

## THE PATHWAYS IN TECHNOLOGY EARLY COLLEGE HIGH SCHOOL

### 2021-2022 CAMPUS DESIGNATION OUTCOMES-BASED MEASURES CALCULATION PROCESS

Pathways in Technology (P-TECH) Early College High Schools are open-enrollment programs that provide students with a seamless pathway from high school, to postsecondary education, to employment and includes work-based learning at every grade level.

The Texas Education Agency (TEA) designed the designation process for P-TECH under the authority of Texas Education Code (TEC) §§29.551-29.557 (2019) and Title 19 Texas Administrative Code (TAC) §102.1095 (effective in 2018).

**TEA is currently in the third year of a five year phase-in process for the [P-TECH Blueprint](#). All data are for information and planning purposes only. After the phase-in period, designation status will be determined using outcomes-based measures (OBM). For more information on the P-TECH Blueprint revision and phase-in process, please visit TEA's [P-TECH homepage](#).**

P-TECH campuses are eligible for Provisional designation for the 2021-2022 Designation year:

#### Provisional Designation

*P-TECHs in the first 5 years of operation (i.e., first 4 years of serving students) must demonstrate implementation of all the design elements for each benchmark of the Blueprint and meet the Provisional P-TECH outcomes-based measures in the Access, Attainment, and Achievement domains.*

For the 2021-2022 designation year, Access OBM data indicators are provided to Provisional P-TECH campuses for formative purposes. **This information will not be used to determine designation status. Currently, the program designation status is based on the number of years of program operation.**

<b>Access</b>	<i>Do specific student groups have access to the program?</i>	Access OBM are based on the proportions of students at each campus within specific student groups (e.g., at-risk or economically disadvantaged) compared to district rates.
<b>Attainment</b>	<i>Do students attain college credit, complete rigorous courses, obtain relevant work-related experiences, and earn postsecondary degrees or credentials?</i>	Attainment OBM are based on the proportions of students at each campus who persist, earn college-level credits, participate in work-based learning, earn an industry-based certificate, earn associate degrees, and obtain Level I or Level II certificates.
<b>Achievement</b>	<i>Do students in the program achieve successful assessment outcomes?</i>	Achievement OBM are based on the proportions of students at each campus who successfully meet "college ready" standards on achievement assessments (e.g., TSI Assessments, SAT/ACT exams, and State of Texas Assessments of Academic Readiness end-of-course exams) compared to pre-determined criteria and gain valuable traction in milestones relating to college and career.

P-TECH OBM are currently on a phase-in schedule (see Table 1 below). *Outcomes-Based Measures (OBM)* Access data for students participating in the P-TECH program in 2020-2021 will be provided in the *Summary Report for the 2021-2022 Designation* based on the phase-in schedule of the campus. Access OBM will add a grade level each year during the phase-in period. For example, for P-TECH starting in the initial year of implementation, in 2018-2019, Access for students in Grade 9 was evaluated for each specific student group for 2019-2020 designation. Last year TEA added Grade 10. During the current designation year, Access OBM for students in Grades 9, 10, and 11 for student groups are typically provided. Access OBM data indicators will continue to be monitored in following years by including each additional grade as the cohort of P-TECH students advances to Grade 12 in 2021-2022. Access data for special student populations are provided for informational purposes and includes students across all grade levels currently served by the P-TECH program (as determined by the years of serving students for a particular program).

**Table 1**

**Designation Phase-in Schedule**

Designation Year	School Year Data	Phase in
2019-2020	2018-2019	Grade 9
2020-2021	2019-2020	Grades 9, 10
2021-2022	2020-2021	Grades 9, 10, 11
2022-2023	2021-2022 <sup>a</sup>	Grades 9, 10, 11, 12

<sup>a</sup>2022-first phase-in graduates.

New Provisional P-TECH campuses opening *after* 2018-2019 will follow a similar phase-in schedule based upon their initial year serving students. ***OBM will phase in for opening Provisional P-TECH as the entering cohort of 9<sup>th</sup> graders advance through graduation.*** This means that OBM data indicators will add a grade level each year during the phase-in period. For example, if a campus has only been in operation for 3 years (i.e., served students for two years), Access data for students in Grade 9 and 10 will be provided. ***Upon the completion of the Provisional period, a P-TECH must meet the state’s Designation OBM criteria in the Access, Attainment, and Achievement domains.***

The Access, Attainment, and Achievement OBM will be operationalized differently for each of the designation categories (i.e., Provisional versus Designated). At this time, all P-TECH hold the state’s Provisional designation status. Therefore, this document only provides data definitions and information relating to Provisional P-TECH.

## Access Outcomes-Based Measures

Access OBM are measured by the proportion of students within specific student groups enrolled at P-TECH campuses based on Public Education Information Management System (PEIMS) fall enrollment data for 2020-2021.

Data collection sources and timeframe are detailed in Table 2 below. See Table A-1 in Appendix A for additional detail about the PEIMS data elements and codes submitted to TEA through the Texas Student Data System (TSDS) that are used in calculating Access OBM.

**Table 2**  
**Access OBM Data Sources**

Data of Interest	School Year	Data Collection Timeframe <sup>a</sup>	Source
Student demographic indicators: <ul style="list-style-type: none"> <li>• At-Risk</li> <li>• Economically Disadvantaged<sup>c</sup></li> <li>• English Learner<sup>c</sup></li> <li>• Students with Disabilities<sup>c,d</sup></li> <li>• African American<sup>c</sup></li> <li>• Hispanic<sup>c</sup></li> </ul> Other indicators: <ul style="list-style-type: none"> <li>• P-TECH Indicator</li> <li>• Grade</li> </ul>	2020-2021	Fall 2020/Collection 1	PEIMS <sup>b</sup>

<sup>a</sup>See the [Texas Education Data Standards](#) for more information about the Texas Student Data System data submission timelines and a description of the data submitted in each collection in the 2020-2021 school year. <sup>b</sup>Public Education Information Management System. <sup>c</sup>For informational purposes only. <sup>d</sup>This indicator includes students who are served in special education programs as well as students receiving services under Section 504 of the Rehabilitation Act of 1973.

Access measurement process:

- Step 1** Calculate Access for student group(s) in the P-TECH campus
- Step 2** Calculate Access for student group(s) in districts for comparison to the P-TECH campus rates
- Step 3** Calculate the difference between P-TECH campus and comparison district rates<sup>1</sup>
- Step 4** Compare calculated rate differences against pre-determined criteria (OBM requirements) for Provisional P-TECH designation

### **Step 1: Calculate P-TECH campus Access rates**

The P-TECH campus Access rates are defined as the proportions of students belonging to specific student groups in grade levels determined by the phase-in schedule and years of serving students during the phase-in. The following student group is included in the campus Access calculations: at-risk students. This campus Access rates will be compared to district rates (see Step 4).

<sup>1</sup> Charter school P-TECH campuses are compared to the traditional district within which the charter school campus is geographically located see [School District Locator | Texas Education Agency](#) for more information.

In addition, Access rates are also calculated for economically disadvantaged and historically underrepresented students (e.g., African American, Hispanic students, English learners, and students with disabilities) and made available on the campus-level report but are not compared to a district rate and will not be used to determine designation status. **Reminder: OBM are currently being phased-in. Calculations for all student groups are for informational purposes ONLY and are not used to determine a P-TECH’s designation status.**

Access OBM calculations for 2021-2022 designation for Provisional P-TECH serving students for three years include students in Grades 9 through 11, with the exception of at-risk rates which are calculated for Grade 9 only.

A Provisional P-TECH serving students for two or fewer years will be provided Access calculations which only include the grade levels served by the P-TECH program in 2020-2021. Access OBM will continue to be monitored in following years by including each additional grade as the cohort of P-TECH students advances to Grade 12.

Campus rates are calculated as follows:

$$\text{P-TECH At-Risk Grade 9} = \frac{\text{Students who have the P-TECH Indicator, are At-Risk, and in Grade 9}}{\text{All Grade 9 students who have the P-TECH Indicator in fall of 2020-2021}}$$

$$\text{P-TECH Economically Disadvantaged Grades 9-11} = \frac{\text{Students who have the P-TECH Indicator, are Economically Disadvantaged, and in Grades 9 through 11}}{\text{All Grade 9 through 11 students who have the P-TECH Indicator in fall of 2020-2021}}$$

$$\text{P-TECH English Learners Grades 9-11} = \frac{\text{Students who have the P-TECH Indicator, are English Learners, and in Grades 9 through 11}}{\text{All Grade 9 through 11 students who have the P-TECH Indicator in fall of 2020-2021}}$$

$$\text{P-TECH Students with Disabilities Grades 9-11} = \frac{\text{Students who have the P-TECH Indicator, are Students with Disabilities or are 504, and in Grades 9 through 11}}{\text{All Grade 9 through 11 students who have the P-TECH Indicator in fall of 2020-2021}}$$

$$\text{P-TECH African American students Grades 9-11} = \frac{\text{Students who have the P-TECH Indicator, are African American, and in Grades 9 through 11}}{\text{All Grade 9 through 11 students who have the P-TECH Indicator in fall of 2020-2021}}$$

$$\text{P-TECH Hispanic students Grades 9-11} = \frac{\text{Students who have the P-TECH Indicator, are Hispanic, and in Grades 9 through 11}}{\text{All Grade 9 through 11 students who have the P-TECH Indicator in fall of 2020-2021}}$$

**Step 2: Calculate comparison district Access rates**

The comparison district Access rate indicator for the at-risk students is defined as the proportions of at risk students in the pre-determined comparison district in grades 9 through 12. Charter school P-TECH campuses are compared to the traditional district within which the charter school campus is geographically located. The comparison district rate for the At-Risk OBM data indicator is calculated for Grades 9 through 12. District Access rates for economically disadvantaged and other historically underrepresented students (e.g., African American, Hispanic, English learners, and students with disabilities) are not calculated.

District rates are calculated as follows:

$$\text{District At-Risk Grades 9-12} = \frac{\text{Students who are At-Risk and are in Grades 9 through 12}}{\text{All Grade 9 through 12 students in fall of 2020-2021}}$$

**Step 3: Difference between district rate and P-TECH rate**

Once the rates are calculated for a campus and its comparison district, the difference between the district and campus rates (District Rate – Campus Rate) is calculated. That is, the difference between rates is calculated by subtracting the proportion of students in each respective category at the campus level from the proportion of students in each respective category at the district level.

For example,

$$\text{At-Risk Difference} = \text{District At-Risk Rate} - \text{P-TECH At-Risk Rate}$$

This calculation is conducted for at-risk (Provisional P-TECH) as listed in Steps 1 and 2.

**Step 4: Compare rate differences to designation standards**

Access rate differences, indicating the extent of the difference in access between student groups in the P-TECH campus and its comparison district, are compared to threshold criteria for Provisional P-TECH designation.

Based on the threshold comparison, a flag of (Yes/No) is created that indicates whether the campus has met Provisional status for each measure. The criteria for meeting each Provisional designation are in Table 3 below:

**Table 3  
Provisional Access Criteria**

(District – P-TECH) Difference Score	Description	Met Criteria? (%)	
		No if:	Yes if:
At-Risk	Meets Provisional standard for At-risk	> 20.0	≤ 20.0

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## Attainment Outcomes-Based Measures

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The P-TECH must provide opportunities for students to complete high school graduation requirements, earn college credits, participate in experiential learning opportunities, and earn a postsecondary credential and/or associate degree by expanding dual credit options for students.

Attainment rates are measured by the proportions of students attending P-TECH campuses who persist through the program, accumulate college credit hours, enroll in work-based learning practicum course work, earn an industry-based certification, and earn a postsecondary degree and/or credential by graduation.

**All Attainment OBM data indicators continue to be in the process of phase in. Therefore, no Attainment OBM data indicators have been calculated for 2021-2022 designation.** Attainment OBM are calculated based on the grade levels served in the phase-in and will add a grade level each year during the phase-in period.

In next year's designation cycle, Attainment will include a College-Level Course OBM data indicator which will calculate the percentage of students in Grade 11 who have earned college credit. See [TSDS C022 code table](#) for a list of course codes for eligible dual credit courses to be included in this calculation in each data year. More information related to the courses eligible for fulfilling the College-Level Course OBM data indicator can be found in Appendix B. Table B-1 lists eligible OnRamps Courses, and Table B-2 lists eligible Advanced Placement exams.

In the following year, TEA will add a Work-Based Learning OBM data indicator for graduating students. Due to lagging data, calculations will be based on graduates in the 2021-2022 academic year. More information related to practicum courses eligible for work-based learning can be found in Appendix C.

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## Achievement Outcomes-Based Measures

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P-TECH must ensure that the students are college ready or are dual credit eligible. One method to determine college readiness is to administer a Texas Success Initiative (TSI) college placement exam (as defined by 19 TAC §4.53, 2019, amended to be effective 2018).

Achievement rates are measured by the proportions of P-TECH students who pass student achievement assessments, such as the Algebra I and English II State of Texas Assessments of Academic Readiness (STAAR) end-of-course (EOC) exams, and meet college, career and military readiness (CCMR) standards as defined in state accountability on the SAT, the ACT, or the Texas Success Initiative Assessment in reading and mathematics.

**All Achievement OBM data indicators continue to be in the process of phase in. Therefore, no Achievement OBM data indicators have been calculated for 2021-2022 designation.** P-TECH Achievement OBM are currently on a phase-in schedule and will add a grade level each year during the phase-in period. Achievement OBM are calculated based on the grade levels served in the phase-in.

Actions have been taken by TEA in response to COVID-19. TEA has modified the calculations for all OBM data indicators relating to the TSIA. Students may meet college readiness standards in Reading in one of four ways: 1) meet state standard on the TSIA1 Reading assessment, 2) successful completion of first college-level Reading course, 3) meet state standard on the SAT reading assessment, or 4) meet state standard on the ACT reading assessment.

Students may meet the college readiness standards in Math in in one of four ways: 1) meet state standard on the TSIA 1 Math assessment, 2) successful completion of first college-level Math course (i.e., algebraically intensive math courses or non-algebraically intensive math courses), 3) meet state standard on the SAT math assessment, or 4) meet state standard on the ACT math assessment.

Data for successful completion of first college-level courses are self-reported by Texas public institutions of higher education. TEA receives this data from the Texas Higher Education Coordinating Board. Due to lagging data, when TSIA OBM are phased in, calculations will be based on 11<sup>th</sup> graders in the 2020-2021 academic year for designation in 2022-2023.

In next year's designation cycle, Achievement will include a Dual Credit OBM data indicator which will calculate the percentage of students in Grade 11 who have earned college credit through dual credit courses. See [TSDS C022 code table](#) for a list of course codes for eligible dual credit courses to be included in this calculation in each data year.

Appendix A

**Table A-1  
Student Demographic and Other Indicators in Access Outcomes-Based Measure Calculations for the 2021-2022 Designation Year**

<b>Student demographic indicators</b>	
Data Element	TSDS <sup>a</sup> Source and Criteria
At-Risk	<p><b>Data Source.</b> PEIMS<sup>b</sup> fall collection (Collection 1) on the 40100-Student Basic Information subcategory.</p> <p><b>Criteria.</b> Student coded as “1” for the At-Risk Indicator Code (E0919).</p>
Economically Disadvantaged	<p><b>Data Source.</b> PEIMS fall collection (Collection 1) on the 40100-Student Basic Information subcategory.</p> <p><b>Criteria.</b> Student coded as “01,” “02,” or “99” for the Economic Disadvantage Code (E0785).</p>
English Learner	<p><b>Data Source.</b> PEIMS fall collection (Collection 1) on the 40100-Student Basic Information subcategory.</p> <p><b>Criteria.</b> Student coded as “1,” for the LEP<sup>c</sup> Indicator Code (E0790).</p>
Students with Disabilities	<p><b>Data Source.</b> PEIMS fall collection (Collection 1) on the 40110-Enrollment subcategory.</p> <p><b>Criteria.</b> Student coded as “1” on Special Ed Indicator Code (E0794) or “1” on Section 504 Indicator Code (E1603).</p>
African American	<p><b>Data Source.</b> PEIMS fall collection (Collection 1) on the 40100-Student Basic Information subcategory.</p> <p><b>Criteria.</b> Student coded as “1” for Black African American Code (E1061) and “0” for American Indian-Alaska Native Code (E0159), Asian Code (E1060), Native Hawaiian Pacific Islander Code (E1062), White Code (E1063) and Hispanic Latino Code (E1064).</p>
Hispanic	<p><b>Data Source.</b> PEIMS fall collection (Collection 1) on the 40100-Student Basic Information subcategory.</p> <p><b>Criteria.</b> Student coded as “1” for Hispanic Latino Code (E1064).</p>
<b>Other indicators</b>	
Data Element	TSDS <sup>a</sup> Source and Criteria
P-TECH <sup>d</sup> Indicator	<p><b>Data Source.</b> PEIMS fall collection (Collection 1) on the 40100-Student Basic Information subcategory.</p> <p><b>Criteria.</b> Student coded as “01” for the P-TECH Indicator Code (E1612).</p>
Grade	<p><b>Data Source.</b> PEIMS fall collection (Collection 1) on the 40110-Enrollment subcategory.</p> <p><b>Criteria.</b> Student coded as “09”, “10”, “11”, or “12” for the Grade Level Code (E0017). See Access OBM<sup>e</sup> rate calculations for how the Grade Level Code criteria are used across the calculations.</p>

<sup>a</sup>Texas Student Data System. <sup>b</sup>PEIMS Public Education Information System. <sup>c</sup>Limited English Proficiency. <sup>d</sup>Pathways in Technology Early College High School. <sup>e</sup>Outcomes-based measures.



Appendix B – College-Level Courses

**Table B-1**

**Eligible Course Codes for OnRamps Course Completion, by Subject Area, 2018-19 Through 2019-2020**

Subject Area	Course Title	Course Code	2018-2019	2019-2020
Arts & Entertainment Technologies	Arts & Entertainment	AET 304	X	
Arts & Entertainment Technologies	Foundations of Arts & Entertainment Technology	AET 304		X
Chemistry	Principles of Chemistry (Lecture)	CH 301	X	X
Chemistry Lab	Introduction to Chemical Practices (Lab)	CH 104M	X	X
College Algebra	College Algebra	M 301	X	X
Computer Science	Thriving in our Digital World	CS 302	X	X
Computer Science	Computing & Information	EDIT 2318	X	
English Language Arts	Introduction to Rhetoric: Reading, Writing, and Research	RHE 306	X	X
English Language Arts	Reading and Writing the Rhetoric of American Identity	RHE 309K	X	X
Geoscience	Earth, Wind, and Fire: An Introduction to Geoscience	GEO 302E	X	X
Geoscience	Physical Geography	GEOG 1401	X	
Physics	Electromagnetism, Optics, and Nuclear Physics	PHY 302L	X	X
Physics	Mechanics, Heat, and Sound	PHY 302K	X	X
Physics	Lab for Mechanics, Heat, and Sound	PHY 102M		X
Physics	Mechanics, Heat, and Sound	PHYS 1403		
Physics	General Physics I	PHYS 1403	X	
Physics	General Physics II	PHYS 1404	X	
Precalculus	Discovery Precalculus: A Creative and Connected Approach	M 305G	X	X
Precalculus	Discovery Precalculus	MATH 1550	X	
Precalculus	Precalculus	MATH 1550		X
Statistics	OnRamps Statistics	SDS 302	X	X
Statistics	OnRamps Statistics	MATH 2300	X	
U.S. History	United States: 1492 - 1865	HIS 315K	X	X
U.S. History	United States Since 1865	HIS 315L	X	X



**Table B-2  
Eligible Advanced Placement Course Examinations, 2018-2019 Through 2019-2020**

<b>AP exam name</b>	<b>2019</b>	<b>2020</b>
AP Capstone Research	X	X
AP Capstone Seminar	X	X
Art History	X	X
Biology	X	X
Calculus AB	X	X
Calculus BC	X	X
Chemistry	X	X
Chinese Language and Culture	X	X
Comparative Government and Politics	X	X
Computer Science A	X	X
Computer Science Principles	X	X
English Language and Composition	X	X
English Literature and Composition	X	X
Environmental Science	X	X
European History	X	X
French Language and Culture	X	X
German Language and Culture	X	X
Human Geography	X	X
Italian Language and Culture	X	X
Japanese Language and Culture	X	X
Latin	X	X
Macroeconomics	X	X
Microeconomics	X	X
Music Theory	X	X
Physics 1	X	X
Physics 2	X	X
Physics C: Electricity and Magnetism	X	X
Physics C: Mechanics	X	X
Psychology	X	X
Spanish Language	X	X
Spanish Literature and Culture	X	X
Statistics	X	X
Studio Art: 2-D Design Portfolio	X	X
Studio Art: 3-D Design Portfolio	X	X
Studio Art: Drawing Portfolio	X	X
United States Government and Politics	X	X
United States History	X	X
World History	X	X

## Appendix C – Work-Based Learning

**Table C-1  
Eligible Work-Based Learning Practicums, 2018-2019 Through 2019-2020**

Course Title	Service ID Code	2018-2019	2019-2020
Advanced Energy and Natural Resource Technology/Agricultural Laboratory and Field Experience	13001210	X	X
Agribusiness Management and Marketing/Agricultural Laboratory and Field Experience	13000910	X	X
Agricultural Equipment Design and Fabrication/Agricultural Laboratory and Field Experience	13002360	X	X
Agricultural Leadership, Research, and Communications	N1300266		X
Agricultural Mechanics and Metal Technologies/Agricultural Laboratory and Field Experience	13002210	X	X
Agricultural Power Systems/Agricultural Laboratory and Field Experience	13002410	X	X
Agricultural Structures Design and Fabrication/Agricultural Laboratory and Field Experience	13002310	X	X
Aircraft Airframe Technology/Advanced Transportation Systems Laboratory	13039410		X
Aircraft Powerplant Technology/Advanced Transportation Systems Laboratory	13039510		X
Automotive Technology II: Automotive Service/Advanced Transportation Systems Laboratory	13039710		X
Career Preparation I	12701300	X	X
Career Preparation I/Extended Career Preparation	12701305	X	X
Career Preparation II	12701400	X	X
Career Preparation II/Extended Career Preparation	12701405	X	X
Collision Repair/Advanced Transportation Systems Laboratory	13039810		X
Computer Technician Practicum (First Time Taken)	13027500	X	X
Computer Technician Practicum (Second Time Taken)	13027510	X	X
Computer Technician Practicum/Extended Computer Technician Practicum (First Time Taken)	13027505	X	X
Computer Technician Practicum/Extended Computer Technician Practicum (Second Time Taken)	13027515	X	X
Cybersecurity Capstone	3580855		X
Diesel Equipment Technology II/Advanced Transportation Systems Laboratory	13040170		X
Energy and Natural Resource Technology/Agricultural Laboratory and Field Experience	13001110	X	X
Floral Design/Agricultural Laboratory and Field Experience	13001810	X	X
Food Processing/Agricultural Laboratory and Field Experience	13001410	X	X
Food Technology and Safety/Agricultural Laboratory and Field Experience	13001310	X	X
Forestry and Woodland Ecosystems/Agricultural Laboratory and Field Experience	13001710	X	X
Greenhouse Operation and Production/Agricultural Laboratory and Field Experience	13002060	X	X
Health Science Theory/Health Science Clinical	13020410	X	X
Horticultural Science/Agricultural Laboratory and Field Experience	13002010	X	X
Instructional Practices	13014400	X	
Legal Research and Writing	N1303014		X
Livestock Production/Agricultural Laboratory and Field Experience	13000310	X	X
Oil and Gas Production I/Agricultural Laboratory and Field Experience	13001255	X	X
Oil and Gas Production II/Agricultural Laboratory and Field Experience	13001265	X	X

Course Title	Service ID Code	2018- 2019	2019- 2020
Paint and Refinishing/Advanced Transportation Systems Laboratory	13039910		X
Practicum in Agriculture, Food, and Natural Resources (First Time Taken)	13002500	X	X
Practicum in Agriculture, Food, and Natural Resources (Second Time Taken)	13002510	X	X
Practicum in Agriculture, Food, and Natural Resources/Extended Practicum in Agriculture, Food, and Natural Resources (First Time Taken)	13002505	X	X
Practicum in Agriculture, Food, and Natural Resources/Extended Practicum in Agriculture, Food, and Natural Resources (Second Time Taken)	13002515	X	X
Practicum in Animation (First Time Taken)	13008450	X	X
Practicum in Animation (Second Time Taken)	13008460	X	X
Practicum in Animation/Extended Practicum in Animation (First Time Taken)	13008455	X	X
Practicum in Animation/Extended Practicum in Animation (Second Time Taken)	13008465	X	X
Practicum in Architectural Design (First Time Taken)	13004800	X	X
Practicum in Architectural Design (Second Time Taken)	13004810	X	X
Practicum in Architectural Design/Extended Practicum in Architectural Design (First Time Taken)	13004805	X	X
Practicum in Architectural Design/Extended Practicum in Architectural Design (Second Time Taken)	13004815	X	X
Practicum in Audio/Video Production (First Time Taken)	13008700	X	X
Practicum in Audio/Video Production (Second Time Taken)	13008710	X	X
Practicum in Audio/Video Production/Extended Practicum in Audio/Video Production (First Time Taken)	13008705	X	X
Practicum in Audio/Video Production/Extended Practicum in Audio/Video Production (Second Time Taken)	13008715	X	X
Practicum in Business Management (First Time Taken)	13012200	X	X
Practicum in Business Management (Second Time Taken)	13012210	X	X
Practicum in Business Management/Extended Practicum in Business Management (First Time Taken)	13012205	X	X
Practicum in Business Management/Extended Practicum in Business Management (Second Time Taken)	13012215	X	X
Practicum in Commercial Photography (First Time Taken)	13009250	X	X
Practicum in Commercial Photography (Second Time Taken)	13009260	X	X
Practicum in Commercial Photography/Extended Practicum in Commercial Photography (First Time Taken)	13009255	X	X
Practicum in Commercial Photography/Extended Practicum in Commercial Photography (Second Time Taken)	13009265	X	X
Practicum in Construction Management (First Time Taken)	13006200	X	X
Practicum in Construction Management (Second Time Taken)	13006210	X	X
Practicum in Construction Management/Extended Practicum in Construction Management (First Time Taken)	13006205	X	X
Practicum in Construction Management/Extended Practicum in Construction Management (Second Time Taken)	13006215	X	X
Practicum in Construction Technology (First Time Taken)	13005250	X	X
Practicum in Construction Technology (Second Time Taken)	13005260	X	X
Practicum in Construction Technology/Extended Practicum in Construction Technology (First Time Taken)	13005255	X	X
Practicum in Construction Technology/Extended Practicum in Construction Technology (Second Time Taken)	13005265	X	X
Practicum in Culinary Arts (First Time Taken)	13022700	X	X

Course Title	Service ID Code	2018-2019	2019-2020
Practicum in Culinary Arts (Second Time Taken)	13022710	X	X
Practicum in Culinary Arts/Extended Practicum in Culinary Arts (First Time Taken)	13022705	X	X
Practicum in Culinary Arts/Extended Practicum in Culinary Arts (Second Time Taken)	13022715	X	X
Practicum in Distribution and Logistics (First Time Taken)	13040470	X	X
Practicum in Distribution and Logistics (Second Time Taken)	13040480	X	X
Practicum in Distribution and Logistics/Extended Practicum in Distribution and Logistics (First Time Taken)	13040475	X	X
Practicum in Distribution and Logistics/Extended Practicum in Distribution and Logistics (Second Time Taken)	13040485	X	X
Practicum in Education and Training (First Time Taken)	13014500	X	X
Practicum in Education and Training (Second Time Taken)	13014510	X	X
Practicum in Education and Training/Extended Practicum in Education and Training (First Time Taken)	13014505	X	X
Practicum in Education and Training/Extended Practicum in Education and Training (Second Time Taken)	13014515	X	X
Practicum in Fashion Design (First Time Taken)	13009500	X	X
Practicum in Fashion Design (Second Time Taken)	13009510	X	X
Practicum in Fashion Design/Extended Practicum in Fashion Design (First Time Taken)	13009505	X	X
Practicum in Fashion Design/Extended Practicum in Fashion Design (Second Time Taken)	13009515	X	X
Practicum in Graphic Design and Illustration (First Time Taken)	13009000	X	X
Practicum in Graphic Design and Illustration (Second Time Taken)	13009010	X	X
Practicum in Graphic Design and Illustration/Extended Practicum in Graphic Design and Illustration (First Time Taken)	13009005	X	X
Practicum in Graphic Design and Illustration/Extended Practicum in Graphic Design and Illustration (Second Time Taken)	13009015	X	X
Practicum in Health Science (First Time Taken)	13020500	X	X
Practicum in Health Science (Second Time Taken)	13020510	X	X
Practicum in Health Science/Extended Practicum in Health Science (First Time Taken)	13020505	X	X
Practicum in Health Science/Extended Practicum in Health Science (Second Time Taken)	13020515	X	X
Practicum in Hospitality Services (First Time Taken)	13022900	X	X
Practicum in Hospitality Services (Second Time Taken)	13022910	X	X
Practicum in Hospitality Services/Extended Practicum in Hospitality Services (First Time Taken)	13022905	X	X
Practicum in Hospitality Services/Extended Practicum in Hospitality Services (Second Time Taken)	13022915	X	X
Practicum in Human Services (First Time Taken)	13025000	X	X
Practicum in Human Services (Second Time Taken)	13025010	X	X
Practicum in Human Services/Extended Practicum in Human Services (First Time Taken)	13025005	X	X
Practicum in Human Services/Extended Practicum in Human Services (Second Time Taken)	13025015	X	X
Practicum in Information Technology (First Time Taken)	13028000	X	X
Practicum in Information Technology (Second Time Taken)	13028010	X	X
Practicum in Information Technology/Extended Practicum in Information Technology (First Time Taken)	13028005	X	X
Practicum in Information Technology/Extended Practicum in Information Technology (Second Time Taken)	13028015	X	X

Course Title	Service ID Code	2018-2019	2019-2020
Practicum in Interior Design (First Time Taken)	13004500	X	X
Practicum in Interior Design (Second Time Taken)	13004510	X	X
Practicum in Interior Design/Extended Practicum in Interior Design (First Time Taken)	13004505	X	X
Practicum in Interior Design/Extended Practicum in Interior Design (Second Time Taken)	13004515	X	X
Practicum in Law, Public Safety, Corrections, and Security (First Time Taken)	13030100	X	X
Practicum in Law, Public Safety, Corrections, and Security (Second Time Taken)	13030110	X	X
Practicum in Law, Public Safety, Corrections, and Security/Extended Practicum in Law, Public Safety, Corrections, and Security (First Time Taken)	13030105	X	X
Practicum in Law, Public Safety, Corrections, and Security/Extended Practicum in Law, Public Safety, Corrections, and Security (Second Time Taken)	13030115	X	X
Practicum in Local, State, and Federal Government (First Time Taken)	13019000	X	X
Practicum in Local, State, and Federal Government (Second Time Taken)	13019010	X	X
Practicum in Local, State, and Federal Government/Extended Practicum in Local, State, and Federal Government (First Time Taken)	13019005	X	X
Practicum in Local, State, and Federal Government/Extended Practicum in Local, State, and Federal Government (Second Time Taken)	13019015	X	X
Practicum in Manufacturing (First Time Taken)	13033000	X	X
Practicum in Manufacturing (Second Time Taken)	13033010	X	X
Practicum in Manufacturing/Extended Practicum in Manufacturing (First Time Taken)	13033005	X	X
Practicum in Manufacturing/Extended Practicum in Manufacturing (Second Time Taken)	13033015	X	X
Practicum in Marketing (First Time Taken)	13034800	X	X
Practicum in Marketing (Second Time Taken)	13034810	X	X
Practicum in Marketing/Extended Practicum in Marketing (First Time Taken)	13034805	X	X
Practicum in Marketing/Extended Practicum in Marketing (Second Time Taken)	13034815	X	X
Practicum in Masonry Technology (First Time Taken)	13006450	X	X
Practicum in Masonry Technology (Second Time Taken)	13006460	X	X
Practicum in Masonry Technology/Extended Practicum in Masonry Technology (First Time Taken)	13006455	X	X
Practicum in Masonry Technology/Extended Practicum in Masonry Technology (Second Time Taken)	13006465	X	X
Practicum in Printing and Imaging Technology (First Time Taken)	13009800	X	X
Practicum in Printing and Imaging Technology (Second Time Taken)	13009810	X	X
Practicum in Printing and Imaging Technology/Extended Practicum in Printing and Imaging Technology (First Time Taken)	13009805	X	X
Practicum in Printing and Imaging Technology/Extended Practicum in Printing and Imaging Technology (Second Time Taken)	13009815	X	X
Practicum in Science, Technology, Engineering, and Mathematics (First Time Taken)	13037400	X	X
Practicum in Science, Technology, Engineering, and Mathematics (Second Time Taken)	13037410	X	X
Practicum in Science, Technology, Engineering, and Mathematics/Extended Practicum in Science, Technology, Engineering, and Mathematics (First Time Taken)	13037405	X	X
Practicum in Science, Technology, Engineering, and Mathematics/Extended Practicum in Science, Technology, Engineering, and Mathematics (Second Time Taken)	13037415	X	X
Practicum in Transportation Systems (First Time Taken)	13040450	X	X
Practicum in Transportation Systems (Second Time Taken)	13040460	X	X
Practicum in Transportation Systems/Extended Practicum in Transportation Systems (First Time Taken)	13040455	X	X



Course Title	Service ID Code	2018- 2019	2019- 2020
Practicum in Transportation Systems/Extended Practicum in Transportation Systems (Second Time Taken)	13040465	X	X
Project-Based Research (First Time Taken)	12701500	X	X
Project-Based Research (Second Time Taken)	12701510		X
Project-Based Research (Third Time Taken)	12701520		X
Range Ecology and Management/Agricultural Laboratory and Field Experience	13001610	X	X
Scientific Research and Design	13037200		X
Scientific Research and Design II	13037210		X
Scientific Research and Design III	13037220		X
Veterinary Medical Applications/Agricultural Laboratory and Field Experience	13000610	X	X
Wildlife, Fisheries and Ecology Management/Agricultural Laboratory and Field Experience	13001510	X	X
World Health Research	13020900		X