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

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I.B.1	# Certificates of Achievement Awarded	If applicable, enter the number of Certificates of Achievement 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.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	Compare the changes in % of FT and PT faculty teaching in your department? 0 = no change; (- %) = decreased; % = increased; blank= not applicable to your program.	0 No change = there are no FT faculty assigned to this department

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	Compared to % Part-time Faculty Teaching	Refer to your program review data sheet. http://deanza.edu/ir/program-review.15-16.html .	
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 34.1% growth in enrollment over the past 4 reported years. The engineering program has a great potential for continued growth; however, it has been difficult to recruit and retain the excellent part-time faculty required to sustain this growth.
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 four report years has continuously grown from 77 to 91%, and is now one of the highest success rates in the Division and College. This is even more impressive when compared to generally low success rates in national surveys of this discipline. These success rates have been due to an outstanding cadre of part-time faculty, but as in the case of the impressive enrollment growth, sustaining these metrics will be dependent on continued recruiting of outstanding faculty as we lose current faculty to other employment opportunities.
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.	They are 91%, far above the 60% base.
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 Populations	Briefly, address student enrollment data relative to your program's growth or decline in targeted populations: African Americans, Latinos, Filipinos. (Refer to http://deanza.edu/ir/program-review.15-16.html)	Targeted group enrollment in the program during the four report years has increased slightly from 27% to 28%, 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 83%/17%), and significant efforts to recruit more women are continuing.
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 four report years the equity gap has been reduced from a relatively low 8% to the current 0%. This is especially impressive when compared to other departments in the Division and College and even more so to the traditionally extremely high national equity gaps in this discipline.
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	Unable to run report. This department has no full time faculty assigned and has not as

		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.	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 continue to 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 HERE	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 enrollment information: http://deanza.edu/ir/program-review.15-16.html	As described above, providing a modest equipment budget for the engineering 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.

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			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. In addition, modern equipment and software will encourage the recruitment of high quality part-time faculty who require and expect these resources.
V.C1	Faculty Position(s) Needed	A drop down menu will allow you to choose: Replace due to Vacancy, Growth, None Needed Unless Vacancy	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 have a need for a full time faculty member. If the current program growth, outstanding success rates, and zero equity gap is to be sustained, curriculum properly developed and deployed, and efforts to recruit more women successfully implemented, a full time faculty member should be hired in the near future. Given the current District financial status, this is unrealistic at the current time, but should be seriously considered as soon as possible.
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 requests $9,360 for laboratory equipment for Engr 10 (Intro to Engineering) and Engr 37 (Intro to Circuits) sections. The request includes 2

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			oscilloscopes ($3,018), 5 bench DC power supplies ($2,010), 10 digital multimeters ($900), 15 Arduino Computer Boards and sensors ($2,100), robotic parts kit (motors, actuators, gears, wheels, etc.) ($800), and a locking storage cabinet ($532). The equipment is used in engineering projects initiated by students and in circuit laboratory experiments. The same equipment can be used for both classes.
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, electric, water or heat sources . . .)	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. Students require adequate equipment and 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 currently insufficient equipment to serve all the engineering students. Students are encouraged to initiate their own projects, but are often limited by equipment availability.
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 the new equipment.

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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 program. Initiating such a program will allow a continued growth of our engineering program and attract additional State CTE funding that will be a net gain for the program and College.
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.	Jerry Rosenberg, rosenbergjerry@fhda.edu, X8800
	Last Updated:	Give date of latest update (Set next box to YES when done and ready for Dean review).	4/12/18

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