**APR Report for 2017-2018  
*2018-2019 Cycle***

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| **Section I: Program Description** |

**IA1. Program (Select your program from the drop down list)**

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| **MATH SCI Physical Science** |

**IA2. Other Program (If your program is not on the above list, write it in here)**

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**IB. Program Lead (Your first and last name)**

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| **Mike Mayfield** |

**IC. Program Mission Statement**

Provide the Program’s Mission Statement.

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| **The mission of the physical sciences is to engage students in the scientific exploration of the physical universe with well-qualified faculty, safe and relevant hands-on experiences, and modern technical resources. The skill sets acquired by our students will provide a foundation for future learning and promote the realization of career goals.** |

**ID. Program Summary**

Provide a brief summary on the current status of the program being reviewed.

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| **The Physical Sciences at Taft College encompass 13 courses in diverse fields of inquiry including: astronomy, chemistry, earth science, physical geography, geology, physical science and physics. The core of our population arises from students satisfying general education requirements, with such courses as astronomy, earth science, and physical geography, students meeting prerequisites for allied health field programs with such courses as introductory chemistry and intro to organic chemistry, while our science major population is strong in general chemistry and calculus based physics, which also supports the engineering program. All of our courses are transferable to both UC and CSU systems. Currently, the Physical Sciences have three tenured full-time faculty members. All other instructional obligations are met with adjuncts.** |

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| **Section II: Looking Back—2017-2018** |

**IIA. Present the Results** (Rubric Criterion 3)

Provide a descriptive summary of the outcomes from the 2017-2018 cycle of program review.

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| **Success rates for physical sciences range from 60.0 – 100.0% with an average of 87.0%. Physical science courses such as chemistry, geology and physics are reaching a saturation point. We neither have the physical space nor the faculty to meet current demand for course offerings. Often times, the number of wait-listed students would fill additional sections if they were offered.**  **The program goal of building a dedicated multiple purpose physical science lab was the number one ranked goal on campus during the last two program review cycles. During the first year, CEED Grant funds were utilized to purchase lab benches, fume hoods, and some of the required chemistry equipment. Time required to get required approval from the Department of State Architect exceeded the life of the CEED Grant. The district authorized funding in the last program review cycle to finish the project. As of January 2019, the project appears to be nearing completion, but is not finished. We are hopeful the S-4 conversion will allow us to get more students through our courses.** |

**IIB. Probe the Results: I Wonder . . .** (Rubric Criteria 1, 3)

In this section, judge whether the activities you implemented in 2017-2018 to reach your goals were effective. Did the activities have an effect on the outcome? Please describe WHY you believe your outcomes came out the way they did. Did you reach your goals? If yes, explain why. If you did not reach your goals, explain why.

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| **As stated above, the S-4 conversion project is not yet complete. We are hopeful we will be able to offer new sections as well as gather and analyze data during the next program review cycle.**  **As to our goal to maintain and upgrade lab equipment, instrumentation, and supplies in all areas of physical science instruction to reflect current scientific applications: We have been able to successfully keep modern, functioning, relevant equipment and instrumentation in the hands of our physical science students. We believe that providing these experiences, driven by student learning objectives and measured outcomes (SLOs), had a direct impact on student success rates in physical science courses as observed in our student success data and SLOs. Additionally, we feel that having full-time faculty teaching hands on face to face courses has contributed to the success of these students. We wonder if more resources not only in the lecture/lab setting, but in the form of content specific tutoring would help increase student success as measured in course success rates and SLO data.** |

**IIC. Ideate Innovations: What if . . .** (Rubric Criteria 1, 5)

In this section, describe activities you believe would have an effect on your 2018-2019 outcome measures.

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| **What if we completed the conversion of Science 04 into a permanent dedicated physical science lab space with appropriate student stations, adequate storage facilities and proper ventilation? A true multipurpose lab in which introductory chemistry, physics and other physical science courses could be offered. Would it allow more students to finish all program requirements and prerequisites at TC?**  **In recent years the budgets of physical science faculty have remained flat, or have even been randomly cut, while vendor pricing and number of course sections have steadily increased. If we are to sustain and continue to improve student success in the physical sciences, it is critical that we not only maintain, but annually increase budgetary allotments.** |

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| **Section III: Looking Forward—2018-2019** |

**III. List Your 2018-2019 Goals—Be Quantitative!**

List your 2018-2019 APR goals in terms of their expected changes on the outcome measures as indicated earlier. Each goal that requires resources, impacts other areas, or otherwise is substantive requires the submission of an APR Goal form. Keep in mind the scoring rubric criteria:

1. The relationship between program review narrative and the APR Goal is evident and strongly supported by evidence.
2. The APR Goal directly implements institutional planning document goals.
3. The outcome directly implements institutional planning outcomes, and is transferrable and/or scalable institutionally.
4. APR Outcome indicators, methods and/or timelines use institutional measures, transferrable/scalable institutionally
5. Before/after benchmarks and timelines are completely specified, identical methods, transferrable/scalable.

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| **1. Build a permanent, dedicated, multipurpose physical science lab space with appropriate student stations, adequate storage facilities and proper ventilation. A room in which introductory chemistry, physics and other physical science courses could be offered.**  **2. Hire a highly qualified full-time tenure track chemistry faculty member that will allow us to offer more course sections in impacted physical science disciplines.**  **3. Continue to maintain and upgrade lab equipment, instrumentation, and supplies in all areas of physical science instruction to reflect current scientific applications.** |
| **Section IV (Optional): Evaluation of Program Review and Planning Process** |

**IVA. Evaluation of Program Review and Program Planning Process**

In this cycle of program review, what aspects of the program review and program planning process worked best and why?

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| The “How To” guided and Brandy are always extremely helpful! |

**IVB. Evaluation of Program Review and Program Planning Process**

In this cycle of program review, what aspects of the program review and program planning process would you change and why?

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