

## De Anza College

### Program Review – Annual Update Form

- 1. Briefly describe how your area has used the feedback from the Comprehensive Program Review provided by RAPP members (if unsure, request the feedback form from your dean/manager).**

The feedback from the Program review has allowed our department to confirm and address the inequity in student success amongst students of different backgrounds. The feedback provided data to help us directly address targeted students by developing strategies to increase student equity.

- 2. Describe any changes or updates that have occurred since you last submitted program review (comprehensive program review [submissions](#))**

We have finally hired a FT physics lab technician. This position was critical for instructional lab support and maintaining the lab equipment on a daily basis. It is also essential in improving student equity in physics and STEM. The department is grateful to the RAPP committee and our PSME Dean for supporting us in getting this position.

- 3. Provide a summary of the progress you have made on the goals identified in your last program review (as included in the comprehensive program review).**

One of the goals was to help impacted students successfully go through their physics series. The lab technician position has helped to accomplish this goal by providing more working lab setups and thus having smaller lab groups where students can more successfully engage with each other and confirm and understand the theories, laws, principles experimentally. The second goal was to create an Associate Degree for Transfer for physics. To help accomplish this goal, one of our full-time faculty has taken the initiative to work with curriculum to create an associate degree for physics.

- 4. If your goals are changing, use this space to provide rationale, or background information, for any new goals and resource requests that you'll be submitting that were not included in your last program review.**

Our goals remain the same. However, in order to maintain our laboratory instructions we need to request instructional equipment. We have labs that run from 9:30AM to 11PM daily and equipment continuously gets broken and needs to be replaced. Having enough

instructional equipment helps address student equity because we can have smaller laboratory groups and allow students more direct hands-on experience with the equipment and engage more productively with their lab members.

- 5. Describe the impact to date of previously requested resources (personnel and instructional equipment) including both requests that were approved and were not approved. What impact have these resources had on your program/department/office and measures of student success or client satisfaction? What have you been able to and unable to accomplish due to resource requests that were approved or not approved?**

After RAPP approved the physics lab technician position, the PHYSICS department is thrilled to have hired a full-time lab technician! As already mentioned in #2, this position was critical for instructional lab support and maintaining the lab equipment on a daily basis. It is also essential in improving student equity in physics and STEM. The lab technician is now providing working laboratory equipment setups for all the lab courses, has made several repairs, organized the lab stockroom, make purchase orders, and overall maintains an excellent laboratory curriculum!

- 6. How have these resources (or lack of resources) specifically affected disproportionately impacted students/clients?**

As already mentioned in #4, having enough instructional equipment helps address student equity because we can have smaller laboratory groups and allow students more direct hands-on experience with the equipment and engage more productively with their lab members.

- 7. Refer back to your Comprehensive Program Review under the section titled Assessment Cycle as well as the SLO website (<https://www.deanza.edu/slo/>) for instructional programs. In the table below provide a brief summary of one learning outcome, the method of assessment used to assess the outcome, a summary of the assessment results, a reflection on the assessment results, and strategies your area has or plans to implement to improve student success and equity. If your area has not undergone an assessment cycle, please do so before completing the table below.**

**Table 1. Reflection on Learning Outcomes (SLO, AUO, SSLO)**

Learning Outcome (SLO, AUO, SSLO)	Examine new, previously un-encountered problems by critically analyzing and evaluating their constituent parts, to construct and explain a logical solution utilizing, and based upon, the fundamental laws of mechanics.
Method of Assessment of Learning Outcome (please elaborate)	As assessment tools we used selective new un-encountered problems on the lecture final. Assessment was then based on the scores obtained on these selective problems on an individual and overall class basis. The following problem on the lecture final was used as an assessment: Two equal masses each of a given mass 'm' connected together by a string of length 'L' both as a system are in free-fall radially inwards towards a planet of mass 'M'. Calculate the tension force in the string.
Summary of Assessment Results	15% of the class was able to solve the problem correctly, 50% did acceptably well, and 35% did not perform well, 35% of the class needed to improve their analytical and problem solving skills, 65% success was acceptable for the class, but not outstanding
Reflection on Results	Areas for improvement would be to further help students develop their analytical and problem solving skills using the principles/laws/theories of classical mechanics. The results are typical in this type of class and reasonably acceptable considering the size of the class.
Strategies Implemented or Plan to be Implemented (aka: enhancements)	Early student intervention, tutoring, recitations and referring students to academic support programs.

Done? Please email this form to your dean/manager.

### 8. Dean Manager Comments:

As mentioned in this report, the big change in the department is the new, very needed, physics tech position which we hired for this past August. The technician has made great changes to the organizational and safety of the labs and also, as predicted, has taken steps in increasing efficiency and cost cutting measure.

Physics department has been growing regularly over the past few years and our physics classes, which are a required part of all engineering transfer curriculum and more, have been in high demand. The limiting factor for supporting more students and allowing faculty

to develop certificates and new curriculum has been the lack of a necessary fourth fulltime faculty. As they did with not having a lab tech for ten years, the physics department faculty are doing their best to maintain quality with only three fulltime faculty. However, as we focus on our goal of equity, it is more than optimal to have a fourth fulltime faculty.