this position will help the department serve more students directly or indirectly?

Over the past 3 to 5 years, the department has experienced significant changes in its operational structure and student demographics, leading to a shift in the demand for its services. The introduction of a new lab technician position is poised to significantly impact the department's ability to serve its students.
Departmental Evolution:

1. Shift to Online Learning: The transition from exclusively in-person to fully online courses resulted in an enrollment surge, reflecting a growing demand for flexible learning options.
2. Growth in Shared Disciplines: Physics and Astronomy, sharing a technician with Earth Science, have doubled in size, impacting the (currently shared) technician's availability for Earth Science support.
3. Major staffing losses: We have had 3 different lab technicians covering physics, astronomy, and all of earth science in the last 3 years, including months of unstaffed time and a substitute that had to be removed by HR, and we lost our only full-time faculty member. Since we can't afford anyone who has knowledge in the disciplines this position serves (we pay less than half a market wage for the degrees needed), our current lab tech has no earth science credentials and minimal experience, depending on google and the faculty to identify equipment. THIS MEANS NO ONE KNOWS WHAT THINGS ARE OR WHERE THEY ARE AND WE ARE JUST GUESSING.

Q10

* How has the demand for program/department services increased/changed over the past 3 to 5 years?

Service Demand:
The growth in physics has made support of earth science nearly impossible.
The shift to online learning has increased the need for specialized support in virtual lab environments. The absence of a full-time faculty member in Earth Science has further escalated the demand for knowledgeable technical support.

Q11

* How have workloads in the program/department increased/changed over the past 3 to 5 years?

Workload Changes: The shared technician's workload has increased significantly, given the expansion of Physics and Astronomy and the additional demand from Earth Science's online transition. We currently want to move classes back to in-person, support filed trips, and revive field courses but we absolutely cannot with the resources and staffing as it is.

Q12

* How many more students will the position serve, and who will it serve?

Projected Impact of the New Position:
Enhanced Student Services: A dedicated lab technician for Earth Science would directly contribute to the quality of online lab experiences, addressing the increased enrollment and diverse learning need as well as providing much-needed support to faculty who now have lab caps of 50 instead of 32 in the more challenging online environment.
Quantitative Data:
Enrollment Increase: There has been a notable rebound in student enrollment due to the online transition, when we lost our full-time instructor we dropped from 200 students over 9 sections in 2018 to 130 students over 4 sections in 2020. We are now back up to 200 students but spread over 5 sections with better fill rates and efficiency. We have a demand for more classes most classes have waitlists) but no one to teach them or develop them at this time.
Workload Metrics: Data on overtime/comp time accrued by the shared technician would provide insights into the workload increase. Additionally, the number of hourly staff, interns, volunteers, or work-study students in the department could further illustrate the current capacity versus demand.
Outreach and Inclusivity:
Equity and Inclusion Initiatives: The department's commitment to equity, evidenced by faculty participation in EMTLI and community practices, has established the need for both online and in-person labs, and integration with the Kumeyaay program.
Target Audience: The position will serve not only the increased number of Earth Science students but also support initiatives that cater to diverse student groups, including those involved in the Kumeyaay program, students interested in GIS for other disciplines or career advancement, and students interested in the environment and climate change.

Q13

Which of the College’s strategic priorities will this position most directly support? Note: Selecting more than one strategic goal will not impact the Classified Hiring Priorities Committee rating of the position.

Increase Equitable Access,

Eliminate Equity Gaps in Course Success,

Increase Persistence and Eliminate Equity Gaps

Q14

Please explain how the requested position will support the college strategic goal(s) identified above. (200 words or less) Rubric Criterion 3

Increase Equitable Access:
Online and In-Person Lab Support: By facilitating both online and in-person Earth Science labs, the technician will provide more students with access to high-quality lab experiences, regardless of their physical location or schedule constraints.
Resource Management: The technician's role in managing and organizing lab resources ensures that all students have equitable access to necessary materials and equipment.

Eliminate Equity Gaps in Course Success:
Enhanced Lab Experiences: The lab technician will improve the quality of lab experiences, which is crucial for student understanding and success in Earth Science courses. Better lab experiences can lead to improved course outcomes, particularly for students who might struggle with theoretical concepts without hands-on applications.
Support for Diverse Learning Styles: By developing labs that cater to a variety of learning styles, the technician helps address the diverse needs of the student body, contributing to more equitable success rates in Earth Science courses.

Increase Persistence and Eliminate Equity Gaps:
Consistent Support and Expertise: The presence of a dedicated lab technician provides consistent support and expertise, encouraging student engagement and persistence in Earth Science programs. This can be particularly impactful for students who might otherwise feel unsupported or overwhelmed by lab work.
Curriculum Development: The technician's role in developing and maintaining a curriculum that includes new technologies and environmental components aligns with current industry standards, keeping students engaged and motivated to persist in their studies.
In summary, the lab technician position is integral to advancing these strategic goals by providing equitable access to quality lab experiences, enhancing course success through improved lab support, and encouraging student persistence by fostering an engaging and inclusive learning environment.

Q15

How will this position improve the student experience at Cuyamaca College? How will the program or service area measure the impact of this position on the student experience?(200 words or less)Rubric Criterion 4

Improvement in Student Experience:

Enhanced Lab Learning: The technician will improve the quality of both online and in-person lab experiences in Earth Science. This will lead to a more interactive and engaging learning environment, essential for understanding complex scientific concepts.

Resource Accessibility: With a dedicated technician, lab resources and materials will be better managed and more readily available, ensuring all students have the tools they need for effective learning.

Curricular Support and Innovation: The lab technician can aid in integrating new technologies and methodologies into the curriculum, keeping it current and relevant, which is vital for student engagement and learning.

Personalized Support: The technician's presence allows for more personalized student support during lab sessions, addressing individual queries and challenges, which enhances the overall learning experience.

Bridging Knowledge Gaps: The technician can fill knowledge gaps left by the absence of a full-time faculty member, providing students with the necessary expertise and guidance.

Measuring the Impact on Student Experience:

Student Surveys and Feedback: Regular surveys can be conducted to gather student feedback on their lab experiences and the overall quality of their Earth Science courses. This feedback will be instrumental in assessing the impact of the technician's role.

Course Success Rates: Monitoring changes in course success rates, including pass rates and grades, before and after the introduction of the technician will provide quantitative data on the position's impact.

Lab Participation and Engagement Metrics: Tracking student participation and engagement in lab activities can offer insights into how the lab experiences have improved with the technician's support.

Retention and Persistence Data: Analyzing student retention and persistence in Earth Science courses can indicate whether the enhanced lab support is impacting students' decisions to continue in the program.

Faculty Feedback: Input from faculty regarding the effectiveness of labs and ease of course delivery with the technician's support will also be valuable in measuring the position's impact.

By utilizing these measures, Cuyamaca College can effectively assess and continually improve the impact of the lab technician position on the student experience, ensuring that it aligns with the college's educational goals and student needs.

Q16

Please confirm that you have discussed this classified position request with your dean/manager and that you understand that deans/managers will be providing feedback about the division’s priorities and needs to help inform and may impact the prioritization process.

Yes, I have discussed this position request with the Dean or Manager

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Q17

In an effort for continued improvement of the Classified Position Request Process, the CHPC would like your feedback regarding the CHPC guidance and process for submitting new classified positions requests.

The Engineering and Physical Sciences department at our college, encompassing three programs and five disciplines, currently operates with a significant shortage of technical support. Over the past two decades, the department's scope and student enrollment have expanded dramatically, yet the support structure has not adapted to meet these changes.

Current Situation:

Outdated Support Structure: We have one Science Laboratory Tech II, who, while technically not serving engineering, is spread thin across multiple disciplines. This level of support has remained unchanged for over 30 years.

Increased Demand: Two decades ago, the department required support for a handful of simple lab setups. Now, with a doubling in enrollment, the complexity and number of labs have increased significantly. This includes multiple setups for engineering and several in-person and online labs for physics and astronomy.
Challenges:

Physical Impossibility: With labs occurring simultaneously across different buildings, it's physically impossible for one technician to provide adequate support.

Inadequate Skillset and Pay: The current pay scale does not attract candidates with anything approaching the necessary skillset. Our last three hiring rounds attracted few qualified applicants, reflecting a misalignment between job requirements and compensation.

Faculty Strain: Faculty members are compensating for this shortfall, leading to burnout and affecting the quality of labs and equipment maintenance.

Proposed Solution:

Reorganization of Technical Support: A restructuring is needed where Engineering, Physics/Astronomy, and Earth Science each have a specialized lab technician with higher skills and pay. Additionally, one to three lower-skilled, full or part-time technicians should be employed to cover all lab sessions adequately.

Immediate Minimum Requirement: At the very least, one Science Lab Tech III or IV and one full-time or two part-time Tech II’s are necessary.

Impact of Inadequate Support:

Faculty Overwork: Faculty members are overburdened with lab setup and equipment maintenance, impacting their primary teaching responsibilities.

Student Experience: Students face less smooth-running labs, reduced innovation, and potential equipment issues, all of which can adversely affect their academic success and overall experience.

In summary, there's an urgent need for a reevaluation and enhancement of the technical support structure within the department to keep pace with its growth and evolving needs. This change is crucial for maintaining the quality of education and the well-being of both faculty and students.