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. You will be able to copy and paste or type in your information into the TracDat boxes. **SAVE OFTEN WHILE ENTERING INFO!!!!!** ALWAYS keep a soft copy of your work in your files to ensure that your work is not lost. You will save program review as a pdf through the print option of your browser. This is the document you will send to your Dean and it is the document that will be posted on the De Anza website. If you have questions, please refer to your workshop handout (http://www.deanza.edu/slo/tracdat.html) or contact: 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.
	Program Description		
	Department Name:		**Engineering**
	Program Mission Statement:	"What are your Program Learning Outcomes? How do your Program Learning Outcomes relate to the mission of De Anza College and our Institutional Core Competencies"? (http://www.deanza.edu/about/missionandvalues.html)	• Students will demonstrate familiarity with the wide range of engineering disciplines and the general requirements and skills necessary to pursue a career in those areas. • Students will demonstrate a general understanding of engineering project development cycle including analysis, design, implementation, documentation, and refinement. They will also demonstrate a familiarity with the tools commonly used during those phases. • Students will demonstrate the necessary discipline specific technical knowledge and skills required to successfully transfer to an engineering baccalaureate program.

			The SLO's and Department mission align with the College Mission and Core Competencies by: • challenging students of every background to develop their intellect, character and abilities and skills in relation to engineering – including the development of "soft" skills such as group and community action and leadership and social responsibility • preparing students who wish to pursue studies and/or careers in engineering to realize their goals; • preparing students to effectively communicate technical and other ideas through writing and speaking • expecting students to be able to find and generate information and to judge its validity and usefulness through critical judgement • establishing connections between engineering and cultural, social and environmental values and actions
I.A.1	What is the Primary Focus of Your Program?	Select Basic Skills, Transfer. Career/Technical, Learning Resources/Academic Services, personal enrichment or N/A	Transfer
I.A.2	Choose a Secondary Focus of Your Program.	Basic Skills, Transfer. Career/Technical, Learning Resources/Academic Services, personal enrichment or N/A	Career/Technical Support
I.B.1	# Certificates of	If applicable, enter the number of Certificates of Achievement awarded during the current	

	Achievement Awarded	academic year. Please refer to: http://deanza.fhda.edu/ir/AwardsbyDivision.html Leave blank if not applicable to your program.	
I.B.2	# Certificates of Achievement-Advanced Awarded:	If applicable, enter the number of Certificates of Achievement - Advanced awarded during the current academic year. Please refer to http://deanza.fhda.edu/ir/AwardsbyDivision.html . Leave blank if not applicable to your program.	
I.B.3	# ADTs (Associates Degrees for Transfer) Awarded	List Associate Degree Transfer awarded by you department during the current academic year. Please refer to http://deanza.fhda.edu/ir/AwardsbyDivision.html Leave blank if not applicable to your program.	
I.B.4	# AA and/or AS Degrees Awarded:	If applicable, enter the number of Associate of Arts or Associate of Science degrees awarded during the current academic year. Please refer to http://deanza.fhda.edu/ir/AwardsbyDivision.html Leave blank if not applicable to your program	
I.C.1	CTE Programs: Impact of External Trends	Career Technical Education (CTE) programs: provide regional, state, and labor market data, employment statistics. Refer to "CTE Program Review Addenda" at: https://www.deanza.edu/workforceed/ged/ Identify any significant trends that may affect your program relative to: 1) Curriculum Content; 2) Future plans for your program e.g. enrollment management plans.	
I.C.2	CTE Programs: Advisory Board Input:	Career Technical Education (CTE) programs: provide recommendations from this year's Advisory Board (or other groups outside of your program, etc.). Briefly, address any significant recommendations from the group. Describe your program's progress in moving towards assessment or planning or current implementation of effective solutions.	
I.D.1	Academic Services and Learning Resources: # Faculty Served	Only for programs that serve staff or students in a capacity other than traditional instruction, e.g. tutorial support, service learning, etc. State number of faculty served: 0 = no change; (- #) decreased; # increased; leave blank if not applicable to your program	
I.D.2	Academic Services and Learning Resources: # Students Served	Only for programs that serve staff or students in a capacity other than traditional instruction, e.g. tutorial support, service learning, etc. State number of students served: 0 = no change; (- #) decreased; # increased; leave blank if not applicable to your program	
I.D.3	Academic Services and Learning Resources: # Staff Served	Only for programs that serve staff or students in a capacity other than traditional instruction, e.g. tutorial support, service learning, etc. State number of staff served: 0 = no change; (- #) decreased; # increased; leave blank if not applicable to your program	
I.E.1	Full Time Faculty (FTEF)	For ALL programs: Refer to your program review data sheet. http://deanza.edu/ir/program-review.15-16.html	2.4
I.E.2	# Student Employees	State number of student employees and if there were any changes: 0 = no change; (- #) = decreased; # = increased; blank if not applicable to your program	0 no change
I.E.3	Full-time to Part-time ratio % of Full -time Faculty Compared to % Part-time	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. http://deanza.edu/ir/program-review.15-16.html .	0 No change = there are no FT faculty assigned to this department

	Faculty Teaching		
I.E.4	# Staff Employees	State number of staff employees and if there were any changes: 0 = no change; (- #) = decreased; # = increased; blank if not applicable to your program ONLY report the number of staff that directly serve your program. Deans will make a report regarding staff serving multiple programs.	0 no change
I.E..5	Changes in Employees/Resources	Briefly describe how any increase or decrease of employees/resources has impacted your program. Leave blank if not applicable to your program.	There has been no apparent impact from last year to this year.
	Enrollment		
II.A	Enrollment Trends	What significant changes in enrollment have you seen in the last three years? Refer to http://deanza.edu/ir/program-review.15-16.html	There has been a 112% enrollment growth (i.e. more than doubling) over the past three years, with a 19% growth during the current reporting year compared to the previous year. The engineering program has a great potential, and although it will not keep doubling every 3 years, we expect that there is still a large unmet demand in this area.
II.B.1	Overall Success Rate	What significant changes in student success rates have you seen in the last three years?	The overall engineering success rate in the past three has continued to grow from 83 to 87%. This is one of the highest success rates in the Division. Although there is a relatively small equity gap in this department, there is still significant room for improvement to bring the success rate of targeted groups to match the non-targeted groups and hence raising the overall success rate.
II.B.2	Plan if Success Rate of Program is Below 60%	In accordance with ACCJC requirements, the college has adopted an institutional standard for successful course completion at or above 60% http://deanza.edu/ir/state-of-the-college-related-information/pdf/Institutional_Metrics_2016.pdf If course success rates in your program fall below 60%, what are the department's plans to bring course success rates up to this level? Leave blank if N/A.	
II.C	Changes Imposed by Internal/External Regulations	Address program changes implemented as a response to changes in College/District policy, state laws, division/department/program level requirements or external agencies regulations? How did the change(s) affect your program? (e.g. any curriculum, program reorganization, staffing etc.)	
	Equity		
III.A	Growth and Decline of Targeted Student	Briefly, address student enrollment data relative to your program's growth or decline in targeted populations: African Americans, Latinos, Filipinos. (Refer to	Only minor fluctuations in student enrollment in "targeted populations"

	Populations	http://deanza.edu/ir/program-review.15-16.html)	occurred over the three academic years 2013-14 through 2015-16. Targeted group enrollment in the program is very nearly constant around 25%; which is very high in comparison to engineering programs in most U.S. institutions. However; the Male/Female ratio remains very highly skewed toward male participation 84%/16%), and significant efforts to recruit more women are planned.
III.B	Closing the Student Equity Gap:	What progress or achievement has the program made relative to the plans stated in your program's 2013 -14 Comprehensive Program Review, Section II.A.3, towards decreasing the student equity gap? See IPBT website for past program review documentation: http://deanza.edu/gov/IPBT/program_review_files.html	During the past 5 years the program has made an extraordinary effort to 1) increase enrollment, 2) attract targeted student populations, and 3) improve the overall success rate and reduce the equity gap. With a greater than 100% growth rate in three years, a very high overall success rate, and a relatively small equity gap, many of these goals have been met. The current need is to focus on 1) maintaining the very high level of program growth, 2)reducing the remaining 5% equity gap, and perhaps most importantly, 3) significantly increasing the proportion of women participating in the engineering program.
III.C	Plan if Success Rate of Targeted Group(s) is Below 60%	In accordance with ACCJC requirements, the college has adopted an institutional standard for successful course completion at or above 60% http://deanza.edu/ir/state-of-the-college-related-information/pdf/Institutional_Metrics_2016.pdf Are success rates of targeted groups at or above 60%? If not, what are the department's plans to bring the success rates of the group(s) up to this level? This applies to African American, Latino/a and Filipino students.	Both overall and targeted success rates far exceed the 60% level.
III.D	Departmental Equity Planning and Progress	What progress or achievement has the program made relative to the plans stated in your departmental ==2014-15== Equity Plan?	See response IIIB.

	Assessment Cycle		
IV.A	PLOAC Summary	Give the percentage of Program Level Outcome statements assessed to date. Run Ad Hoc report entitled "XXX PLOAC Work" and scroll to the bottom of the report for counts. Then calculate #Reflections & Analysis/#PLO statement times 100. This percentage may be over 100% or 0%. All program level outcomes are to be assessed for a minimum of a second time before the Comprehensive Program Review in Spring 2019.	Unable to run report. This department has no full time faculty assigned and has not as yet completed the assessment cycle during the reporting period. With current changes in part-time SLO responsibilities, PT engineering faculty are being trained in

			SLO assessment techniques and requirements, and expect to complete an SLOAC plan that will meet the W19 deadline.
IV.B	SLOAC Summary	Give the percentage of Student Level Outcome statements assessed to date. Run Ad Hoc report titled "XXX SLOAC work- Active Only" and scroll to the bottom of the report for counts. Then calculate #(Reflections & Analysis + #Archived from ECMS) /#SLO statement times 100. (N.B. Number of SLOs assessed and archived from ECMS is the last item in Department -> General Information page.) This percentage may be over 100% or 0%. All course level outcomes are to be assessed for a minimum of a second time before the Comprehensive Program Review in Spring 2019.	Unable to run report. This department has no full time faculty assigned and has not as yet completed the assessment cycle during the reporting period. With current changes in part-time SLO responsibilities, PT engineering faculty are being trained in SLO assessment techniques and requirements, and expect to complete an SLOAC plan that will meet the W19 deadline.
	Resource Requests		
V.A	Budget Trends	Describe impact, if any, of external or internal funding trends upon the program and/or its ability to serve its students. If you don't work with budget, please ask your Division Dean to give you the information.	For many years the low enrollment and low success rates of engineering limited a justification for funding requests for laboratory equipment and facilities. With the very significant increases in enrollment and success during the past five years and the long neglect of existing equipment and supplies, we would like to request a modest equipment budget that will support a reinvigorated program and provide necessary, current, and relevant laboratory supplies and equipment for our students. In the longer range, the department is considering the development of a new work force training program in engineering technology, and is currently in the initial investigative stages of determining the benefits and viability of pursuing that effort. The program would be carried out in partnership with San Jose State University. The successful development of an engineering technology program would enhance funding opportunities for the engineering program.
V.B START	Funding Impact on Enrollment Trends	Describe the impact, if any, of external or internal funding changes upon the program's enrollment and/or its ability to serve its students. Refer to Program Review data sheets for	As described above, providing a modest equipment budget for the engineering

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HERE		enrollment information: http://deanza.edu/ir/program-review.15-16.html	program will encourage student projects that enhance their educational experience, provide engagement and excitement, and meet the hands on component of curriculum required by transfer institutions. Having adequate laboratory equipment and facilities would allow continued enrollment growth. Special projects that have demonstrated differential appeal to women students would help in our efforts to strongly encourage the recruitment of women to the program.
V.C1	Faculty Position(s) Needed	A drop down menu will allow you to choose: Replace due to Vacancy, Growth, None Needed Unless Vacancy	None currently, but as described in IIA.1, with 100% of sections taught by part-time faculty and with a very significant growth in enrollment and success, we anticipate a need for a full time faculty member in the very near future. The need for a new full-time faculty member is fast approaching if the current program growth is to be sustained, curriculum properly developed and deployed, and efforts to recruit more women successfully implemented.
V.C.2	Justification for Faculty Position(s):	Do you have assessment data available to justify this request for a faculty position? If so provide the SLO/PLO assessment data, reflection, and enhancement that support this need. If not, provide other data to support this need.	
V.D.1	Staff Position(s) Needed	A drop down menu will allow you to choose: Replace due to Vacancy, Growth, None Needed Unless Vacancy Only make request for staff if relevant to your department only. Division staff requests should be in the Dean's summary.	None currently, but in the past the physics lab technician had provided significant support for the engineering program, and if a replacement for that position is funded, we would like to continue the close relationship between departments.
V.D.2	Justification for Staff Position(s):	Do you have assessment data available to justify this request for a staff position? If so, provide the SLO/PLO assessment data, reflection, and enhancement and/or CTE Advisory Board input to support this need. If not, provide other data to support this need.	
V.E.1	Equipment Requests	A drop down menu will allow you to choose: Under $1,000 or Over $1,000 or no equipment requested	The department has submitted an equipment request totaling $13,250 to the Dean for review and divisional prioritization. The equipment request includes funds ($8950) for 10 student lab stations to be shared between Engineering 10 (Intro to Engr) and Engineering 37

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| V.E.2 | Equipment Title, Description, and Quantity | | (Intro to Circuits): lab stations would include circuit boards, electronic components, soldering facilities (5 shared), multimeters, oscilloscopes (5 shared), power supplies and function generators, and circuit simulation software (shared). Ten stations would allow up to 40 students to be engaged in the laboratory simultaneously. In addition, the request includes a request ($3500) for two standard Dell laptops to supplement 8 existing laptops to ensure all workstations have a required laptop. We are also requesting ($800) for 40 special small LED/cloth project kits used for students to design and build lighting "wearables".

The department is also requesting a long term equipment budget for the replacement of existing, aging large desktop computers in S48 with smaller laptops and suitable desks. In addition to bringing the computers into compliance with modern software needs, such a purchase will allow the room to be used for both lecture and lab. The current large screens block the view of students and instructors and make the classroom *very* difficult to use for lecture sessions. Such a change will significantly enhance S48 usage and make the classroom available to other PSME classes as both a lecture and lab facility. Replacement of these computers might be accomplished through the District refresh program – but the support of IPBT in prioritizing their replacement would be greatly appreciated. |
|---|---|---|---|
| V.E.2 | Equipment Title, Description, and Quantity | • Description should identify if the item(s) are new or replacement(s), furniture/fixtures, instructional equipment, technology related, expected life of item, recommended warrantees etc.
• Did this request emanate from a SLOAC or PLOAC process?
• Does this item require new or renovated infrastructure (e.g. wireless access, hardwire access, | In order to prepare students for transfer to 4 year engineering programs (see PLO's in Program Mission Statement), we must provide an adequate and up to date laboratory facility. We currently cobble |

		electric, water or heat sources . . .)	together donated equipment and supplies, and students are limited in the projects and experiments they can do by the lack of adequate equipment. Students also require adequate facilities to practice and demonstrate discipline specific knowledge and skills (see PLO's) and also require adequate equipment and supplies to implement and demonstrate successful completion of an engineering project (see PLO's)
V.E.3	Equipment Justification	• Do you have assessment data available to justify this request for equipment? If so, provide the SLO/PLO assessment data, reflection, and enhancement and/or Advisory Board input to support this need. If not, provide other data to support this need. • Who will use this equipment? • What would the impact be on the program with or without the equipment? • What is the life expectancy of the current equipment? • How does the request promote the college mission or strategic goals? Refer to **mission:** http://deanza.edu/about/missionandvalues.html and strategic goals (page 15 http://www.deanza.edu/emp/pdf/EMP2015-2020_11-18-15.pdf	The large growth in enrollment in the engineering program and high success rates shared by both targeted and untargeted populations speak to our recent successes. Equipment is to be used by all students in Engr 10 and Engr 37 sections for their laboratory and project experience. The program cannot continue to be successful or grow without this equipment. Transfer institutions expect students will have experience with this equipment. There is no current equipment that fits the requirements and satisfies the learning goals. In the future we will need to acquire additional lab stations, but the 10 shared stations currently requested can sustain the program at its current level for two years or so.
V.F.1	Facility Request	Name type of facility or infrastructure items needed. Renovation vs new. Identify associated structures needed to support the facility e.g. furniture, heat lamps, lighting, unique items above and beyond what is normally included in a similar facility.	Existing lab room has sufficient power and space for 10 stations.
V.F.2	Facility Justification	• Do you have assessment data available to justify this request? If so, provide the SLO/PLO assessment data, reflection, and enhancement and/or CTE Advisory Board input to support this need. If not, provide other data to support this need. • Who will use this facility? • What would the impact be on the program with or without the facility? • What is the life expectancy of the current facility? • How does the request promote the college mission or strategic goals?	
V.G.	Equity Planning and Support	Has this work generated any need for resources? If, so what is your request?	Additional pay stipend for PT engineering faculty to manage SLO's, laboratory setup and program guidance including recruiting

			and retention strategies that encourage women participants. Also stipend to support faculty participation in developing Engineering Technology workforce training if initial investigation finds it is feasible.
V.H.1	Other Needed Resources	List resource needs other than faculty, staff, facility, and equipment needs. For instance, assistance in working with counselors, finding tutors to work with students, support for assessment projects.	
V.H.2	Other Needed Resources Justification	Do you have assessment data available to justify this request? If so, provide the SLO/PLO assessment data, reflection, and enhancement that support this need. If not, provide other data to support this need.	The large growth in enrollment in the engineering program and high success rates shared by both targeted and untargeted populations.
V.J.	"B" Budget Augmentation	How much? Who/what could be supported if this additional funding was awarded? What would the impact be on the program with or without the funds? How does the request promote the college mission or strategic goals? Refer to mission: http://deanza.edu/about/missionandvalues.html and strategic goals (page 15 http://www.deanza.edu/emp/pdf/EMP2015-2020_11-18-15.pdf State the SLO/PLO assessment data, reflection, and enhancement and/or CTE Advisory Board input to support this need. If you do not deal with the B budget directly, you can use the comment: "please refer to the Dean's summary".	$1,000 $500 lost/broken/expended, small item repair/replacement. $500 for advertising/brochures and other costs associated with special engineering events
V.K..1	Staff Development Needs	What would the impact be on the program with or without meeting this need? How does the request promote the college mission or strategic goals? Refer to mission: http://deanza.edu/about/missionandvalues.html and strategic goals (page 15 http://www.deanza.edu/emp/pdf/EMP2015-2020_11-18-15.pdf	
V.K.2	Staff Development Needs Justification	Do you have assessment data available to justify this request for staff development? If so, provide the SLO/PLO assessment data, reflection, and enhancement and/or CTE Advisory Board input to support this need. If not, provide other data to support this need	
VI.	Closing the Loop	How do you plan to reassess the outcomes after receiving each of the additional resources requested above? N.B. For the Comprehensive Program Review the question becomes "What were the assessments showing the results of receiving the requested resources over the last five years?"	
	Submitted by:	APRU writer's name, email address, phone ext.	Manizheh Zand; zandmanizheh@fhda.edu, X8800 & Jerry Rosenberg
	Last Updated:	Give date of latest update (Set next box to YES when done and ready for Dean review).	3/28/17

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