## Chapter 2-Student Achievement Domain

## Overview

The Student Achievement domain evaluates district and campus performance based on student achievement in three areas: performance on STAAR assessments, College, Career, and Military Readiness (CCMR) indicators, and graduation rates.

## STAAR Component

The STAAR component of the Student Achievement domain calculation uses a methodology in which scores are calculated based on students' level of performance at Approaches Grade Level or above, Meets Grade Level or above, and Masters Grade Level standards.

## STAAR Component-Assessments Evaluated

The Student Achievement domain evaluates STAAR (with and without accommodations), STAAR Alternate 2 assessment, and English learner (EL) performance measure results for grades 3-8 and end-of-course in all subject areas.

| Standard | STAAR Assessments <br> (with and without <br> accommodations) | STAAR Alternate 2 <br> Assessments | English Learner <br> Performance Measure <br> (Second Year in U.S. <br> Schools Only) |
| :---: | :---: | :---: | :---: |
| Approaches <br> Grade Level or <br> above | Approaches Grade Level <br> or above | Level II Satisfactory or <br> above | Approaches Grade Level or <br> above |
| Meets Grade <br> Level or above | Meets Grade Level or <br> above | Level II Satisfactory or <br> above | Meets Grade Level or <br> above |
| Masters Grade <br> Level | Masters Grade Level | Level III Accomplished | Masters Grade Level |

## STAAR Component-Substitute Assessments

Qualifying results on substitute assessments are included in the Student Achievement domain at the Meets Grade Level standard. The required equivalency standards for the eligible substitute assessment are found in 19 Texas Administrative Code (TAC), $\S 101.4002$, available online at http://ritter.tea.state.tx.us/rules/tac/chapter101/ch101dd.html.

## STAAR Component—Students Evaluated

All students, including ELs as described below, are evaluated as one group.

## STAAR Component-Inclusion of English Learners

ELs who are year one in U.S. schools are excluded from accountability performance calculations. ELs who are in their second year in U.S. schools are included in accountability for 2019. ELs who are in their second year in U.S. schools are included in the STAAR component using the EL performance measure. ELs who are in their second year in U.S. schools who have a parental denial for EL services do not receive an EL performance measure and are included in the same manner as non-ELs. STAAR Alternate 2 assessment results are included regardless of an EL's years in U.S. schools.

Unschooled asylees, unschooled refugees, and students with interrupted formal education (SIFEs) are not included in state accountability until their sixth year of enrollment in U.S. schools.

## STAAR Component—Minimum Size Criteria and Small Numbers Analysis

- All students are evaluated in the STAAR component if there are 10 or more STAAR assessments or EL performance measures, combined across all subjects.
- Small numbers analysis is not used in the STAAR component.


## STAAR Component-Methodology

One point is given for each percentage of assessment results that are at or above the following:

- Approaches Grade Level or above
- Meets Grade Level or above
- Masters Grade Level

The STAAR component score is calculated by dividing the total points (cumulative performance for the three performance levels) by three resulting in an overall score of 0 to 100 for all districts and campuses. The STAAR component score is rounded to the nearest whole number.

| Example Calculation: STAAR Component Score |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| STAAR <br> Performance | Reading | Math- <br> ematics | Writing | Science | Social <br> Studies | Totals | Percentages |
| Number of <br> Assessments | 480 | 432 | 101 | 330 | 274 | 1617 |  |
| Approaches Grade <br> Level or Above | 300 | 298 | 50 | 143 | 87 | 878 | $54 \%$ |
| Meets Grade Level <br> or Above | 200 | 170 | 40 | 45 | 76 | 531 | $33 \%$ |
| Masters Grade <br> Level | 100 | 165 | 9 | 41 | 22 | 337 | $21 \%$ |
| Total Percentage Points |  |  |  |  |  |  | $\mathbf{1 0 8}$ |
|  |  |  |  |  |  |  |  |

## College, Career, and Military Readiness Component

The College, Career, and Military Readiness (CCMR) component of the Student Achievement domain measures graduates' preparedness for college, the workforce, or the military. The Student
Achievement CCMR denominator consists of 2018 annual graduates. Annual graduates are students who graduate from a district or campus in a school year regardless of cohort. This is separate from, and may include different students than, the longitudinal graduation cohorts. Annual graduates demonstrate college, career, or military readiness in any one of the following ways:

- Meet Texas Success Initiative (TSI) Criteria in ELA/Reading and Mathematics. A graduate meeting the TSI college readiness standards in both ELA/reading and mathematics; specifically, meeting the college-ready criteria on the TSI assessment, SAT, ACT, or by successfully completing and earning credit for a college prep course as defined in TEC §28.014, in both ELA and mathematics. The assessment results considered include TSI assessments through October

2018, SAT and ACT results through the June 2018 administration, and course completion data via TSDS PEIMS. See Appendix H for additional information.

A graduate must meet the TSI requirement for both reading and mathematics but does not necessarily need to meet them on the same assessment. For example, a graduate may meet the TSI criteria for college readiness in ELA/reading on the SAT and complete and earn credit for a college prep course in mathematics.

- Meet Criteria on Advanced Placement (AP)/International Baccalaureate (IB) Examination. A graduate meeting the criterion score on an AP or IB examination in any subject area. Criterion score is 3 or more for AP and 4 or more for IB.
- Earn Dual Course Credits. A graduate completing and earning credit for at least three credit hours in ELA or mathematics or at least nine credit hours in any subject. See Appendix H for additional information.
- Enlist in the Armed Forces. A graduate enlisting in the U.S. Army, Navy, Air Force, Coast Guard, or Marines.
- Earn an Industry-Based Certification. A graduate earning an industry-based certification under 19 TAC §74.1003.
- Earn an Associate's Degree. A graduate earning an associate's degree prior to graduation from high school.
- Graduate with Completed Individualized Education Program (IEP) and Workforce Readiness. A graduate receiving a graduation type code of $04,05,54$, or 55 which indicates the student has completed his/her IEP and has either demonstrated self-employment with self-help skills to maintain employment or has demonstrated mastery of specific employability and self-help skills that do not require public school services.
- CTE Coherent Sequence Coursework Aligned with Industry-Based Certifications. A CTE coherent sequence graduate completing and receiving credit for at least one CTE course aligned with an industry-based certification. This indicator awards one-half point only for graduates who meet no other CCMR indicator. These graduates receive one-half point credit for coursework completed toward an industry-based certification. The list of CTE courses aligned with industry-based certifications is provided at the end of this chapter.
- Complete an OnRamps Dual Enrollment Course. A graduate completing an OnRamps dual enrollment course and qualifying for at least three hours of university or college credit in any subject area. See Appendix H for additional information.
- Graduate Under an Advanced Degree Plan and be Identified as a Current Special Education Student. A graduate who is identified as receiving special education services during the year of graduation and whose graduation plan type is identified as a Recommended High School Plan (RHSP), Distinguished Achievement Plan (DAP), Foundation High School Plan with an Endorsement (FHSP-E), or Foundation High School Plan with a Distinguished Level of Achievement (FHSP-DLA).
- Earn a Level I or Level II Certificate. A graduate earning a Level I or Level II certificate in any workforce education area. See Appendix D or H for additional information.


## CTE Coherent Sequence Coursework Transition

In 2019 accountability, CTE coherent sequence graduates who complete and receive credit for at least one CTE course aligned with an industry-based certification receive one-half point in the

CCMR component calculation. This indicator awards one-half point only for graduates who meet no other CCMR indicator. The following chart details a transition from CTE coherent sequence coursework to industry-based certification. The list of 73 industry-based certifications effective for 2018 annual graduates is found in 19 TAC §74.1003, available online at https://tea.texas.gov/perfreport/IBC.pdf.

| CTE Coherent Sequence Coursework Transition | Accountability Years |  |
| :--- | :---: | :---: |
| CCMR Indicator | $\mathbf{2 0 1 9}$ and <br> $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ and <br> Beyond |
| CTE coherent sequence graduates who complete and <br> receive credit for at least one aligned CTE course | $1 / 2$ point |  |
| Earn an industry-based certification | 1 point | 1 point |

College, Career, and Military Readiness Component—Students Evaluated All students are evaluated as one group.

## College, Career, and Military Readiness Component-Minimum Size Criteria and Small Numbers Analysis

- All students are evaluated in the CCMR component if there are at least 10 annual graduates.
- Small numbers analysis, as described below, applies to all students if the number of annual graduates is fewer than 10.
- A three year-average CCMR rate is calculated for all students. The calculation is based on an aggregated three year uniform average using the district's or campus's 2019 CCMR data, 2018 CCMR data, and the 2017 modeled CCMR data.
- The all students group is evaluated if the three year sum has at least 10 annual graduates.


## College, Career, and Military Readiness Component-Methodology

One point is given for each annual graduate who accomplishes any one of the CCMR indicators, except for CTE coherent sequence graduates who earn one-half point credit for coursework completion and credit aligned with industry-based certifications. The CCMR component is calculated by dividing the total points (cumulative number of CCMR graduates) by the number of annual graduates. The CCMR component score is rounded to the nearest whole number.

## Number of Graduates Who Accomplished at Least One of the CCMR Indicators Number of 2018 Annual Graduates

| Example Calculation: CCMR Component Score |  |  |  |
| :--- | :---: | :---: | :---: |
|  | Number of Graduates Who Accomplished at Least <br> One of the CCMR Indicators | Number of 2018 <br> Annual Graduates |  |
| Total | 208.5 | 365 |  |
| Student Achievement Domain CCMR Component Score |  |  |  |
| (Number of Graduates Who Accomplished at Least One of the CCMR Indicators $\div$ <br> Number of 2018 Annual Graduates) | 57 |  |  |

## Graduation Rate (or Annual Dropout Rate) Component Graduation Rate Component

The graduation rate component of the Student Achievement domain includes the four-year, fiveyear, and six-year high school graduation rates or the annual dropout rate, if no graduation rate is available. The total points and the maximum number of points are reported for the four-year, fiveyear, and six-year graduation rate. The graduation rate that results in the higher score is used to calculate the graduation rate score.

- Class of 2018 four-year graduation rate is calculated for districts and campuses if they: (a) served grade 9 , as well as grade 11 or 12 , in the first and fifth years of the cohort or (b) served grade 12 in the first and fifth years of the cohort.
- Class of 2017 five-year graduation rate follows the same cohort of students for one additional year.
- Class of 2016 six-year graduation rate follows the same cohort of students for two additional years.
- Annual dropout rate for school year 2017-18 for grades 9-12. If a campus has students enrolled in grade $9,10,11$, or 12 but does not have a four-year, five-year, or six-year graduation rate, a proxy for the graduation rate is calculated by converting the grade 9-12 annual dropout rate into a positive measure. Please see Annual Dropout Rate-Conversion on the following pages.


## Graduation Rate—Students Evaluated

All students are evaluated as one group.

## Graduation Rate—Minimum Size Criteria and Small Numbers Analysis

- The all students group is evaluated if there are at least 10 students in the class.
- Small numbers analysis, as described below, applies to all students if the number of students in the Class of 2018 (4-year), Class of 2017 (5-year), or Class of 2016 ( 6 -year) is fewer than 10. The total number of students in the class consists of graduates, continuing students, Texas high school equivalency certificate (TxCHSE) recipients, and dropouts.
- A three-year-average graduation rate is calculated for all students. The calculation is based on an aggregated three-year uniform average.
- The all students group is evaluated if the three-year sum has at least 10 students.


## Graduation Rate-Methodology

The four-year graduation rate follows a cohort of first-time students in grade 9 through their expected graduation three years later. The five-year graduation rate follows the same cohort of students for one additional year. The six-year graduation rate follows the same cohort of students for two additional years. A cohort is defined as the group of students who begin grade 9 in Texas public schools for the first time in the same school year plus students who, in the next three school years, enter the Texas public school system in the grade level expected for the cohort. Students who transfer out of the Texas public school system over the four, five, or six years for reasons other than graduating, receiving a TxCHSE, or dropping out are removed from the class.
The four-year, five-year, and six-year graduation rate measures the percentage of graduates in a class. The graduation rates are expressed as a percentage rounded to one decimal place. For example, $74.875 \%$ rounds to $74.9 \%$, not $75 \%$.
$\frac{\text { Number of Graduates in the Class }}{\text { Number of Students in the Class }}$
(Graduates + Continuers + TxCHSE Recipients + Dropouts)

| Example Calculation: Graduation Rate |  |
| :--- | :---: |
| Graduation Rate | All Students |
| Class of 2018, 4-year | $85.2 \%$ |
| Class of 2017, 5-year | $87.3 \%$ |
| Class of 2016,6-year | $85.0 \%$ |
| Graduation Rate Score | $\mathbf{8 7 . 3}$ |

## Annual Dropout Rate Component

For districts and campuses that serve students enrolled in grades 9-12, the grade 9-12 annual dropout rate is used if a four-year, five-year, or six-year graduation rate is not available.

## Annual Dropout Rate-Students Evaluated

All students are evaluated as one group.

## Annual Dropout Rate-Minimum Size Criteria and Small Numbers Analysis

- The all students group is evaluated if there are at least 10 students enrolled during the school year.
- Small numbers analysis, as described below, applies to the group of all students if the number of students enrolled in grades 9-12 during the 2017-18 school year is fewer than 10.
- A three-year-average annual dropout rate is calculated for all students. The calculation is based on an aggregated three-year uniform average.
- The all students group is evaluated if the three-year sum has at least 10 students.


## Annual Dropout Rate-Methodology

The annual dropout rate is calculated by dividing the number of students in grades 9-12 designated as having dropped out by the number of students enrolled in grades 9-12 at any time during the 2017-18 school year. Grade 9-12 annual dropout rates are expressed as a percentage rounded to one decimal place. For example, 24 dropouts divided by 2,190 students enrolled in grades $9-12$ is $1.095 \%$ which rounds to a $1.1 \%$ annual dropout rate.

## Annual Dropout Rate-Conversion

Because the annual dropout rate is a measure of negative performance-the rate rises as performance declines-it must be transformed into a positive measure to be used as a component of the Student Achievement domain. The following calculation converts the annual dropout rate for a non-AEA district or campus into a positive measure that is a proxy for the graduation rate.

$$
100 \text { - (grade 9-12 annual dropout rate x 10) with a floor of zero }
$$

The multiplier of 10 allows the non-AEA district or campus to accumulate points towards the Student Achievement domain score only if its annual dropout rate is less than 10 percent.

The annual dropout rate calculation requires at least a three-year average of 10 students per class.

## Alternative Education Accountability Modifications

Alternative procedures applicable to the graduation rate and annual dropout rate calculations are provided for approved campuses and charter schools serving at-risk students in alternative education programs. The annual dropout rate will be used on a safeguard basis only for campuses designated as dropout recovery schools (DRS). The Student Achievement domain for DRS without a longitudinal graduation rate is calculated using STAAR, CCMR, and the annual dropout rate; it will also be calculated using only the STAAR and CCMR components. Whichever calculation produces the higher rating will be used. For more information on the alternative education accountability (AEA) eligibility and DRS criteria, please see "Chapter 7—Other Accountability System Processes."

## AEA Graduation/Annual Dropout Rate-Methodology

The graduation rate calculation is modified to credit AEA campuses and charter schools for graduates, continuing students (continuers), and TxCHSE recipients. The grade 9-12 annual dropout rate is used if no combined graduation, continuer, and TxCHSE rate is available.

> Number of Graduates + Continuers + TxCHSE Recipients in the Class Number of Students in the Class
> (Graduates + Continuers + TxCHSE Recipients + Dropouts)

- Class of 2018 four-year graduation, continuer, and TxCHSE rates are calculated for AEA campuses and charter schools if they: (a) served grade 9, as well as grade 11 or 12, in the first and fifth years of the cohort or (b) served grade 12 in the first and fifth years of the cohort.
- Class of 2017 five-year graduation, continuer, and TxCHSE rates follow the same cohort of students for one additional year; therefore, most AEA campuses and charter schools that have a four-year graduation, continuer, and TxCHSE rate in one year will have a five-year graduation, continuer, and TxCHSE rate for that cohort in the following year.
- Class of 2016 six-year graduation, continuer, and TxCHSE rates continue to follow the same cohort of students for one additional year; therefore, most AEA campuses and charter schools
that have a five-year graduation, continuer, and TxCHSE rate in one year will have a six-year graduation, continuer, and TxCHSE rate for that cohort in the following year.
- Annual dropout rate for school year 2017-18 for grades 9-12. If an AEA charter school or campus has students enrolled in grade $9,10,11$, or 12 but does not have a four-year, five-year, or six-year graduation, continuer, and TxCHSE rate, a proxy for the graduation rate is calculated by converting the grade 9-12 annual dropout rate into a positive measure.


## AEA Annual Dropout Rate-Conversion

The annual dropout rate conversion is also modified for AEA campuses and districts.
100 - (grade 9-12 annual dropout rate $\times 5$ ) with a floor of zero
By using the multiplier of 5 , an AEA charter or campus accumulates points towards the Student Achievement domain score if its annual dropout rate is less than 20 percent.

## Student Achievement Domain Rating Calculation

See "Chapter 5-Calculating 2019 Ratings" for the methodology to calculate the Student Achievement domain rating.

## CTE Courses Aligned with Industry-Based Certifications

The following tables provide the 104 CTE courses aligned with industry-based certifications evaluated in the CCMR component of the 2019 accountability system.

| Code | Course Title | Course <br> Abbreviation |
| :--- | :--- | :--- |
| N1300262 | Introduction to Process Technology | INTRPT |
| N1300426 | Pipefitting Technology II | PIPETEC2 |
| N1302803 | Internetworking Technologies I (Cisco) | INTNET1 |
| N1302804 | Internetworking Technologies II (Cisco) | INTNET2 |
| N1302810 | Principles of Cybersecurity | CYBRSEC |
| N1302812 | Introduction to C\# Programming Applications | INTCPA |
| N1303742 | Introduction to Engineering Design | IED |
| 13000600 | Veterinary Medical Applications | VETMEDAP |
| 13000610 | Veterinary Medical Applications/Agricultural Laboratory and Field <br> Experience | VETMEDLAB |
| 13001100 | Energy and Natural Resources Technology | ENGNRT |
| 13001110 | Energy and Natural Resource Technology/Agricultural Laboratory and <br> Field Experience | ENGNRTLAB |
| 13001200 | Advanced Energy and Natural Resource Technology | ADENRT |
| 13001210 | Advanced Energy and Natural Resource Technology/Agricultural <br> Laboratory and Field Experience | ADENRTLAB |
| 13004220 | Principles of Construction | PRPRCM2 |
| 13004600 | Architectural Design I | PRINCON |
| 13004700 | Architectural Design II | ARCHDSN1 |
| 13005000 | Construction Management II | PRCHDSN2 |
| 13005100 | Construction Technology I | CONSMGT2 |
| 13005200 | Construction Technology II | CONTECH1 |
| 13005250 | Practicum in Construction Technology (First Time Taken) | PONTECH2 |
| 13005260 | Practicum in Construction Technology (Second Time Taken) | PRACCT1 |
| 13005300 | Mill and Cabinetmaking Technology | ELECTEC1 |
| 13005500 | Building Maintenance Technology II | ELECTEC2 |
| 13005600 | Electrical Technology I | HVACREF1 |
| 13005700 | Electrical Technology II | PraCREF2 |
| 13005800 | Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration <br> Technology I <br> 13005900 | Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration <br> Technology II |
| Practicum in Construction Management (Second Time Taken) | Plumbing Technology I | Praction Management (Second Time Taken) |


| Code | Course Title | Course Abbreviation |
| :---: | :---: | :---: |
| 13006300 | Masonry Technology I | MASTECH1 |
| 13006400 | Masonry Technology II | MASTECH2 |
| 13011400 | Business Information Management I | BUSIM1 |
| 13011500 | Business Information Management II | BUSIM2 |
| 13011510 | Business Information Management II/Business Lab | BUSMLAB2 |
| 13012200 | Practicum in Business Management (First Time Taken) | PRACBM |
| 13012205 | Practicum in Business Management/Extended Practicum in Business Management (First Time Taken) | EXPRBM |
| 13012210 | Practicum in Business Management (Second Time Taken) | PRACBM2 |
| 13012215 | Practicum in Business Management/Extended Practicum in Business Management (Second Time Taken) | EXPRBM2 |
| 13014400 | Instructional Practices | INPRAC |
| 13014500 | Practicum in Education and Training | PRACEDT1 |
| 13016600 | Accounting I | ACCOUNT1 |
| 13016700 | Accounting II | ACCOUNT2 |
| 13020400 | Health Science Theory | HLTHSCI |
| 13020410 | Health Science Theory/Health Science Clinical | HLSCLIN |
| 13020500 | Practicum in Health Science (First Time Taken) | PRACHLS1 |
| 13020505 | Practicum in Health Science/Extended Practicum in Health Science (First Time Taken) | EXPRHLS1 |
| 13020510 | Practicum in Health Science (Second Time Taken) | PRACHLS2 |
| 13020515 | Practicum in Health Science/Extended Practicum in Health Science (Second Time Taken) | EXPRHLS2 |
| 13020950 | Pharmacology | PHARMC |
| 13024800 | Child Guidance | CHILDGUI |
| 13025000 | Practicum in Human Services (First Time Taken) | PRACHUS1 |
| 13025005 | Practicum in Human Services/Extended Practicum in Human Services (First Time Taken) | EXPRHUS1 |
| 13025010 | Practicum in Human Services (Second Time Taken) | PRACHUS2 |
| 13025015 | Practicum in Human Services/Extended Practicum in Human Services (Second Time Taken) | EXPRHUS2 |
| 13025300 | Cosmetology II | COSMET2 |
| 13025310 | Cosmetology II/Cosmetology II Lab Innovative | COSLAB2 |
| 13027300 | Computer Maintenance | COMPMTN |
| 13027310 | Computer Maintenance/Computer Maintenance Lab | COMMTLAB |
| 13027400 | Networking | NETWRK |
| 13027410 | Networking/Networking Lab | NETWRLAB |
| 13027500 | Computer Technician Practicum (First Time Taken) | COMPT1 |
| 13027505 | Computer Technician Practicum/Extended Computer Technician Practicum (First Time Taken) | EXCOMPT1 |
| 13027510 | Computer Technician Practicum (Second Time Taken) | COMPT2 |
| 13027515 | Computer Technician Practicum/Extended Computer Technician Practicum (Second Time Taken) | EXCOMPT2 |


| Code | Course Title | Course Abbreviation |
| :---: | :---: | :---: |
| 13027700 | Computer Programming II | COMPPRO2 |
| 13028000 | Practicum in Information Technology (First Time Taken) | PRACIT1 |
| 13028005 | Practicum in Information Technology/Extended Practicum in Information Technology (First Time Taken) | EXPRIT1 |
| 13028010 | Practicum in Information Technology (Second Time Taken) | PRACIT2 |
| 13028015 | Practicum in Information Technology/Extended Practicum in Information Technology (Second Time Taken) | EXPRIT2 |
| 13030100 | Practicum in Law, Public Safety, Corrections and Security | PRACLPS1 |
| 13032300 | Welding I | WELD1 |
| 13032400 | Welding II | WELD2 |
| 13032410 | Welding II/Welding II Lab | WELDLAB2 |
| 13032600 | Precision Metal Manufacturing II | PREMMAN2 |
| 13032610 | Precision Metal Manufacturing II/Precision Metal Manufacturing II Lab | PRMMLAB2 |
| 13032900 | Manufacturing Engineering Technology I | MANENGT1 |
| 13032950 | Manufacturing Engineering Technology II | MANENGT2 |
| 13033000 | Practicum in Manufacturing | PRACMAN1 |
| 13033005 | Practicum in Manufacturing/Extended Practicum in Manufacturing (First Time Taken) | EXPRMAN1 |
| 13033010 | Practicum in Manufacturing (Second Time Taken) | PRACMAN2 |
| 13033015 | Practicum in Manufacturing/Extended Practicum in Manufacturing (Second Time Taken) | EXPRMAN2 |
| 13036500 | Engineering Design and Presentation I | ENGDSPR1 |
| 13036900 | Solid State Electronics | SOSTELEC |
| 13037400 | Practicum in Science, Technology, Engineering, and Mathematics (First Time Taken) | PRCSTEM1 |
| 13037410 | Practicum in Science, Technology, Engineering, and Mathematics (Second Time Taken) | PRCSTEM2 |
| 13037405 | Practicum in Science, Technology, Engineering, and Mathematics/Extended Practicum in Science, Technology, Engineering, and Mathematics (First Time Taken) | EXPRSTEM1 |
| 13037415 | Practicum in Science, Technology, Engineering, and Mathematics/Extended Practicum in Science, Technology, Engineering, and Mathematics (Second Time Taken) | EXPRSTEM2 |
| 13037600 | Digital Electronics | DIGELC |
| 13039600 | Automotive Technology I: Maintenance and Light Repair | AUTOTEC1 |
| 13039700 | Automotive Technology II: Automotive Service | AUTOTEC2 |
| 13039710 | Automotive Technology II: Automotive Service/Advanced Transportation Systems Laboratory | AUTOLAB2 |
| 13039800 | Collision Repair | COLLISR |
| 13039810 | Collision Repair/Advanced Transportation Systems Laboratory | COLLRLAB |
| 13039900 | Paint and Refinishing | PAINTREF |
| 13039910 | Paint and Refinishing/Advanced Transportation Systems Laboratory | PTREFLAB |


| Code | Course Title | Course <br> Abbreviation |
| :--- | :--- | :--- |
| 13040150 | Diesel Equipment Technology I | DIEQTEC1 |
| 13040450 | Practicum in Transportation Systems (First Time Taken) | PRACTRS1 |
| 13040455 | Practicum in Transportation Systems/Extended Practicum in <br> Transportation Systems (First Time Taken) | EXPRTRS1 |
| 13040460 | Practicum in Transportation Systems (Second Time Taken) | PRACTRS2 |
| 13040465 | Practicum in Transportation Systems/Extended Practicum in <br> Transportation Systems (Second Time Taken) | EXPRTRS2 |

