

**Instructions:** The first column below matches key words in TracDat where you will enter the requested information. The second column fully describes the information that the IPBT is requesting. It also represents the information you would see if you pressed the help button (a question mark) by each box in TracDat. The third column is where you can input your data/responses at this time. You will be able to copy and paste or type in your information from the third column directly into the TracDat boxes. Save this Word doc in the following format: sp2016cpr\_deptname. Last steps: ALWAYS keep a soft copy of your work in your files to ensure that your work is not lost. Upload a copy of this document into the Trac Dat, "Documents file". Also upload the Program Review Data sheet(s). If you have questions, please refer to your workshop handout (<http://www.deanza.edu/slo/tracdat.html>) or contact: [papemary@fhda.edu](mailto:papemary@fhda.edu).

- Section I: Overall program description (including CTE)
- Section II: Overall student enrollment and success
- Section III: Equity
- Section IV: Assessment Cycle
- Section V: Resource requests

In TracDat. Limit narrative to 100 words; bullet points encouraged

	Information Requested	Explanation of Information Requested. ? TracDat Help button will reveal the same cues (sorry no hyperlinks)	Input your answers in columns provided. Note: reference documents can also be attached. Make sure to note the name of any reference documents in your explanations.
	<b>Program Description</b>		
	Department Name:	Physics	
	Program Mission Statement:	<p>The purpose or mission of the physics program is to not only teach the fundamental laws of nature (physics) but also develop a student’s ability to think critically and independently for herself. By learning the <u>scientific method</u> of posing and testing hypotheses with <u>experimental data</u>, a student leaves our department with the mindset of being able to logically analyze and evaluate information. This ability will allow the student to gain insight and make meaningful, useful conclusions about the problems encountered throughout the course of her life.</p> <p>Our PLOs connect to the school’s mission and core competencies directly; physics develops the intellect by encouraging thoughtful, deliberate and patient reasoning and the scientific method helps one become a leader as problem solver in the community. Students hone the skills of communication and expression by writing coherent lab reports and develop critical thinking by repeated use of logical reasoning in the application of the fundamental laws of nature.</p>	
I.A.1	What is the Primary Focus of Your Program?	Transfer	

I.A.2	Choose a Secondary Focus of Your Program.	personal enrichment	
I.B.1	# Certificates of Achievement Awarded		
I.B.2	# Certificates of Achievement-Advanced Awarded:		
I.B.3	# ADTs (Associates Degrees for Transfer) Awarded		
I.B.4	# AA and/or AS Degrees Awarded:		
I.C.1	CTE Programs: Impact of External Trends		
I.C.2	CTE Programs: Advisory Board Input:		
I.D.1	Academic Services and Learning Resources: # Faculty Served		
I.D.2	Academic Services and Learning Resources: # Students Served		
I.D.3	Academic Services and Learning Resources: # Staff Served		
I.E.1	Full Time Faculty (FTEF)	8.5	
I.E.2	# Student Employees	1, (a change of +1 from 0)	
I.E.3	Full-time to Part-time ratio % of Full -time Faculty	$57.5 / 42.5 = 1.35$ to 1.00 . It has decreased significantly	

	Compared to % Part-time Faculty Teaching	Has changed from 1.59 to 1.35 = -15 % change Compare the changes in % of FT and PT faculty teaching in your department? 0 = no change; (- %) = decreased; % = increased; blank= not applicable to your program. Refer to your program review data sheet. <a href="http://deanza.fhda.edu/ir/program-review.14-15.html">http://deanza.fhda.edu/ir/program-review.14-15.html</a> .	
I.E.4	# Staff Employees	<b>0 . A decrease of 1 physics lab technician compared to 2012-13. (check date)</b>	
I.E.5	Changes in Employees/Resources	Starting n 2013-2014 our program has been negatively affected by the loss of the lab technician position. The lab technician allows us to  a) conduct lectures with relevant physical demonstrations that positively impact targeted student populations  b) have a physical presence on the campus with displays that encourage participation in the program particularly for targeted groups that may not have a background that involved exposure to the direct application of physics principles in the community (solar cells for example a conservation energy idea)  c) Lab equipment has not been maintained which deceases the number of physical experiments that can be conducted; this causes larger lab groups and decreased participation particularly among students in targeted groups who are likely to “hang back” and allow other students to take the lead (in a student group of 3 or 4 instead of 2)  d) lab instruction is reduced as professors spend time doing provisioning of equipment during  e) Our department has been growing in enrollment and classes over the last two years and each of these problems listed becomes even more problematic	
	<b>Enrollment</b>		
II.A.1	Enrollment Trends	5.0 % increase and an average increase of 6% increase for each of the last 3 years	
II.B.1	Overall Success Rate	Success rate of 64 %, It has been averaged over 60 % last 3 years	

II.B.2	Plan if Success Rate of Program is Below 60%	Success rate is 60% or higher	
II.C	Changes Imposed by Internal/External Regulations		
	<b>Equity</b>		
III.A	Growth and Decline of Targeted Student Populations	350 students increase of 5%, Average increase of 5 % over last 3 years	
III.B	Closing the Student Equity Gap:	The success rate increased slightly from 2013 to 2014 and decreased slightly from 2014 to 2015. and then increased for 2015 to 2016. There has been a 1 % increase each year on average for the last 3 years.	
III.C	Plan if Success Rate of Targeted Group(s) is Below 60%	<p>Below 60 % (53 % is 2015-2016 success rate)</p> <p>Having faculty identify targeted students needing help and support is an effective method to help reduce the equity gap. We have held a meeting to discuss a plan that focuses on early intervention (first two weeks of classes) for targeted groups.</p> <p>Action: All faculty have been encouraged to have a plan to address students who are struggling during first two weeks of class.</p> <p>It is essential that our lab technician position be restored if we have a realistic chance of significant change in the success rate of targeted groups. Targeted groups are affected disproportionately because of the absence of a lab technician that helps bring the subject matter “alive” for students coming from disadvantaged backgrounds. A lab technician allows the department to</p> <p>a) conduct lectures with relevant physical demonstrations that positively impact targeted student populations</p> <p>b) have a physical presence on the campus with displays that encourage participation in the program particularly for targeted groups that may not have a background that involved exposure to the direct application of physics principles in the community (solar cells are for</p>	

		<p>example a conservation energy idea: a large display of this would draw attention of students). There should be a different display every two weeks on the quad to bring in students with a “show me” mindset. Without the lab tech we can’t do this. With a lab technician these outdoor activities would lift up the creative spirit of the physical sciences on campus</p> <p>c) maintained lab equipment. Failing equipment decreases the number of “setups” for experiments that can be conducted; this causes larger lab groups and decreased participation particularly among students in targeted groups who are likely to “hang back” and allow other students to take the lead (in a student group of 3 or 4 instead of 2)</p> <p>d) lab instruction is reduced as professors spend more time doing provisioning of equipment during</p> <p>e) Our department has been growing in enrollment (about 6 % per year) and classes over the last two years and each of these problems listed becomes even more problematic</p> <p>Action: We plan to advocate for a restoration of our lab technician position</p> <p>Mentoring, support, and counseling from other support programs such as EOPS, PUENTE and BASIC SKILLS are critical in continuing the effort to reducing the equity gap.</p> <p>Action: We plan to encourage participation in these programs by contacting the programs to figure out the best ways to work the respective programs.</p>	
III.D	Departmental Equity Planning and Progress	<p>Our equity gap decreased for the 2014-2015 year from 14 % difference to 13 % difference. So we are continuing to improve in this area (or certainly not getting worse)</p> <p>See above for our plans to address the equity gap.</p>	

	<b>Assessment Cycle</b>		
IV.A	Cycle 2 PLOAC Summary (since June 30,2014)	<p>0 % of PLOs assessed but we have plans to do a through assessment this spring especially since part-time faculty members are now required to do SLOs (which connect to PLOs)</p> <p>We completed 100 % of our SLOs in 2012</p>	
IV.B	Cycle 2 SLOAC Summary (since June 30, 2014)	<p>50 - 60 % % of SLOs assessed but we have plans to do a through assessment this spring especially since part-time faculty members are now required to do SLOs (which connect to PLOs)</p> <p>WE completed 100 % of SLOs in 2012</p>	

	Resource Requests		
V.A	Budget Trends		
V.B	Funding Impact on Enrollment Trends		
V.C1	Faculty Position(s) Needed	1 full time faculty member needs to be added.	
V.C.2	Justification for Faculty Position(s):	<p>Our department is steadily growing (approximately 6 % per year) and the percentage of courses taught by full-time faculty has decreased to now 35 % (from 40%) and this number will likely decrease further is the department continues to grow.</p> <p>Full-time faculty have a strong physical presence on campus and give added value to the student experience. Full-time faculty are often more generally available than part-time faculty and have a long term perspective.</p> <p>The recruitment, hiring, mentoring and evaluation of part-time faculty members taxes the fulltime faculty members and part-time faculty members often have a learning curve as they become more effective at conducting classes. This extra pressure on the department would be lifted significantly if a new full-time faculty member was hired.</p>	
V.D.1	Staff Position(s) Needed	1 lab technician	
V.D.2	Justification for Staff Position(s):	<p>a) conduct lectures with relevant physical demonstrations that positively impact targeted student populations</p> <p>b) have a physical presence on the campus with displays that encourage participation in the program particularly for targeted groups that may not have a background that involved exposure to the direct application of physics principles in the community (solar cells are for example a conservation energy idea: a large display of this would draw attention of students). There should be a different display every two weeks on the quad to bring in students with a “show me” mindset. Without the lab tech we can’t do this. With a lab technician these outdoor activities would lift up the creative spirit of the physical sciences on campus</p> <p>c) Lab equipment has not been maintained which decreases the number of physical experiments that can be conducted; this causes larger lab groups and decreased participation particularly among students in targeted groups who are likely to “hang back” and allow other students to take the lead (in a student group of 3 or 4 instead of 2)</p> <p>d) lab instruction is reduced as professors spend time doing provisioning of equipment during</p> <p>e) Our department has been growing in enrollment and classes over the last two years and each of these problems listed becomes even more problematic</p>	

V.E.1	Equipment Requests		
V.E.2	Equipment Title, Description, and Quantity	<p>Categories of Physics lab equipment: \$8600 of new equipment for experiments with expected life of 15 to 20 years. Nearly 100 percent of this is either replacement or adding equipment so that we have more experimental setups and thus smaller lab group sizes.</p> <p>Frank Hertz tube (1) \$350.00</p> <p>Spark Generators (2) \$2,200.00</p> <p>Helium Neon lasers (3) \$2,200.00</p> <p>Metal Cylinders Set (10) \$160.00</p> <p>Vacuum Pressure pump (10) \$400.00</p> <p>electronic thermometers (10) \$325.00</p> <p>Pulleys (10) \$510.00</p> <p>Stirling Engine (1) \$120.00</p> <p>Modern Phys: DPPH sample (2) \$325</p> <p>Modern Phys: Oil for Millikan (4) \$310</p> <p>Modern Phys: Millikan appar (2) \$2,700</p> <p>Total \$8,600.00</p>	
V.E.3	Equipment Justification	Equipment is needed replace broken non-repairable items and also add new setups for Modern physics labs (lasers and Millikan apparatus)	
V.F.1	Facility Request		
V.F.2	Facility Justification		
V.G.	Equity Planning and Support		
V.H.1	Other Needed Resources		
V.H.2	Other Needed Resources Justification		
V.J.	"B" Budget Augmentation		
V.K.1	Staff Development Needs		
V.K.2	Staff Development Needs Justification		

VI.	Closing the Loop		
	Submitted by:	Ronald Francie, E34, x8384	
	Last Updated:	4/9/17	