

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. |
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| | Program Description | | |
| | Department Name: | | Meteorology |
| | 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 | The meteorology program provides students with an in-depth knowledge of the Earth’s atmosphere and its associated weather and global climate processes. The program enables students to understand the societal, scientific and economic impacts of weather and climate. |
| 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 | Personal Enrichment |
| 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. | |

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| 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/workforcecd/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 | 0.3 for the last year represented in program review data. Next year's review will reflect FT retirement and FT replacement hire who began spring 2017) |
| 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. | 17.6% taught as FT 82.4% taught as PT + Overload |

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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 . | Ratio = $17.6/82.4 = 0.214$ |
| 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. | |
| 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. | |
| | 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 | The three year trend is very positive, with an overall 33% WSCH growth rate during the 2012-13 to 2015-16 period. Most of the growth occurred between the first and second year of the three years, and the growth was slightly positive between the most recent two years. The huge spurt in growth occurred with the introduction of additional online sections. Lack of qualified instructors, especially those skilled and willing to teach online, were the limiting factor to further growth. |
| II.B.1 | Overall Success Rate | What significant changes in student success rates have you seen in the last three years? | During the past three years there was an overall increase in the success rates from 86% to 89%. These rates are very high, especially for a STEM class. |
| 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. | Our success rate is well over 60% (see above). |
| 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.) | In an effort to equalize course loads across the District, a new negotiated agreement between FA and the District made (relatively small) changes to MET course loads. |

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| | | | <p>However, these changes had a very significant effect on MET enrollment. As a result of the changes, the only MET teacher currently qualified and able to offer online courses had the number of her yearly assignments reduced (to keep her within the annual load limit with the new higher load of individual sections), and her inability to teach a second (60+ enrollment) spring course had a significant effect on spring enrollment. The department is attempting to recruit new part-time instructors who can teach additional sections of the popular online course.</p> |
| | Equity | | |
| III.A | Growth and Decline of Targeted Student Populations | <p>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)</p> | <p>There has been a very large (84+%) increase in enrollment of students in the target group over the past three years. During the same period, the growth of non-targeted students was 14.5%, a very substantial growth but far less than the targeted enrollment increase. In short, we have had a very large increase in the numbers and proportion of enrollments in the targeted group. There was also a major decrease in the gender imbalance during the three years; initially (2012-13) there was a 20% difference (more males) in enrollment which has been reduced to nearly 0% (50/50 M/F) during the past two years.</p> |
| III.B | Closing the Student Equity Gap: | <p>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</p> | <p>At the time of the 2013-14 Review there was no substantial equity gap</p> |

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| | | <p>student equity gap? See IPBT website for past program review documentation: http://deanza.edu/gov/IPBT/program_review_files.html</p> | <p>in the Department – reported targeted and non-targeted success rates differed by 1%, and the smaller absolute number of targeted students meant that the 1% difference might even fall within the margin of error. Despite the fact that success rates still remained generally high (80%) for targeted students, during the years following the comprehensive review, the equity gap has taken a huge leap – rising to 19% and then declining over the next two years to its most recent value of 12%. During those three years, non-targeted success rose by 5% but targeted success declined by 6%. There are two factors that appear to have significantly affected this overall increase; 1) the initiation of new online sections and the subsequent large increases in numbers of students enrolling in those sections, and 2) the overall 84% increase in targeted enrollment during that period. The department now has individual course success data available and will more closely examine differential enrollment and success patterns between online and classroom sections. The department is currently formulating strategies and plans to provide additional support to online students to ensure better success rates, especially in regards to targeted populations. It</p> |
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| | | | will conduct surveys and evaluations in all courses to try to determine the factors most responsible for reduced online success and increased equity gap, and will work with learning resources to provide necessary services required to accomplish our goal of equalizing success. Additional laboratory sections have been added during the 2016-17 year, and we hope to bring a more hands-on approach to MET teaching. We anticipate this instructional approach may appeal to a wider range of students and also help reduce the equity gap. |
| 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. | As noted in III.B above, our success rate for targeted students is well above 60% (currently at 80%). However, the Department is still concerned about the recent appearance of a significant (12%) equity gap. Our plans to address this gap are described in III.B above. |
| 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 the above narrative. |

| | Assessment Cycle | | |
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| 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. | Report will be run when the new FT faculty member (S17) receives SLO training. |
| 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 | Report will be run when the new FT faculty member (S17) receives SLO training. |

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| | | 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. | |
| | 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. | |
| 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 | |
| V.C1 | Faculty Position(s) Needed | A drop down menu will allow you to choose: Replace due to Vacancy, Growth, None Needed Unless Vacancy | No additional FT needed (recent hiring starting S17). There is a continuing need for additional PT faculty, especially those skilled in online delivery. Finding qualified PT faculty has been a continuing serious problem. |
| 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. | |
| 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 | |
| V.E.2 | Equipment Title, Description, and Quantity | <ul style="list-style-type: none"> Description should identify if the item(s) are new or replacement(s), furniture/fixtures, instructional equipment, technology related, expected life of item, recommended warranties 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 . . .) | <p>Equipment request (\$5,150) has been submitted to the Dean for review and Division prioritization:</p> <p>(20) Kestrel 3500 Pocket Weather Meters. Standard warranty for 5 years, likely lifespan 10 years – total cost \$4,000</p> <p>(20) Sling Psychrometers for</p> |

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| | | | measuring humidity – total cost \$1,150 |
| V.E.3 | Equipment Justification | <ul style="list-style-type: none"> • 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) | <p>A key component of accurate weather forecasting (Met 10 SLO 1) is accurate measurement of weather conditions. The Kestrels will be used to demonstrate accurate and inaccurate methods of measuring local weather conditions. Freeman et. al (2014) demonstrate that hands on learning in the classroom results in a significant increase in success rates and average grade in undergraduate STEM courses.</p> <p>The equipment would allow students to gain a hands-on understanding of properly measuring weather conditions and how those conditions change throughout a typical day. Currently, data gathered through internet resources (such as the National Weather Service and MesoWest) are used in the classroom. However, such uses have been restricted to in-class, pencil-and-paper type analysis. Being able to measure the weather conditions by using instrumentation allows for a more engaging experience and would appeal to a wider range of students. Students in Meteorology 10 and Meteorology 10 Lab will use this</p> |

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| | | | <p>equipment. However, it would also be available for students in other science courses at De Anza to use.</p> <p>The new equipment promotes both engagement in course material as well as critical thinking. These are promoted through the hands on recording of weather conditions and comparison of proper measurement techniques to improper measurement techniques.</p> <p>Furthermore, this equipment involves having our students out in the campus making measurements; this could allow for outreach (i.e. a student passing by the class becomes curious about what the class is measuring)</p> |
| 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. | No new special facilities needed |
| V.F.2 | Facility Justification | <ul style="list-style-type: none"> • 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 | Has this work generated any need for resources? If, so what is your request? | |

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| | Support | | |
| 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. | |
| 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”. | Please refer to the Dean's summary. |
| 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?” | SLO Assessments should demonstrate increased engagement and understanding resulting from students’ hands-on use of weather meters and psychrometers; enrollment and equity gap improvement should reflect increased engagement resulting from a more hands-on approach. |
| | Submitted by: | APRU writer’s name, email address, phone ext. | Terrence Mullens, MullensTerrence@deanza.edu, x 8800 [new FT spring ‘17] in conjunction with J. Rosenberg (Dean) |

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| | Last Updated: | Give date of latest update (Set next box to YES when done and ready for Dean review). | 04/18/2017 |
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