TULOSO MIDWAY HIGH SCHOOL

GRADUATION & CAREER PLANNING GUIDE 2020-2021

WELCOME TO TULOSO MIDWAY ISD

Dear Students:

We are pleased to have the opportunity to work with you as you choose your courses for next year.

Careful consideration should be given to course selections to ensure an appropriate and effective class schedule. Attention must be given to graduation plans so that specific requirements are met regarding future plans for college, technical school, and personal goals.

This booklet is designed to inform and guide you in establishing your class schedule. Actions by the local or state school board, TEA, or the state legislature, may make course information in this booklet obsolete or inaccurate. The staff at Tuloso-Midway High School will explain information to you before registration. Should you need additional assistance, you may call our office at 903-6780 or visit the high school's Counselors' Corner page at www.tmisd.us.

Sincerely,

Ann Bartosh
Principal

Lindsey Bowers, Nelda Garibay, Mavis Lumampao
Lora Casarez, Soila Rodriguez, Jennifer Stark
Guidance Department

Rose Perez
Testing, College & Career Readiness Coordinator

Benito Portillo
Career and Technical Education Coordinator

Tuloso-Midway ISD does not discriminate on the basis of race, color, national origin, sex, handicap, or limited English proficiency.

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REGISTRATION

It is very important that students give serious consideration to class requests. Courses requested in the spring of the current school year will be classes scheduled in the fall of the following school year. Students must register as full day students (TEA regulations of four hours [240 minutes]). Tuloso-Midway High School requires a full schedule enrollment for all students with the following exceptions:

- Junior or senior students enrolled in the work-study program are allowed to have a shortened school day, provided prerequisite criteria are met.
- Seniors are permitted to have an abbreviated school day (either beginning or end of school day). See additional courses section for details and requirements.

If a student requests to audit a class, it must be declared and approved through the principal prior to registration. The student will receive neither grade nor credit for the audit class and the class will not appear on the transcript. Attendance during this class is required.

SCHEDULE CHANGES

Schedule changes will be made automatically for classes that do not make, missing courses or when conflicts occur. If a schedule change is requested, a schedule change form must be secured, signed by the student, parent, and sponsor/coach, if applicable and approved by the principal. Students remain in class until the schedule change request is made by the counselor. **Do not jeopardize attendance**.

Schedule change requests will be reviewed on an individual basis beginning the first week of school. Requests for changes must be submitted before the deadline listed on the schedule change form.

AWARDING OF CREDITS

Credit will be awarded for each half-year or full-year course on the basis of half (½) units earned per semester. Students will repeat semester courses and the semester of full-year courses in which grades below 70 are achieved.

Credit will be awarded for full year courses in which the average of the first and second semester grades is 70 or above in the same academic school year. Students must repeat the semester of each course in which a failing grade is earned. Credit for repeated semesters will only be awarded when the grade is 70 or above.

Students may be awarded credit for failed courses through correspondence, credit by exam, night school, credit recovery program or summer school where a passing grade of 70 or above is earned. These grades shall be posted on the student's transcript, but will not be factored in the calculation of the student's weighted grade point average (WGPA).

EARLY HIGH SCHOOL GRADUATION

Interested students must see the principal and their counselor for approval. To graduate early, a student must complete an **Endorsement and the Distinguished Level of Achievement** curriculum. Additional requirements for EOC testing must be considered and arranged far in advance of intended graduation date.

Early High School Graduation:
Three Year Graduate: Declaration **must** be requested in writing on or before the end of a student's sophomore year (10th). Additionally, principal and counselor approval is required.
Important: The signed contract for Early High School Graduation cannot be revoked unless it is done so in writing on or before the end of the first week of the respective school year.

GRADING & CLASSIFICATION SYSTEM

The grading system and grade classification system used at Tuloso-Midway High School are:

Letter Grades	Number Grades
A	90-100
B	80-89
C	70-79
F	0-69

Classification*	State Credits
Freshman	1ST year in high school
Sophomore	5.0-9.5 and 2ND year in high school
Junior	10.0-14.5 and 3RD year in high school
Senior	15.0 and 4TH year in high school

*Classification is determined by both the year in school and the number of credits accumulated prior to the beginning of the current school year.

STATE OF TEXAS INCENTIVE PROGRAMS

See your counselor about incentive programs for students interested in institutions of higher learning. Programs include the teacher incentives, dependents of military veterans, and other financial assistance programs.

Log onto www.tmisd.us and go to High School Counselors' Corner for more information.

WEIGHTED COURSES

An additional ten points per semester is factored into the total calculated semester grade points to determine the weighted grade point average (WGPA).

UIL Exempt for "No Pass No Play" *		NOT EXEMPT (ineligible)
English 1, 2 PAP	Anatomy & Physiology Honors	Accounting Honors/DC
English 3,4 AP	W. Geography PAP	Automotive/Heavy Equipment DC
English 4 UT/DC	W. History PAP	Band 3,4 Honors
Algebra 1, 2 PAP	U.S. History AP/UT/DC	CNA/ /Health Science Practicums
Geometry PAP	European History AP	BCIS DC
Precalculus PAP	Economics AP/DC	Choir 3, 4 Honors
College Algebra DC	Government AP/DC	Vocal Ensemble 3, 4 Honors
Trigonometry DC	Humanities I, II	Computer Science UT
Statistics DC	Psychology DC	Debate II Honors
Applied Math for Technical Professionals DC	Sociology DC	Dental/Health Science Practicums
Calculus AP/DC	Art AP	Music Appreciation DC
Biology I PAP	Spanish 3 Honors	Oral Interpretation II Honors
Biology AP/DC	Spanish 4 AP	Pharmacy Tech/Health Science Practicums
Chemistry PAP/AP	Oral Interpretation III Honors	Speech DC (welding/heavy equipment)
Physics PAP/AP	Yearbook/Newspaper III Editor	Yearbook/newspaper I, II Honors
Scientific Research & Design AP/DC	Debate III Honors	Welding DC
		Debate IV Honors
		Oral Interpretation 4 Honors

§74.30. Identification of Honors Courses.*

(a) The following are identified as honors classes as referred to in the Texas Education Code, §33.081(d)(1), concerning extracurricular activities:

(1) all College Board Advanced Placement courses and International Baccalaureate courses in all disciplines;

(2) English language arts: high school/college concurrent enrollment classes that are included in the "Lower-Division Academic Course Guide Manual (Approved Courses)";

(3) Languages other than English: high school/college concurrent enrollment classes that are included in the "Lower-Division Academic Course Guide Manual (Approved Courses)"; American Sign Language, Level IV; American Sign Language, Advanced Independent Study; Level IV, Intermediate Mid to Intermediate High Proficiency; Level V, Intermediate High to Advanced Mid Proficiency; Level VI, Advanced Mid to Advanced High Proficiency; Level VII, Advanced High to Superior Proficiency; Seminar in Languages Other Than English, Advanced; Classical Languages, Level IV, Novice Mid to Advanced Mid Proficiency; Classical Languages, Levels V-VII, Novice High to Superior Low Proficiency; and Seminar in Classical Languages, Advanced;

(4) Mathematics: high school/college concurrent enrollment classes that are included in the "Lower-Division Academic Course Guide Manual (Approved Courses)" and Precalculus;

(5) Science: high school/college concurrent enrollment classes that are included in the "Lower-Division Academic Course Guide Manual (Approved Courses)"; and

(6) Social studies: Social Studies Advanced Studies, Economics Advanced Studies, and high school/college concurrent enrollment classes that are included in the "Lower-Division Academic Course Guide Manual (Approved Courses)."

(b) Districts may identify additional honors courses in the subject areas of English language arts, mathematics, science, social studies, or a language other than English for the purpose of this section, but must identify such courses prior to the semester in which any exemptions related to extracurricular activities occur.

(c) Districts are neither required to nor restricted from considering courses as honors for the purpose of grade point average calculation.

Statutory Authority: The provisions of this §74.30 issued under the Texas Education Code, §33.081.

Source: The provisions of this §74.30 amended to be effective October 28, 2019, 44 TexReg 6368.

INDIVIDUALIZED LEARNING

According to State Board of Education rules, school districts are required to offer the College Board's Advanced Placement examinations and credit-by-examination for acceleration. School districts may also offer credit-by-examination for placement. Three dates in the fall and spring have been set to test students who wish to take the credit-by-examination for acceleration.

These dates will be announced. See Note below.

Credit-by-examination may be taken for two types of credit:
Credit Recovery and Acceleration Credit.

Credit-By-Examination (Recovery) is for students to receive credit for a subject in which the student has prior experience. Students must score at least **70% mastery** to receive credit for a course. Prior instruction may include: independent study, classroom work, tutorial experience, instruction abroad, life experience, or course work from an unaccredited school. **Credit-by-examination (recovery) shall not be used to gain eligibility for participation in extracurricular activities or to receive credit for courses in which students have excessive absences.** This examination grade does not count towards the students' weighted grade point average.

Credit-By-Examination (Acceleration) is for students to skip a subject without formal instruction and earn credit for a particular course. Students must score at least **80% mastery** on each semester exam in order to receive acceleration credit for a course. This examination grade does not count towards the student's weighted grade point average.

State Virtual School Network offers "Electronic courses" in a district's traditional classroom setting for which instruction and content is primarily provided through internet/online delivery. A student and teacher are in different locations for the student's instructional period. A district in which a student is enrolled as a full-time student may not unreasonably deny the request of a parent of a student to enroll the student in an electronic course offered through the State Virtual School Network. The district shall make all reasonable efforts to accommodate the enrollment of a student in the course under special circumstances. A district is not considered to have unreasonably denied a request to enroll a student in an electronic course if: 1.) the district can demonstrate that the course does not meet state standards or the district standards…2.) A student attempts to enroll in a course load that: a.) is inconsistent with the student's high school graduation plan; or b.) could reasonably be expected to negatively affect the student's performance on an assessment instrument under Education Code 39.023 or 3.) the request is at a time that is not consistent with the enrollment period established by the district providing the course. See your counselor for more information.

AP (Advanced Placement)

College-Level high school courses

Dual Credit

Del Mar College courses provided at TM

Dual Enrollment (UT OnRamps)

University of Texas Courses provided at TM

ADVANCED PLACEMENT (AP) PROGRAM

Advanced Placement (AP) Courses:

The College Board's Advanced Placement (AP) course work provides an opportunity for students to pursue college-level studies while still in secondary school.

Advanced Placement courses also prepare students for AP assessments. At the end of each AP course, an AP Exam is offered. Qualifying scores on the AP Exams can enable students to receive college credit and/or advanced standing at a university or college.

In order to determine how AP Exam scores are qualified, and if they will apply to a student's major or degree program, the student must contact the higher education institution she, or he, plans to attend.

AP exams are offered during the spring semester.

Any student enrolling in an AP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.

Pre-Advanced Placement (Pre-AP) Courses:

Pre-AP courses are on-grade level academically advanced high school courses designed to challenge motivated students to understand rigorous content. The coursework requires students to engage in independent and analytical assignments. Pre-AP courses are designed to prepare students for Advanced Placement (AP) courses.

Any student enrolling in a PAP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.

Exit Policy

- A student may choose to exit a Pre-AP/AP course at the end of the third or sixth week of the first grading period, or at the end of the semester.
- The student will be moved to a regular course if the student fails to maintain an average of 70 or higher at the following intervals during the first semester:
  1. End of third week
  2. End of first grading cycle
  3. End of semester

All AP courses beginning 2007-2008 have College Board approval as Advanced Placement.

DEL MAR COLLEGE DUAL CREDIT PROGRAM

The Dual Credit Program is a cooperative partnership between the Tuloso-Midway Independent School District (TMISD) and Del Mar College enabling high school students in the TMISD to receive college credit hours while completing the requirements for high school graduation. Students who meet specific eligibility requirements are permitted to enroll in those Del Mar College courses specified in the concurrent enrollment schedule. The student will earn credit toward high school graduation and college credit hours concurrently. See your counselor for details about this program. For more information, please visit **http://www.delmar.edu/dualcredit/.**

APPLICATION PROCEDURES

(Coordinated with high school staff)

- Students must complete the Del Mar Dual Credit application, which must be signed by the student, parent/guardian, high school counselor, high school principal and a Del Mar College official.
- Students must complete the Del Mar College Application for Admission.
- Students must submit official test scores from the ACT, SAT, or TSI scores.
- Students must submit the following: (1) the completed Del Mar College Dual Credit application (**www.applytexas.org**); (2) the completed Del Mar College Application for Admission; and (3) an official high school transcript to the Admissions and Registrar's Office of Del Mar College before the deadline.
- Students must follow registration procedures each semester and pay registration fees to Del Mar College.
- Students should keep copies of all paperwork submitted and received.
- Proof of eligibility criteria for ACT or SAT must be submitted **no later** than June testing.
- Deadlines for submission of all paperwork are as follows:
  Fall semester: Early May
  Spring semester: Early December

STUDENT ELIGIBILITY REQUIREMENTS

To be eligible to participate in the Dual Credit Program, students must:

- have test scores that meet eligibility criteria from one of the tests designated in the table below:
- score at college level in the area required for dual credit courses **unless exempt** using ACT or SAT.
- have completed **12 high school credits** and junior standing.
- have approval of the high school counselor and principal.
- meet the Del Mar College Admissions procedures and the high school application procedures.
- purchase any other necessities for dual enrollment courses (i.e. online access codes for certain classes)
  *please note: in certain cases, TMISD will purchase online access codes. The student will be required to reimburse the district for access codes for any class he/she chooses to drop.
- meet grade requirement in prerequisite classes.

***Note: Del Mar College may require a higher passing standard on assessment tests for dual credit courses.**

Prices: Tuition prices for Del Mar College dual credit courses are subject to change each year.

Dropping a dual credit class: Certain online courses require an online access code and the student **will be responsible for reimbursing TMHS** for the cost of the access code if he or she decides to drop the class.

Dual Credit Requirements in Prerequisite Classes			
English 4 DC (ENGL 1301, ENGL 1302)	English 3	80 = Regular, PAP	6 hrs
Biology DC (BIOL 1406, BIOL 1407)	Biology & Chemistry	90 = Regular, 80 = PAP	8 hrs
Calculus DC (MATH 2413)	Pre-calculus	80	4 hrs
Economics DC (ECON 2301)	English 3 & Algebra 2	80 = Regular, 80 = AP	3 hrs
Government DC (GOVT 2305)	English 3	80 = Regular, 80 = AP	3 hrs
US History DC (HIST 1301, HIST 1302)	English 2	80 = Regular, 80 = PAP	6 hrs
College Algebra DC (MATH 1314)	Algebra 2	80 = Regular, 80 = PAP	3 hrs
Plane Trigonometry DC (MATH 1316)	College Algebra	Pass College Algebra	3 hrs
Elem Statistical Methods DC (MATH 1342)	College Algebra	Pass College Algebra	3 hrs
Accounting DC (ACCT 2301, ACCT 2302)	Accounting I	80	6 hrs
BCIS DC (BCIS 1305)	BIM or any computer course	80	3 hrs
Music Appreciation (MUSI 1306)	Must meet assessment levels		3 hrs
Introduction to Welding DC (WLDG 1407)	Intro to Ag Mech	70	3-5 hrs
Welding Fundamentals (WLDG 1521)	WLDG 1407		3-5 hrs
Welding Safety, Tools, & Equipment (WLDG 1323)	WLDG 1521		3-5 hrs
Intro to Pipe Welding (WLDG 1435)	WLDG 1557		3-5 hrs
Intermediate SMAW (WLDG 1557)	WLDG 1323		3-5 hrs
Industrial Mathematics (TECM 1301)	Welding or PTAC program		3-5 hrs
Special Topics in Communications (COMG 1391)	Welding or PTAC program		3-5 hrs
Intro Process Technology (PTAC 1302)	Meet assessment levels, BIM		3 hrs
Process Technology I (PTAC 1410)	Intro Process Technology		4 hrs
Safety, Health and Environment I (PTAC 1308)	Meet assessment levels		3 hrs
Safety, Health and Environment II (PTAC 2348)	Safety, Health and Environment I		3 hrs
Psychology (PSYC 2301)	English 2	80	3 hrs
Sociology (SOCI 1301)	English 2	80	3 hrs
Diesel Equipment Technology I (DEMR 1301,1306)			6 hrs
Diesel Equipment Technology II (DEMR 1416, 1405)			8 hrs
Diesel Equipment Technology II (DEMR 1229)			2 hrs

Dual Credit TSI Assessment Level Requirements

English 4 DC (ENGL 1301, ENGL 1302)	R3, E3, M1
Biology DC (BIOL 1406, BIOL 1407)	R3, E3, M2
Calculus DC (MATH 2413)	R3, E1, M3
Economics DC (ECON 2301)	R3, E3, M2
Government DC (GOVT 2305)	R3, E3, M1
US History DC (HIST 1301, HIST 1302)	R3, E3, M1
College Algebra DC (MATH 1314)	R3, E1, M3
Plane Trigonometry DC (MATH 1316)	R3, E1, M3
Elem Statistical Methods DC (MATH 1342)	R3, E1, M3
Accounting DC (ACCT 2301, ACCT 2302)	R3, E2, M3
BCIS DC (BCIS 1305)	R3, E1, M1
Music Appreciation (MUSI 1306)	R3, E3, M1
Introduction to Welding DC (WLDG 1407)	No REM Certificate I in progress
Welding Fundamentals (WLDG 1521)	No REM Certificate I in progress
Welding Safety, Tools, & Equipment (WLDG 1323)	No REM Certificate I in progress
Intro to Pipe Welding (WLDG 1435)	No REM Certificate I in progress
Intermediate SMAW (WLDG 1557)	No REM Certificate I in progress
Industrial Mathematics (TECM 1301)	No REM Certificate I in progress
Special Topics in Communications (COMG 1391)	No REM Certificate I in progress
Intro Process Technology (PTAC 1302)	No REM Certificate I in progress
Process Technology I (PTAC 1410)	No REM Certificate I in progress
Safety, Health and Environment I (PTAC 1308)	No REM Certificate I in progress
Safety, Health and Environment II (PTAC 2348)	No REM Certificate I in progress
Psychology (PSYC 2301)	R3, E3, M1
Sociology (SOCI 1301)	R3, E3, M1
Diesel Equipment Technology I (DEMR 1301,1306)	No REM Certificate I in progress
Diesel Equipment Technology II (DEMR 1416, 1405)	No REM Certificate I in progress
Diesel Equipment Technology II (DEMR 1229)	No REM Certificate I in progress
PTAC/Welding BCIS DC (BCIS 1305)	No REM Certificate I in progress

DEL MAR COLLEGE
Dreams. Delivered.

DUAL CREDIT ASSESSMENT LEVELS CHART

LEVEL 1 DEVELOPMENTAL | LEVEL 2 DEVELOPMENTAL | LEVEL 3 COLLEGE

READING

	(R1)	(R2)	(R3)
TSI Assessment	341 and Below	342-350	351+
ACT (Reading)	0-14	15-18	19+
SAT taken prior to March 2016 (Reading)	200-419	420-499	500+
SAT taken on or after March 5, 2016 (Evidence Based Reading and Writing)	200-402	403-479	480+

WRITING AND ENGLISH

	(E1)	(E2)	(E3)
TSI Assessment	Essay 0-3 and 358 and Below	Essay 0-3 and 359+	Essay 4 and 340+ or Essay 5 and ABE Diagnostic of 4+
ACT (English)	0-14	15-18	19+
SAT taken prior to March 2016 (Reading)	200-419	420-499	500+
SAT taken on or after March 5, 2016 (Evidence Based Reading and Writing)	200-402	403-479	480+

MATHEMATICS

	(M0)	(M1)	(M2)	(M3)
TSI Assessment	335 and Below	336-345	346-349	350+
ACT (Mathematics)	0-12	13-15	16-19	20+
SAT taken prior to March 2016 (Mathematics)	200-310	311-459	460-499	500+
SAT taken on or after March 5, 2016 (Mathematics)	200-329	330-486	487-529	530+

EXEMPTIONS FROM ALL OR SOME ASSESSMENT REQUIREMENTS

	Exempt from Reading and Writing	Exempt from Mathematics
ACT taken within 5 years from the testing date	Must be exempt from ALL parts with a composite of 23+, English 19+, AND Mathematics 19+	
PSAT taken within 5 years from the testing date prior to October 2015 (Only rising Juniors can use PSAT)* See below	Must be exempt from ALL parts with a score of Reading 50+, Mathematics 50+, AND a combined total of 107+	
SAT (taken prior to March 2016) taken within 5 years from the testing date	Must be exempt from ALL parts with a score of Reading 500+, Mathematics 500+, AND a combined total of 1070+	
SAT (taken on or after March 5, 2016) taken within 5 years from the testing date	Evidence-Based Reading and Writing (EBRW) 480+	Mathematics 530+
STAAR (EOC) for Dual Credit	Level 2 ENGL 2 4000+	Level 2 Algebra 1 – 4000+ and HS Algebra 2 (Passing Grade) OR Level 2 Algebra 2 4000+

* **Rising refers to the grade level the student will be entering into during the fall of the next school year.**

UNIVERSITY OF TEXAS DUAL ENROLLMENT

The UT-Austin OnRamps College Credit Program is a cooperative partnership between the Tuloso-Midway Independent School District (TMISD) and the University of Texas- Austin enabling high school students in the TMISD to pursue college credit hours while completing the requirements for high school graduation.

OnRamps works through a dual enrollment model. Using a hybrid delivery approach, students meet rigorous university-level college readiness standards and have the opportunity to earn UT Austin credit from a UT faculty member and high school credit from their local teacher. All OnRamps courses can be applied to the Texas Core Curriculum and are guaranteed to transfer to any public institution in Texas. OnRamps incorporates an organized data and action analytics approach to support students, teachers, and districts in their pursuit of educational excellence.

HOW ONRAMPS WORKS

1. OnRamps students are enrolled in a yearlong high school course facilitated by a high school teacher who is trained and certified by OnRamps to teach the course on their local campus.
2. During the first half of the course, OnRamps students complete a series of required assignments that are designated by an Instructor of Record at the university to determine eligibility to be dually enrolled in the university course.
3. Students who successfully complete the high school version of the course receive credit from their local high school. In addition, students who successfully complete the college course receive core credits from the university guaranteed to transfer to any **public** college or university in Texas**. See grade acceptance clarification below.**
4. Tuloso Midway High School requires that all students take the TSI (Texas Success Initiative) Assessment for UT OnRamps enrollment.
5. Exit policy: UT OnRamps instructor will review UT expectations upon enrollment. See counselor or administration for (TM High School credit exit policy) expectations and clarification.

ONRAMPS - EARNING CREDIT

Eligible students may elect to enroll in an OnRamps college course for a letter grade or pass/fail. Students who select a pass/fail option must do so during the Credit Selection Type Period. The dates for the Credit Type Selection Period are provided in the college course syllabus.

If a student takes the college course for a letter grade and earns and accepts college credit, the letter grade the student earned in the course will appear on the student's university transcript. A letter grade of D- or better is considered passing. If a student takes the college course for pass/fail, and earns and accepts college credit, then "CR" (the symbol for "credit") will appear on the student's university transcript. **If accepting course credit as pass/fail, students must check their prospective college/university to determine if "CR" will be accepted by the college/university of choice. Not all colleges/universities accept a pass/fail / "CR" submission.**

OnRamps college credit earned for a letter grade of C- or above for courses with a Core Curriculum designation are required to transfer to any public education institution in the state of Texas. These are noted in the Texas Core Code column in the below table.

Some OnRamps college courses have Texas Common Course Numbering System (TCCNS) equivalency numbers approved by UT Austin. These are noted in the TCCNS Equivalency column in the below table.

ONRAMPS GRADE REPORTING

While parents may communicate with the high school instructor about students' high school grades, the university Instructor of Record may not communicate with parents regarding students' college grades.
Under the Family Educational Rights and Privacy Act (FERPA), rights belong to the parents with respect to high school records and belong to the student with respect to post-secondary records—regardless of the student's age.
The University Instructors of Record will make every attempt to communicate with and through the student, as this is an important maturation point for college students.

TRANSCRIPTS

Students who earn and accept college credit in an OnRamps course may request a transcript from the university Registrar's office and have it sent to their chosen higher education institution. There is often a fee for each transcript requested.
OnRamps students **CANNOT** submit transcript requests through the UT Austin Registrar's online order system. Students must complete UT Austin's Transcript Request Form and submit it to the Registrar via mail, fax, or email. The Registrar charges $20 for each transcript requested.

For information about how to order a UT Austin transcript, visit the Office of the Registrar's website.

ONRAMPS NON-ENROLLMENT VERIFICATION LETTERS

Students who participate in a UT Austin OnRamps course, but do not earn or accept college credit, may be required to provide a letter of non-enrollment to other colleges or universities, verifying that they have no UT Austin transcript for the course. To request a non-enrollment letter, students must email OnRamps Support.

ONRAMPS TRANSFERABILITY AND APPLICABILITY

Each institution evaluates a student's transfer credits based on its own policies. Colleges and universities have different requirements that vary by school, college, and institution. **In order to determine how OnRamps college courses will transfer, and if they will apply to a student's major or degree program, the student must contact the higher education institution she, or he, plans to attend.**

ONRAMPS COURSES (UT ALIGNMENT)

Subject	OnRamps College Course Title	Prerequisites	The University of Texas Course Equivalent	College Credit Hours	Texas Core Code	TCCN Equivalency
English Language Arts (ELA)	Introduction to Rhetoric: Reading, Writing and Research	English I, English II and English III	RHE 306K	3 hrs	010	ENGL 1301
English Language Arts (ELA)	Reading and Writing the Rhetoric of American Identity	English I, English II, English III, and English 1301	RHE 309K	3 hrs	010	ENGL 1302
Computer Science	Thriving in our Digital World	Algebra I, Algebra II and Geometry	CS 302	3 hrs	093	N/A
History	The United States, 1492-1865	English I and English II	HIS 315K	3hrs	060	HIST 1301
History	The United States, Since 1865	English I English II and HIST 1301	HIS 315L	3 hrs	060	HIST 1302

Course descriptions available within each designated department.
IMPORTANT NOTIFICATION: Beginning the 2019-2020 school year, the UT OnRamps Program may require students to pay tuition fees for courses; if tuition exceeds that of Del Mar College then TMHS will partner with Del Mar once again for those courses at a cost of $99.99 per course. (Biology will require an additional lab fee).

TULOSO MIDWAY ISD

CLASS RANKING POLICY

Effective with the 1993-94 school year, a weighted grade point average (WGPA) shall be used to determine class ranking and shall be the grade reported on the official transcript (AAR: Academic Achievement Record).

EXCEPTIONS

All course work, with the following exceptions, will be counted in determining weighted grade point average:

- All subjects for which only local credit is given*
- Summer/Night school courses
- Off-campus or correspondence courses
- All grades received through credit by exam
- All grades received through home schooling
- Courses taken outside the school day
- Non-accredited schools grades
- Middle School/Junior High courses
- Credit Recovery/Odyssey Ware

***Exception for courses:** Board approved for GPA calculation such as cheerleading II-IV and Drill Team II-IV

Note: Courses not designated as weighted on a transcript (AAR) will be calculated as a regular course with no additional weight consideration.

CLASS RANK

Excluding the exceptions listed above, all courses will be counted in determining class rank. Class ranking for freshmen, sophomores and juniors will be averaged at the end of the second semester. Final class rankings for seniors will be calculated after the fifth grading period of the senior year.

CUM LAUDE

(Classes of 2020-2022)
Students who have attended an accredited high school, have earned at least one endorsement with distinguished level of achievement and have a minimum GPA of 94.

(Class of 2023 and beyond)
Students who have attended an accredited high school, attained an overall weighted numerical average of 95 or above, and completed the foundation program with the distinguished level of achievement.

VALEDICTORIAN

The graduate with the highest WGPA on the Foundation High School Program with the distinguished level of achievement and has been in attendance in the district for the preceding two years shall be designated valedictorian. **In case of a tie, refer to School Board Policy.**

SALUTATORIAN

The graduate with the second highest WGPA on the Foundation High School Program with the distinguished level of achievement and has been in attendance in the district for the preceding two years shall be designated salutatorian.

NATIONAL HONOR SOCIETY

National Honor Society: If you are interested in the criteria or requirements for entry to the National Honor Society please contact the sponsor.

Considerations: Beginning in grade nine start a resume and keep the following in mind:

- Minimum three weighted courses, PAP and/or AP, Dual Credit Courses during high school
- Involvement in extra-curricular activities, clubs, organizations, community/church activities, leadership programs
- Maintain a cumulative 90 grade point average

The National Honor Society's four pillars of excellence are: character, scholarship, leadership and service.

UIL SPORTS & ACTIVITIES

In order to participate in extracurricular or University Interscholastic League (UIL) activities, a student must:

- be enrolled as a full day student at Tuloso-Midway High School. A full day student is defined as: at least four hours (240 minutes) of daily instruction (TEA attendance handbook)
- be enrolled in six periods with no more than one non-credit course.
- maintain a minimum grade of 70 at the end of each grading period unless local waiver is in place.

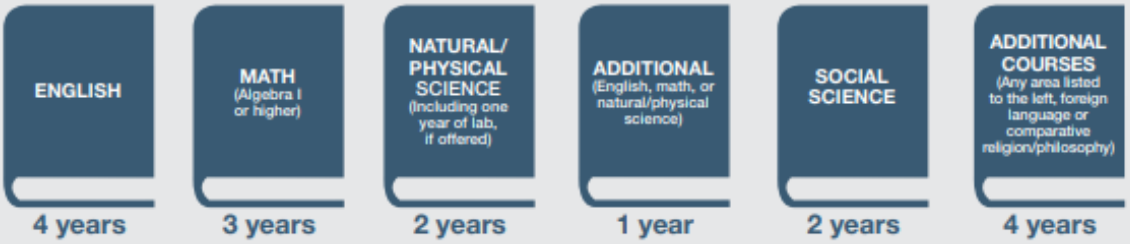
Contact the Athletic Director for more information.

DIVISION I ACADEMIC REQUIREMENTS

College-bound student-athletes will need to meet the following academic requirements to practice, receive athletics scholarships, and/or compete during their first year.

Core-Course Requirement

Complete 16 core courses in the following areas:



Full Qualifier

- Complete 16 core courses.
  - Ten of the 16 core courses must be completed before the seventh semester (senior year) of high school.
  - Seven of the 10 core courses must be in English, math or natural/physical science.
- Earn a core-course GPA of at least 2.300.
- Earn the ACT/SAT score matching your core-course GPA on the Division I sliding scale (see back page).
- Graduate high school.

Academic Redshirt

- Complete 16 core courses.
- Earn a core-course GPA of at least 2.000.
- Earn the ACT/SAT score matching your core-course GPA on the Division I sliding scale (see back page).
- Graduate high school.

Full Qualifier:
College-bound student-athletes may practice, compete and receive athletics scholarships during their first year of enrollment at an NCAA Division I school.

Academic Redshirt:
College-bound student-athletes may receive athletics scholarships during their first year of enrollment and may practice during their first regular academic term, but may NOT compete during their first year of enrollment.

Nonqualifier:
College-bound student-athletes cannot practice, receive athletics scholarships or compete during their first year of enrollment at an NCAA Division I school.

NCAA DIVISION II TEST SCORES

If you took the SAT in March 2016 or after, and plan to attend an NCAA Division II college or university in the 2018-19 or 2019-20 academic years, use the following charts to understand the core course GPA you need to meet NCAA Division II requirements.

A combined SAT score is calculated by adding reading and math subscores. An ACT sum score is calculated by adding English, math, reading and science subscores. You may take the SAT or ACT an unlimited number of times before you enroll full time in college. If you take either test more than once, the best subscores from each test are used for the academic certification process.

For more information on the SAT, click here to visit the College Board's website.

DIVISION I FULL QUALIFIER SLIDING SCALE

Core GPA	New SAT*	Old SAT (Prior to 3/2016)	ACT Sum
3.550	400	400	37
3.525	410	410	38
3.500	430	420	39
3.475	440	430	40
3.450	460	440	41
3.425	470	450	41
3.400	490	460	42
3.375	500	470	42
3.350	520	480	43
3.325	530	490	44
3.300	550	500	44
3.275	560	510	45
3.250	580	520	46
3.225	590	530	46
3.200	600	540	47
3.175	620	550	47
3.150	630	560	48
3.125	650	570	49
3.100	660	580	49
3.075	680	590	50
3.050	690	600	50
3.025	710	610	51
3.000	720	620	52
2.975	730	630	52
2.950	740	640	53
2.925	750	650	53
2.900	750	660	54
2.875	760	670	55
2.850	770	680	56
2.825	780	690	56
2.800	790	700	57
2.775	800	710	58

DIVISION I FULL QUALIFIER SLIDING SCALE

Core GPA	New SAT*	Old SAT (Prior to 3/2016)	ACT Sum
2.750	810	720	59
2.725	820	730	60
2.700	830	740	61
2.675	840	750	61
2.650	850	760	62
2.625	860	770	63
2.600	860	780	64
2.575	870	790	65
2.550	880	800	66
2.525	890	810	67
2.500	900	820	68
2.475	910	830	69
2.450	920	840	70
2.425	930	850	70
2.400	940	860	71
2.375	950	870	72
2.350	960	880	73
2.325	970	890	74
2.300	980	900	75
2.299	990	910	76
2.275	990	910	76
2.250	1000	920	77
2.225	1010	930	78
2.200	1020	940	79
2.175	1030	950	80
2.150	1040	960	81
2.125	1050	970	82
2.100	1060	980	83
2.075	1070	990	84
2.050	1080	1000	85
2.025	1090	1010	86
2.000	1100	1020	86

ACADEMIC REDSHIRT

A student entering Grade 9 in the 2014-2015 school year and thereafter shall enroll in the courses necessary to complete the curriculum requirements for the Foundation High School Program (22 credits) specified in §74.12 of this title and the curriculum requirements for at least one endorsement (26 credits) specified in §74.13 of this title (relating to Endorsements).

A student may graduate under the Foundation High School Program without earning an endorsement if, after the student's sophomore year: (1) the student and the student's parent or person standing in parental relation to the student are advised by a school counselor of the specific benefits of graduating from high school with one or more endorsements; and (2) the student's parent or person standing in parental relation to the student files with a school counselor written permission, on a form adopted by the Texas Education Agency (TEA), allowing the student to graduate under the Foundation High School Program without earning an endorsement.

A student may earn a distinguished level of achievement by successfully completing the curriculum requirements for the Foundation High School Program and the curriculum requirements for at least one endorsement required by the Texas Education Code (TEC),§28.025(b-15), including four credits in science and four credits in mathematics to include Algebra II.
Eligible for Top 10% Automatic Admission

A student may earn a performance acknowledgement on their diploma and transcript for outstanding performance on any of the following: (1) Completing at least 12 hours of college academic courses including those taken for dual credit and advanced technical credit. (2) In bilingualism and biliteracy (3) on a college AP or IB exam (4) on the PSAT, ACT-ASPIRE, SAT or ACT (5) for earning a nationally or internationally recognized industry certification.

HB5/TMISD Graduation Requirements

Foundation: 22 credits

English (4 credits)
English I, II and III, plus an advanced English course

Math (3 credits)
Algebra I, Geometry and an advanced math

Science (3 credits)
Biology, IPC or advanced science, and an additional advanced science course

Social Studies (3 credits)
World Geography or W. History, US History, US Gov't/Economics

Physical Education (1 credit)

Languages other than English (2 credits)

Fine Arts (1 credit)

Electives (3 credits)
Comm App or Prof Comm (.5 credit)
Health (.5 credit)
Computer Course (1 credit)

Foundation Requirements

A student may graduate under the foundation HS program without earning an endorsement if after their 10th grade year the student and parent are advised by a school counselor regarding the benefits of graduating with one or more endorsements and ***the parent*** *files written acknowledgement with a school counselor.*

Endorsements (Program of Study): 4-5 credits

STEM:
(Science, Technology, Engineering & mathematics)
- *Science*
- *Technology(computer science)*
- *Engineering*
- *Mathematics*

Arts & Humanities:
- *Art*
- *Music*
- *Theater*
- *LOTE*
- *Social Studies (5)*

Business & Industry: Studies:
- *Agriculture Science*
- *Architecture & Construction*
- *Arts, A/V Technology and Communications*
- *Business, Marketing and Finance*
- *Information Technology*
- *Manufacturing*
- *Transportation*

Multidisciplinary
- *Workforce/College Preparedness*
- *Four by Four Core*
- *Advanced Placement*
- *Dual Credit*

Public Services:
- *Health Sciences*
- *Human Services*
- *NJROTC*
- *Law, Public Safety, Corrections, & Security*

Distinguished Level of Achievement

Eligible for Top 10% Automatic Admission
Curriculum for one endorsement, including 4 credits in science and 4 credits in mathematics including Algebra II

Performance Acknowledgement

For outstanding performance in Dual Credit, AP testing, PSAT, ACT-ASPIRE, SAT/ACT; industry certification or license; bilingualism and billiteracy

TULOSO MIDWAY ISD

PERFORMANCE ACKNOWLEDGEMENTS

A student may earn a performance acknowledgement on their diploma and transcript for outstanding performance on any of the following.

Dual Credit

- Successfully complete at least 12 hours of college academic courses with a grade of the equivalent of 3.0 or higher on a scale of 4.0
- Successfully complete an associate degree while in high school

Bilingualism and Biliteracy

- **A student may earn a performance acknowledgment in bilingualism and biliteracy by demonstrating proficiency in accordance with local school district grading policy in two or more languages by:**
  - (1) completing all English language arts requirements and maintaining a minimum GPA of 80 on a scale of 100; and
  - (2) satisfying one of the following:
    - completion of a minimum of three credits in the same language in a language other than English with a minimum GPA of 80 on a scale of 100; or
    - demonstrated proficiency in the Texas Essential Knowledge and Skills for Level IV or higher in a language other than English with a minimum GPA of 80 on a scale of 100; or
    - completion of at least three credits in foundation subject area courses in a language other than English with a minimum GPA of 80 on a scale of 100; or
    - demonstrated proficiency in one or more languages other than English through one of the following methods:
      - a score of 3 or higher on a College Board AP exam for a language other than English; or
      - a score of 4 or higher on an IB exam for a higher level languages other than English course; or
      - performance on a national assessment of language proficiency in a language other than English of at least Intermediate High or its equivalent
- In addition to meeting the requirements to earn a performance acknowledgment in bilingualism and biliteracy, an English language learner must also have:
  - (A) participated in and met the exit criteria for a bilingual or English as a second language (ESL) program; and
  - (B) scored at the Advanced High level on the Texas English Language Proficiency Assessment System (TELPAS)

College AP/IB Exams

- Earn a score of 3 or above on a College Board advanced placement examination
- Earn a score of 4 or above on an International Baccalaureate examination

College Entrance Exams

- Earn a score on the PSAT/NMSQT that qualifies the student for recognition as a commended scholar or higher by the College Board and National Merit Scholarship Corporation, as part of the National Hispanic Recognition Program (NHRP) of the College Board or as part of the National Achievement Scholarship Program of the National Merit Scholarship Corporation
- Achieve the college readiness benchmark score on at least two of the four subect tests on the ACT-ASPIRE exam
- 2018-2019 and later (applies to any SAT test taken after August 2018): The student's total evidence-based reading & writing and math scores is 1310 or higher.
- Earn a composite score on the ACT exam of 28 (excluding the writing subscore)

Industry Certification

- **A student may earn a performance acknowledgement for earning a nationally or internationally recognized business or industry certification or license with:**
  - Performance on an examination or series of examinations sufficient to obtain a nationally or internationally recognized business or industry certification or
  - Performance on an examination sufficient to obtain a government required credential to practice a profession

Endorsements/Programs of Study

With the enactment of House Bill (HB 3), the legislature requires that End of Course Exam (EOC) assessments measure college and career readiness according to content standards jointly developed by the state's K-12 education and higher education agencies.

The Texas Education Agency (TEA) and the Texas Higher Education Coordinating Board (THECB) have worked closely to develop a plan for the college and career readiness component of STAAR EOC assessments.

College Readiness is the level of preparation a student needs in order to enroll and succeed, without remediation, in credit bearing general education post-secondary institutions.

Career Readiness is the level of preparation a student needs for entry into the skilled workforce; additionally, with the
capability to adjust to the rapidly changing work environments. These skills include: Academic Skills (no remediation needed); Employment Skills (use of soft skills such as critical thinking and responsibility) and Technical Skills (job-related skills to a specific career Program of Study/credentialing possible).

Endorsements/Programs of Study have been developed which represent a recommended sequences of coursework designed to support college and career readiness based on a student's interest or career goal. The purpose is for the students to achieve the competencies and skills graduating high school students must possess in order to be successful in higher education and beyond.

Career concentrations in high school help students transition into career preparation in postsecondary education programs such as apprenticeship, certificate, technical, military, 2 year 4 year and/or professional.

Endorsements Areas

Programs of Study

Agriculture, Food, and Natural Resources

Architecture and Construction

Arts, Audio Visual Technology, and Communications

Business, Marketing, and Finance

Education and Training

Energy

Health Science

Hospitality and Tourism

Human Services

Information Technology

Law and Public Service

Manufacturing

Science, Technology, Engineering, and Mathematics

Transportation, Distribution, and Logistics

Endorsements/ Programs of Study

&

Course Descriptions

Visit the High School Go Center located in the Counseling Office for more information.
Full course descriptions and objectives can be found at http://www.tea.state.tx.us/.
* NOTE: Availability of courses offered is based upon a minimum enrollment of students.

Agriculture, Food, & Natural Resources

Principles of Agricultural, Food, and Natural Resources
2 semesters/1 credit/1 period
Grade Placement: 9-12
This course will prepare students for careers in agriculture, food, and natural resources. This course allows students the opportunity to develop knowledge and skills regarding career opportunities, personal development, globalization, industry standards, details, practices, and expectations.

Professional Communications
1 semester/.5 credit/1 period
Grade Placement: 9-12
Prerequisite: No prerequisite
Professional Communications blends written, oral, and graphic communication in a career-based environment. Careers in the global economy require individuals to be creative and have a strong background in computer and technology applications, a strong and solid academic foundation, and a proficiency in professional oral and written communication. Within this context, students will be expected to develop and expand the ability to write, read, edit, speak, listen, apply software applications, manipulate computer graphics, and conduct Internet research.
This course fulfills the speech requirement for graduation. This course qualifies for course sequencing in the career cluster of Agriculture, Food & Natural Resources, as well as student FFA participation, when taught by an Agriculture, Science & Technology certified teacher.

Agribusiness Management and Marketing
2 semesters/1 credit/1 period
Grade Placement: 9-12
Prerequisite: Principles of Agricultural, Food, and Natural Resources
This course is designed to provide a foundation to agribusiness management and the free enterprise system. Instruction includes the use of economic principles such as supply and demand, budgeting, record keeping, finance, risk management, business law, marketing, and careers in agribusiness. To prepare for careers in agribusiness systems, students must attain academic skills and knowledge, acquire technical knowledge and skills related to agribusiness marketing and management and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings.

Livestock Production
2 semesters/1 credit /1 period
Grade Placement: 9-12
Prerequisite: Principles of Agricultural, Food, and Natural Resources
This course will prepare students for careers in the field of animal sciences. This course will allow students an opportunity to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. Animal species to be addressed in this course may include, but are not limited to: beef cattle, swine, sheep, goats, and poultry.

Business & Industry

Small Animal Management
1 semester/.5 credit/1 period
Grade Placement: 9-12
Prerequisite: Principles of Agricultural, Food, and Natural Resources
This course will prepare students for careers in the field of animal sciences. This course will allow students an opportunity to develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. Animal species to be addressed in this course may include: small mammals, amphibians, reptiles, avian, dogs, and cats.

Equine Science
1 semester/.5 credit/1 period
Grade Placement: 9-12
Prerequisite: Principles of Agricultural, Food and Natural Resources
This course will prepare students for careers in the field of Animal Science or Equine Science. To be prepared for careers in the field of animal science, students need to enhance academic knowledge and skills, acquire knowledge and skills related to animal systems, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings. Suggested animals which may be included in the course of study include, but are not limited to, horses, donkeys, and mules.

Wildlife, Fisheries, and Ecology Management
2 semesters/1 credit /1 period
Grade Placement: 9-12
Prerequisite: Principles of Agriculture, Food, and Natural Resources
To be prepared for careers in natural resource systems, students need to attain academic skills and knowledge, acquire technical knowledge and skills related to natural resources, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings. This course examines the management of game and non-game wildlife species, fish, and aqua crops and their ecological needs as related to current agricultural practices.

Veterinary Medical Applications
2 semesters/1 credit/1 period
Grade Placement 11-12
Prerequisite: Principles of Agriculture, Food, and Natural Resources and one credit from any of the following: Livestock Production, Small Animal Management or Equine Science
This course will prepare students for careers in the field of animal science. This course will allow students an opportunity to learn, reinforce, apply, and transfer knowledge, skills, and technologies in a variety of settings. Topics covered in this course include, but not limited to: veterinary practices as they relate to both large and small animal species.

Advanced Animal Science
(can count as 4th year science if taken in science sequence)
2 semesters/ 1 credit/1 period
Grade Placement: 11-12
Prerequisite: Biology and Chemistry or IPC, Algebra, Geometry, Principles of Agriculture, Food, and Natural Resources and one credit from any of the following courses: Livestock Production, Equine Science or Small Animal Management.
Recommended Prerequisite: Veterinary Medical Applications
This course will prepare students for careers in the field of animal science. This course will allow the students an opportunity to acquire skills related to animal systems, interrelatedness of human, scientific, and technological dimensions of livestock production. Instruction applies scientific and technological aspects of animal science through field and laboratory experiences. **To receive credit in science, students must meet the 40% laboratory and fieldwork requirement identified in §74.3(b)(2)(C) of this title (relating to Description of a Required Secondary Curriculum).**

Horticulture Science
2 semesters/1 credit/1 period
Grade Placement: 10-12
Prerequisite: Principles of Agricultural, Food, and Natural Resources or Floral Design
This course will prepare students for careers in horticultural systems. It will allow students to attain academic skills and knowledge, acquire technical knowledge and skills related to horticulture and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. This course is designed to develop an understanding of common horticultural management practices as they relate to food and ornamental plant production.

Floral Design *(can count as a fine arts credit)*
2 semesters/1 credit/1 period
Grade Placement: 9-12
This course will prepare students for careers in floral design. This course will allow students to attain academic skills and knowledge as well as technical knowledge and skills related to horticultural systems and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. This course is designed to develop students' ability to identify and demonstrate the principles and techniques related to floral design as well as develop an understanding of the management of floral enterprises.

Advanced Floral Design
2 semesters/1 credit/1 period
Grade Placement: 10-12
Prerequisite: Floral Design
In this course, students build on the knowledge from Principles and Elements of Floral Design and are introduced to more advanced floral design concepts, with an emphasis on specialty designs and specific occasion planning.

Landscape Design
1 semester/.5 credit /1 period
Grade Placement: 10-12
Prerequisite: Principles of Agricultural, Food and Natural Resources
This course will prepare students for careers in horticultural systems. This course will allow students to attain academic skills and knowledge, acquire technical knowledge and skills related to horticultural systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. This course is designed to develop an understanding of landscape and turf grass management techniques and practices.

Turf Grass Management
1 semester/.5 credit /1 period
Grade Placement: 10-12
Prerequisite: Principles of Agricultural, Food and Natural Resources
To be prepared for careers in horticultural systems, students need to attain academic skills and knowledge, acquire technical knowledge and skills related to horticultural systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings. This course is designed to develop an understanding of landscape and turf grass management techniques and practices.

Advanced Plant and Soil Science
(can count as 4th year science if taken in science sequence)
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisite: One credit from any of the following courses: Horticulture Science, Principles and Elements of Floral Design, Landscape Design or Turf Grass Management
Plant and Soil Science provides a way of learning about the natural world. Students should know how plant and soil science has influenced a vast body of knowledge, that there are still applications to be discovered, and that plant and soil science is the basis for many other fields of science. Investigations, laboratory practices, and field exercises will be used to develop an understanding of current plant and soil science. This course is designed to prepare students for careers in the food and fiber industry. Students will learn, reinforce, apply, and transfer their knowledge in a scientific setting.

Agricultural Mechanics and Metal Technologies
2 semesters/1 credit /1 period
Grade Placement: 10-12
Recommended Prerequisite: Principles of Agricultural, Food and Natural Resources
To be prepared for careers in agricultural power, structural, and technical systems, students should attain academic skills and knowledge; acquire technical knowledge and skills related to power, structural, and technical agricultural systems and the workplace; and develop knowledge and skills regarding career opportunities, entry requirements, industry certifications, and industry expectations. To prepare for success, students should have opportunities to learn, reinforce, apply, and transfer their knowledge and technical skills in a variety of settings. This course is designed to develop an understanding of power and control systems as related to energy sources, small and large power systems, and agricultural machinery.

Agriculture Power Systems
2 semesters/2 credits /2 periods
Grade Placement: 10-12
Recommended Prerequisite: Principles of Agriculture, Food, and Natural Resources
To be prepared for careers in agricultural power, structural, and technical systems, students should attain academic skills and knowledge; acquire technical knowledge and skills related to power, structural, and technical agricultural systems and the workplace; and develop knowledge and skills regarding career pportunities, entry requirements, industry certifications, and industry expectations. To prepare for success, students should have opportunities to learn, reinforce, apply, and transfer their knowledge and technical skills in a variety of settings. This course is designed to develop an understanding of power and control systems as related to energy sources, small and large power systems, and agricultural machinery.

Practicum in Agriculture, Food and Natural Resources
2 semesters/2 credits/2 periods
Grade Placement 11-12
Prerequisite: Two agriculture courses in a coherent sequence.
This course is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experiences such as employment, independent study, internships, assistantships, mentorship's, or laboratories.

Extracurricular Activity
FFA activities are an integral part of the Agricultural Science and Technology Education program. Opportunities for developing skills in leadership, cooperation, and citizenship are provided through extension of classroom/laboratory learning experiences by membership and participation in FFA.

Architecture & Construction

Business & Industry

Principles of Architecture
2 semesters/1 credit/1 period
Grade Placement: 9-12

Principles of Architecture provides an overview to the various fields of architecture and interior design. Achieving proficiency in decision making and problem solving is an essential skill for career planning and lifelong learning. Students use self-knowledge, educational, and career information to set and achieve realistic career and educational goals. Job-specific, skilled training can be provided through the use of training modules to identify career goals in trade and industry areas. Safety and career opportunities are included, in addition to work ethics and job-related study in the classroom such as communications; problem solving and critical thinking; Information Technology Applications; systems; safety, health, and environmental; leadership and teamwork; ethics and legal responsibilities; employability and career development; technical skills; introduction to hand tools; introduction to power tools; basic rigging; and reading technical drawings.

Architectural Design I
2 semesters/1 credit/1 period
Grade Placement: 10-12

Prerequisite: Principles of Architecture, Algebra I, English I

Introduction.to Architectural Design, students gain knowledge and skills specific to those needed to enter a career in architecture and construction or prepare a foundation toward a postsecondary degree in architecture, construction science, drafting, interior design, and landscape architecture. Architectural design includes the knowledge of the design, design history, techniques, and tools related to the production of drawings, renderings, and scaled models for commercial or residential architectural purpose. We will be using Chief Architect and AutoCad Revit for home design. Designs will be several types of residential homes and some commercial building like apartments, restaurants. *This course does not satisfy the technology requirement for graduation.*

Architectural Design II
2 semesters /1 credit/1period
Grade Placement: 11-12

Prerequisite: Principles of Architecture, Architectural Design I

In Advanced Architectural Design, students gain advanced knowledge and skills specific to those needed to enter a career in architecture and construction or prepare a foundation toward a postsecondary degree in architecture, construction science, drafting, interior design, and landscape architecture. Advanced Architectural design includes the advanced knowledge of the design, design history, techniques, and tools related to the production of drawings, renderings, and scaled models for commercial or residential architectural purposes. Several detailed drawings with blue prints along with landscaping and grounds will be covered. *This course does not satisfy the technology requirement for graduation.*

TECHNOLOGY STUDENT ASSOCIATION

Extracurricular Activity

The Technology Student Association is a national organization that enhances personal development, leadership, and career opportunities in STEM, whereby members apply and integrate these concepts through extracurricular activities, competitions, and related programs.

Arts, A/V Technology & Communications

See Fine Arts section for other fine arts courses.

See additional computer courses on other pages regarding Information Technology and Computer Technology.

Professional Communications
This course fulfills the speech requirement for graduation.
1 semester/.5 credit/1 period
Grade Placement: 9-12
Professional Communications blends written, oral, and graphic communication in a career-based environment. Careers in the global economy require individuals to be creative and have a strong background in computer and technology applications, a strong and solid academic foundation, and a proficiency in professional oral and written communication. Within this context, students will be expected to develop and expand the ability to write, read, edit, speak, listen, apply software applications, manipulate computer graphics, and conduct Internet research. *This course fulfills the speech requirement for graduation.*

Principles of Arts, Audio/Video Technology, and Communications
2 semesters/ 1 credit/1 period
Grade Placement: 9
This course requires a creative aptitude, a strong background in computer and technology applications, a strong academic foundation, and a proficiency in oral and written communication. Within this context, students will be expected to develop an understanding of the various and multifaceted career opportunities in this cluster and the knowledge, skills, and educational requirements for those opportunities.

Animation I
This course fulfills technology requirement for graduation.
2 semesters/ 1 credit/1 period
Grade Placement: 10-12
Prerequisite: Principles of Arts, Audio/Video Technology, and Communications
Students will develop technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications careers and develop an understanding of the history and techniques of the animation industry. *This course fulfills technology requirement for graduation.*

Animation II
2 semesters / 2 credits/ 2 periods
Grade Placement: 11-12
Prerequisite: Animation I
Students will develop advanced knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications career cluster and will be expected to create two- and three dimensional animations.

Business & Industry

Audio/Video Production I
2 semesters/1 credit/1 period
Grade Placement: 10-12
Prerequisite: Principles of Arts, Audio/Video Technology, and Communications
Careers in audio and video technology and film production span all aspects of the audio/video communications industry. Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications career cluster, students will be expected to develop an understanding of the industry with a focus on pre-production, production, and post-production audio and video activities.

Video Game Design
2 semesters/1 credit/1 period
Grade Placement: 10-12
Prerequisite: Principles of Arts, Audio/Video Technology, and Communications
In order to be successful in this course, student must be able to problem solve independently as they learn new software programs and coding languages. Video Game Design will allow students to explore one of the largest industries in the global marketplace and the new emerging careers it provides in the field of technology. Students will use various software programs and coding languages to create games. They will learn and apply the appropriate artistic skills, design principles, design processes, cyber-safety procedures, and technical skills required in skill development. Students will collaborate with each other and various electronic communities to solve gaming problems. The students' work will be presented and evaluated by other students. This class is not about playing games. **Students must have a USB drive. Students should have access to a home computer.**

Business, Marketing & Finance

Touch System Data Entry
1 semester/.5 credit /1 period
Grade Placement: 9-10
Students apply technical skills to address business applications of emerging software. Students will need to apply touch system data entry for production of business documents.

Principles of Business, Marketing, & Finance
2 semesters/1 credit/1 period
Grade Placement: 9-12
Students gain knowledge and skills in economies and private enterprise systems, the impact of global business, marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems and settings in business, marketing, and finance.

Business Information Management I
This course fulfills the local technology credit requirement.
2 semesters/1 credit/1 period
Grade Placement: 9-12
Recommended Prerequisite: Touch System Data Entry
Students implement personal and interpersonal skills to strengthen individual performance in the workplace by applying technical skills to address business applications of emerging technologies, create word-processing documents, develop a spreadsheet, formulate a database, and make an electronic presentation using appropriate software. *This course fulfills the local technology credit requirement.*

Business Information Management II
2 semesters/1 credit/1 period
Grade Placement: 10-12
Prerequisite: Business Information Management I
This course provides advanced technology skills required in the business environment; includes work place technology standards in applications of word processing, spreadsheets, databases, telecommunications, desktop publishing, presentation management, networking, operating systems, and emerging technologies. Students are required to do several projects including preparing a personal portfolio for employment purposes, developing a business project, designing a database to develop a sales forecast presentation, and creating and interpreting financial statements.

Business Law
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisite: Principles of Business, Marketing, and Finance
Students apply technical skills to address business applications of contemporary legal issues such as legal environment, business ethics, torts, contracts, negotiable financial instruments, personal property, sales, warranties, business organizations, concept agency and employment, and real property.

Business Management
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisite: Principles of Business, Marketing, and Finance
Students analyze the primary functions of management and leadership, which are planning, organizing, staffing, directing or leading, and controlling. Students incorporate a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business to make appropriate management decisions.

Practicum in Business Management
2 semesters/2 credits/1 period
Grade Placement: 11-12
Prerequisite: Business Information Management I and Business Management
The practicum is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences occur in a paid or unpaid arrangement and a variety of locations appropriate to the nature and level of experience.

Business Computer Information Systems Dual Credit Del Mar College
1 semester/1 credit/3 college hours
Grade Placement: 11-12
Prerequisite: Must meet assessment levels: R3, E1, M1 and Business Information Management I
Course discusses business computer terminology, hardware, software, operating systems, and information systems relating to the business environment. If a student drops this class, he/she will be required to reimburse the district for the cost of the online access code.

BUSINESS & INDUSTRY ENDORSEMENT

Business, Marketing & Finance

Principles of Business, Marketing, & Finance
2 semesters/1 credit/1 period
Grade Placement: 9-12

Students gain knowledge and skills in economies and private enterprise systems, the impact of global business, marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems and settings in business, marketing, and finance.

Money Matters
2 semesters/1 credit/1 period
Grade Placement: 10-12

Prerequisite: Principles of Business, Marketing, & Finance
Students will investigate global economics with emphasis on free enterprise systems, personal finance and its impact on consumers and businesses.

Accounting I
2 semesters/1 credit/1 period
Grade Placement: 10-12

Prerequisite: Principles of Business, Marketing, & Finance
Students will investigate the field of accounting including how it is impacted by industry standards as well as economic, financial, technological international, social, legal, and ethical factors, as well as the accounting equations, functions, cycle and specialized procedures.

Accounting I Honors
2 semesters/1 credit/1 period
Grade Placement: 10-12

Prerequisite: Principles of Business, Marketing, & Finance
Although encompassing the same criteria as regular accounting courses listed, this course has an added emphasis on research and individualized study and practice. It will develop comprehensive individual job performance standards. The students will be required to pass a QuickBooks certification and complete an end of course practice set. Participation in UIL Accounting and Business of America contests are recommended.

Accounting II
2 semesters/1 credit/1 period
Grade Placement: 11-12

Prerequisite: Accounting I
Students continue the investigation of the field of accounting, including how it is impacted by industry standards as well as economic, financial, technological, international, social, legal, and ethical factors.

Principles of Accounting I – Financial Dual Credit *weighted course-not UIL exempt*
Del Mar College Fall (ACCT 2301) 1 semester/1 credit/3 college hours
Grade Placement: 11-12

Prerequisite: Accounting I and met Del Mar College assessment criteria
Accounting concepts and their application in transaction analysis and financial statement preparation; analysis of statements, and asset and equity accounting in proprietorships, partnerships, and corporations. Introduction to cost behavior, budgeting, responsibility accounting, cost control, and product coasting.

Principles of Accounting II – Managerial Dual Credit *weighted course-not UIL exempt*
Del Mar College Spring (ACCT 2302)
1 semester/1 credit/3 college hours
Grade Placement: 11-12

Prerequisite: Principles of Accounting I and met Del Mar College assessment criteria
This course is a continuation of accounting concepts and their application in transaction analysis and financial statement preparation; analysis of statements, asset and equity accounting in proprietorships, partnerships, and corporations. Introduction to cost behavior, budgeting, responsibility accounting, cost control, and product costing. These courses prepare students for entry-level positions in accounting and/or provide them with college credits which are required to receive a Bachelor of Business Administration.

BUSINESS & INDUSTRY ENDORSEMENT

Business, Marketing & Finance

Principles of Business, Marketing, & Finance
2 semesters/1 credit/1 period
Grade Placement: 9-12

Students gain knowledge and skills in economies and private enterprise systems, the impact of global business, marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems and settings in business, marketing, and finance.

Entrepreneurship
2 semesters/ 1 credit/1 period
Grade Placement: 10-12

Prerequisite: Principles of Business, Marking, and Finance

Students will gain the knowledge and skills needed to become an entrepreneur. Students will learn the principles necessary to begin and operate a business. The primary focus of the course is to help students understand the process of analyzing a business opportunity, preparing a business plan, determining feasibility of an idea using research, and developing a plan to organize and promote the business and its products and services. In addition, students understand the capital required, the return on investment desired, and the potential for profit.

Advertising
1 semester/ 0.5 credit/1 period
Grade Placement: 10-12

Prerequisite: Principles of Business, Marking, and Finance

Advertising and Sales Promotion is designed as a comprehensive introduction to the principles and practices of advertising. Students will gain knowledge of techniques used in current advertising, including print, broadcast, and digital media. The course explores the social, ethical, and legal issues of advertising, historical influences, strategies, and media decision processes as well as integrated marketing communications. The course provides an overview of how communication tools can be used to reach target audiences and increase consumer knowledge.

Sports and Entertainment Marketing
1 semester/0.5 credit/1 period
Grade Placement: 10-12

Prerequisite: Principles of Business, Marking, and Finance

This course will provide students with a thorough understanding of the marketing concepts and theories that apply to sports and sporting events and entertainment. The areas this course will cover include basic marketing, target marketing and segmentation, sponsorship, event marketing, promotions, sponsorship proposals, and implementation of sports and entertainment marketing plans. This course will also provide students an opportunity to develop promotional plans, sponsorship proposals, endorsement contracts, sports and entertainment marketing plans, and evaluation and management techniques.

Practicum in Marketing *(first time taken)*
2 semesters /2 credits/1 period
Grade Placement: 11-12

Prerequisite: Any CTE Principles Course, application and teacher approval

Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing information management, pricing, product planning, promotion, purchasing, risk management, and selling skills. Students integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions. This course may include paid or unpaid career preparation experience. Students may not enter in the spring semester without prior experience in the fall semester curriculum. **Students must be 16 years old prior to the first day of school.** Students must carry at least 10 work hours per week for this 2-credit course.

Students must register for all required courses before enrolling in the work-study program.

Practicum in Marketing *(second time taken)*
2 semesters/2 credits/1 period
Grade Placement: 12

Prerequisite: Practicum in Marketing or Extended Practicum in Marketing (first time taken), teacher approval

Through course required employment, students gain knowledge and skills that help them become proficient in one or more of the marketing functional areas. Students will illustrate appropriate management and research skills to create the marketing mix. This course covers technology, communication, and customer- service skills. The practicum is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience. The practicum course is a paid or unpaid experience for students participating in a coherent sequence of career and technical education courses in marketing education. In this course, students will emphasize day-to-day management functions performed by marketing professionals. Students will apply knowledge and skills learned in the previous marketing education courses to management-oriented challenges. They will analyze the impact of marketing in a global economy and to people of other cultures and demographics. Students will apply economic concepts to responsibilities of marketing management and international marketing. Students may not enter in the spring semester without prior experience in the fall semester curriculum. **Students must be 16 years old prior to the first day of school.** Students must carry at least 10 work hours per week for this 2-credit course.

Students must register for all required courses before enrolling in the work-study program.

Practicum in Marketing/ Extended Practicum in Marketing *(first time taken)*
2 semesters /3 credits/1 period
Grade Placement: 11-12

Prerequisite: CTE Principles Course, application and teacher approval

This course is the same as the Practicum in Marketing (first time taken) course, but offers an additional credit for additional work hours completed. See course description for Practicum in Marketing (first time taken**). Students must be 16 years old prior to the first day of school.** Students must carry at least 15 work hours per week for this 3-credit course.

Students must register for all required courses before enrolling in the work-study program.

Practicum in Marketing/ Extended Practicum in Marketing *(second time taken)*
2 semesters/3 credits/1 period
Grade Placement: 11-12

Prerequisite: Taken concurrently with Practicum of Marketing

Requires authorization

This course is the same as the Practicum in Marketing (second time taken) course, but offers an additional credit for additional work hours completed. See course description for Practicum in Marketing (second time taken). Students must be 16 years old prior to the first day of school. Students must carry at least 15 work hours per week for this 3-credit course.

Students must register for all required courses before enrolling in the work-study program.

Work-Based Learning Levels 1-4 (Meets elective work-based Individual Education Plans)
2 semesters/1-3 local credits/1-3 periods
Grade Placement: 9-12

Courses are designed to meet the occupational training IEP for student's electives plan. ARD committee placement required.

Extracurricular Activity:

As a co-curricular organization, Business Professionals of America has the ability to enhance student participation in professional, civic, service and social endeavors. Business Professionals of America members participate in these activities to accomplish their goals of self-improvement, leadership development, professionalism, community service, career development, public relations, student cooperation, safety and health.

Information Technology

Principles of Information Technology
2 semesters/1 credit/1 period
Grade Placement: 9-12

Students will develop computer literacy skills to adapt to emerging technologies used in the global marketplace. Principles of Information Technology focuses on developing business skills and knowledge while teaching skills in Word, Excel, Access, and PowerPoint. Students will develop interpersonal, communication, and reasoning skills to prepare them for a rapidly evolving workplace environment. *This course fulfills the local technology credit requirement.*

Web Technologies
2 semesters/1 credit/1 period
Grade Placement: 10-12

Prerequisite: Principles of Information Technology

Students will design, publish and update web pages, make interactive websites, analyze traffic data, and develop an understanding of how web servers deliver secure content.

Digital Media
2 semesters/1 credit/1 period
Grade Placement: 10-12

Prerequisite: Principles of Information Technology

Students will learn to create multi-media projects that address customers' needs and resolve problems. Projects will require student to design and create digital graphics, appropriately use animations, and audio, and video equipment while demonstrating project management skills needed to deploy digital media into print, web-based and video products.

Computer Maintenance
2 semesters/1 credit/1 period
Grade Placement: 10-12

Prerequisite: Principles of Information Technology

Students learn how to build computers, set up networks, and security. Students will have the ability to evaluate computer components. And make informed decision of which part are the best value and most reliable. There is also the ability to secure certifications to enable entry into the Computer Repair Business and IT employment

Practicum in Information Technology
2 semesters/2 credits/2 periods
Grade Placement: 11-12

Prerequisite: Principles of Information Technology and one other Information Technology course

Students gain advanced knowledge and skills in the application, design, production, implementation, evaluation, and assessment of products, services, and systems. Critical thinking, information technology experience, and product development may be conducted in a classroom setting with an industry mentor, as an unpaid internship, or as career preparation.

Geographic Information Systems (GIS)
2 semesters/1 credit/1 period
Grade Placement: 11-12

Prerequisite: Principles of Information Technology

Geographic Information Systems is a course designed to introduce students to Geographic Information Systems and Remote Sensing technology through academic study and applied instruction. A geographic information system (GIS) is a computer system for capturing, storing, checking, and displaying data related to positions on Earth's surface. GIS can show many different kinds of data on one map. This enables people to more easily see, analyze, and understand patterns and relationships.

Manufacturing

Principles of Agricultural, Food, and Natural Resources
2 semesters/1 credit/1 period
Grade Placement: 9-12

Special Note: the PAFNR course under the Agriculture cluster will be the foundation course for Agricultural Mechanics and Metal Technologies.

This course will prepare students for careers in agriculture, food, and natural resources. This course allows students the opportunity to develop knowledge and skills regarding career opportunities, personal development, globalization, industry standards, details, practices, and expectations.

Introduction to Welding *(high school level course)*
2 semesters/1 credit/ 1 period
Grade Placement: 9-10

Prerequisite or corequisite: Algebra I

Introduction to Welding will provide an introduction to welding technology with an emphasis on basic welding laboratory principles and operating procedures. Students will be introduced to the three basic welding processes. Topics include: industrial safety and health practices, hand tool and power machine use, measurement, laboratory operating procedures, welding power sources, welding career potentials, and introduction to welding codes and standards. Introduction to Welding will provide students with the knowledge, skills, and technologies required for employment in welding industries. Students will develop knowledge and skills related to welding and apply them to personal career development.

Agricultural Mechanics and Metal Technologies
2 semesters/1 credit /1 period
Grade Placement: 10-12

Recommended Prerequisite: Principles of Agricultural, Food and Natural Resources

This course will allow students to be prepared for careers in agricultural power, structural, and technical systems. This course will allow students to acquire technical knowledge and skills related to power, structural, and technical agricultural systems and the industry; and develop knowledge and skills regarding career opportunities, entry requirements, industry certifications, and industry expectations. This course is designed to develop an understanding of agricultural mechanics as it relates to safety and skills in tool operation, electrical wiring, plumbing, carpentry, fencing, concrete, and metal working techniques.

Welding I *(see Del Mar Certificate Program for sequencing and qualifications via pages to follow)*
2 semesters/2 credits/ 2 periods
Grade Placement 11-12

Prerequisite: Introduction to Welding or Agricultural Mechanics & Metal Technologies

Recommended Prerequisite: Algebra I

This course provides the knowledge, skills, and technologies required for employment in metal technology systems. Students develop knowledge and skills related to this system and apply them to personal career development. This course supports integration of academic and technical knowledge and skills. Students will reinforce, apply, and transfer knowledge and skills to a variety of settings and problems

Physical Requirements:

- help move heavy equipment
- assist in lifting, positioning and fastening objects
- ability to work in confined spaces
- carry material and tools form location to location or from floor to floor
- work from extension ladders and scaffolds at various heights
- work under hot or cold weather conditions
- lift and work with tools and equipment above head

Welding II
2 semesters/3 credits/ 2 periods
Grade Placement 11-12

Prerequisite: Welding I

This course will continue to build on the knowledge and skills learned in Welding I. See above description for physical requirements.

Welding Applied Technology

Certificate Program in Partnership with Del Mar College

Business & Industry

The Welding Applied Technology program begins at the junior and senior level at Tuloso-Midway High School with the completion of the certification at the end of the senior year.

Welding is the most common way of permanently joining metal parts. Heating is applied to the pieces to be joined, melting and fusing them to form a permanent bond. Welding is used to construct, repair, and join beams in ships, automobiles, spacecraft, buildings, bridges, other structures, and pipes in plants and refineries.

No TSI REM levels are required for a certificate I program.

Intermediate Welding Certificate I

Level I Dual Credit Welding

TMHS/DMC course sequence for certification:

Introduction to Welding (high school level course)
2 semesters/1 credit/ 1 period
Grade Placement: 9-10
Prerequisite or corequisite: Algebra 1
Introduction to Welding will provide an introduction to welding technology with an emphasis on basic welding laboratory principles and operating procedures. Students will be introduced to the three basic welding processes. Topics include: industrial safety and health practices, hand tool and power machine use, measurement, laboratory operating procedures, welding power sources, welding career potentials, and introduction to welding codes and standards. Introduction to Welding will provide students with the knowledge, skills, and technologies required for employment in welding industries. Students will develop knowledge and skills related to welding and apply them to personal career development.

Welding I: Fall	**Introduction to Welding** [college level course] **(WLDG 1407)**
Welding I: Spring	**Welding Fundamentals (WLDG 1521)**
	Welding Safety, Tools, and Equipment (WLDG 1323)

Level II Dual Credit Welding

Welding II: Fall	**Intermediate Shielded Metal Arc Welding (WLDG 1557)**
Welding II: Spring	**Introduction to Pipe Welding (WLDG 1435)**

Other dual credit courses are required for the completion of this program: COMG 1391 (meets the speech requirement for high school graduation) and TECM 1301. See course descriptions in the Process Technology section.

Del Mar College Credit Welding Certificate Level I (27college hours)

High school Introduction to Welding (5609) required before entry to DC welding program

Level I (junior year)

Fall	College Hours	Spring	College Hours
5628 WELDING I DC (WELD1)	4hrs	5628 WELDING I DC (WELD1)	5hrs
5625 Weld Safety DC	3 hrs	5643 PT/WD/HE MTH DC	3 hrs
		and/or*	
		5647 PT/WD/HE SPH DC	

Level II (senior year)

5629 WELD II DC	5hrs	5629 WELD II DC	4hrs

*Either 5643 or 5647 which ever has not been taken

Courses required for certificate I Intermediate Welding:
Welding I, Welding II, welding safety, welding math (TECM) and welding speech (COMG)

Welding Applied Technology

Course Descriptions

Introduction to Welding (WLDG 1407) *weighted course-not UIL exempt*
Del Mar College
1 semester/ 0.5 credit/1 period
Grade Placement: 11-12
Corequisite: Must take with WLDG 1521
Basic welding techniques using some of the following processes: Oxy-fuel welding (OFW) and cutting, shielded metal arc welding (SMAW), gas metal arc welding (GMAW), and gas tungsten arc welding (GTAW).

Welding Fundamentals (WLDG 1521) *weighted course-not UIL exempt*
Del Mar College
1 semester/ 0.5 credit/1 period
Grade Placement: 11-12
Corequisite: Must take with WLDG 1435
An introduction to the fundamentals of equipment used in oxy-fuel and arc welding, including welding and cutting safety, basic oxy-fuel welding and cutting, basic arc welding processes and basic metallurgy.

Welding Safety, Tools, and Equipment (WLDG 1323) *weighted course-not UIL exempt*
Del Mar College
1 semester/ 0.5 credit/1 period
Grade Placement: 11-12
An introduction to welding careers, equipment and safety practices, including OSHA standards for industry.

Intermediate Shielded Metal Arc Welding (WLDG 1557) *weighted course-not UIL exempt*
Del Mar College
1 semester/ 0.5 credit/1 period
Grade Placement: 11-12
Corequisite: Must take with WLDG 1435
An introduction to the fundamentals of equipment used in oxy-fuel and arc welding, including welding and cutting safety, basic oxy-fuel welding and cutting, basic arc welding processes and basic metallurgy.

Introduction to Pipe Welding (WLDG 1435) *weighted course-not UIL exempt*
Del Mar College
1 semester/ 0.5 credit/1 period
Grade Placement: 11-12
Corequisite: Must take with WLDG 1557
An introduction to welding of pipe using the shielded metal arc welding process (SMAW), including electrode selection, equipment setup, and safe shop practices. Emphasis on Weld positions 1G and 2G using various electrodes.

Manufacturing

Principles of Applied Engineering
2 semesters/1 credit/1 period
Grade Placement: 9-12

Principles of Applied Engineering provides an overview of the various fields of science, technology, engineering, and mathematics and their interrelationships. Students will use AutoCad and Inventor to design mechanical parts and assemblies. Upon completing this course, students will have an understanding of the various Engineering fields and be able to read mechanical blue prints and design mechanical parts. This course will give them an insight into which engineering field they might want to pursue. *This course does not satisfy the technology requirement for graduation.*

Robotics I
2 semesters/1 credit/1 period
Grade Placement: 10-12

Prerequisite: Principles of Applied Engineering

In Robotics I, students will transfer academic skills to component designs in a project-based environment through implementation of the design process. Students will build prototypes or use simulation software to test their designs. Additionally, students will explore career opportunities, employer expectations, and educational needs in the robotic and automation industry.

Robotics II
Grade Placement: 11–12
2 semesters/1 credit/1period

Prerequisite: Principles of Applied Engineering, Robotics I.

In Robotics II, students will explore artificial intelligence and programming in the robotic and automation industry. Through implementation of the design process, students will transfer academic skills to component designs in a project-based environment. Students will build prototypes and use software to test their designs.

Transportation

Principles of Transportation Systems
2 semesters/1 credit/ 1 period
Grade Placement: 9-10

In Principles of Transportation Systems, students will gain knowledge and skills in the safe application, design, production, and assessment of products, services, and systems. This knowledge includes the history, laws and regulations, and common practices used in the transportation industry. Students should apply knowledge and skills in the application, design, and production of technology as it relates to the transportation industries. This course allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings.

Automotive Technology I: Maintenance and Light Repair
2 semesters/2 credits/2 periods
Grade Placement: 10-12

Prerequisite: Automotive Basics or Principles of Transportation Systems

Students will gain knowledge of the major automotive systems and the principles of diagnosing and servicing these systems. This course includes applicable safety and environmental rules and regulations. In Automotive Technology I: Maintenance and Light Repair, students will gain knowledge and skills in the repair, maintenance, and diagnosis of vehicle systems. This study will allow students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. The focus of this course is to teach safety, tool identification, proper tool use, and employability.

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Automotive Technology II: Automotive Service
2 semesters/2 credits/2 periods
Grade Placement: 11-12

Prerequisite: Automotive Basics or Principles of Transportation and Automotive Technology I:MLR

Students will gain knowledge of the major automotive systems and the principles of diagnosing and servicing these systems. Automotive Technology II: Automotive Service includes applicable safety and environmental rules and regulations. In this course, students will gain knowledge and skills in the repair, maintenance, and diagnosis of vehicle systems. This study will allow students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. The focus of this course is to teach safety, tool identification, proper tool use, and employability.

Diesel Applied Technology: Heavy Equipment Technician

Certificate Program in partnership with Del Mar College

Business & Industry

The Diesel Applied Technology program begins at the junior and senior level at Tuloso-Midway High School with completion of the certification at Del Mar College after high school graduation. Heavy Equipment Technician program offers an opportunity to receive knowledge and develop skills necessary to function as a diesel service technician and mechanic. The curriculum is designed to give a practical approach, under job shop performance conditions, to the study of diesel mechanics. Diesel service technicians and mechanics are primarily employed by the trucking transportation industry, primarily repair of heavy road equipment.

Important Note: There is a specific sequence of courses taken for this certificate.

Del Mar College Credit Diesel (Heavy Equipment)

H.E. initial courses; continued after graduation at Del Mar College for completion of certification

Level I (junior year)

Fall	College Hours	Spring	College Hours
6452 Diesel I (HE)	3 hrs	6452 Diesel I (HE)	3 hrs
5647 PT/WD/HE SPH DC**	3 hrs	5643 PT/WD/HE MTH DC*	3 hrs

Level II (senior year)

6453 Diesel II (HE)	4 hrs	6453 Diesel II (HE)	4 hrs

**At minimum required Diesel I and Diesel II

Certificate continued at West Campus

Diesel Equipment Technology I (DEMR 1301) Fall (DEMR 1306) Spring *weighted course- not UIL exempt*
Del Mar College (3 college hours per semester)
2 semesters/2 credits/ 2 periods
Grade Placement: 11 Level I
Prerequisite: Principles of Transportation Systems or Automotive Basics
In the two hour blocks students will learn shop safety and procedures; use of industry tools and equipment including hydraulic tools and lifting equipment; fluid pressure testing equipment; machine identification and operation; engine systems; diagnostics; and component repairs.

Diesel Equipment Technology II (DEMR 1416) Fall (DEMR 1405) Spring *weighted course- not UIL exempt*
Del Mar College (4 college hours per semester)
2 semesters/2 credits/ 2 periods
Grade Placement: 12 Level II
Prerequisite: Diesel Equipment Technology I
In the two hour blocks students will learn basic hydraulics; theory and operation; maintenance procedures; hydraulic schematics; diagnostics; component repair and replacement; and fluids, transfer components and filtering; basic electrical systems; volt cranking and charging circuits; Ohm's law; lighting, accessory and control systems; and SAE computer Can-Buss standards.

Management of Transportation Systems (DEMR 1229) *weighted course- not UIL exempt*
Del Mar College (2 college hours)
1 semesters/1 credit/ 1 periods
Grade Placement: 12 Level II
Prerequisite: Diesel Equipment Technology I
Students will learn preventative maintenance; maintenance practices; maintenance procedures; describe functions of the dealership service department; explain department goals and procedures; discuss U.S. Department of Transportation regulations, including procedures or policies, material designations, packaging requirements, and operational rules; perform vehicle inspections and maintenance such as checking vehicle systems and components, diagnosing potential problems, and developing malfunction reports and maintenance schedules and reports.

Other dual credit courses are required for this program: COMG 1391 (meets the speech requirement for high school graduation), and TECM 1301. See course descriptions on Process Technology page.

Education & Training

Public Services

Ready, Set Teach!
Instructional Practices in Education and Training
2 semesters /2 credits/2 periods
Grade Placement: 11 -12
Prerequisites: Child Development or Child Guidance
Required: fill out application and teacher approval

This is a field- based internship that provides students with background knowledge of child and adolescent development as well as principles of effective teaching and training practices. Students work under the joint directions and supervision of both a teacher with knowledge of early childhood educational and educators in elementary school aged students. The student explores the teaching profession; the student participates in field-based; experiences in education and training; learn to plan and direct individualized instructions and group activities; prepare instructional materials; develop materials for educational environments; and assist with record keeping and complete other responsibilities of teachers.

Principles of Human Services

Child Development

Interpersonal Studies

Child Guidance

See Human Services section

Health Science

Principles of Health Science
Meets health requirement for graduation.
2 semesters/1 credit/1 period
Grade Placement: 9-10
Corequisite: Biology
Course may be taken concurrently with Medical Terminology in grades 9-10.
This entry-level Health Science course provides an overview of the diverse aspects of the health care industry. These include, but are not limited to, interpreting technical materials, describing biological processes and communicating using medical vocabulary. *Meets health requirement for graduation.*

Medical Terminology
2 semesters/1 credit/1 period
Grade Placement: 10-12
Recommended Prerequisite: Principles of Health Science, Biology
Course may be taken concurrently with Principles of Health Science in grades 9-10.
This is a beginning course is designed to introduce students to the structure of medical terms, including prefixes, suffixes, word roots, combining forms, and singular and plural forms, plus medical abbreviations and acronyms. The course allows students to achieve comprehension of medical vocabulary appropriate to medical procedures, human anatomy and physiology, and pathophysiology. It is important in the Health Science field for students to be able to break apart a word and understand its meaning. This knowledge and skill is applied during further education and employment. *Recommended for students planning to follow the Pharmacy Technician track.*

Disaster Response
2 semesters/ 1 credit/1 period
Grades 10-12
Prerequisite: Principles of Law, Public Safety, Corrections, and Security or Principles of Health Science
Disaster Response includes basic training of students in disaster survival and rescue skills that would improve the ability of citizens to survive until responders or other assistance could arrive. Students will receive education, training, and volunteer service to make communities safer, stronger, and better prepared to respond to the threats of terrorism, crime, public health issues and disasters of all kinds.

Health Science Theory
2 semesters/1 credit/1 period
Grade Placement: 10-12
Prerequisite: Principles of Health Science
This course includes, but it is not limited to changes in structure and function due to trauma and disease. Students will perform diverse simulated tasks used in the health care setting. These will be done in our Health Science Lab.

Anatomy and Physiology
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisites: Biology or Biology Pre-AP, Chemistry or Chemistry Pre-AP
Anatomy and Physiology is a study of the human systems and is geared to meet the needs of students interested in a career in the medical field. This lab-oriented course designed to demonstrate safe practices using biological equipment and chemicals as well as safe dissecting techniques. Students will participate fully in labs and use safe procedures in handling dissection specimens, recognize and identify organs on models and on dissected specimens. Students will describe the function of each body system and identify disorders of homeostasis of a particular system. On a weekly basis, students will analyze advanced medical concerns by using multimedia resources.

Anatomy and Physiology Honors
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisites: Biology or Biology Pre-AP, Chemistry or Chemistry Pre-AP
Anatomy and Physiology Honors is an accelerated class that studies in-depth various topics relating to human systems and is geared to meet the needs of students interested in a career in the medical field. This lab-oriented course designed to demonstrate safe practices using biological equipment and chemicals as well as safe dissecting techniques. Students will participate fully in labs and use safe procedures in handling dissection specimens, recognize and identify organs on models and on dissected specimens. Students will describe the function of each body system and identify disorders of homeostasis of a particular system. On a weekly basis, students will analyze advanced medical concerns by using multimedia resources.

PUBLIC SERVICES ENDORSEMENT

Practicum in Health Science
2 semesters/ 2 credits/2 periods

CNA/EKG	**or**	**Pharmacy Tech**	**or**	**Dental Assistant**
Grade Placement: 11-12		**Grade Placement: 12**		**Grade Placement: 12**

Prerequisite: Principles of Health Science, Health Science Theory, Biology
Recommended Co-requisite: Anatomy and Physiology

The Practicum is designed to give students practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.

To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, and communicate effectively. Students should recognize that quality health care depends on the ability to work well with others. Students are expected to apply the knowledge and skills necessary to pursue a health science career through further education and employment. Professional integrity in the health science industry is dependent on acceptance of ethical and legal responsibilities. Students are expected to employ their ethical and legal responsibilities and limitations and understand the implications of their actions. A significant portion of the work required in this course will be performed at local health care facilities.

The following certifications may be offered:

- **Certified Nursing Assistant /Aide (CNA)**
  [NURA 1001 (Lecture and Lab Skills) and NURA 1060 direct supervision clinical setting]
  Nurse Aides help care for physically or mentally ill, injured, disabled, or **infirm** individuals confined to hospitals, long term care nursing facilities, and mental health settings. Aides perform routine tasks under the supervision of nursing and medical staff. Student must be 17 at time of certification exam.
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- **Pharmacy Technician**
  Students will train to become certified Pharmacy Technicians. This course will include hands-on experience in the pharmacy setting and a classroom experience**.** ***Student must be a graduating senior to take this certification exam.***
- **Dental Assistant**
  The Dental Science externship is designed to give the student a hands-on experience in the dental office as well as to teach specific skills that are necessary both professionally and personally. This practicum is designed to give students practical application of previously studied knowledge and skills. Programs will offer students expanded occupational opportunities in specialized areas. The student will gain in-depth experience, and the opportunity to apply for training and exams. Testing and additional immunizations may be required by the cooperating health care facility or training stations. Students must be a graduating senior to apply for state registration. Students may be required to provide their own transportation.

EKG/CNA/ Pharmacy Technician/Dental Assistant--*weighted courses-not UIL exempt*
Students must take the State Exam upon successful completion of this course.

Human Services

Principles of Human Services
2 semesters/1 credit/1 period
Grade Placement: 9-12
This laboratory course will enable students to investigate careers in the human services career cluster, including counseling and mental health, early child hood development, family and community, and personal care services. Each student is expected to complete the knowledge and skills essential for success in high-skill, high wage, or high demand human services careers.

Interior Design
2 semesters/1 credit/1 period
Grade Placement: 10-12
Recommended Prerequisite: Principles of Architecture or Architectural Design 1
This course will explore the design process for interiors. We will be using Chief Architect to design, build and furnish interiors. We will look at design considerations, furniture designs, modern interiors, swimming pools and entertainment area design. Kitchen and bath designs and space planning for commercial locations and performer stage design.

Dollars and Sense
1 semester/.5 credit/1 period
Grade Placement: 10-12
Recommended Prerequisite: Principles of Human Services
This course focuses on management of financial resources and obligations to meet personal and family needs across the life span. The course addresses consumer rights and responsibilities, family and spending decisions, issues affecting consumers and the U.S economy.

Lifetime Nutrition and Wellness
1 semester/.5 credit/1 period
Grade Placement: 9-12
Recommended Prerequisite: Principles of Human Services
This laboratory course concentrates on nutrition, food choices and food management skills for individuals and the family throughout the life cycle. Instruction addresses nutrition and food science from the view of food habits; menu planning; special dietary needs; food costs and budgeting, consumer food buying strategies, food safety and sanitation procedures; food labels; technology implications, and food handling, storage and preparation practices. Meal etiquette, career options and techniques for managing multiple families and communities and wage earner roles are part of the content.

Public Services

Interpersonal Studies
1 semester/.5 credit/1 period
Grade Placement: 9-12
Recommended Prerequisite: Principles of Human Services or Principles of Health Science
This course examines how the relationships between individuals and among family members significantly affect the quality of life. Students use knowledge and skills in family studies and human development to enhance personal development, foster quality relationships, promote wellness of family members, manage multiple adult roles, and pursue careers related to counseling and mental health services.

Child Development
2 semesters/1 credit /1 period
Grade Placement: 9-12
Recommended Prerequisite: Principles of Human Services
This technical laboratory coarse addresses the knowledge and skills related to child growth and guidance. The student will be equipped to develop positive relationships with children and effective caregiver skills. This class is used to pursue careers in care, guidance and education of children, including those with special needs.

Child Guidance
2 semesters/2 credits/2 periods
Grade Placement: 10-12
Recommended Prerequisite: Principles of Human Services and Child Development
This technical laboratory course addresses knowledge and skills, related to child growth and development from prenatal through school-age children, equipping students with child development skills.

Law and Public Service

Principles of Law, Public Safety, Corrections, and Security
2 semesters/ 1 credit/1 period
Grades 9-12

Principles of Law, Public Safety, Corrections, and Security introduces students to professions in law enforcement, security, corrections, and fire and emergency management services. Students will examine the roles and responsibilities of police, courts, corrections, private security, and protective agencies of fire and emergency services. The course provides students with an overview of the skills necessary for careers in law enforcement, fire service, security, and corrections.

Disaster Response
2 semesters/ 1 credit/1 period
Grades 10-12

Prerequisite: Principles of Law, Public Safety, Corrections, and Security

Disaster Response includes basic training of students in disaster survival and rescue skills that would improve the ability of citizens to survive until responders or other assistance could arrive. Students will receive education, training, and volunteer service to make communities safer, stronger, and better prepared to respond to the threats of terrorism, crime, public health issues and disasters of all kinds

Law Enforcement I
2 semesters/ 1 credit/1 period
Grades 10-12

Prerequisite: Principles of Law, Public Safety, Corrections, and Security

Law Enforcement I is an overview of the history, organization, and functions of local, state, and federal law enforcement. This course includes the role of constitutional law, the United States legal system, criminal law, law enforcement terminology, and the classification and elements of crime.

Correctional Services
2 semesters/ 1 credit/1 period
Grades: 11–12

Prerequisite: Principles of Law, Public Safety, Corrections, and Security, Law Enforcement I.

In Correctional Services, students prepare for certification required for employment as a municipal, county, state, or federal correctional officer. Students will learn the role and responsibilities of a county or municipal correctional officer; discuss relevant rules, regulations, and laws of municipal, county, state, or federal facilities; and discuss defensive tactics, restraint techniques, and first aid procedures as used in the municipal, county, state, or federal correctional setting. Students will analyze rehabilitation and alternatives to institutionalization for inmates.

Law Enforcement II
2 semesters/ 1 credit/1 period
Grades 11-12

Prerequisite: Law Enforcement I

This course focuses on planning, managing, and providing legal services, public safety, protective services, and homeland security, including professional and technical support services. Law Enforcement II provides the knowledge and skills necessary to prepare for a career in law enforcement. Students will understand ethical and legal responsibilities, patrol procedures, first responder roles, telecommunications, emergency equipment operations, and courtroom testimony.

Forensic Science
2 semesters/ 1 credit/1 period
Grades 11-12

Prerequisites: Biology, Chemistry, and Principles of Law, Public Safety, Corrections, and Security

This course uses a structured and scientific approach to the investigation of crimes of assault, abuse and neglect, domestic violence, accidental death, homicide, and the psychology of criminal behavior. Students will learn terminology and investigative procedures related to crime scene, questioning, interviewing, criminal behavior characteristics, truth detection, and scientific procedures used to solve crimes. Using scientific methods, students will collect and analyze evidence through case studies and simulated crime scenes such as fingerprint analysis, ballistics, and blood spatter analysis. Students will learn the history, legal aspects, and career options for forensic science.

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Science, Technology & Engineering

STEM
Science, Technology, Engineering and Math

Principles of Applied Engineering
2 semesters/1 credit/1 period
Grade Placement: 9-12

Principles of Applied Engineering provides an overview of the various fields of science, technology, engineering, and mathematics and their interrelationships. Students will use AutoCad and Inventor to design mechanical parts and assemblies. Upon completing this course, students will have an understanding of the various Engineering fields and be able to read mechanical blue prints and design mechanical parts. This course will give them an insight into which engineering field they might want to pursue. *This course does not satisfy the technology requirement for graduation.*

Engineering Design and Presentation I
2 semesters/1 credit/1 period
Grade Placement: 10-12

Prerequisite: Algebra 1 and Principles of Applied Engineering
Students enrolled in this course will demonstrate knowledge and skills of the process of design as it applies to engineering fields to produce and present working drawings, solid model renderings, and prototypes. Students will use AutoCad software to complete assignments and projects. Through implementation of the design process, students will transfer advanced academic skills to component designs. Additionally, students explore career opportunities in engineering, technology, and drafting and what is required to gain and maintain employment in these areas. This course is designed to provide skills which can be used to gain employment at refineries, machine shops, mechanical manufacture's (oil rig building etc.) *This course does not satisfy the technology requirement for graduation.*

Engineering Design and Presentation II
2 semesters/2 credits/2 periods
Grade Placement: 11-12

Prerequisite: Engineering Design and Presentation I
Engineering Design and Presentation I. Students enrolled in this course will demonstrate knowledge and skills of the design process as it applies to engineering fields using multiple software applications and tools necessary to produce and present working drawings, solid model renderings, and prototypes. Students will use a variety of computer hardware and software applications to complete assignments and projects. Through implementation of the design process, students will transfer advanced academic skills to component designs. Emphasis will be placed on using skills from ideation through prototyping.

Engineering Mathematics
(may be used as a fourth math)
2 semesters/1 credit/1 period
Grade Placement: 11-12

Prerequisite: Algebra 2
In Engineering Mathematics, students will solve and model robotic design problems. Students will use a variety of mathematical methods and models to represent and analyze problems involving data acquisition, spatial applications, electrical measurement, manufacturing processes, materials engineering, mechanical drives, pneumatics, process control systems, quality control, and robotics with computer programming.

Robotics I
2 semesters/1 credit/1 period
Grade Placement: 10-12

Prerequisite: Principles of Applied Engineering
In Robotics I, students will transfer academic skills to component designs in a project-based environment through implementation of the design process. Students will build prototypes or use simulation software to test their designs. Additionally, students will explore career opportunities, employer expectations, and educational needs in the robotic and automation industry.

Robotics II
Grade Placement: 11–12
2 semesters/1 credit/1period

Prerequisite: Principles of Applied Engineering, Robotics I.
In Robotics II, students will explore artificial intelligence and programming in the robotic and automation industry. Through implementation of the design process, students will transfer academic skills to component designs in a project-based environment. Students will build prototypes and use software to test their designs

Principles of Technology [POT]
2 semesters/1 credit/1 period
Grade Placement: 10-12

Prerequisites: Algebra 1, one science credit
Introduction: students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Various systems will be described in terms of space, time, energy, and matter. Students will study a variety of topics that include laws of motion, conservation of energy, momentum, electricity, magnetism, thermodynamics, and characteristics and behavior of waves. Students will apply physics concepts and perform laboratory experimentations for at least 40% of instructional time using safe practices.

Scientific Research and Design (Aero-Sciences I)
2 semesters/1 credit/1 period
Grade Placement: 11-12

Prerequisites: Biology, IPC or Chemistry, Physics

The Aero-science program offers junior and senior high school students an opportunity to participate in a hands-on, project-based engineering and technology program in aero-science studies. Students experience hands-on research as well as design and development instruction within the engineering and technology design disciplines. Valuable life skills such as problem-solving, testing and analysis, documentation and reporting, project management, teamwork and communication are developed. These applied philosophies of education are imperative in supporting tomorrow's workforce needs. Our curriculum, endorsed by NASA, is a two-year, junior/senior program in which students design and develop remotely operated vehicles and unmanned aerial vehicles for research or industrial applications. The program encourages students to pursue engineering and technology careers in the American workforce.

Scientific Research and Design II (Aero - Sciences II)
2 semesters/1 credit/1 period
Grade Placement: 12

Prerequisite: Scientific Research and Design

This is an upper level science course designed to prepare high school students for the rigors of a technical or engineering college curriculum and provide an introduction to the practices and procedures within the technical workforce. The course curriculum is to the award winning Ignite: Systems Go Aero-science curriculum with a goal of reaching speeds of Mach 1 in a student built rocket.

OTHER CTE COURSES FOR CERTIFICATION or DUAL CREDIT

Business & Industry

PROCESS TECHNOLOGY

Process technology prepares students for employment as process operators/technicians in the petrochemical, refinery, power generation, oil and gas production and other industries. The curriculum provides education in the areas of applied physical science, basic computer principles, operating equipment, instrumentation systems, process systems, statistical quality control, reactors, distillation process, safety, process troubleshooting, and basic proficiency in English, reading and mathematics.

The program is designed to gain the knowledge and skills to operate shutdown, problem solve and troubleshoot industrial processes. The vision is the implementation of a transitional program which can begin with the attainment of a Certificate in Process Technology continued by two – three semesters at Del Mar College leading to an Associate Degree in Applied Science: Process Technology

Introduction of Process Technology (PTAC 1302) Fall *weighted course-not UIL exempt*
Del Mar College (3 college hours)
1 semester/ 0.5 credit/1 period
Grade Placement: 11-12
Introduction to chemical and refinery plant operations. Topics include process technician duties, responsibilities and expectations; plant organizations; plant process utility systems; and the physical and mental requirements of the process technician.

Safety, Health, and Environment I (PTAC 1308) Spring *weighted course-not UIL exempt*
Del Mar College (3 college hours)
1 semester/ 0.5 credit/1 period
Grade Placement: 11-12
Development of knowledge and skills to reinforce the attitudes and behaviors required for safe and environmentally sound work habits. Emphasis will be on safety, health and environmental issues in the performance of all job tasks and regulatory compliance issues.

Industrial Mathematics (TECM 1301)
Spring *weighted course-not UIL exempt*
Del Mar College (3 college hours)
1 semester/ 0.5 credit/1 period
Grade Placement: 11-12
Introduction to chemical and refinery plant operations. Topics include process technician duties, responsibilities and expectations; plant organizations; plant process utility systems; and the physical and mental requirements of the process technician.
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Business Computer Information Systems Dual Credit (PTAC BCIS)
weighted course-not UIL exempt
Del Mar College
1 semester/1 credit/3 college hours
Grade Placement: 11-12
Prerequisite: Business Information Management I
Course discusses business computer terminology, hardware, software, operating systems, and information systems relating to the business environment. If a student drops this class, he/she will be required to reimburse the district for the cost of the online access code.

Process Technology I: EQUIPMENT (PTAC 1410)
Fall *weighted course-not UIL exempt*
Del Mar College (4 college hours)
1 semester/ 0.5 credit/1 period
Grade Placement: 11-12
Prerequisite: Introduction of Process Technology (PTAC 1302)
A 1 ½ - 2 hour lab is required, once a week, at the Del Mar College West Campus. TM transportation is not provided. Del Mar College will set the date and evening time for the lab.
Instruction provided in the use of common process equipment.

Process Instrumentation 1: EQUIPMENT (PTAC 1432)
Spring *weighted course-not UIL exempt*
Del Mar College (4 college hours)
1 semester/ 0.5 credit/1 period
Grade Placement: 11-12
Prerequisite: Introduction of Process Technology (PTAC 1302) Instruction provided in the use of common process equipment.
Study of instruments and instrument systems used in process technology.

Safety, Health, and Environment II (PTAC 2348) Fall *weighted course-not UIL exempt*
Del Mar College (3 college hours)
1 semester/ 0.5 credit/1 period
Grade Placement: 11-12
Prerequisite: Safety, Health, and Environment I (PTAC 1308) Continued instruction in the application of concepts presented in Safety, Health and Environment I. Emphasis on emergency response concepts.

Special Topics in Communication (COMG 1391) Spring *weighted course-not UIL exempt*
Del Mar College (3 college hours)
1 semester/ 0.5 credit/1 period
Grade Placement: 11-12
Addresses skills, knowledge, and behaviors pertinent to technology or the occupation.
*This course satisfies the speech requirement for graduation.

CORE COURSE DESCRIPTIONS

ENGLISH

The English Language Arts and Reading Texas Essential Knowledge and Skills (TEKS) are organized into the following strands: **Reading**, where students read and understand a wide variety of literary and informational texts; **Writing**, where students compose a variety of written texts with a clear controlling idea, coherent organization, and sufficient detail; **Research**, where students are expected to know how to locate a range of relevant sources and evaluate, synthesize, and present ideas and information; **Listening and Speaking**, where students listen and respond to the ideas of others while contributing their own ideas in conversations and in groups; and **Oral and Written Conventions**, where students learn how to use the oral and written conventions of the English language in speaking and writing. The standards are cumulative--students will continue to address earlier standards as needed while they attend to standards for their grade.

English 1
2 semesters/1 credit/2 periods
Grade Placement: 9

Students will engage in activities that build on their prior knowledge and skills in order to strengthen
their reading, writing, and oral language skills. Standards are cumulative--students will continue to address earlier standards as needed while they attend to standards for their grade. Students should read and write on a daily basis..

English 1 Pre-AP (Pre-Advanced Placement) *weighted course*
2 semesters/1 credit/2 periods
Grade Placement: 9

Prerequisite: *Any student enrolling in a PAP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.*

This rigorous English Pre-AP course is designed for freshmen of advanced ability and will help students become skilled readers of prose and poetry, written in a variety of periods, disciplines, and rhetorical contexts. Students will engage in activities that build on their prior knowledge and skills in order to strengthen their reading, writing, and oral language skills. Standards are cumulative--students will continue to address earlier standards as needed while they attend to standards for their grade. Students should read and write on a daily basis. The goal is to foster student responsibility for scholarship by providing the opportunity to work at a pre-college level and better prepare students for the AP courses offered in the eleventh and twelfth grades.

English 1 SOL (English 1, for speakers of other languages)
2 semesters/1 credit/2 periods
Grade Placement: 9

Placement in English for Speakers of Other Languages (ESOL) courses is determined by the Language Proficiency Assessment Committee (LPAC).

English 2
2 semesters/1 credit/ 1 period
Grade Placement: 10

Prerequisite: English 1

Students will engage in activities that build on their prior knowledge and skills in order to strengthen
their reading, writing, and oral language skills. Standards are cumulative--students will continue to address earlier standards as needed while they attend to standards for their grade. Students should read and write on a daily basis.

English 2 Pre-AP (Pre-Advanced Placement) *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 10

Prerequisite: *Any student enrolling in a PAP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.*

The English Pre-AP course is designed for students of advanced ability who have already mastered EOC skills to prepare for junior level AP (Advanced Placement) English. They will become skilled readers of prose written in a variety of periods, disciplines, and rhetorical contents and will become skilled writers who can compose for a variety of purposes. Pre-AP students will master the components of style analysis of literature and interpret literature from works of fiction in addition to written essays, poetry, and short stories. Students will engage in activities that build on their prior knowledge and skills in order to strengthen their reading, writing, and oral language skills. Standards are cumulative--students will continue to address earlier standards as needed while they attend to standards for their grade. Students should read and write on a daily basis. The goal is to foster student responsibility for scholarship by providing the opportunity to work at a pre-college level and better prepare students for the AP courses offered in the eleventh and twelfth grades.

English 2 SOL (English 2, for speakers of other languages)
2 semesters/1 credit/2 periods
Grade Placement: 10
Prerequisite: English 1
Placement in English for Speakers of Other Languages (ESOL) courses is determined by the Language Proficiency Assessment Committee (LPAC).

English 3
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisite: English 2
Students will engage in activities that build on their prior knowledge and skills in order to strengthen their reading, writing, and oral language skills. Standards are cumulative--students will continue to address earlier standards as needed while they attend to standards for their grade. Students should read and write on a daily basis.

English 3 English Language and Composition AP (Advanced Placement) *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisite: *Any student enrolling in an AP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.*
The rigorous AP (Advanced Placement) English Language and Composition is a course designed for juniors of exceptional ability who wish the challenge of reading, writing, and evaluating at the college level. Content requirements for Advanced Placement (AP) English Literature and Composition are prescribed in the College Board Publication Advanced Placement Course Description: English, published by The College Board. This publication may be obtained from the College Board Advanced Placement Program.

English 4
2 semesters/1 credit/1 period
Grade Placement: 12
Prerequisite: English 3 or English 3 AP Language and Composition
Students will engage in activities that build on their prior knowledge and skills in order to strengthen their reading, writing, and oral language skills. Standards are cumulative--students will continue to address earlier standards as needed while they attend to standards for their grade. Students should read and write on a daily basis.

English 4 AP (Advanced Placement) (Literature and Composition AP) *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 12
Prerequisite: English 3 or English 3 AP Language and Composition. The rigorous AP (Advanced Placement)
Prerequisite: Prerequisite: *Any student enrolling in an AP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.*
English Literature and Composition is a course designed for seniors of exceptional ability who wish the challenge of reading, writing, and evaluating at the college level. Content requirements for Advanced Placement (AP) English Literature and Composition are prescribed in the College Board Publication Advanced Placement Course Description: English, published by The College Board. This publication may be obtained from the College Board Advanced Placement Program.

English 4-Dual Credit ***weighted course***
Del Mar College (English 1301 & English 1302)
2 semesters/1 credit/1 period (3 college hours each semester)
Grade Placement: 12
Prerequisite: English 3 or English 3 AP Language and Composition. Must take TSI.
Students who apply for this course must meet criteria designated by Del Mar College. The Dual Credit program is a cooperative partnership between Tuloso-Midway High School and Del Mar College enabling high school students to receive college credit while completing the requirements for high school graduation. This course will provide college bound students with the rigorous expectations and experiences of a college-level program. Students will be expected to use higher-level thinking skills of critical analysis and synthesis through the reading of British and World Literature from a variety of genres and historical periods. Students will be required to read from texts and supplements for English 4 and English 1301 (first semester) and English 1302 (second semester) from Del Mar College. Students will be required to have 15 hours of computer laboratory during the first semester to meet state and college guidelines. Must have scores to qualify.

UT OnRamps English 4 *weighted course*
RHE 306 & RHE 309K
2 semesters/1 HS credit /1 period
(3 college credit hours per semester)
Grade Placement: 12
Prerequisite: English 1, English 2 and English 3. Must take TSI.

RHE 306 (Fall semester) Introduction to Rhetoric: Reading, Writing and Research
is a writing seminar course in argumentation that situates rhetoric as an art of civic discourse. It is designed to enhance students' ability to research and analyze the various positions held in any public debate and to advocate one's own position effectively to a target audience. Students will also explore the ethics of argumentation, explaining what it means to "fairly" represent someone with whom they disagree, or how responsibly to address a community with particular values and interests. Work in this course will help students advance the critical writing and reading skills they will need to succeed in college and in professional careers. Scholars in this course can expect to read and write daily.
This class is a dual enrollment course. Students have the opportunity to earn 3 hours of college credit through the University of Texas.

RHE 309K (Spring semester) Reading and Writing the Rhetoric of American Identity
aims to prepare students to become more effective in analyzing and producing arguments. It does so by articulating and having students practice well-established principles of rhetoric and argumentation. In particular, we examine arguments about American identity and identity formation – both personal and cultural. Learners will analyze and produce arguments concerning gender, race, and ethnicity, as well as consider how these aspects of ourselves relate to an individual's identity as an American. The goal is to foster learners' abilities to analyze arguments presented by others, and to write sound and effective arguments of their own – an ability that will enhance their academic, professional, personal, and civic lives. Rhetoric is a lens that can be used to analyze any topic, and in this course, students will be introduced to rhetoric to study the many and varied ways that we position ourselves as individuals within American culture. This class is a dual enrollment course. Students have the opportunity to earn 3 hours of college credit through the University of Texas.
Prerequisite: RHE 306

Humanities (Academic Decathlon 1)
weighted course
2 semesters/1 credit/1 period
Grade Placement: 9-12
Prerequisite: Teacher approval
Humanities is an interdisciplinary course in which students recognize writing as an art form. Students read widely to understand how various authors craft compositions for various aesthetic purposes. This course includes the study of major historical and cultural movements and their relationship to literature and the other fine arts. Humanities is a rigorous course of study in which high school students respond to aesthetic elements in texts and other art forms through outlets such as discussions, journals, oral interpretations, and dramatizations. Students read widely to understand the commonalities that literature shares with the fine arts. In addition, students use written composition to show an in-depth understanding of creative achievements in the arts and literature and how these various art forms are a reflection of history. All students are expected to participate in classroom discussions and presentations that lead to an understanding, appreciation, and enjoyment of critical, creative achievements throughout history. Understanding is demonstrated through a variety of media.

Independent Study in English 1-3* as part of the additional years of Humanities *weighted course*
(Also known as Academic Decathlon 2-4)
2 semesters/1 credit/1 period
Grade Placement: 10-12
Prerequisite: Humanities; teacher approval
Students enrolled in Independent Study in English will engage in rigorous, in-depth study in various thematically connected subject areas. Art, music, science, math, writing, speaking, social studies, economics, and reading will be part of the curriculum. The theme of the Humanities class changes year to year according to national Academic Decathlon cu rriculum guidelines. Emphasis will be on study skills, research, speaking, and writing.
Students enrolled in Independent Study in English will focus on a specialized area of study such as the work of a particular author or genre. Students will read and write in multiple forms for a variety of audiences and purposes. High school students are expected to plan, draft, and complete written compositions on a regular basis and carefully examine their papers for clarity, engaging language, and the correct use of the conventions and mechanics of written English. **This course prepares students for Academic Decathlon competition and involves inter-school competition.**

** If these courses are used as a fourth English, it will not meet the requirements of a multidisciplinary endorsement. See counselor for endorsement course selection options.*

Research and Technical Writing*
2 semesters/1 credit/1 period
Grade Placement: 12
Prerequisite: English 3 or English 3 AP Language and Composition
This course is mandatory for senior students who have not passed the English I and/or English II EOCs.

Creative Writing*
2 semesters/1 credit/1 period
Grade Placement: 12
The study of creative writing allows high school students to develop versatility as writers. Creative Writing, a rigorous composition course, asks high school students to demonstrate their skill in such forms of writing as fictional writing, short stories, poetry, and drama. All students are expected to demonstrate an understanding of the recursive nature of the writing process, effectively applying the conventions of usage and the mechanics of written English. The students' evaluation of their own writing as well as the writing of others ensures that students completing this course are able to analyze and discuss published and unpublished pieces of writing, develop peer and self-assessments for effective writing, and set their own goals as writers.

Literary Genre: Culture and Traditions in Literary Texts*
2 semesters/1 credit/1 period
Grade Placement: 12
This course will familiarize students with the voices of minorities through literature and explore themes of cultural identity, community, family, gender and cultural history. Students will enhance literacy and critical thinking skills in reading and writing using texts from a variety of multicultural authors as well as media such as films, documentaries and music.

Advanced Journalism: Yearbook 3*
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisite: Yearbook 2; written application and teacher approval required
Students will gain further experience in yearbook production and serve as mentors for first-year staff members. Students will be involved in the production of the yearbook and expected to regularly provide examples of their progress toward long-term projects. Advanced students may be considered for editor positions on the yearbook staff. Students must demonstrate an ability to meet deadlines and be available to attend extracurricular events. Students must obtain and complete an application from the yearbook adviser to be considered for a staff position.

Advanced Journalism: Newspaper (War Cry) 3*
2 semesters /1 credit /1 period
Grade Placement: 11-12
Prerequisite: Advanced Journalism: Newspaper (War Cry 2); written application and teacher approval required.
Students will gain further experience in online publications and serve as mentors for first-year staff members. Students are expected to identify potential topics of discussion, conduct interviews, gather information, write, edit, and peer review content for publication on the website. Students are expected to improve their writing skills through practice and a demanding writing schedule. Students must demonstrate an ability to meet deadlines and be available to attend extracurricular events. Students must obtain and complete an application from the War Cry adviser to be considered for a staff position.

Advanced Journalism: Yearbook 3 Editor*
weighted course
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisite: English 3 if using this course as 4th English, Yearbook 2; written application and teacher approval required
Students will gain further experience in yearbook production and serve as mentors for first-year staff members. Students will be involved in the production of the yearbook and expected to regularly provide examples of their progress toward long-term projects. Advanced students may be considered for editor positions on the yearbook staff. Students must demonstrate an ability to meet deadlines and be available to attend extracurricular events. Students must obtain and complete an application from the yearbook adviser to be considered for a staff position.

Advanced Journalism: Newspaper (War Cry) 3 Editor* *weighted course*
2 semesters /1 credit /1 period
Grade Placement: 11-12
Prerequisite: English 3 if using this course as 4th English, Advanced Journalism: Newspaper (War Cry) 2; written application and teacher approval required.
Students will gain further experience in online publications and serve as mentors for first-year staff members. Students are expected to identify potential topics of discussion, conduct interviews, gather information, write, edit, and peer review content for publication on the website. Students are expected to improve their writing skills through practice and a demanding writing schedule. Students must demonstrate an ability to meet deadlines and be available to attend extracurricular events. Students must obtain and complete an application from the War Cry adviser to be considered for a staff position.

** If these courses are used as a fourth English, it will not meet the requirements of a multidisciplinary endorsement. See counselor for endorsement course selection options.*

Oral Interpretation III Honors* *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisite: English 3 if using this course as 4th English, Oral Interpretation II
In Oral interpretation, students study the oral reading or performance of a literary text as a communication art. Students enrolled in Oral Interpretation I, II, III, will select, research, analyze, adapt, interpret, and perform literary texts. Students focus on intellectual, emotional, sensory, and aesthetic levels of texts and attempt to capture the entirety of the author's work. Individual or group performances of literature will be presented and evaluated. Competition at speech tournaments is expected in Oral Interp II and III classes.

Debate III Honors* *weighted course*
1-2 semesters/.5-1 credit/1 period
Grade Placement: 11-12
Prerequisite: English 3 if using this course as 4th English, Debate II
Debate I is the introductory course and Debate II and III increase in skill level. Competition at speech tournaments is expected in Debate II and III classes.

Independent Study in Speech (first time taken) Debate IV Honors *weighted course*
(course pending board approval)
1-2 semesters/.5-1 credit/1 period
Grade Placement: 12
Prerequisite: Debate 3 Honors
Debate I is the introductory course and Debate II and III increase in skill level. Competition at speech tournaments is expected in Debate II and III classes. This course would build on Deate III curriculum with a greater focus on research and presentation.

Independent Study in Speech (2nd time taken) Oral Interpretation IV Honors
weighted course
(course pending board approval)
1-2 semesters/.5-1 credit/1 period
Grade Placement: 12
Prerequisite: Oral Interpretation 3 Honors
In Oral interpretation, students study the oral reading or performance of a literary text as a communication art. Students enrolled in Oral Interpretation I, II, III, will select, research, analyze, adapt, interpret, and perform literary texts. Students focus on intellectual, emotional, sensory, and aesthetic levels of texts and attempt to capture the entirety of the author's work. Individual or group performances of literature will be presented and evaluated. Competition at speech tournaments is expected in Oral Interp. II and III classes. This course would build on Oral Interpretation III curriculum with a greater focus on research, presentation, and literary analysis.

MATHEMATICS

STEM
Science, Technology, Engineering and Math

Algebra I (single period)
2 semesters/1 credit/1 period
Grade Placement: 9

Basic understandings: foundation concepts for high school mathematics; algebraic thinking and symbolic reasoning; function concepts; relationship between equations and functions; tools for algebraic thinking; and underlying mathematical processes.

Algebra I (block)
2 semesters/1 credit/2 periods
Grade Placement: 9

This course will assist in successful completion of curriculum by allowing more hands on and extended instruction. Basic understandings: foundation concepts for high school mathematics; algebraic thinking and symbolic reasoning; function concepts; relationship between equations and functions; tools for algebraic thinking; and underlying mathematical processes. *Students in the two-period course will be identified using mastery scores from testing assessment instruments and grades from previous mathematics course taken.*

Algebra I PAP *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 9

Prerequisite: Prerequisite: *Any student enrolling in a PAP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.*

This fast-paced curriculum is for student not requiring additional time and practice in order to be successful. Basic understandings: foundation concepts for high school mathematics; algebraic thinking and symbolic reasoning; function concepts; relationship between equations and functions; tools for algebraic thinking; and underlying mathematical processes. The goal is to foster student responsibility for scholarship by providing the opportunity to work at a pre-college level and better prepare students for the AP courses offered in the eleventh and twelfth grades.

Geometry
2 semesters/1 credit/1 period
Prerequisite: Algebra I

Basic understandings: foundation concepts for high school mathematics; geometric thinking and spatial reasoning; geometric figures and their properties; the relationship between geometry, other mathematics, and other discipline tools for geometric thinking; and underlying mathematical processes.

Geometry Pre-AP (Pre-Advanced Placement) *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 9-10

Prerequisite: Algebra I

Prerequisite: Prerequisite: *Any student enrolling in a PAP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.*

This fast-paced curriculum is for students not requiring additional time and practice in order to be successful. Basic understandings: foundation concepts for high school mathematics; geometric thinking and spatial reasoning; geometric figures and their properties; the relationship between geometry, other mathematics, and other discipline tools for geometric thinking; and underlying mathematical processes. The goal is to foster student responsibility for scholarship by providing the opportunity to work at a pre-college level and better prepare students for the AP courses offered in the eleventh and twelfth grades.

Mathematical Models with Applications
2 semesters/1 credit/1 period
Grade Placement: 11

Prerequisite: Algebra I

Students use algebraic, graphical, and geometric reasoning to recognize patterns and structure, to model information, and to solve problems from various disciplines; use methods to model and solve real-life applied problems involving money, data, chance, patterns, music, design, and science; use models from algebra, geometry, probability, and statistics and connections among these to solve problems from a wide variety of advanced applications in both mathematical and nonmathematical situations; use a variety of representations (concrete, pictorial, numerical, symbolic, graphical, and verbal), tools, and technology (including, graphing calculators and computers) to link modeling techniques and purely mathematical concepts and to solve applied problems. **(Universities or NCAA may not accept this class as a math credit.)**

Algebra 2^
2 semesters/1 credit/1 period

Prerequisites: Algebra I and Geometry

Basic understandings: Foundation concepts for high school mathematics; algebraic thinking and symbolic reasoning; functions, equations, and their relationship; relationship between algebra and geometry; tools for algebraic thinking; and underlying mathematical processes. ***^Note: A grade of less than 70 during the first grading period of the sophomore or junior year of Algebra 2 will result in a change to Algebraic Reasoning.***

Algebra 2 Pre-AP (Pre-Advanced Placement) *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 10-12
Prerequisites: Algebra 1 and Geometry
Prerequisite: *Any student enrolling in a PAP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.*
This fast-paced curriculum is for student not requiring additional time and practice in order to be successful. Basic understandings: Foundation concepts for high school mathematics; algebraic thinking and symbolic reasoning; functions, equations, and their relationship; relationship between algebra and geometry; tools for algebraic thinking; and underlying mathematical processes. The goal is to foster student responsibility for scholarship by providing the opportunity to work at a pre-college level and better prepare students for the AP courses offered in the eleventh and twelfth grades.

Algebraic Reasoning
2 semesters/1 credit/1 period
Grade Placement: 12
Prerequisites: Algebra 1 and Geometry
Students develop and apply skills necessary for college, careers and life. Students will apply mathematics to problems arising in everyday life, society, and the workplace. Course content consists primarily of applications of high school mathematics concepts to prepare students to become well-educated and highly informed 21st century citizens. The student develops and applies reasoning, planning, and communication to make decisions and solve problems in applied situations involving numerical reasoning, probability, statistical analysis, finance, mathematical selection, and modeling with algebra, geometry, trigonometry, and discrete mathematics.

Engineering Math
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisite: Algebra 2
In Engineering Mathematics, students will solve and model robotic design problems. Students will use a variety of mathematical methods and models to represent and analyze problems involving data acquisition, spatial applications, electrical measurement, manufacturing processes, materials engineering, mechanical drives, pneumatics, process control systems, quality control, and robotics with computer programming.

Precalculus
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisites: Algebra 2 and Geometry
Students build on Algebra I, Algebra II, and Geometry foundations as they expand their understanding through other mathematical experiences. Students use symbolic reasoning and analytical methods to represent mathematical situations, to express generalizations, and to study mathematical concepts and the relationships among them; use functions, equations, and limits as useful tools for expressing generalizations and as means for analyzing and understanding a broad variety of mathematical relationships.; use functions as well as symbolic reasoning to represent and connect ideas in geometry, probability, statistics, trigonometry, and calculus and to model physical situations; use a variety of representations (concrete, pictorial, numerical, symbolic, graphical, and verbal), tools and technology (graphing calculators and computers) to model functions and equations and solve real-life problems.

Precalculus PAP *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisites: Algebra 2 and Geometry
Prerequisite: Prerequisite: *Any student enrolling in a PAP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.*
This fast-paced curriculum is for student not requiring additional time and practice in order to be successful. Students continue to build on Algebra I, Algebra II, and Geometry foundations as they expand their understanding through other mathematical experiences; use symbolic reasoning and analytical methods to represent mathematical use functions, equations, and limits as useful tools for expressing generalizations and as means for analyzing and understanding a broad variety of mathematical relationships; use functions as well as symbolic reasoning to represent and connect ideas in geometry, probability, statistics, trigonometry, and calculus and to model physical situations; use a variety of representations (concrete, pictorial, numerical, symbolic, graphical, and verbal), tools and technology (graphing calculators and computers) to model functions and equations and solve real-life problems. The goal is to foster student responsibility for scholarship by providing the opportunity to work at a pre-college level and better prepare students for the AP courses offered in the eleventh and twelfth grades.

Calculus AB AP (Advanced Placement) ***weighted course***
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisites: Precalculus
Pre-Requisite: Prerequisite: *Any student enrolling in an AP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.*
Content requirements for Advanced Placement (AP) Calculus AB are prescribed in the College Board Publication Advanced Placement Course Description Mathematics: Calculus AB published by The College Board. This publication may be obtained from the College Board Advanced Placement Program.

Calculus Dual Credit (distance learning --Del Mar College MATH 2413) ***weighted course***
1 semester/0.5 credit/1 period/4 college credit hours
Grade Placement: 11-12
Prerequisites: Precalculus plus dual credit criteria or Del Mar College MATH 1314 & 1316
Topics covered: Limits, continuity, differentiation with applications, integration, definite integral with properties, and applications of integration.

College Algebra Dual Credit (distance learning --Del Mar College MATH 1314) ***weighted course***
1 semester/.5 credit/1 period/3 college hours
Grade Placement: 11-12
Prerequisite: Algebra 2 & dual credit criteria
Students who apply for this course must meet criteria designated by Del Mar College. The Dual Credit Program is a cooperative partnership between Tuloso-Midway High School and Del Mar College enabling high school students to receive college credit while completing the requirements of high school graduation. This course includes fundamentals of algebra, including inequalities, functions, quadratic equations, exponential and logarithmic functions, systems of equations, determinants and instructor option of binomial theorem or progressions. This course is the entry level mathematics course required at most colleges and universities; it is for non-mathematic majors. Look at the college catalog for college mathematics requirements for the major you may be considering. ***Note: Students who drop the course are responsible for the Text book Access Code Fee***

Plane Trigonometry DC (distance learning--Del Mar College Math 1316) ***weighted course***
1 semester/.5 credit/1 period/3 college hours
Grade Placement: 11-12
Prerequisite: College Algebra
Students who apply for this course must meet criteria designated by Del Mar College. The Dual Credit Program is a cooperative partnership between Tuloso-Midway High School and Del Mar College enabling high school students to receive college credit while completing the requirements of high school graduation. This course introduces trigonometry functions, identities, heights and distance, equations involving trigonometric functions, solutions of triangles, area, vectors and their basic applications. ***Note: Students who drop the course are responsible for the Text book Access Code Fee***

Elementary Statistical Methods DC (distance learning--Del Mar College MATH 1342) ***weighted course***
1 semester/.5 credit/1 period/3 college credit hours
Grade Placement: 11-12
Prerequisite: College Algebra
Students who apply for this course must meet criteria designated by Del Mar College. The Dual Credit Program is a cooperative partnership between Tuloso-Midway High School and Del Mar College enabling high school students to receive college credit while completing the requirements of high school graduation. This course covers frequency distributions, measures of location, variations; probability-basic rules, concepts of random variables and their distributions; statistical inference-confidence intervals, tests of hypothesis, introduction of linear regression. ***Note: Students who drop the course are responsible for the Text book Access Code Fee.***

SCIENCE

STEM
Science, Technology, Engineering and Math

Common Essential Knowledge and Skills for Science are "use of evidence to construct testable explanations and predictions of natural phenomena, as well as the knowledge generated through this process;" the planned and deliberate investigation inquiry of the natural world; scientific methods of investigation that are experimental, descriptive, or comparative; decision making that is a way of answering questions about the natural world; distinguish between scientific decision-making methods (scientific methods) and ethical and social decisions that involve science (the application of scientific information).

Biology
2 semesters/1 credit/1 period
Grade Placement: 9

Introduction: Students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving; study a variety of topics that include: structures and functions of cells and viruses; growth and development of organisms; cells, tissues, and organs; nucleic acids and genetics; biological evolution; taxonomy; metabolism and energy transfers in living organisms; living systems; homeostasis; and ecosystems and the environment; scientific inquiry and methods of investigation are experimental, descriptive, or comparative; students should be able to distinguish between scientific decision-making methods (scientific methods) and ethical and social decisions that involve science (the application of scientific information; collection of cycles, structures, and processes that have basic properties that can be described in space, time, energy, and matter; patterns and can be observed, measured, and modeled that can be scientifically tested; analyze a system in terms of its components and how these components relate to each other, to the whole, and to the external environment.

Integrated Physics and Chemistry
2 semesters/1 credit/1 period
Grade Placement: 9-10

Prerequisite: Algebra I completion or concurrent enrollment recommended.

Introduction: Students conduct laboratory and field investigations, use scientific methods during investigation, and make informed decisions using critical thinking and scientific problem solving; integration of the disciplines of physics and chemistry in the following topics: force, motion, energy, and matter.

Biology PAP (Pre-Advanced Placement) *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 9

Prerequisite: Prerequisite: *Any student enrolling in a PAP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.*

Biology Pre-AP (Pre-Advanced Placement) is a laboratory-based, academically rigorous course that is intended to prepare students for advanced biology courses, such as AP or dual credit Biology. Introduction: Students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving; study a variety of topics that include: structures and functions of cells and viruses; growth and development of organisms; cells, tissues, and organs; nucleic acids and genetics; biological evolution; taxonomy; metabolism and energy transfers in living organisms; living systems; homeostasis; and ecosystems and the environment; scientific inquiry and methods of investigation are experimental, descriptive, or comparative; students should be able to distinguish between scientific decision-making methods (scientific methods) and ethical and social decisions that involve science (the application of scientific information; collection of cycles, structures, and processes that have basic properties that can be described in space, time, energy, and matter; patterns and can be observed, measured, and modeled that can be scientifically tested; analyze a system in terms of its components and how these components relate to each other, to the whole, and to the external environment. The goal is to foster student responsibility for scholarship by providing the opportunity to work at a pre-college level and better prepare students for the AP courses offered in the eleventh and twelfth grades.

Chemistry
2 semesters/1 credit/1 period
Grade Placement: 9-12
Prerequisites: Biology, Algebra I and completion of or concurrent enrollment in a second year math.
Introduction: Students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving; study a variety of topics that include characteristics of matter, use of the Periodic Table, development of atomic theory and chemical bonding, chemical stoichiometry, gas laws, solution chemistry, thermo-chemistry, and nuclear chemistry. Students will investigate how chemistry is an integral part of our daily lives.

Chemistry PAP (Pre-Advanced Placement) *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 9-12
Prerequisites: Biology, Algebra I and completion of or concurrent enrollment in a second year math.
Prerequisite: *Any student enrolling in a PAP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment. For Chemistry PAP, this requirement applies to both Algebra I and Biology EOC's.*
This class is designed for students who plan to enroll in AP Chemistry. It is an accelerated class that studies in-depth various topics. Students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving; study a variety of topics that include characteristics of matter, use of the Periodic Table, development of atomic theory and chemical bonding, chemical stoichiometry, gas laws, solution chemistry, thermo-chemistry, and nuclear chemistry. Students will investigate how chemistry is an integral part of our daily lives. The goal is to foster student responsibility for scholarship by providing the opportunity to work at a pre-college level and better prepare students for the AP courses.

Physics
2 semesters/1 credit/1 period
Grade Placement: 11
Prerequisite: Biology, Chemistry, and Algebra II (or taken concurrently)
Students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students study a variety of topics that include: laws of motion; changes within physical systems and conservation of energy and momentum; forces; thermodynamics; characteristics and behavior of waves; and atomic, nuclear, and quantum physics. Students who successfully complete Physics will acquire factual knowledge within a conceptual framework, practice experimental design and interpretation, work collaboratively with colleagues, and develop critical thinking skills.

Physics PAP (Pre-Advanced Placement) *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 11
Prerequisites: Biology, Chemistry, and Algebra II (or taken concurrently)
Prerequisite: *Any student enrolling in a PAP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.*
This class is designed for students who plan to enroll in AP Physics the following year. It is an accelerated class that studies in-depth various topics Introduction: Students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students study a variety of topics that include: laws of motion; changes within physical systems and conservation of energy and momentum; forces; thermodynamics; characteristics and behavior of waves; and atomic, nuclear, and quantum physics. Students who successfully complete Physics will acquire factual knowledge within a conceptual framework, practice experimental design and interpretation, work collaboratively with colleagues, and develop critical thinking skills.

Principles of Technology [POT]
2 semesters/ 1 credit/1 period
Grade Placement: 11-12
Prerequisites: Algebra 1, Biology and Chemistry
Introduction: students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Various systems will be described in terms of space, time, energy, and matter. Students will study a variety of topics that include laws of motion, conservation of energy, momentum, electricity, magnetism, thermodynamics, and characteristics and behavior of waves. Students will apply physics concepts and perform laboratory experimentations for at least 40% of instructional time using safe practices.

Chemistry AP (Advanced Placement) *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisites: Algebra 1, Biology or Biology Pre-AP, Chemistry or Chemistry Pre-AP, and a third science
Prerequisite: *Any student enrolling in an AP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.*
Corequisite: Algebra II, Pre-Calculus, College Algebra DC, Trigonometry DC, or Statistics DC
Content requirements for Advanced Placement (AP) Chemistry are prescribed in the College Board Publication Advanced Placement Course Description: Chemistry, published by The College Board.

Physics I –AP (Advanced Placement): Algebra Based ***weighted course***
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisites: Algebra I, Geometry, Algebra II or concurrently taking Algebra II.
Prerequisite: *Any student enrolling in an AP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.*
Advanced Placement (AP) courses will challenge students with college level material that enables them to successfully pass the AP exam and receive college credit. Reading requirements include the text written on the college level and additional outside reading. AP courses require regular outside the classroom assignments. AP Physics I is an algebra-based, introductory college-level physics course. Students cultivate their understanding of physics through classroom study, in-class activity, and hands-on, inquiry-based laboratory work as they explore concepts like systems, fields, force interactions, change, conservation, and waves.

Physics C –AP (Advanced Placement): Mechanics ***weighted course***
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisites: Biology, Chemistry, Physics, Calculus or concurrently taking Calculus.
Prerequisite: *Any student enrolling in an AP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.*
Advanced Placement (AP) courses will challenge students with college level material that enables them to successfully pass the AP exam and receive college credit. Reading requirements include the text written on the college level and additional outside reading. AP courses require regular outside the classroom assignments. The AP Physics C course (Calculus based) is a second year physics course and includes topics in both classical and modern physics including: Newtonian mechanics, fluid mechanics, electricity and magnetism.

Biology AP (Advanced Placement) with Scientific Research and Design *weighted course*
2 semesters/2 credits/2 periods
Grade Placement: 11-12
Prerequisites: Biology or Biology Pre-AP, Chemistry or Chemistry Pre-AP, and third science.
Prerequisite: *Any student enrolling in an AP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.*
Suggested Grade requirements: yearly average of at least 85% regular biology & regular chemistry
Content Requirements. Content requirements for Advanced Placement (AP) Biology are prescribed in the College Board Publication Advanced Placement Course Description: Biology, published by The College Board.

Biology Dual Credit with Scientific Research and Design *weighted course*
Del Mar College (Biology 1406 & 1407)
2 semesters/2 credits/ 8-college hours
Grade Placement: 11-12
Prerequisites: Biology or Biology Pre-AP, Chemistry or Chemistry Pre-AP, and third science & student must meet criteria designated by Del Mar College. (See dual credit course requirements.)
Meets Del Mar College science major requirements. For other colleges and universities, refer to the institution's guidelines.
The Dual Credit program is a partnership between Tuloso-Midway High School and Del Mar College enabling students to earn four college credits while completing the requirements of high school. The curriculum is based on the Biology 1406 and 1407 college curriculum. The course content concentrates on Molecular Biology first semester and Organismal Biology second semester. The content covers biochemistry, cell structure, and function through the processes of cell transport, photosynthesis, respiration, cell division, inheritance, and protein synthesis. This is a lab-oriented course and students are expected to demonstrate safe practices in using biological equipment and chemicals. Students will be required to complete a genetics project using fruit flies and to build a model of DNA.

Anatomy and Physiology
2 semesters/1 credit/1 period
Grade Placement: 11-12

Prerequisites: Biology or Biology Pre-AP, Chemistry or Chemistry Pre-AP

Anatomy and Physiology is a study of the human systems and is geared to meet the needs of students interested in a career in the medical field. This lab-oriented course is designed to demonstrate safe practices using biological equipment and chemicals as well as safe dissecting techniques. Students will participate fully in labs and use safe procedures in handling dissection specimens, recognize and identify organs on models and on dissected specimens. Students will describe the function of each body system and identify disorders of homeostasis of a particular system. On a weekly basis, students will analyze advanced medical concerns by using multimedia resources.

Anatomy and Physiology Honors *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 11-12

Prerequisites: Biology or Biology Pre-AP, Chemistry or Chemistry Pre-AP

Anatomy and Physiology Honors is an accelerated class that studies in-depth various topics relating to human systems and is geared to meet the needs of students interested in a career in the medical field. This lab-oriented course designed to demonstrate safe practices using biological equipment and chemicals as well as safe dissecting techniques. Students will participate fully in labs and use safe procedures in handling dissection specimens, recognize and identify organs on models and on dissected specimens. Students will describe the function of each body system and identify disorders of homeostasis of a particular system. On a weekly basis, students will analyze advanced medical concerns by using multimedia resources.

Aquatic Science
2 semesters/1 credit/1 period
Grade Placement: 10-12

Prerequisites: Biology or Biology Pre-AP

Suggested Pre- or Co-Requisite: Chemistry or Chemistry Pre-AP

Students study the interactions of biotic and abiotic components in aquatic environments, including impacts on aquatic systems. Investigations and field work in this course may emphasize fresh water or marine aspects of aquatic science depending primarily upon the natural resources available for study near the school. Students who successfully complete Aquatic Science will acquire knowledge about a variety of aquatic systems, conduct investigations and observations of aquatic environments, work collaboratively with peers, and develop critical-thinking and problem-solving skills. A $10.00 lab fee is required to pay for necessary supplies.

Earth and Space Science
2 semesters/1 credit/1 period
Grade Placement: 11-12

Prerequisites: three units of science, one of which may be taken concurrently, and three units of mathematics, one of which may be taken concurrently.

Earth and Space Science (ESS) is a capstone course designed to build on students' prior scientific and academic knowledge and skills to develop understanding of Earth's system in space and time. ESS includes the study of earth in space and time, solid Earth and fluid Earth through the three strands of systems, energy, and relevance.

Environmental Systems
2 semesters/1 credit/1 period
Grade Placement: 11-12

Prerequisites: Biology or Biology Pre-AP, IPC and/or Chemistry or Chemistry Pre-AP

Students will conduct field and laboratory investigations, use scientific methods, and make informed decisions using critical thinking and scientific problem solving. Students study a variety of topics that include: biotic and abiotic factors in habitats; ecosystems and biomes; interrelationships among resources and an environmental system; sources and flow of energy though an environmental system; relationship between carrying capacity and changes in populations and ecosystems; and changes in environments. All systems have basic properties that can be described in terms of space, time, energy, and matter. Change and constancy occur in systems and can be observed and measured as patterns. These patterns help to predict what will happen next and can change over time.

Forensic Science
2 semesters/ 1 credit/1 period
Grades 11-12

Prerequisites: Biology, Chemistry, and Principles of Law, Public Safety, Corrections, and Security

Forensic Science is a course that uses a structured and scientific approach to the investigation of crimes of assault, abuse and neglect, domestic violence, accidental death, homicide, and the psychology of criminal behavior. Students will learn terminology and investigative procedures related to crime scene, questioning, interviewing, criminal behavior characteristics, truth detection, and scientific procedures used to solve crimes. Using scientific methods, students will collect and analyze evidence through case studies and simulated crime scenes such as fingerprint analysis, ballistics, and blood spatter analysis. Students will learn the history, legal aspects, and career options for forensic science.

Scientific Research and Design (Aero-Sciences I)
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisites: Biology, IPC or Chemistry, 3rd science course
The Aero-science program offers junior and senior high school students an opportunity to participate in a hands-on, project-based engineering and technology program in aero-science studies. Students experience hands-on research as well as design and development instruction within the engineering and technology design disciplines. Valuable life skills such as problem-solving, testing and analysis, documentation and reporting, project management, teamwork and communication are developed. These applied philosophies of education are imperative in supporting tomorrow's workforce needs. Our curriculum, endorsed by NASA, is a two-year, junior/senior program in which students design and develop remotely operated vehicles and unmanned aerial vehicles for research or industrial applications. The program encourages students to pursue engineering and technology careers in the American workforce.

Scientific Research and Design II (Aero - Sciences II)
2 semesters/1 credit/1 period
Grade Placement: 12
Prerequisite: Scientific Research and Design
This is an upper level science course designed to prepare high school students for the rigors of a technical or engineering college curriculum and provide an introduction to the practices and procedures within the technical workforce. The course curriculum is to the award winning Ignite: Systems Go Aero-science curriculum with a goal of reaching speeds of Mach 1 in a student built rocket.

Advanced Animal Science (if taken as the fourth science, otherwise an Agriculture elective)
See Agriculture, Food & Natural Resources section for course information.

Adv. Plant and Animal Science (if taken as the fourth science, otherwise an Agriculture elective)
See Agriculture, Food & Natural Resources section

SOCIAL STUDIES

World Geography Studies
2 semesters/1 credit/1 period
Grade Placement: 9-12

Students examine people, places, and environments at local, regional, national, and international scales from the spatial and ecological perspectives of geography. Students describe the influence of geography on events of the past and present with emphasis on contemporary issues. A significant portion of the course centers around the physical processes that shape patterns in the physical environment; the characteristics of major landforms, climates, and ecosystems and their interrelationships; the political, economic, and social processes that shape cultural patterns of regions; types and patterns of settlement; the distribution and movement of the world population; relationships among people, places, and environments; and the concept of region. Students analyze how location affects economic activities in different economic systems. Students identify the processes that influence political divisions of the planet and analyze how different points of view affect the development of public policies. Students compare how components of culture shape the characteristics of regions and analyze the impact of technology and human modifications on the physical environment. Students use problem-solving and decision-making skills to ask and answer geographic questions.

World History Studies
2 semesters/1 credit/1 period
Grade Placement: 9-12

World History Studies is a survey of the history of humankind. Due to the expanse of world history and the time limitations of the school year, the major emphasis is on the study of significant people, events, and issues from the earliest times to the present. Traditional historical points of reference in world history are identified as students analyze important events and issues in western civilization as well as in civilizations in other parts of the world. Students evaluate the causes and effects of political and economic imperialism and of major political revolutions since the 17th century. Students examine the impact of geographic factors on major historic events and identify the historic origins of contemporary economic systems. Students analyze the process by which constitutional governments evolved as well as the ideas from historic documents that influenced that process. Students trace the historical development of important legal and political concepts. Students examine the history and impact of major religious and philosophical traditions. Students analyze the connections between major developments in science and technology and the growth of industrial economies, and they use the process of historical inquiry to research, interpret, and use multiple sources of evidence.

World Geography Pre-AP (Pre-Advanced Placement) *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 9-12

Prerequisite: *Any student enrolling in a PAP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.*

This fast-paced curriculum is for student not requiring additional time and practice in order to be successful. Students examine people, places, and environments at local, regional, national, and international scales from the spatial and ecological perspectives of geography. Students describe the influence of geography on events of the past and present with emphasis on contemporary issues. A significant portion of the course centers around the physical processes that shape patterns in the physical environment; the characteristics of major landforms, climates, and ecosystems and their interrelationships; the political, economic, and social processes that shape cultural patterns of regions; types and patterns of settlement; the distribution and movement of the world population; relationships among people, places, and environments; and the concept of region. Students analyze how location affects economic activities in different economic systems. Students identify the processes that influence political divisions of the planet and analyze how different points of view affect the development of public policies. Students compare how components of culture shape the characteristics of regions and analyze the impact of technology and human modifications on the physical environment. Students use problem-solving and decision-making skills to ask and answer geographic questions. The goal is to foster student responsibility for scholarship by providing the opportunity to work at a pre-college level and better prepare students for the AP courses.

World History Studies Pre-AP (Pre-Advanced Placement) *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 9-12
Prerequisite: *Any student enrolling in a PAP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.*
This fast-paced curriculum is for student not requiring additional time and practice in order to be successful. World History Studies is a survey of the history of humankind. Due to the expanse of world history and the time limitations of the school year, the major emphasis is on the study of significant people, events, and issues from the earliest times to the present. Traditional historical points of reference in world history are identified as students analyze important events and issues in western civilization as well as in civilizations in other parts of the world. Students evaluate the causes and effects of political and economic imperialism and of major political revolutions since the 17th century. Students examine the impact of geographic factors on major historic events and identify the historic origins of contemporary economic systems. Students analyze the process by which constitutional governments evolved as well as the ideas from historic documents that influenced that process. Students trace the historical development of important legal and political concepts. Students examine the history and impact of major religious and philosophical traditions. Students analyze the connections between major developments in science and technology and the growth of industrial economies, and they use the process of historical inquiry to research, interpret, and use multiple sources of evidence. The goal is to foster student responsibility for scholarship by providing the opportunity to work at a pre-college level and better prepare students for the AP courses offered in the eleventh and twelfth grades.

United States History AP (Advanced Placement) *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 11
Prerequisite: *Any student enrolling in an AP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.*
The extremely rigorous United States History AP program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. The course is a survey course, which is an in-depth study of American history from colonial times to the present with extensive chronological coverage and outside readings based on a broad variety of topics in such special fields as economic history, cultural and intellectual history, social history, in addition to political, constitutional and diplomatic history.

United States History Studies Since 1877
2 semesters/1 credit/1 period
Grade Placement: 11
In United States History Studies Since 1877 (the second part of a two-year study that begins in Grade 8) students study the history of the United States from 1877 to the present. The course content is based on the founding documents of the U.S. government, which provide a framework for its heritage. Historical content focuses on the political, economic, and social events and issues related to industrialization and urbanization, major wars, domestic and foreign policies, and reform movements, including civil rights. Students examine the impact of geographic factors on major events and eras and analyze their causes and effects. Students examine the impact of constitutional issues on American society, evaluate the dynamic relationship of the three branches of the federal government, and analyze efforts to expand the democratic process. Students describe the relationship between the arts and popular culture and the times during which they were created. Students analyze the impact of technological innovations on American life. Students use critical-thinking skills and a variety of primary and secondary source material to explain and apply different methods that historians use to understand and interpret the past, including multiple points of view and historical context.

European History AP (Advanced Placement) *weighted course*
2-semesters/1 credit/1 period
Grade Placement: 10-12
Prerequisite: World Geography or World History
Prerequisite: *Any student enrolling in an AP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.*
The AP European History course focuses on developing students' understanding of European history from approximately 1450 to the present. The course has students investigate the content of European history for significant events, individuals, developments, and processes in four historical periods, and develop and use the same thinking skills and methods (analyzing primary and secondary sources, making historical comparisons, chronological reasoning, and argumentation) employed by historians when they study the past. The course also provides five themes (interaction of Europe and the world; poverty and prosperity; objective knowledge and subjective visions; states and other institutions of power; and individual and society) that students explore throughout the course in order to make connections among historical developments in different times and places.

UT OnRamps US History *weighted course*
Dual Enrollment-UT Austin (HIS 315K – FALL and HIS 315L-SPRING)
The United States (1492-1865)
2 semesters/1 HS credit /1 period / (3 college credit hours per semester)
Grade Placement: 11-12

Prerequisites: English 1 and English 2. Must take TSI.

US History OnRamps dual enrollment through UT Austin will provide students the opportunity to attempt college-level work in the study of the History of the United States. Students will experience the curricular expectations, writing requirements and study of American history in the same coursework as students enrolled at UT Austin but with the course support of NISD instructors. US History OnRamps is a dual enrollment partnership with the University of Texas at Austin. Students must demonstrate their ability to do college-level work in order for the opportunity to earn college credit during the spring semester. This course offering is a Texas Core Curriculum course. Credits: 1 Grade Placement: 11 Semesters: 2 Weighted GPA: Level 3 (Level 4 for students entering Grade 9 Fall 2018 and beyond) Prerequisite: Counselor approval See the NISD College and Career Readiness OnRamps website for more details: nisdtx.org/onramps

United States Government and Politics
1 semester/. 5 credit/1 period
Grade Placement: 12

Introduction: In United States Government, the focus is on the principles and beliefs upon which the United States was founded and on the structure, functions, and powers of government at the national, state, and local levels. This course is the culmination of the civic and governmental content and concepts studied from Kindergarten through required secondary courses. Students learn major political ideas and forms of government in history. A significant focus of the course is on the U.S. Constitution, its underlying principles and ideas, and the form of government it created. Students analyze major concepts of republicanism, federalism, checks and balances, separation of powers, popular sovereignty, and individual rights and compare the U.S. system of government with other political systems. Students identify the role of government in the U.S. free enterprise system and examine the strategic importance of places to the United States. Students analyze the impact of individuals, political parties, interest groups, and the media on the American political system, evaluate the importance of voluntary individual participation in a constitutional republic, and analyze the rights guaranteed by the U.S. Constitution. Students examine the relationship between governmental policies and the culture of the United States. Students identify examples of government policies that encourage scientific research and use critical-thinking skills to create a product on a contemporary government issue.

United States Government and Politics AP (Advanced Placement) *weighted course*
1 semester/. 5 credit/1 period
Grade Placement: 12

Prerequisite: *Any student enrolling in an AP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/End Of Course Exam.*

This Advanced Placement (AP) course in U.S. Government and Politics will give students an analytical perspective on government and politics in the United States. This extremely rigorous program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by a full-year introductory college course. This course includes both the study of general concepts used to interpret U.S. Politics and analyze of specific examples. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. politics. Students will become acquainted with the variety of theoretical perspectives and explanations for various behaviors and outcomes.

Government Dual Credit (distance learning)
weighted course
Del Mar College GOVT 2305
1 semester/.5 credit/1 period /3 college hours
Grade Placement: 12

Prerequisite: Del Mar College requirements

Instruction for this course is through distance learning technology; WebCT and online lecture is the instructional design of the course. Students will become proficient users of distance technology equipment. The Concurrent Enrollment program is a cooperative partnership between Tuloso-Midway High School and Del Mar College enabling high school students to receive college credit while completing the requirements for high school graduation. The curriculum is based on the United States Government 2301 college curriculum. This course will provide college bound students with the rigorous expectations and experiences of a college-level program.

Economics with Emphasis on the Free Enterprise System and its Benefits
1 semester/. 5 credit/1 period
Grade Placement: 12

Introduction: Economics with Emphasis on the Free Enterprise System and Its Benefits is the culmination of the economic content and concepts studied from Kindergarten through required secondary courses. The focus is on the basic principles concerning production, consumption, and distribution of goods and services (the problem of scarcity) in the United States and a comparison with those in other countries around the world. Students analyze the interaction of supply, demand, and price. Students will investigate the concepts of specialization and international trade, economic growth, key economic measurements, and monetary and fiscal policy. Students will study the roles of the Federal Reserve System and other financial institutions, government, and businesses in a free enterprise system. Types of business ownership and market structures are discussed. The course also incorporates instruction in personal financial literacy. Students apply critical-thinking skills using economic concepts to evaluate the costs and benefits of economic issues.

Macroeconomics AP (Advanced Placement) *weighted course*
1 semester/. 5 credit/1 period
Grade Placement: 12

Prerequisite: *Any student enrolling in an AP course must have first obtained a performance level of "Meets Grade Level" on the most recent core subject related STAAR/EOC assessment.*

The Economics/Free Enterprise course will focus on the basic principles, which stimulate the creation of and foster the growth of the free enterprise system and the comparison of different forms of economic systems throughout the world. The student will investigate, independently or collaboratively, a problem, issue, or concern within a selected profession or discipline. The student will demonstrate understanding of the research methods and/or technologies used in a selected profession or discipline. The student will develop products that meet standards recognized by the selected profession or discipline. The student will demonstrate an understanding of the selected problem, issue, or concern by explaining or justifying findings to an appropriate audience for public comment or professional response.

Macroeconomics Dual Credit (distance learning) *weighted course*
Del Mar College ECON 2301
1 semester/.5 credit/1 period /3 college hours
Grade Placement: 12

Prerequisite: Del Mar College requirements

Instruction for this course is through distance learning technology; WebCT and online lecture is the instructional design of the course. Students will become proficient users of distance technology equipment. The Dual Credit program is a cooperative partnership between Tuloso-Midway High School and Del Mar College enabling high school students to receive college credit while completing the requirements for high school graduation. The curriculum is based on the Macroeconomics 2301 college curriculum. This course will provide college bound students with the rigorous expectations and experiences of a college-level program.

Psychology
1 semester/.5 credit/1 period
Grade Placement: 9-12

Study of development of the individual and the personality. Topics include: theories of human development, personality, motivation, and learning, dynamics of relationships between self and others to be a contributing member of the community. The student understands that beliefs, decisions, and actions have consequences. The student understands behavioral, social learning, and cognitive perspectives of motivation to describe his or her role and impact on economics systems. Finally, the student understands the influence of sensory perceptions on the shaping of individual beliefs and attitudes. **If Psychology credit is earned, students are not eligible to enroll in Psychology Dual Credit.**

Psychology Dual Credit
Del Mar College PSYC 2301
Grade Placement: 11-12
1 semester/.5 credit/1 period/3 college credit hours

Prerequisite: Del Mar College requirements

Survey of the science of psychology. Topics may include scientific methods, learning, memory, biology, personality theory, stress and mental disorders. Introduces the study of behavior and the factors that determine and affect behavior. **If Psychology credit is earned, students are not eligible to enroll in Psychology Dual Credit.**

Sociology
1 semester/.5 credit/1 period
Grade Placement: 9-12
Study of dynamics and models of individual and group relationships. Related Topics: history and systems of sociology, cultural and social norms, social institutions, and mass communication, different styles and forms of leadership, political socialization, and communication techniques that influence perception, attitudes, and behavior. Students will understand basic sociological principles related to change within a group and across groups. The students will understand how people develop social institutions to meet basic needs in a society. **If Sociology credit is earned, students are not eligible to enroll in Sociology Dual Credit.**

Sociology Dual Credit
Del Mar College SOCI 1301
1 semester/.5 credit/1 period/3 college credit hours
Grade Placement: 11-12
Prerequisite: Del Mar College requirements
Introduction to the concepts and principles used in the study of group life, social institutions, and social processes.
If Sociology credit is earned, students are not eligible to enroll in Sociology Dual Credit.

Personal Financial Literacy *(course pending board approval)*
1 semester/.5 credit/1 period
Grade Placement: 11-12
Pre-Requisite: World Geography or World History
Personal Financial Literacy is designed to be an interactive and research based course. The course will teach students to analyze decisions involving earning and spending, saving and investment, credit and borrowing, insuring and protecting, and college and post-secondary education and training.

ADDITIONAL COURSE DESCRIPTIONS

Arts & Humanities

FINE ARTS

Art 1
2 semesters/1 credit/1 period
Grade Placement: 9-12

This course provides a broad foundation into the elements and principles of design to develop skills in creative thinking and communication. Students will work hands-on with a variety of media which may include drawing (pencil, pastels, charcoal, colored pencil), painting (tempera and watercolor), sculpture (clay, paper), printmaking (linoleum), and mixed media. Art appreciation, art history and evaluation through student and teacher critiques expand the student's verbal and visual vocabulary.

Art 1: Painting
2 semesters/1 credit/1 period
Grade Placement: 9-12

This course provides a broad foundation into the elements and principles of design to develop skills in creative thinking and communication through painting and drawing. Students will work hands-on with a variety of painting techniques and some mix-media. Acrylic, tempera, and watercolor will be used. Art appreciation, art history and evaluation through student and teacher critiques expand the student's verbal and visual vocabulary. Students are expected to keep a sketchbook.

Art 1: Sculpture
2 semesters/1 credit/1 period
Grade Placement: 9-12

This course provides a broad foundation into the elements and principles of design to develop skills in creative thinking and communication. Students will work hands-on with a variety of 3D materials in sculptures. Found art, clay, paper, plaster, wire are just a few of the materials used. Art appreciation, art history and evaluation through student and teacher critiques expand the student's verbal and visual vocabulary with sculpture and the elements and principles of design. Students are expected to keep a sketchbook.

Art 2: Sculpture I
2 semesters/1 credit/1 period
Grade Placement: 9-12
Prerequisite: Art 1

This second year course provides exposure to a variety of art processes and techniques. It extends the student's artistic understanding and experiences as introduced in Art I. Emphasis will be placed on the development of compositional skills and imaginative use of the elements and principles of design. The class is designed to strengthen the student's three-dimensional and spatial skills. Students will experiment with a variety of sculpting materials and tools. Ancient through contemporary sculptures will be studied.

Art 2: Drawing I
2 semesters/1 credit/1 period
Grade Placement: 9-12
Prerequisite: Art 1

In this second year course, students work both from observation and imagination on projects and exercises designed to improve drawing and compositional skills. Students will work in a variety of media such as pencil, ink, scratchboard, pastels and mixed media. It is designed to engage students in higher level thinking skills through creative problem solving and personal expression. Students will create original works of art in the areas of portraits, landscapes, interiors, still life images, perspective drawings, figure drawings and other areas of interest. Participation in a variety of local, regional, and national art competitions is encouraged.

Art 2: Painting I
2 semesters/1 credit/1 period
Grade Placement: 9-12
Prerequisite: Art 1

This second year course provides exposure to a variety of art processes and techniques. The elements and principles of design are studied in addition to major artists and art movements. Instruction emphasizes the development of a personal style and painting skills. Students will continue to work with a variety of painting techniques while using watercolor, tempera, acrylic, under glaze and mixed media on two- and three-dimensional surfaces to create original works of art. Students will work in collaboration with the teacher to devise individual projects. Participation in a variety of local, regional, and national art competitions is encouraged.

Art 2: Printmaking I
2 semesters/1 credit/1 period
Grade Placement: 9-12
Prerequisite: Art 1

This second year course provides instruction in the art of producing prints. Students will research in depth techniques such as screen printing, etching-drypoint, block printmaking, collagraphs, and monotypes in its historical to contemporary styles. Students are expected to keep a living sketchbook of weekly assignments and research of projects. Students will have opportunities and are expected to enter original and authentic work in competitions with peers. They will also have opportunities to display original and authentic works amongst peers.

Art 3: Drawing II
2 semesters/1 credit/1 period
Grade Placement: 10-12
Prerequisite: Art 1 and Art 2 Drawing I
This third year course requires the student to develop a portfolio of advanced art pieces. Continuing on the foundation built in Art 1 and Art 2: Drawing, students will work towards the development of a personal style through the creation of works of art using a variety of media such as pencil, ink, scratchboard, pastels and mixed media. Participation in a variety of local, regional, and national art competitions is expected. Students are required to devote time outside of the normal class period.

Art 3: Painting II
2 semesters/1 credit/1 period
Grade Placement: 10-12
Prerequisite: Art 1 and Art 2 Painting I
This third year course requires the student to develop a portfolio of advanced art pieces. Continuing on the foundation built in Art 1 and Art 2: Painting, Students will continue to work with a variety of painting techniques while using watercolor, tempera, acrylic, under glaze and mixed media on two- and three-dimensional surfaces to create original works of art. Students will work in collaboration with the teacher to devise individual projects. Participation in a variety of local, regional, and national art competitions is expected. Students are required to devote time outside of the normal class period.

Art 3: Sculpture II
2 semesters/1 credit/1 period
Grade Placement: 10-12
Prerequisite: Art 1 and Art 2 Sculpture I
This third year course provides exposure to a variety of art processes and techniques. It extends the student's artistic under-standing and experiences as introduced in Art 2 Sculpture I. Emphasis will be placed on the advanced development of compositional skills and imaginative use of the elements and principles of design in sculpture. The class is designed to strengthen the student's three-dimensional and spatial skills. Students will experiment with a variety of sculpting materials, tools and subjects to develop artwork that express the student's personal style and concept. Ancient through contemporary sculptures will be studied.

Art 4: Drawing III
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisite: Art 1, Art 2 Drawing I, and Art 3 Drawing II
This fourth year course requires the student to develop a portfolio of advanced art pieces. Continuing on the foundation built in Art 1 and Art 2 and Art 3: Drawing, students will work towards the development of a personal style through the creation of works of art using a variety of media such as pencil, ink, scratchboard, pastels and mixed media. Participation in a variety of local, regional, and national art competitions is expected. Students are required to devote time outside of the normal class period.

Art 4: Painting III
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisite: Art 1, Art 2 Painting I, and Art 3 Painting II
This fourth year course requires the student to develop a portfolio of advanced art pieces. Continuing on the foundation built in Art 1, Art 2 and Art 3: Painting, Students will continue to work with a variety of painting techniques while using watercolor, tempera, acrylic, under glaze and mixed media on two- and three-dimensional surfaces to create original works of art. Students will work in collaboration with the teacher to devise individual projects. Participation in a variety of local, regional, and national art competitions is expected. Students are required to devote time outside of the normal class period.

Art 4: Sculpture III
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisite: Art 1, Art 2 Sculpture I, and Art 3 Sculpture II
This fourth year course provides exposure to a variety of art processes and techniques. Art 4 Sculpture III
extends the student's artistic understanding and experiences as introduced in Art 3 Sculpture II Emphasis will be placed on the development of advanced compositional skills and imaginative use of the elements and principles of design in sculpture. This class is designed to develop the student's commitment to a self-determined area of special interest. Students will apply advanced sculpture tools, techniques, media, and subject matter, to develop a series of artwork based on a personal style and theme. Artistic periods and styles from ancient to contemporary will be analyzed.

AP Art: Studio Art: Drawing Portfolio *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 11 - 12
Prerequisite: Successful completion of Art 1 and Drawing 2 and/or Painting 2
This advanced art course enables highly motivated students to work in collaboration with the teacher to prepare and present a performance-based portfolio, which is assessed in three parts. The "quality" section will include five quality pieces of art for the judges to examine. The "concentration" section will consist of 12 slides documenting an in-depth study of a chosen artistic concern. The BREDTH section will consist of 12 slides of the students work showing a wide range of successful drawings in a variety of approaches and media. Students rated *qualified* to *extremely well qualified* may receive advanced placement. Participation in a variety of local, regional, and national art competitions is expected.

Band 1-4
2 semesters/1 credit/1 period
Grade Placement: 9-12

Prerequisite: Courses must be taken in sequence. Students must have proven instrumental performance and recommendation by band director or demonstration of instrumental proficiency appropriate for high school level.

During the year students are provide the opportunity to perform in marching band. Music and marching fundamentals, performance, music history, and development of work ethics is stressed. Individual playing opportunities are made available through competition at District, Region, Area, and State Band tryouts. During the spring semester band provides students with an opportunity to participate in concert band and jazz band. Music fundamentals, performance, music history, and development of work ethics are stressed. Small and large ensemble experience and solo playing are made available. By reflecting on musical periods and styles, students understand music's role in history and are able to participate successfully in a diverse society. Students analyze and evaluate music, developing criteria for making critical judgments and informed choices. *Can count toward PE credit requirements.*

Band 3-4 Honors *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 11-12

Prerequisite: Band 1 & 2

Although encompassing the same performance criteria as regular band courses listed, this course has an added emphasis on research and individualized study and practice. It also develops comprehensive individual musicianship. Attendance at after school rehearsals and performances will be required. The students will also be required to compete at TMEA District Band Auditions and UIL Solo and Ensemble Contests.

Jazz Band 1-4
2 semesters/1 credit/1 period
Grade Placement: 9-12

Prerequisite: Courses must be taken in sequence. Students must have proven instrumental performance and recommendation by band director or demonstration of instrumental proficiency appropriate for high school level.

Four basic strands--perception, creative expression/performance, historical and cultural heritage, and critical evaluation--provide broad, unifying structures for organizing the knowledge and skills students are expected to acquire. In music, students develop their intellect and refine their emotions, understanding the cultural and creative nature of musical artistry and making connections among music, other arts, technology, and aspects of social life. Through creative performance, students apply expressive technical skills of music and critical-thinking skills to evaluate multiple forms of problem solving.

Women's Chorus 1-4
Schedule code: Choir 1,2 /Choir 3, 4 Honors or Vocal Ensemble 1,2 /Vocal Ensemble 3, 4 Honors
2 semesters/1 credit/1 period
Grade Placement: 9-12
Prerequisite: A student must possess a desire to actively participate in choir and improve vocal ability.

This course is for female students with beginning or intermediate skills in sight-reading and choral singing. Instruction in this course will develop the vocal skills of the maturing adolescent female voice. Emphasis will be placed upon developing an appreciation for music. Students will perform in concert programs and participate in competitive events coordinated by the University Interscholastic League and TMEA contests. Attendance at after school rehearsals and performances will be required to fulfill all course objectives.

Men's Chorus 1-4
Schedule code: Choir 1,2 /Choir 3, 4 Honors or Vocal Ensemble 1,2 /Vocal Ensemble 3, 4 Honors
2 semesters/1 credit/1 period
Grade Placement: 9-12
Prerequisite: A student must possess a desire to actively participate in choir and improve vocal ability.

This course is for male students with beginning or intermediate skills in sight-reading and choral singing. Instruction in this course will develop the vocal skills of the changing adolescent male voice. Emphasis will be placed upon developing an appreciation for music. Students will perform in concert programs and participate in competitive events coordinated by the University Interscholastic League and TMEA contests. Attendance at after school rehearsals and performances will be required to fulfill all course objectives.

Concert Choir 1-2
Schedule code: Choir 1,2 or Vocal Ensemble 1,2
2 semesters/1 credit/1 period
Grade Placement: 9-12
Prerequisite: Director's approval/audition

This course is for male and/or female students with intermediate or advanced skills in sight-reading and choral singing. Instruction in this course will continue to develop vocal skills necessary for ensemble singing. Emphasis will be placed upon the performance of diverse variety of choral styles. Students will perform in concert programs and participate in competitive events coordinated by the University Interscholastic League and TMEA contests. Attendance at after school rehearsals and performances will be required to fulfill all course objectives. The voicing of this choir (Mixed, Treble or Tenor/Bass) is at the director's discretion.

Concert Choir 3-4 Honors *weighted course*
Schedule code: Choir 1,2 or Vocal Ensemble 3, 4 Honors
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisite: Concert Choir 2 and Director's Approval
Although encompassing the same performance expectations as the regular choir courses listed in the course catalog, this course has an added emphasis on research and individualized study, leading to the development of comprehensive individual musicianship.

Chamber Choir 1-2
Schedule code: Choir 1,2 or Vocal Ensemble 1,2
2 semesters/1 credit/1 period
Grade Placement: 9-12
Prerequisite: By audition only
Although encompassing the same performance expectations as the regular choir courses listed in the course catalog, this course has an added emphasis on research and individualized study, leading to the development of comprehensive individual musicianship. Students in this course perform music for Concert Choir 1-4, in addition to music specialized for chamber ensembles/vocal jazz idiom.

Chamber Choir 3-4 Honors *weighted course*
Schedule code: Choir 3, 4 Honors or Vocal Ensemble 3, 4 Honors
2 semesters/1 credit/1 period
Grade Placement: 9-12
Prerequisite: By audition only
Although encompassing the same performance expectations as the regular choir courses listed in the course catalog, this course has an added emphasis on research and individualized study, leading to the development of comprehensive individual musicianship. Students in this course perform music for Concert Choir 1-4, in addition to music specialized for chamber ensembles/vocal jazz idiom.

Music History/Music Appreciation Dual Credit *weighted course-not UIL exempt*
Del Mar College (MUSI 1306)
1 semesters/.5 credit/1 period/3 college hours
Grade Placement: 11-12
Prerequisite: Meet Del Mar College and TMHS criteria
This course provides a historical overview of the way music has developed in our culture. This course would develop an understanding of musical arts through the study of the elements of music including melody, harmony, rhythm, color, texture and form. This would include style traits, genres and composers of various historical periods and emphasizing the development of listening skills. It would be designed for the average music listener, so one would not have to have any previous musical training to take this course.

Theatre Arts 1
2 semesters/1 credit/1 period
Grade Placement: 9-12
Theatre Arts 1 is an introductory class with a focus on performance. The student will develop concepts about self, human relationships, elements of drama and conventions of theatre. Students will be introduced to all types of performance (acting for the stage, improvisation, scenes, and vignettes, etc.) Student will also create and perform their own original scenes in various theatrical genres.

Theatre Arts 2-4
2 semesters/1 credit/1 period
Grade Placement: 10-12
Prerequisite: Courses must be taken in sequence.
Emphasis is placed on utilizing advanced characterization in role development: exploring classical and contemporary production styles; historical evolution of performance style and costumes as well as focusing attention to other forms of performance opportunities through radio, television and film. Class will produce a performance integrating all elements of theatre.

Technical Theatre 1-4
2 semesters/1 credit/1 period
Grade Placement: 9-12
Technical Theatre will concentrate on backstage aspects of play production. Students will study set design and construction, scenery, props, lighting, sound, costumes and make-up in a safe hands-on environment. Students will be involved in creating the technical aspects of productions.

Musical Theatre 1-4 *(course pending board approval)*
2 semesters/1 credit/1 period
Grade Placement: 9-12
Musical Theatre will concentrate on concepts about self, human relationships, and the environment using elements of drama, dance, music and the conventions of musical theatre. Students interpret characters through acting, singing, and dance using voice and body expressively and create dramatizations called for in a musical script.

Movement for the Actor
(course pending board approval)
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisite: Theatre I
Students acquire the knowledge and skills for movement and apply these skills effectively to stage acting and performing. The course is designed to employ stage movement to express thoughts, feelings, and actions, and to analyze and describe the interdependence of all physical elements used on the stage.

Digital Art Animation (counts as a fine art credit) see Information Technology Section

Floral Design (counts as a fine art credit) see Agriculture Section

JOURNALISM

Business & Industry

Photojournalism (strongly recommended for those interested in applying for yearbook or magazine)
1 semester / .5 credit / 1 period
Grade Placement: 9-12
Required materials: Digital camera (phone cameras are acceptable and encouraged)
This course is designed to teach digital photography and basic journalism skills. The course covers basic skills including composition and exposure. Students will be introduced to essential digital photography terms, editing, and the essential functions of a digital camera as well as industry standard software Adobe Photoshop and InDesign. This course is highly recommended for students interested in applying for the yearbook or magazine staffs.

Journalism (strongly recommended for those interested in applying for yearbook or magazine)
1 semester / .5 credit / 1 period
Grade Placement: 9-12
This course introduces students to the history and contemporary roles of the mass media in the United States as well as practicing the reporting, writing, and editing skills required to produce articles suitable for publication. The course also covers techniques and trends in publication design in addition to the laws and ethical principles that apply to professional journalists. This course is highly recommended for students interested in applying for the yearbook or magazine staffs.

Advanced Journalism: Yearbook 1
2 semesters/1 credit/ 1 period
Grade Placement: 10-12
Prerequisite: Journalism, Photojournalism, or Digital Art and Animation; written application and teacher approval required
First-year yearbook students will be introduced to the basics of yearbook production including theme development, photography for publication, publication design, marketing, and copy writing. Students will be involved in the production of the yearbook and expected to regularly provide examples of their progress toward long-term projects. Students must demonstrate an ability to meet deadlines and be available to attend extracurricular events. Students must obtain and complete an application from the yearbook adviser to be considered for a staff position.

Advanced Journalism: Yearbook 2
2 semesters/1 credit/ 1 period
Grade Placement: 11-12
Prerequisite: Advanced Journalism- Yearbook 1; written application and teacher approval required
Students will gain further experience in yearbook production and serve as mentors for first-year staff members. Students will be involved in the production of the yearbook and expected to regularly provide examples of their progress toward long-term projects. Advanced students may be considered for editor positions on the yearbook staff. Students must demonstrate an ability to meet deadlines and be available to attend extracurricular events. Students must obtain and complete an application from the yearbook adviser to be considered for a staff position.

Advanced Journalism: Yearbook 3
2 semesters/1 credit/ 1 period
Grade Placement: 12
Prerequisite: Advanced Journalism- Yearbook 2; written application and teacher approval required
Students will gain further experience in yearbook production and serve as mentors for first-year staff members. Students will be involved in the production of the yearbook and expected to regularly provide examples of their progress toward long-term projects. Advanced students may be considered for editor positions on the yearbook staff. Students must demonstrate an ability to meet deadlines and be available to attend extracurricular events. Students must obtain and complete an application from the yearbook adviser to be considered for a staff position.

Advanced Journalism: Yearbook 1 Editor
weighted course
2 semesters/1 credit/ 1 period
Grade Placement: 10-12
Prerequisite: Journalism, Photojournalism, or Digital Art and Animation; written application and teacher approval required
Students will gain further experience in publication production and serve as mentors for first-year staff members. Students will be involved in the production of the yearbook and expected to regularly provide examples of their progress on a weekly basis. Students must demonstrate an ability to meet deadlines and be available to attend extracurricular events. Students must obtain and complete an application from the yearbook adviser to be considered for an editor position.

ADDITIONAL COURSE DESCRIPTIONS

Advanced Journalism: Yearbook 2 Editor
weighted course
2 semesters/1 credit/ 1 period
Grade Placement: 11-12
Prerequisite: Advanced Journalism- Yearbook 1; written application and teacher approval required
Students will gain further experience in publication production and serve as mentors for first-year staff members. Students will be involved in the production of the yearbook and expected to regularly provide examples of their progress on a weekly basis. Students must demonstrate an ability to meet deadlines and be available to attend extracurricular events. Students must obtain and complete an application from the yearbook adviser to be considered for an editor position.

Advanced Journalism: Yearbook 3 Editor
weighted course
2 semesters/1 credit/ 1 period
Grade Placement: 12
Prerequisite: Advanced Journalism- Yearbook 2; written application and teacher approval required
Students will gain further experience in publication production and serve as mentors for first-year staff members. Students will be involved in the production of the yearbook and expected to regularly provide examples of their progress on a weekly basis. Students must demonstrate an ability to meet deadlines and be available to attend extracurricular events. Students must obtain and complete an application from the yearbook adviser to be considered for an editor position.

Advanced Journalism: Newspaper (War Cry) 1
2 semesters/1 credit/1 period
Grade Placement: 10-12
Prerequisite: Journalism, Photojournalism, or Digital Art and Animation; written application and teacher approval required.
First-year students will be introduced to the basics of online publications including content planning, reporting, writing, editing, photography, and web site moderation. Students are expected to identify potential topics of discussion, conduct interviews, gather information, write, edit, and peer review content for publication on the website. Students are expected to improve their writing skills through practice and a demanding writing schedule. Students must demonstrate an ability to meet deadlines and be available to attend extracurricular events. Students must obtain and complete an application from the War Cry adviser to be considered for a staff position.

Advanced Journalism: Newspaper (War Cry) 2
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisite: Advanced Journalism: Newspaper (War Cry) 1; written application and teacher approval required.
Students will gain further experience in online publications and serve as mentors for first-year staff members. Students are expected to identify potential topics of discussion, conduct interviews, gather information, write, edit, and peer review content for publication on the website. Students are expected to improve their writing skills through practice and a demanding writing schedule. Students must demonstrate an ability to meet deadlines and be available to attend extracurricular events. Students must obtain and complete an application from the War Cry adviser to be considered for a staff position.

Advanced Journalism: Newspaper (War Cry) 3
2 semesters/1 credit/1 period
Grade Placement: 12
Prerequisite: Advanced Journalism: Newspaper (War Cry) 2; written application and teacher approval required.
Students will gain further experience in online publications and serve as mentors for first-year staff members. Students are expected to identify potential topics of discussion, conduct interviews, gather information, write, edit, and peer review content for publication on the website. Students are expected to improve their writing skills through practice and a demanding writing schedule. Students must demonstrate an ability to meet deadlines and be available to attend extracurricular events. Students must obtain and complete an application from the War Cry adviser to be considered for a staff position.

Advanced Journalism–Newspaper (War Cry) Editor 1 *Weighted course*
2 semesters / 1 credit / 1 period
Grade Placement: 11–12
Prerequisite: written application and teacher approval required
Students will gain further experience in online publications and serve as mentors for first-year staff members. Students are expected to identify potential topics of discussion, conduct interviews, gather information, write, edit, and peer review content for publication on the website. Students are expected to improve their writing skills through practice and a demanding writing schedule. Students must demonstrate an ability to meet deadlines and be available to attend extracurricular events. Students must obtain and complete an application from the War Cry adviser to be considered for a staff position.

Advanced Journalism–Newspaper (War Cry) Editor 2 *Weighted course*
2 semesters / 1 credit / 1 period
Grade Placement: 11–12
Prerequisite: written application and teacher approval required
Students will gain further experience in online publications and serve as mentors for first-year staff members. Students are expected to identify potential topics of discussion, conduct interviews, gather information, write, edit, and peer review content for publication on the website. Students are expected to improve their writing skills through practice and a demanding writing schedule. Students must demonstrate an ability to meet deadlines and be available to attend extracurricular events. Students must obtain and complete an application from the War Cry adviser to be considered for a staff position.

Advanced Journalism–Newspaper (War Cry) Editor 3 *Weighted course*
2 semesters / 1 credit / 1 period
Grade Placement: 12
Prerequisite: written application and teacher approval required
Students will gain further experience in online publications and serve as mentors for first-year staff members. Students are expected to identify potential topics of discussion, conduct interviews, gather information, write, edit, and peer review content for publication on the website. Students are expected to improve their writing skills through practice and a demanding writing schedule. Students must demonstrate an ability to meet deadlines and be available to attend extracurricular.

COMPUTER TECHNOLOGY COURSES

STEM
Science, Technology, Engineering and Math

Digital Art and Animation
2 semesters/1 credit/1 period
Grade Placement: 9-12
Recommended Prerequisite: Art I

Digital Art and Animation consists of computer images and animations created with digital imaging software. Students will demonstrate creative thinking, develop innovative strategies, and use communication tools in order to work effectively with others and independently. Digital Art and Animation has applications in many careers, including graphic design, advertising, web design, animation, corporate communications, illustration, character development, script writing, storyboarding, directing, producing, inking, project management, editing, as well as the magazine, television, film, and game industries. Students in this course will produce various real-world projects and animations. *This course fulfills the fine arts requirement for graduation*.

UT OnRamps Computer Science
weighted course
(Dual Enrollment-UT Austin CS 302 -- Thriving in our Digital World)
2 semesters/1 HS credit (3 college credit hours) /1 period
Grade Placement: 11-12
Prerequisites: Algebra I
Preferred prerequisites: Algebra I, Algebra II and Geometry. Must take TSI.

Students who apply for this course must meet criteria designated by the University of Texas at Austin. The UT OnRamps Dual Enrollment Program is a cooperative partnership between Tuloso-Midway High School and the University of Texas at Austin enabling high school students to experience the rigor of college-level coursework with the ability to earn college credit while completing the requirements of high school graduation. **Thriving in Our Digital World** is a new dual enrollment course that teaches computer science principles, a set of core ideas that shapes the landscape of computer science and its impact on our society. In addition to learning about the magic and beauty of computing, students will acquire essential Texas College and Career readiness skills, applying critical thinking, problem solving, and communication within a project-based learning framework. Students will experience high-quality curriculum designed by the faculty at The University of Texas at Austin. Students can earn three hours of UT credit with feedback and assessment provided by UT course staff.

AP Computer Science *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisite: Students should be successful in Algebra 2, problem solving and written communication. In addition, they should be comfortable with logical structures and functional notation.

It is important that secondary school students understand that any significant computer science course builds upon a foundation of mathematical reasoning that should be acquired before attempting such a course. **Students will need to utilize a computer either at home or through before/after school tutorials in the computer lab.** This college-level course emphasizes programming methodology with a concentration in problem solving and algorithm development and is meant to be the equivalent of a first-semester course in Computer Science. It also includes the study of data structures and abstraction. Some topics covered in this course will include: design and implementation of computer-based solutions to mathematical problems and other application areas; design and implementation of algorithms and data structures to solve problems; design and implementation of the Java code and AP C++ classes in well-structured fashion; read and understand large programs for success with the AP Computer Science Case. The current programming language is Java for the May AP exams. *This course fulfills technology requirement for graduation.*

Independent Study in Technology Applications
2 semesters/1credit/1 period
Grade Placement: 10-12
Prerequisite: At least one course in the Business or Information Technology areas and teacher approval.

The technology applications curriculum has four strands: foundations, information acquisition, work in solving problems, and communication. Through the study of technology applications foundations, including technology-related terms, concepts, and data input strategies, students learn to make informed decisions about technologies and their applications. The efficient acquisition of information includes the identification of task requirements, the plan for using search tactics; and the use of technology to access, analyze, and evaluate the acquired information. By using technology as a tool that supports the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results. Students communicate information in different formats and to diverse audiences. A variety of technologies will be used. Student will analyze and evaluate the results.

Game Programming and Design
2 semesters/1credit/1 period
Grade Placement: 10-12
Prerequisite: The required prerequisite for this course is Algebra (I).

Game Programming and Design will foster student creativity and innovation by presenting students with opportunities to design, implement, and present meaningful programs through a variety of media. Students will collaborate with each other, their instructor, and various electronic communities to solve gaming problems. Through data analysis, students will include the identification of task requirements, plan search strategies, and use programming concepts to access, analyze, and evaluate information needed to design games. By acquiring programming knowledge and skills that support the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create solutions, and evaluate the results. Students will learn digital citizenship by researching current laws and regulations and by practicing integrity and respect. Students will create a computer game that is presented to an evaluation panel. *This course fulfills computer course requirement for graduation.*

Geographic Information Systems (GIS)
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisite: Principles of Information Technology

Geographic Information Systems is a course designed to introduce students to Geographic Information Systems and Remote Sensing technology through academic study and applied instruction. A geographic information system (GIS) is a computer system for capturing, storing, checking, and displaying data related to positions on Earth's surface. GIS can show many different kinds of data on one map. This enables people to more easily see, analyze, and understand patterns and relationships.
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LANGUAGES OTHER THAN ENGLISH

Arts & Humanities

American Sign Language (ASL) I
2 semesters / 1 credit / 1 period
Grade Placement: 9-12

An introduction to the basic skills in producing signs and understanding American Sign Language (ASL). Coursework will include: learning fingerspelling and numbers, learning how to sign basic conversational signs, culturally appropriate behaviors, and students will be exposed to ASL grammar.

American Sign Language (ASL) II
2 semesters / 1 credit / 1 period
Grade Placement: 10-12

Prerequisite: American Sign Language (ASL) I

Develops receptive and expressive ability and allows recognition and demonstration of more sophisticated grammatical features of American Sign Language (ASL). Increases fluency and accuracy in fingerspelling and numbers. Encourages opportunities for interaction within the Deaf community.

American Sign Language (ASL) III
2 semesters / 1 credit / 1 period
Grade Placement: 10-12

Prerequisite: American Sign Language (ASL) I & American Sign Language (ASL) II

This course is intended to develop the student's visual-spatial (gestural) skills and improve expressive fluency and reception skills through class discussions, pair/group work, presentations, and interaction with the Deaf Community. It includes grammar review and features extensive discussions of Deaf Culture. Students will gain recognition of sign language variation (i.e. gender, generational signs, ethnicity, etc.). Fluency and accuracy of fingerspelling will be developed as well as the use of lexicalized signs. Instruction will occur primarily in ASL (no voice).

Spanish Level I
2 semesters/1 credit/1 period
Grade Placement: 9-12

Students will understand and use conversational Spanish that will demonstrate knowledge of main ideas in listening and reading; produce learned words, phrases, and sentences in speech and writing accurately; recognize the importance of culture and history of the Americas in 21st century.

American Sign Language (ASL) IV
2 semesters / 1 credit / 1 period
Grade Placement: 10-12

Prerequisite: American Sign Language (ASL) I, American Sign Language (ASL) II, & American Sign Language (ASL) III

Acquiring American Sign Language incorporates both expressive and receptive communication skills. Students develop these communication skills by using knowledge of the language, including grammar, and culture, communication and learning strategies, technology, and content from other subject areas to socialize, to acquire and provide information, to express feelings and opinions, and to get others to adopt a course of action. While knowledge of other cultures, connections to other disciplines, comparisons between languages and cultures, and community interaction all contribute to and enhance the communicative language learning experience, communication skills are the primary focus of language acquisition. Students of ASL gain the knowledge to understand cultural practices (what people do) and products (what people create) and to increase their understanding of other cultures as well as to interact with members of those cultures. Through the learning of ASL, students obtain the tools and develop the context needed to connect with other subject areas and to use the language to acquire information and reinforce other areas of study. Students of ASL develop an understanding of the nature of language, including grammar, and culture and use this knowledge to compare languages and cultures and to expand insight into their own language and culture. Students enhance their personal and public lives and meet the career demands of the 21st century by using ASL to participate in Deaf communities in Texas, in other states, and around the world.

Spanish Level II
2 semesters/1 credit/1 period
Grade Placement: 9-12

Prerequisite: Spanish Level I

Spanish Level II includes the same areas of Spanish Level I with emphasis on increased understanding and expanded vocabulary. Grammar will include: learned concepts, past tenses, oral proficiency (novice-intermediate); listening comprehension, writing skills limited to short paragraphs and essays; reading comprehension (short stories, legends); cultural awareness of all Hispanic world.

Spanish Level III
2 semesters/1 credit/1 period
Grade Placement: 10-12

Prerequisite: Spanish Level I and Spanish Level II

Spanish Level III is an advanced continuation of Spanish Level II skills. Cultural, literary exerts are intermingled with grammatical/linguistic concepts. The course will cover language proficiency expectations at the level of intermediate beginner to intermediate; oral proficiency evaluation each six weeks; readings from text and related supplemental materials; writing skills development; cultural projects utilizing reading, writing, skills and oral presentations.

Spanish III PAP *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 10-12

Prerequisite: Spanish Level I and Spanish Level II

The Spanish III Pre-AP course is designed for students of advanced ability who have already mastered basic Spanish skills and want to prepare for AP (Advanced Placement) Spanish. The course will cover language proficiency expectations at the level of intermediate-beginner to intermediate and will include oral proficiency evaluations each six weeks, readings from texts and related supplemental materials, writing skills development, cultural projects utilizing reading and writing skills and oral presentations.

Spanish Level IV AP *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 11-12

Prerequisite: Spanish Levels I, II, & III

The AP Spanish Language and Culture course emphasizes communication (understanding and being understood by others) by applying the interpersonal, interpretive, and presentational modes of communication in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP Spanish Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish. The AP Spanish Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

PHYSICAL EDUCATION/ATHLETICS/ HEALTH

Public Services

Students may substitute certain physical activities for required credits for physical education from the courses listed in this section. Each course listed may equal one-half to one credit for graduation. In Physical Education, students acquire the knowledge and skills for movement that provide the foundation for enjoyment, continued social development through physical activity, and access to a physically-active lifestyle. The student exhibits a physically-active lifestyle and understands the relationship between physical activity and health throughout the lifespan.

Some courses may be taken for up to four substitution credits toward graduation credit.

Baseball (Athletics I-IV)
2 semesters/1 credit/1 period
Grade Placement: 9-12
Prerequisites: Coach approval required
UIL baseball involves inter-school competition. UIL baseball emphasizes group skills, physical fitness, team sports, and sportsmanship. Student athletes must try out for this course and meet the designated proficiencies as stipulated by the coach/coaches.

Basketball (Boys/Girls) (Athletics I-IV)
2 semesters/1 credit/1 period
Grade Placement: 9-12
Prerequisites: Coach approval required
UIL basketball involves inter-school competition. UIL basketball emphasizes group skills, physical fitness, team sports, and sportsmanship. Student athletes must try out for this course and meet the designated proficiencies as stipulated by the coach/coaches.

Cheerleading (up to one PE credit)
2 semesters/ 1credit / 1 period
Grade Placement: 9-12
Prerequisites: Tryouts required
Students attend summer camp to learn skills in tumbling, stunting, dancing and cheer techniques. Skills are refined and utilized to incorporate in pep rallies and games including, but not limited to, football and basketball. Students work on a continuing basic conditioning program throughout the year to include aerobics, strength building, coordination, and tumbling skills. Students are responsible for developing plans for pep rallies and special events to promote school spirit including the creation of signs, posters, programs, and skits to be utilized during events.

Diving (Athletics I-IV)
Grade Placement: 9-12
2 semesters/1 credit/ 1 period
Prerequisites: Coach approval required
UIL diving involves inter-school competition. UIL diving emphasizes individual skills, physical fitness and sportsmanship. Student athletes must try out for this course and meet the designated proficiencies as stipulated by the coach/coaches.

Drill Team (up to one PE credit)
2 semesters/ 1credit/1 period
Grade Placement: 9-12
Prerequisite: Audition required
Students will acquire skills in the following dance techniques: ballet, jazz, modern, square, social and folk. Students will be provided the opportunity to create expressions through movement, be aware of space, time, and energy as design techniques or composition, and develop self-confidence and appreciation of dance as an art form. During the fall semesters, students will perform at all varsity football games and designated varsity home basketball games. During the spring semester, students will choreograph, perform, costume, and critique an original dance.

Football (Athletics I-IV)
2 semesters/1 credit/1 period
Grade Placement: 9-12
Prerequisites: Coach approval required
UIL football involves inter-school competition. UIL football emphasizes group skills, physical fitness, team sports, and sportsmanship. Student athletes must try out for this course and meet the designated proficiencies as stipulated by the coach/coaches.

NJROTC 1/Naval Science (up to one PE credit) See Naval Science section.
2 semesters/1 credit/1 period
Grade Placement: 9-12
Naval Science is a multi-disciplinary course that includes an introduction to the CDP program and leadership; Naval Ships and Damage Control; The Nation, the Navy and its people; sea power and maritime geography; oceanography; introduction to navigation and time; basic seamanship; first aid and health education. Physical training is required of all cadets. Wearing of the NJROTC uniform on specified days is optional. Any new cadet who wishes to be issued a uniform at the beginning of the school year will be given one and they are expected to wear the uniform on the specified days and conform to CDP grooming standards.

Band 1 (up to one PE credit) See Fine Arts section.
Grade Placement: 9-12
2 semesters/1 credit/1 period

PE-Aerobic Activities
1 semester/.5 credit/ 1 period
Students in aerobic activities are exposed to a variety of activities that promote health-related fitness. In addition, students acquire the knowledge and skills for movement that provide the foundation for enjoyment, continued social development through physical activity, access to a physically-active lifestyle, and the relationship between physical-activity and health throughout the lifespan.

PE-Foundations of Personal Fitness
2 semesters/1 credit/ 1 period
Grade Placement: 9-12
Foundations of Personal Fitness represents a new approach in physical education and the concept of personal fitness. The basic purpose of this course is to motivate students to strive for lifetime personal fitness with an emphasis on the health-related components of physical fitness. The knowledge and skills taught in this course include the process of becoming fit as well as achieving some degree of fitness within the class. The concept of wellness, or striving to reach optimal levels of health, is the corner stone of this course and is exemplified by one of the course objectives-students designing their own personal fitness program.

PE-Individual Sports
2 semesters/1 credit/ 1 period
Grade Placement: 9-12
Students in Individual Sports are expected to participate in a wide range of individual sports that can be pursued for a lifetime. The continued development of health-related fitness and the selection of individual sport activities that are enjoyable is a major objective of this course.

PE-Team Sports
2 semesters/1 credit/ 1 period
Grade Placement: 9-12
Students enrolled in Team Sports are expected to develop health-related fitness and an appreciation for team work and fair play. Like the other high school physical education courses, Team Sports is less concerned with the acquisition of physical fitness during the course than reinforcing the concept of incorporating physical activity into a lifestyle beyond high school.

Soccer (Boys/Girls) (Athletics I-IV)
2 semesters/1 credit/ 1 period
Grade Placement: 9-12
Prerequisites: Coach approval required
UIL soccer involves for inter-school competition. UIL soccer emphasizes group skills, physical fitness, team sports, and sportsmanship. Student athletes must try out for this course and meet the designated proficiencies as stipulated by the coach/coaches.

Softball (Athletics I-IV)
Grade Placement: 9-12
2 semesters/1 credit/ 1 period
Prerequisites: Coach approval required
UIL softball involves inter-school competition. UIL softball emphasizes group skills, physical fitness, team sports, and sportsmanship. Student athletes must try out for this course and meet the designated proficiencies as stipulated by the coach/coaches.

Swimming (Athletics I-IV)
Grade Placement: 9-12
2 semesters/1 credit/ 1 period
Prerequisites: Coach approval required
UIL swimming involves inter-school competition. UIL swimming emphasizes group skills, physical fitness, team sports, and sportsmanship. Student athletes must try out for this course and meet the designated proficiencies as stipulated by the coach/coaches.

Tennis (Boys/Girls) (Athletics I-IV)
2 semesters/1 credit/ 1 period
Grade Placement: 9-12
Prerequisites: Coach approval required
UIL tennis involves inter-school competition. Student athletes must try out for this course and meet the designated proficiencies as stipulated by the coach/coaches. Students will adhere to the athletic director approved contract and will participate in the Team Tennis dual matches and tournaments.

Track/Cross (Boys/Girls) (Athletics I-IV)
2 semesters/1 credit/ 1 period
Grade Placement: 9-12
Prerequisites: Coach approval required
UIL track/cross country involves inter-school competition. UIL track/cross country emphasizes group skills, physical fitness, team sports, and sportsmanship. Student athletes must try out for this course and meet the designated proficiencies as stipulated by the coach/coaches.

Volleyball (Athletics I-IV)
Grade Placement: 9-12
2 semesters/1 credit/ 1 period
Prerequisites: Coach approval required
UIL volleyball involves inter-school competition. UIL volleyball emphasizes group skills, physical fitness, team sports, and sportsmanship. Student athletes must try out for this course and meet the designated proficiencies as stipulated by the coach/coaches.

Health
1 semester/.5 credit/ 1 period
Grade Placement: 9-12
This course is a study of personal health and fitness, getting along with yourself and others, nutrition and your health, drugs in our society (benefits and dangers), maintaining a healthy body, family and social health, consumer health, safety and first aid, treating, controlling, and preventing diseases, and the health of the environment and the community.

MILITARY SCIENCE

Citizen Development Program
(Navy Junior Reserve Officer Training Corps- NJROTC)

Public Services

Military science combines academic study with physical fitness training, military drill and instruction in citizenship and patriotism. Cadets must be able to fully participate in the school's physical fitness program and will be required to complete a one-mile run/walk, push-ups and sit-ups during the semi-annual Navy Physical Fitness Test. Cadets are required to wear their Navy uniform and participate in physical fitness training no less than once per week. Cadets who desire to compete against other JROTC units should plan to practice after school as members of the Drill Team, Academic Team, and/or the Rifle Team. All cadets will be required to perform a drill exhibition, as a unit, for the Navy and School District inspectors once per year during the Annual Military Inspection (AMI).

NJROTC 1/Naval Science
2 semesters/1 credit/1 period
Grade Placement: 9-12

Naval Science 1 is a multi-disciplinary course that includes an introduction to the CDP program and leadership training. Subjects also include Naval Ships and Damage Control, the Navy and its people, sea power and maritime geography, oceanography; introduction to navigation and time, basic seamanship, first aid, and general health education. Physical training (PT) is required of all cadets. All new cadets will be issued a complete Navy uniform at the beginning of the school year and are expected to wear their uniform on the specified days and conform to CDP/school grooming standards.

NJROTC 2/Naval Science
2 semesters/1 credit/1 period
Grade Placement: 10-12

Prerequisite: NJROTC 1

Naval Science 2/3/4 courses emphasize leadership, citizenship, and career planning for both civilian and military occupations. Naval History and Naval Weapons are introduced. Other topics include: Navigation Fundamentals, Small Boat Seamanship, Survival Training, Orienteering, both Inner and Outer Space, current events and world-wide political events, etc. Cadets classified as JUNIORS are REQUIRED to take the ASVAB (military entrance exam) during their Fall semester. Junior cadets will be highly encouraged to take the SAT/ACT exam during their Spring semester if they desire to go to college after high school. Grooming standards conforming to the CDP Program and civilian occupations will be strictly enforced. Job interview skills and attire will also be practiced. Physical training and the wearing of the Navy uniform on specified days is mandatory.

NJROTC 3/Naval Science
2 semesters/1 credit/1 period
Grade Placement: 11-12

Prerequisite: NJROTC 2

Naval Science 2/3/4 courses emphasize leadership, citizenship, and career planning for both civilian and military occupations. Naval History and Naval Weapons are introduced. Other topics include: Navigation Fundamentals, Small Boat Seamanship, Survival Training, Orienteering, both Inner and Outer Space, current events and world-wide political events, etc. Cadets classified as JUNIORS are REQUIRED to take the ASVAB (military entrance exam) during their Fall semester. Junior cadets will be highly encouraged to take the SAT/ACT exam during their Spring semester if they desire to go to college after high school. Grooming standards conforming to the CDP Program and civilian occupations will be strictly enforced. Job interview skills and attire will also be practiced. Physical training and the wearing of the Navy uniform on specified days is mandatory.

NJROTC 4/Naval Science
2 semesters/1 credit/1 period
Grade Placement: 12

Prerequisite: NJROTC 3

Naval Science 2/3/4 courses emphasize leadership, citizenship, and career planning for both civilian and military occupations. Naval History and Naval Weapons are introduced. Other topics include: Navigation Fundamentals, Small Boat Seamanship, Survival Training, Orienteering, both Inner and Outer Space, current events and world-wide political events, etc. Cadets classified as JUNIORS are REQUIRED to take the ASVAB (military entrance exam) during their Fall semester. Junior cadets will be highly encouraged to take the SAT/ACT exam during their Spring semester if they desire to go to college after high school. Grooming standards conforming to the CDP Program and civilian occupations will be strictly enforced. Job interview skills and attire will also be practiced. Physical training and the wearing of the Navy uniform on specified days is mandatory.

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Business & Industry

SPEECH

Arts & Humanities

Communication Applications
1 semester/.5 credit/1 period
Grade Placement: 9-12
This course is for successful participation in professional and social life, student s must develop effective communication skills. Rapidly expanding technologies and changing social and corporate systems demand that students send clear verbal messages, choose effective nonverbal behaviors, listen for desired results, and apply valid critical-thinking and problem solving processes.

Professional Communications
1 semester/.5 credit/1 period
Grade Placement: 9-12
Professional Communications blends written, oral, and graphic communication in a career-based environment. Careers in the global economy require individuals to be creative and have a strong background in computer and technology applications, a strong and solid academic foundation, and a proficiency in professional oral and written communication. Within this context, students will be expected to develop and expand the ability to write, read, edit, speak, listen, apply software applications, manipulate computer graphics, and conduct Internet research. **If Professional Communication credit is earned, students are not eligible to enroll in Special Topics in Communications Dual Credit. (COMG 1391)**

Debate I
2 semesters/1 credit/1 period
Grade Placement: 9-12
Prerequisite: Communications Applications recommended
Students analyze and apply specific formats for debate and processes of logic and critical thinking. Reading experiences, practice writing single issue briefs, interpreting resolutions, developing affirmative and negative case construction, listening to and performing cross examination, evaluating arguments and presenting debates are heavily emphasized in the course; and other wrap-around, associated ideas are presented as well. Students are expected to attend competitive tournaments on a regular basis.

Debate II Honors *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 10-12
Prerequisite: Debate II
Debate I is the introductory course and Debate II and III increase in skill level. Competition at speech tournaments is expected in Debate II and III classes.

Debate III Honors *weighted course*
2 semesters/.5-1 credit/1 period
Grade Placement: 11-12
Prerequisite: English 3 if using this course as 4th English, Debate II
Debate I is the introductory course and Debate II and III increase in skill level. Competition at speech tournaments is expected in Debate II and III classes.

Independent Study in Speech (*first time taken)*
Debate IV Honors
weighted course
(course pending board approval)
1-2 semesters/.5-1 credit/1 period
Grade Placement: 12
Prerequisite: Debate 3 Honors
Debate I is the introductory course and Debate II and III increase in skill level. Competition at speech tournaments is expected in Debate II and III classes. This course would build on Deate III curriculum with a greater focus on research and presentation.

Oral Interpretation I
2 semesters/1 credit/1 period
Grade Placement: 9-12
Literature and its presentation are integral to understanding the culture aspects of society. Students in Oral Interpretation I will select, research, analyze, adapt, interpret, and perform literary texts as a communication art. Students focus on intellectual, emotional, sensory, and aesthetic levels of texts to attempt to capture the entirety of the author's work. Individual or group performances of literature will be presented and evaluated.

Oral Interpretation II Honors* *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 10-12
Prerequisite: Oral Interpretation I
In Oral interpretation, students study the oral reading or performance of a literary text as a communication art. Students enrolled in Oral Interpretation I, II, III, will select, research, analyze, adapt, interpret, and perform literary texts. Students focus on intellectual, emotional, sensory, and aesthetic levels of texts and attempt to capture the entirety of the author's work. Individual or group performances of literature will be presented and evaluated. Competition at speech tournaments is expected in Oral Interp II and III classes.

Oral Interpretation III Honors* *weighted course*
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisite: English 3 if using this course as 4th English, Oral Interpretation II
In Oral interpretation, students study the oral reading or performance of a literary text as a communication art. Students enrolled in Oral Interpretation I, II, III, will select, research, analyze, adapt, interpret, and perform literary texts. Students focus on intellectual, emotional, sensory, and aesthetic levels of texts and attempt to capture the entirety of the author's work. Individual or group performances of literature will be presented and evaluated. Competition at speech tournaments is expected in Oral Interp II and III classes.

Independent Study in Speech
(2nd time taken)
Oral Interpretation IV Honors
weighted course
(course pending board approval)
1-2 semesters/.5-1 credit/1 period
Grade Placement: 12
Prerequisite: Oral Interpretation 3 Honors
In Oral interpretation, students study the oral reading or performance of a literary text as a communication art. Students enrolled in Oral Interpretation I, II, III, will select, research, analyze, adapt, interpret, and perform literary texts. Students focus on intellectual, emotional, sensory, and aesthetic levels of texts and attempt to capture the entirety of the author's work. Individual or group performances of literature will be presented and evaluated. Competition at speech tournaments is expected in Oral Interp. II and III classes. This course would build on Oral Interpretation III curriculum with a greater focus on research, presentation, and literary analysis.

LEADERSHIP

Peer Assistance and Leadership (PAL) I, II
2 semesters/ 1 credit/1 period
Grade Placement: 11-12
Prerequisite: Teacher approval needed.
Peer Assistance and Leadership courses utilize the potential of youth to make a difference in their lives, schools and communities. PAL® nurtures and builds capacities to help youth develop protective factors, helping them to achieve school and social successes which lead to a productive life.

SPORTS MEDICINE

Sports Medicine 1
2 semesters/1 credit/1 period
Grade Placement: 9-12
Prerequisite: Must have the approval of the Licensed Athletic Trainer supervising the student athletic training program.
It is a class to be offered to high school students to provide an opportunity for the study and application of the components of sports medicine. SM I can be a method to recruit athletic training students and educate students about sports medicine careers.

Sports Medicine 2
2 semesters/1 credit/1 period
Grade Placement: 10-12
Prerequisite: Must have the approval of the Licensed Athletic Trainer supervising the student athletic training program.
This course is designed for students in the student athletic training program, and provides a more in-depth study and application of the components of sports medicine. Individualized and independent assignments will be included in this course. This course will involve outside-of-class time homework and time required working with athletes and athletic teams.

Sports Medicine 3
2 semesters/1 credit/1 period
Grade Placement: 11-12
Prerequisite: Must have the approval of the Licensed Athletic Trainer supervising the student athletic training program.
The course will provide opportunities for the advanced students in the sports medicine programs to research, investigate, prepare, and present case studies, research projects, visual poster presentations, and multimedia presentations on instructor approved topics. Sports Medicine III will provide the junior/senior level athletic training students the opportunity to explore a health care career of their choice.

ADDITIONAL COURSES

Personal Social Skills Levels 1-4 (Meets elective courses Individual Education Plans)
2 semesters/1 local credit/1 period/1 period
Grade Placement: 9-12
Courses are designed to meet the IEP for student's electives plan.

Activities of Daily Living Levels 1-4 (Meets elective courses Individual Education Plans)
2 semesters/1 local credit/1 period/1 period
Grade Placement: 9-12
Courses are designed to meet the IEP for student's electives plan.

Reading 1- 3
2 semesters/1 credit/1 period
Grade Placement: 9-12
Reading I, II, III offers students reading instruction to successfully navigate academic demands as well as attain life-long literacy skills. Specific instruction in word recognition, vocabulary, comprehension strategies, and fluency provides students an opportunity to read with competence, confidence, and understanding. Students learn how traditional and electronic texts are organized and how authors choose language for effect. All of these strategies are applied in instructional-level and independent-level texts that cross the content areas.

NON-CREDIT COURSES

Courses listed below are not used toward state graduation credits.

EOC Support Courses
0 credits/1 period
Grade Placement: 9-12
These classes are designed to assist students with EOC preparation for retesting.

Senior Leave
0 credits/1 period
Grade Placement: 12
Senior leave permits seniors to leave one period early if they have already met all graduation requirements. **Students must have a full schedule unless in the work-program or one early release period during 8th period for seniors.**

Senior Arrival
0 credits/1 period
Grade Placement: 12
Senior arrival permits seniors to arrive one period late if they participate in a sport or activity which only meets 8th period and if they have already met all graduation requirements. Students must have a full schedule unless in the work-program or late arrival for seniors.

Student Aides
0 credits/1 period
Grade Placement: 12
Prerequisite: Staff, teacher and counselor approval required.
Students are selected based on performance, attendance, attitude and ability to maintain confidentiality.
Aide Options:

- Counselors' Office Aide
- Library Aide
- Science Lab-Aide
- Teacher Aide
- Athletic Aide
- Admin Office Aide \
- Attendance Aide
- Nurse's Aide (must be CNA Certified)

FORMS

TULOSO MIDWAY HIGH SCHOOL: HB5 FOUR YEAR PERSONAL GRADUATION PLAN

Name: _____ **ID #:** _____ **D.O.B.:** _____ **SSN#:** _____

Expected Graduation Date: _____ **Career Interest/Program of Study:** _____

Initial Endorsement:	**Endorsement Amendments:**
___ STEM	Sophomore: _____
___ Businees & Industry	Junior: _____
___ Arts & Humanities	Senior: _____
___ Public Service	Final: _____
___ Multi-Disciplinary	

Grad Plan Type:	Grad Plan Amendments
___ Foundation	Sophomore: _____
___ Foundation Plus	Junior: _____
___ Endorsement(s)	Senior: _____
___ Distinguised Level of Achievement	Final: _____

My Post High School Plans Will Take Me To:

___ 2 Yr. College	___ Technical Training	___ Military	
___ 4 Yr. University	___ Employment	___ Other	

Graduation Requirements	**Foundation**	**Endorsement(s)**	**Distinguised**
Discipline	Credits	Credits	Credits
English	4		
Math	3	1	Algebra 2
Science	3	1	
Social Studies	3		
LOTE	2		
Fine Arts	1		
Physical Education	1		
Electives	3	2	
Computer Course	1		
Health/Speech	1		
Total Credits for Graduation	22	26	26

Performance Acknowledgement Options

Dual Credit (12 college hours/3.0 GPA)

Advanced Placement (AP score 3 or better)

Exam Performance
PSAT, SAT, ASPIRE, ACT

Business Industry Certification or License

Middle School *Credit Options*	**9th Grade**	**10th Grade**	**11th Grade**	**12th Grade**
	English 1 Block PAP	English 2 PAP	English 3 AP	Adv. Engish AP DC
Algebra 1 PAP	Algebra 1 Block Algebra 1 PAP Geometry PAP	Geometry PAP Algebra 2 PAP	Algebra 2 PAP MMA Adv. Math AP/DC	Algebra 2 PAP Adv. Math AP/DC
	IPC Biology PAP Chemistry PAP	IPC Biology PAP Chemistry PAP Adv. Science PAP	Adv. Science PAP/AP	Adv. Science AP/DC
Fine Arts	W. Geography PAP W. History PAP	W. Geography PAP W. History PAP	US History AP/DC Gov't/Economics AP/DC	Government AP/DC Economics AP/DC
LOTE	Band 1 Drill Team 1 Cheer 1 PE ROTC Ath 1:	Fine Arts Computer Course	Health Com. App or Prof. Comm.	*Endorsement Elective*
Health/ Speech	Fine Arts or Computer	LOTE	*Endorsement Elective*	*Endorsement Elective*
Endorsement Elective	LOTE	*Endorsement Elective*	*Endorsement Elective*	*Endorsement Elective*
		Endorsement Elective	*Endorsement Elective*	*Endorsement Elective*

Student: _____	**Student:** _____	**Student:** _____	**Student:** _____	**Student:** _____
Parent: _____	**Parent:** _____	**Parent:** _____	**Parent:** _____	**Parent:** _____
Counselor: _____	**Counselor:** _____	**Counselor:** _____	**Counselor:** _____	**Counselor:** _____

Tuloso-Midway High School **HB5**
Credit Check/Diploma Plan

Student_____ ID # _____

[ ] FOUNDATION/22

ENGLISH	**(4)**
Eng 1	1 2
Eng 2	1 2
Eng 3	1 2
Eng4/Adv	1 2

MATH	**(3)**
Alg 1	1 2
Geom	1 2
(MMA)	1 2
Alg 2†	1 2
Adv Mth	1 2

SCIENCE	**(3)**
Bio	1 2
(IPC)	1 2
Adv.Sci	1 2
Adv.Sci	1 2
	1 2

SOCIAL STUDIES	**(3)**
W. Geo*	1 2
W. Hst*	1 2
US Hist	1 2
Govt	Eco

HEALTH	**(.5)**
Health	

P.E.	**(1)**
	1 2

FINE ARTS	**(1)**
	1 2

LOTE	**(2)**
Span 1	1 2
Span 2	1 2
ASL 1	1 2
ASL 2	1 2

SPEECH	**(.5)**
C.A. Prof. Comm.	

COMPUTER	**(1)**
	1 2

ELECTIVES	**(3)**
	1 2
	1 2
	1 2
	1 2
	1 2

†Distinguished level of achievement ***Student may take one or both**

[ ] plus Endorsement/26 **[ ] with Distinguished Level of Achievement (Algebra 2 required)**

[ ] A & H	**[ ] B & I**	**[ ] MD**	**[ ] Public Service**
1 2	1 2	1 2	1 2
1 2	1 2	1 2	1 2
1 2	1 2	1 2	1 2
1 2	1 2	1 2	1 2
1 2	1 2	1 2	1 2

[ ] STEM

	1 2
	1 2
	1 2
	1 2
	1 2
	1 2

EOC Tests
_____Algebra I
_____Biology
_____English I
_____English II
_____US History

EOC Retests	
_____Algebra I	_____Algebra I
_____Biology	_____Biology
_____English I	_____English I
_____English II	_____English II
_____US History	_____US History

Student_____ ID #_____

Performance Acknowledgements

_____Dual Credit 12 Hours:

_____

_____

_____

_____

_____ At least 1 AP Exam Score of 3+

_____

_____ _____

_____ PSAT National Merit

_____ACT-ASPIRE
(College readiness benchmark on at least 2 of 4 subject tests)

_____SAT Combined CR and Math 1250

_____ACT Composite Score 28+ excluding writing subscore

_____ Bilingualism/Biliteracy
4 Years of ELA, GPA of 80 AND ref. Course Catalog for other requirements

_____ Industry Certification (Business, Industry or License)

_____ _____ _____

SENIOR CONFERENCE
Date: _____

Post-graduation Plans: [ ] 2yr/4yr College [ ] Technical Training [ ] Military [ ] Employment [ ] Other

NOTES:

_____
_____
_____
_____

Tuloso-Midway High School

Pre-Registration Form 9th, 10th, 11th, 12th

Last Name: _____ First Name: _____ ID # _____

Pathway: _____

1. Study the graduation and career planning guide carefully.
2. Write your course selections in the blanks provided.
3. Select three (3) alternative courses and put the names in the blanks provided. Make sure names are correct.
4. All prerequisites must be met.

Fall Semester Course Requests

Course Title:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

Spring Semester Course Requests

Course Title:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

Fall Semester Alternates:

1. _____
2. _____
3. _____

Spring Semester Alternates:

1. _____
2. _____
3. _____

Tuloso Midway ISD offers Program of Study opportunities in all five (5) state recognized Endorsement areas. The State recognized endorsement areas are: Science, Technology, Engineering and Mathematics (STEM); Business and Industry; Public Service; Arts and Humanities; and Multi-disciplinary.

An important goal of the Program of Study is for our graduates to be set apart from other students from across the state. The Program of Study is the vehicle through which this is accomplished.

Courses chosen during high school become the foundation for the future; therefore, careful selection of courses will form a Program of Study related to a chosen post-secondary educational goal.

How to use the Program of Study:

1) Select a Program of Study based on the career field in which you are interested. Note that the Program of Study section of this course catalog provides an outline of available certifications, college credit, corresponding extracurricular student-leadership opportunities, post-secondary majors, and careers.
2) The number of credits needed to earn a Program of Study certificate refers to credits earned by passing identified courses; this number varies by Program of Study.
3) Credit must be earned in any prerequisite courses listed, if any, for a Program of Study certificate.
4) Credit must be earned in any required courses listed.

Arts and Humanities

A student may earn an Arts and Humanities Endorsement by completing foundation and general endorsement requirements. In addition, students must complete one of the Program of Study requirements listed below.

English
Fine Art
Language Other Than English
Social Studies

General Endorsement Requirements

A. Mathematics

1. Algebra I
2. Geometry
3. Algebra II
4. Advanced Mathematics

B. Science

1. Biology
2. Chemistry
3. Advanced Science
4. Advanced Science

C. Students pursuing an Arts & Humanities endorsement must also complete one of the following:

1. Social Studies (5 Credits)
2. Two sequential credits of the same language in a language other than English and two levels of a different language other than English (Spanish 1 & 2 and ASL 1 & 2) OR 4 levels of the same language.
3. Fine Arts (4 credits) from one or two categories or disciplines in Fine Arts
4. English (4 credits from the select list)

Course sequencing located on pages to follow.

PROGRAMS OF STUDY

ARTS & HUMANITIES ENDORSEMENT

COURSES		
COURSE	World Geography	~Standard or PAP
COURSE	World History	~Standard or PAP
COURSE	Psychology (0.5 credits) Sociology (0.5 credits) US History	~Standard or DC ~Standard or DC ~Standard or AP or UT/DC
COURSE	Government (0.5 credits) Economics (0.5 credits) AP European History	~Standard or AP or DC ~Standard or AP or DC

In order to achieve an Arts & Humanities Endorsement in this Program of Study, a student must earn 5 credits from the above courses.

**Please see pre-requirements for the courses above, in the course descriptions of the current course catalog.

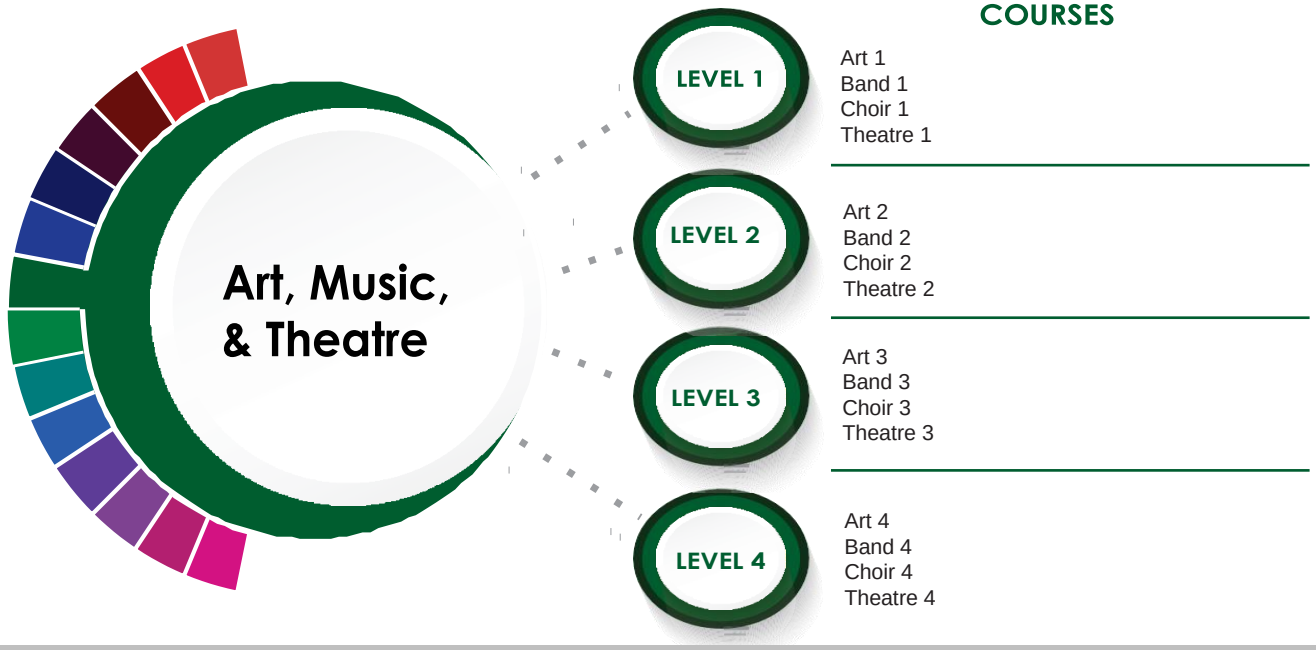
COURSES	
LEVEL 1	Spanish 1 ASL 1
LEVEL 2	Spanish 2 ASL 2
LEVEL 3	Spanish 3 ASL 3
LEVEL 4	Spanish 4 ASL 4

In order to achieve an Arts & Humanities Endorsement in this Program of Study, a student must earn:
TWO levels of the same language in a language other than English and
TWO levels of a different language in a language other than English

OR

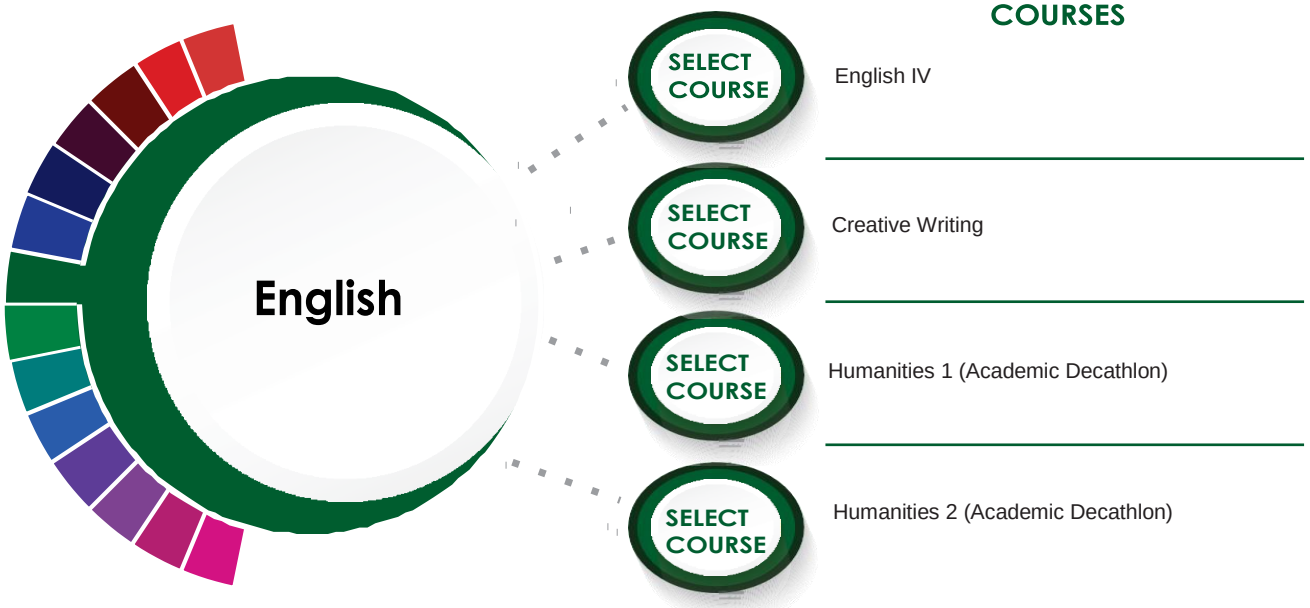
FOUR levels of the same language.

ARTS & HUMANITIES ENDORSEMENT



In order to achieve an Arts & Humanities Endorsement in this Program of Study, a student must earn a coherent sequence of FOUR credits from one or two categories or disciplines:

A. Art 2-4
B. Music 2-4
   a. Band, Jazz, Instrumental Ensemble, Orchestra, Choir, Vocal Ensemble
C. Theatre 2-4
   a. Theatre Arts, Technical Theatre, Theatre Production



In order to achieve an Arts & Humanities Endorsement in this Program of Study, a student must earn FOUR English Elective credits selected from the courses listed above.

Business and Industry

A student may earn a Business and Industry endorsement by completing foundation and general endorsement requirements. In addition, students must complete one career cluster in the following Program of Study categories:

Animal Science
Plant Science
Architectural Design
Design & Multimedia Arts
Technology Applications
Accounting & Financial Service
Business Management
Journalism & Debate
Information Technology Support & Services
Advanced Manufacturing & Machinery Mechanics (Robotics)
Welding
Automotive
Diesel & Heavy Equipment

General Endorsement Requirements

A. Mathematics

1. Algebra I
2. Geometry
3. Advanced Mathematics
4. Advanced Mathematics

B. Science

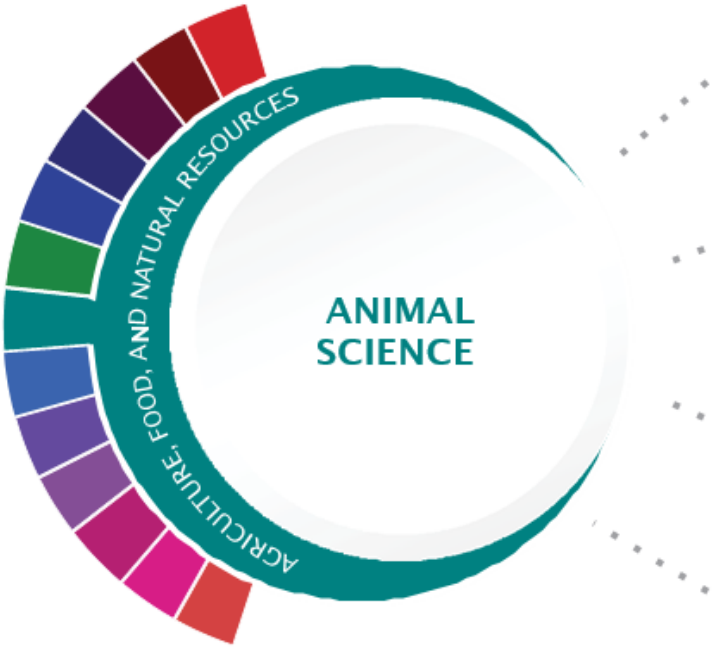
1. Biology
2. IPC or Chemistry
3. Advanced Science
4. Advanced Science

C. A coherent sequence of courses for four or more credits in the Business and Industry endorsement area, from one of the following:

1. CTE (4 credits) -- A coherent sequence of courses for four or more credits in the Business and Industry endorsement area, as listed in any one of the career clusters below and outlined on the following Program of Study pages.
   - Agriculture, Food, and Natural Resources
   - Architecture and Construction
   - Arts, Audio/Video Technology, and Communications
   - Business, Marketing & Finance
   - Energy
   - Hospitality and Tourism
   - Information Technology
   - Manufacturing
   - Transportation, Distribution and Logistics
2. English (4 credits)
3. Technology Applications (4 credits)

PROGRAMS OF STUDY

BUSINESS & INDUSTRY ENDORSEMENT



COURSES

LEVEL 1

Principles of Agriculture, Food, and Natural Resources

LEVEL 2

Small Animal Management *(0.5 credits)*

Equine Science *(0.5 credits)*

** Wildlife, Fisheries, and Ecology Management/Lab*

LEVEL 3

Livestock Production/Lab

LEVEL 4

Advanced Animal Science

Veterinary Medical Applications/Lab

Practicum in Agriculture, Food, and Natural Resources

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Licensed Veterinary Technician	Pet Groomer	Food Science and Technology	Animal Sciences	Genetics
Feedyard Technician in Cattle Care and Handling	Veterinary Technician	Veterinary Studies	Agriculture	Veterinary Medicine
Certified Veterinary Assistant	Licensed Breeder	Biotechnology Laboratory Technician	Biology	Biological and Physical Sciences
		Biology Technician	Zoology/ Animal Biology	Biological and Biomedical Sciences

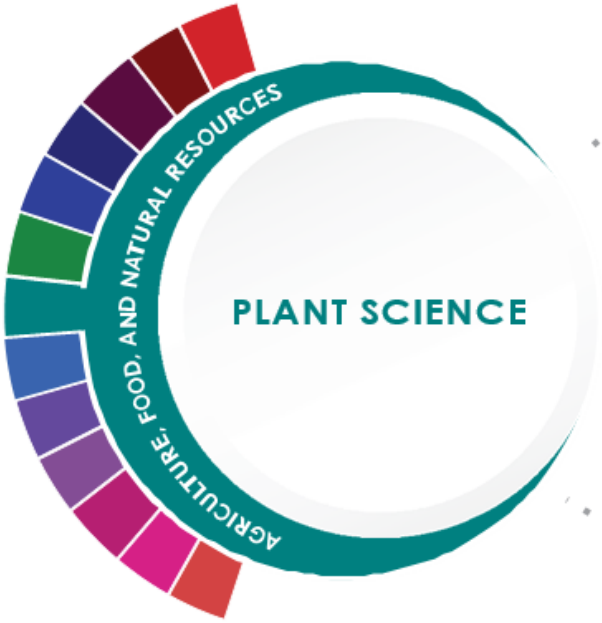
OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Animal Breeders	$39,135	28	9%
Animal Scientists	$57,533	22	12%
Medical Scientists	$63,898	435	27%
Veterinarians	$93,496	294	24%
Zoologists and Wildlife Biologists	$67,309	45	32%

The Animal Science program of study focuses on the science, research, and business of animals and other living organisms. It teaches students how to apply biology and life science to real-world life processes of animals and wildlife, either in laboratories or in the field, which could include a veterinary office, a farm or ranch, or any outdoor area harboring animal life. Students may also research and analyze the growth and destruction of species and research or diagnose diseases and injuries of animals.

The Agriculture, Food, and Natural Resources (AFNR) Career Cluster® focuses on the essential elements of life—food, water, land, and air. This career cluster includes a diverse spectrum of occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist.

PROGRAMS OF STUDY

BUSINESS & INDUSTRY ENDORSEMENT



COURSES

LEVEL 1
Principles of Agriculture, Food, and Natural Resources

LEVEL 2
Landscape Design and Management *(0.5 credits)*
Turf Grass Management *(0.5 credits)*

LEVEL 3
Floral Design/Lab
Horticultural Science/Lab

LEVEL 4
Advanced Plant and Soil Science
Advanced Floral Design

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Landscape Irrigation Technician License	Pesticide Applicator	Applied Horticulture/ Horticulture Operations, General		
Commercial/ Noncommercial Pesticide Applicator	Certified Floral Designer	Ornamental Horticulture	Agronomy and Crop Science	
Texas State Floral Association Level One Floral Certification	Accredited Member of AIFD	Agricultural Business and Management, General		
Texas State Floral Association Level Two Floral Certification	Landscape Industry Certified Technician	TurfandTurf grassManagement		Farm/Farm and Ranch Management

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Soil and Plant Scientists	$54,662	116	21%
Tree Trimmers and Pruners	$32,240	589	14%
Pesticide Handlers, Sprayers, and Applicators	$36,733	196	22%
Landscaping Supervisors	$44,408	807	19%
Biological Technicians	$42,931	452	17%

The Plant Science program of study focuses on the science, research, and business of plants and other living organisms. It teaches students how to apply biology and life science to real-world life processes of plants and vegetation, either in laboratories or in the field.

The Agriculture, Food, and Natural Resources (AFNR) Career Cluster® focuses on the essential elements of life—food, water, land, and air. This career cluster includes a diverse spectrum of occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist.

PROGRAMS OF STUDY

BUSINESS & INDUSTRY ENDORSEMENT

COURSES

LEVEL 1

Principles of Architecture

** Business Information Management I/Lab*

LEVEL 2

Architectural Design I

LEVEL 3

Architectural Design II

LEVEL 4

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Autodesk Certified Professional or User in AutoCAD	Certified Photogrammetric Technologist	Architecture		
Autodesk Certified Professional or User in AutoCAD Civil 3D	Certified Development, Design & Construction Professional	Interior Design		Interior Architecture
Autodesk Certified Professional or User in Autodesk Revit Architecture	National Council Certified Interior Designer	Civil Engineering, General		
Autodesk Certified Professional or User in AutodeskRevit MEP Electrical	LEED AP Building Design & Construction	Geographic Information Science and Cartography		

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Architects	$77,043	808	16%
Geographic Information Analysts and Surveyors	$58,926	162	27%
Architectural/ Civil Drafters	$50,170	1,068	9%
Civil Engineers	$89,960	2,394	12%
Construction Managers	$87,402	2,401	14%

The Architectural Design program of study explores the occupations and educational opportunities associated with developing, engineering, and designing building structures and facilities. This program of study may also include exploration into collecting and interpreting geographic information, researching and preparing maps, and interior design.

The Architecture and Construction Career Cluster® focuses on designing, planning, managing, building, and maintaining the built environment. Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management.

BUSINESS & INDUSTRY ENDORSEMENT

COURSES

LEVEL 1

Principles of Arts, A/V Technology, and Communications

LEVEL 2

Animation I /Lab

LEVEL 3

Animation II /Lab
Digital Art and Animation

LEVEL 4

POSTSECONDARY OPTIONS

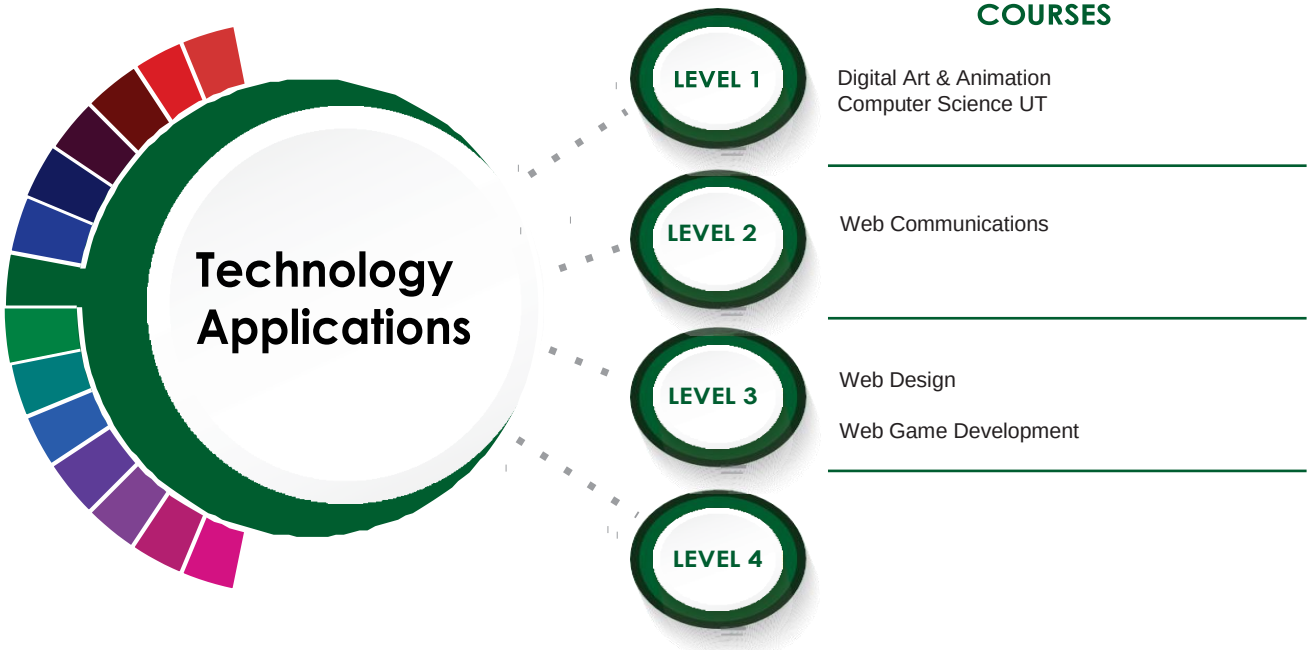
HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Adobe Certified Associate Certifications	Certified Digital Designer	Animation, Interactive Technology, Video Graphics and Special Effects		
Adobe Certified Expert Certifications	WOW Certified Web Designer Apprentice	Graphic Design		
Apple Logic Pro X	Adobe Suite Certifications	Game and Interactive Media Design		Intermedia/ Multimedia

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Graphic Designers	$44,824	1,433	15%
Multimedia Artists and Animators	$67,392	186	21%

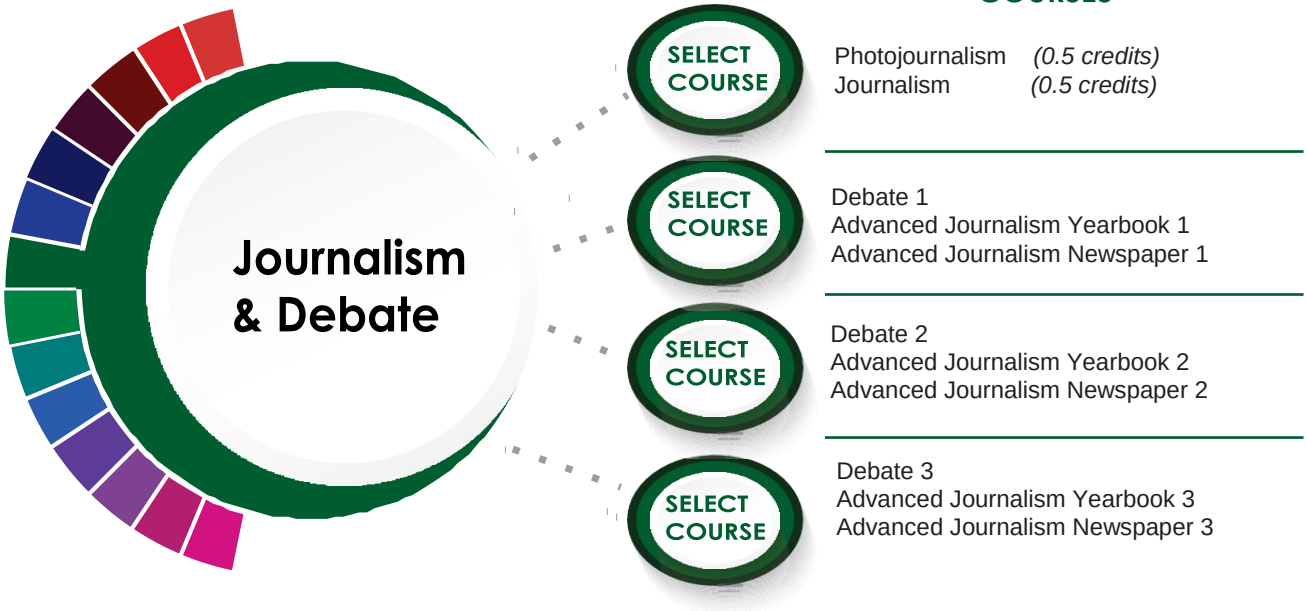
The Graphic Design and Multimedia Arts program of study explores the occupations and educational opportunities associated with designing or creating graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. This program of study may also include exploration into designing clothing and accessories, and creating special effects, animation, or other visual images using film, video, computers, or other electronic tools and media, for use in computer games, movies, music videos, and commercials.

The Arts, A/V Technology and Communications (AAVTC) Career Cluster® focuses on careers in designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services. Careers in the AAVTC Career Cluster require a creative aptitude, a strong background in computer and technology applications, a strong academic foundation, and a proficiency in oral and written communication.

BUSINESS & INDUSTRY ENDORSEMENT



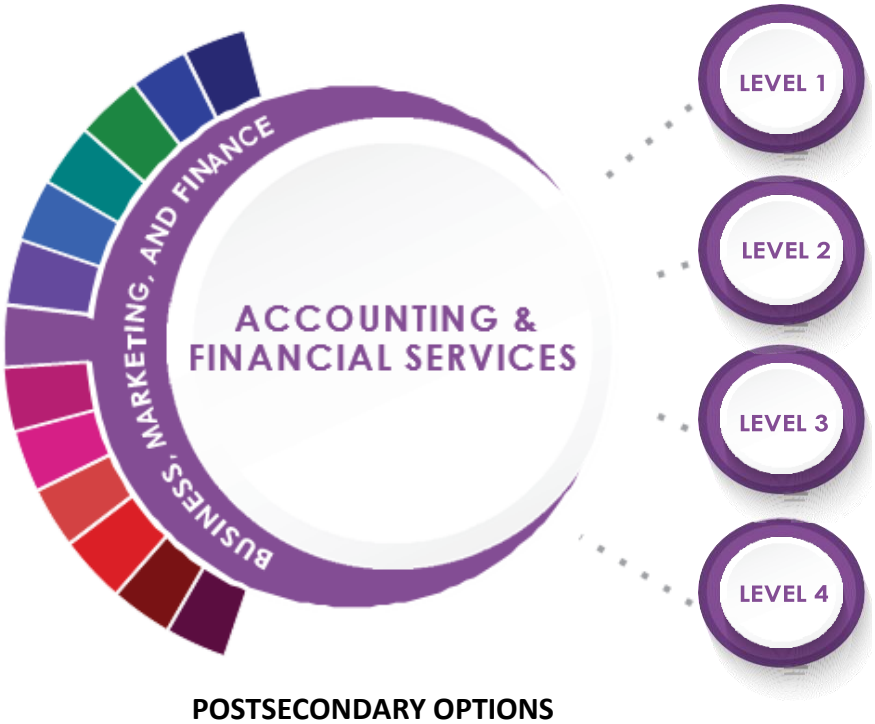
In order to achieve a Business & Industry Endorsement in this Program of Study, a student must earn four technology application credits from the above listed courses.
A minimum course enrollment policy exists for these courses.



In order to achieve a Business & Industry Endorsement in this Program of Study, a student must earn four English credits by selecting courses from the list above and completing level 1, 2, and 3 of one category:
Debate, Journalism-Yearbook, **OR** Journalism/Newspaper.
See course catalog for all pre-requisite requirements.

PROGRAMS OF STUDY

BUSINESS & INDUSTRY ENDORSEMENT



COURSES

Principles of Business, Marketing, and Finance
Money Matters
Business Information Management 1/LAB

Accounting 1

Accounting 2

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
QuickBooks Certified User	Certified Management Accountant	Real Estate	Accounting	Financial Accounting
Microsoft Office Specialist or Expert - Excel	Certified Internal Auditor	Financial, General		Business Administration
Certified Insurance Service Representative	Certified Income Specialist	Financial Planning and Services		Financial Planning
	Certified Public Accountant	Certified Income Specialist		

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Accountants and Auditors	$71,469	14,436	22%
Loan Officers	$68,598	2,419	19%
Personal Financial Advisors	$86,965	1,861	52%
Administrative Service Managers	$96,138	2,277	21%
Insurance Underwriters	$66,206	594	14%

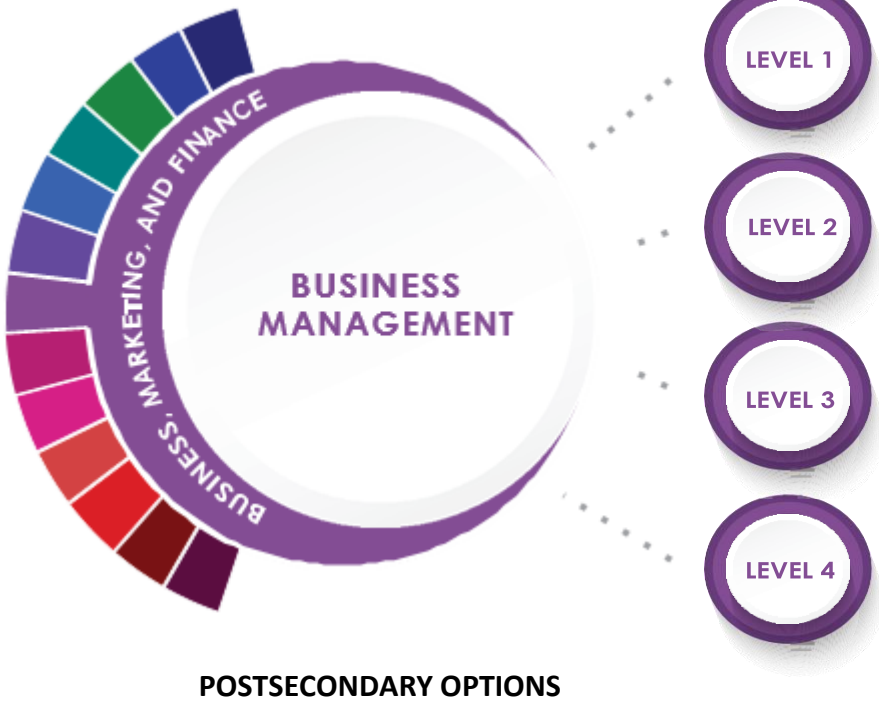
The Accounting and Financial Services program of study teaches CTE concentrators how to examine, analyze, and interpret financial records. Through this program of study, students will learn the skills necessary to perform financial services, prepare financial statements, interpret accounting records, give advice, or audit and evaluate statements prepared by others. This program of study will also introduce students to mathematical modeling tools.

COURSES

The Business, Marketing, and Finance Career Cluster® focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations.

PROGRAMS OF STUDY

BUSINESS & INDUSTRY ENDORSEMENT



COURSES

Principles of Business, Marketing, and Finance
Business Information Management 1 /Lab

Business Law
Business Information Management 2/LAB

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Microsoft Office Specialist or Expert - Excel	Certified Records Manager	Business Administration		
Microsoft Office Specialist or Expert - Word	Certified Facility Manager	Business/ Commerce		Business Management
Google Cloud Certified Professional - G-Suite	Certified Commercial Contracts Manager	Public Administration		
Certified Associate in Project Management	Teradata 14 Basics/ Certified Technical Specialist	Business Management	Management Science	

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Administrative Service Managers	$96,138	2,277	21%
Management Analysts	$87,651	4,706	32%
General and Operations Managers	$107,640	18,679	20%
Operations Research Analysts	$78,083	1,128	38%
Supervisors of Administrative Support Workers	$57,616	14,982	20%

The Accounting and Financial Services program of study teaches CTE concentrators how to examine, analyze, and interpret financial records. Through this program of study, students will learn the skills necessary to perform financial services, prepare financial statements, interpret accounting records, give advice, or audit and evaluate statements prepared by others. This program of study will also introduce students to mathematical modeling tools.

The Business, Marketing, and Finance Career Cluster® focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations.

PROGRAMS OF STUDY

BUSINESS & INDUSTRY ENDORSEMENT

COURSES

LEVEL 1

Principles of Information Technology

** Business Information Management 1 LAB*

** Digital Art & Animation*

LEVEL 2

Computer Maintenance 1/Lab

LEVEL 3

LEVEL 4

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Microsoft Technology Associate Windows Operating System Fundamentals	IBM Certified Specialist - InfoSphere Optim for Distributed Systems Fundamentals	Computer and Information Sciences, General		
ERSI ArcGIS Desktop Entry	IBM Certified Database Associate- DB211 Fundamentals for z/OS	Computer and Information Systems Security/Information Assurance		Computer Systems Analysis/ Analyst
CompTIA A+	HP ASE - ProLiant Server Solutions Integrator V2	Information Technology	Computer Engineering, General	
CompTIA IT Fundamentals +	Oracle Linux 6 Advanced System Administration	Computer Systems Networking and Telecommunications		Information Technology

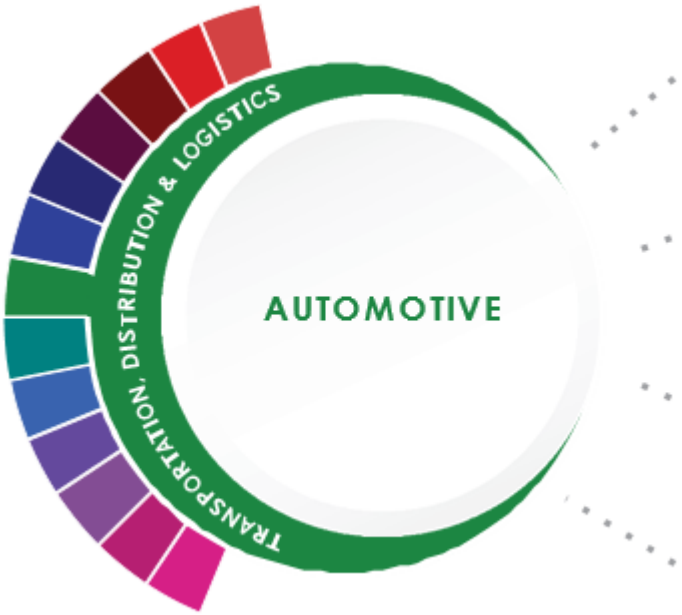
OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Database Administrator	$83,075	1,063	19%
Information Technology- Computer Occupations, All Other	$85,197	1,616	20%
Computer Hardware Engineer	$111,738	343	24%
Computer SystemAnalyst and Support	$87,568	5,937	29%

The Information Technology Support and Services program of study explores the occupations and educational opportunities associated with administering, testing, and implementing computer databases and applying knowledge of database management systems. This program of study may also include analyzing user requirements and problems to automate or improve existing systems and review computer system capabilities. This program of study may also include exploration into the research, design, or testing of computer or computer-related equipment for commercial, industrial, military, or scientific use.

The Information Technology (IT) Career Cluster® focuses on building linkages in IT occupations for entry level, technical, and professional careers related to the design, development, support, and management of hardware, software, multimedia, and systems integration services.

PROGRAMS OF STUDY

BUSINESS & INDUSTRY ENDORSEMENT



COURSES

LEVEL 1 — Principles of Transportation Systems

LEVEL 2

LEVEL 3 — Automotive Technology I *(2 credits)*

LEVEL 4 — Automotive Technology II / Lab *(2 credits)*

POSTSECONDARY OPTIONS

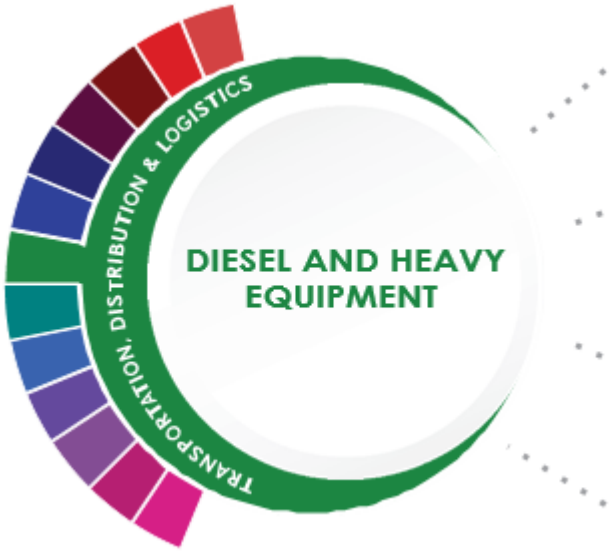
HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Automotive Service Excellence (ASE) Entry Level	Master Collision Repair and Refinishing Technician	Auto body / Collision and Repair Technology / Technician		Mechanical Engineering
Automotive Service Excellence (ASE) Professional Level	Automobile Technician: various systems and parts	Medium / Heavy Vehicle and Truck Technology / Technician		
	Engine Machinist Technician	Mechanical Engineering / Mechanical Technology / Technician		
	Collision Repair and Refinish			

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Automotive Body and Related Repairers	$40,14 4	1,456	25%
Automotive Service Technician and Mechanics	$38,45 9	208	25%

The Automotive program of study teaches students how to repair and refinish automobiles and service various types of vehicles. Students may learn to collect payment for services or supplies and perform typical vehicle maintenance procedures such as lubrication, oil changes, installation of antifreeze, or replacement of accessories like wiper blades or tires.

The Transportation, Distribution, and Logistics Career Cluster® focuses on careers in planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water. It also includes related professional support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

BUSINESS & INDUSTRY ENDORSEMENT



COURSES

LEVEL 1

Principles of Transportation Systems

LEVEL 2

Diesel Equipment Technology I *(2 credits)*

LEVEL 3

Diesel Equipment Technology II/Lab *(2 credits)*

LEVEL 4

POSTSECONDARY OPTIONS

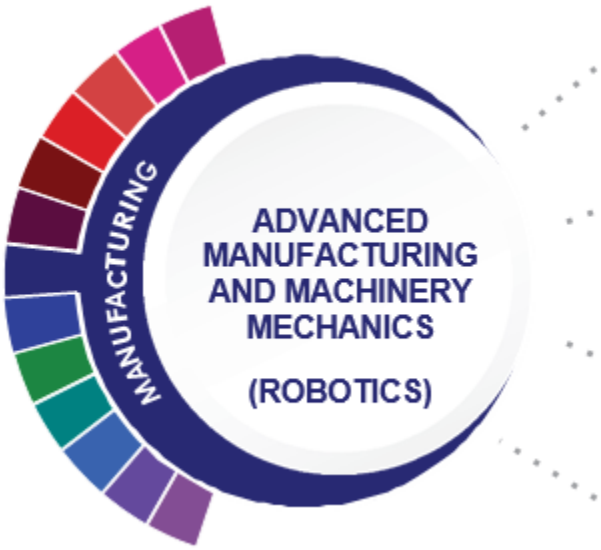
HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
ASE Medium / Heavy Truck Technician, Brakes (T4)	Engine Machinist Technician	Diesel Mechanics Technology / Technician		
ASE Medium / Heavy Truck Technici an, Diesel Engines (T2)	Light Vehicle Diesel Engines	Medium / Heavy Vehicle and Truck Technology / Technician		
ASE Medium / Heavy Truck Technici an, Drive Train (T3) - Professional	Transit Bus Technician	Heavy Equipment Maintenance Technology / Technician		
ASE Medium / Hea vy Truck Technician , Electrical / Electronic System s (T6)	Fluid Power Mechanic			

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Bus and Truck Mechanics and Diesel Engine Specialists	$44,57 4	3,150	21%
Mobile Heavy Equipment Mechanics, Except Engines	$47,299	1,627	16%

The Diesel and Heavy Equipment program of study teaches students to diagnose, repair, modify, or redo mechanical and hydraulic equipment on crane, bulldozer, grader, conveyor, construction equipment, bus, and truck diesel engines.

The Transportation, Distribution, and Logistics Career Cluster® focuses on careers in planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water. It also includes related professional support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

BUSINESS & INDUSTRY ENDORSEMENT



COURSES

LEVEL 1

Principles of Applied Engineering

LEVEL 2

Robotics I

** Engineering Design and Presentation I*

LEVEL 3

Robotics II

LEVEL 4

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
FANUC Robot Operator 1	Engineer, Professional	Electro- mechanical Engineering/ Technology	Electrical Engineering	
Mastercam Associate Level Certification	PMMI Mechatronics: Programmable Logic Controllers1	Robotics Technology/ Technician	Engineering, General	
NCCER Industrial Maintenance Mechanic	Certified Quality Technician	Instrumentation Technology/ Technician	Industrial Engineering	
NIMS Industrial Technology Maintenance - Maintenance Operations	Plant Maintenance Technologist	Industrial Mechanics and Maintenance Technology	Mechanical Engineering	

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Electro-Mechanical Assemblers	$30,160	951	9%
Electro-Mechanical Technicians	$56,555	127	9%
Industrial Machinery Mechanics	$49,816	3,788	27%

The Advanced Manufacturing and Machinery Mechanics program of study focuses on the assembly, operation, maintenance, and repair of electromechanical equipment or devices. Students may work in a variety of mechanical fields, gaining knowledge and experience in robotics, refinery and pipeline systems, deep ocean exploration, or hazardous waste removal. CTE concentrators may work in a variety of fields of engineering.

The Manufacturing Career Cluster® focuses on planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance, and manufacturing/process engineering.

BUSINESS & INDUSTRY ENDORSEMENT

COURSES

LEVEL 1 Introduction to Welding

LEVEL 2 Welding I *(2 credits)*

LEVEL 3 Welding II/LAB *(2 credits)*

LEVEL 4

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
AWS Certified Welder, D1.1, D9.1	Certified Welder or Welder Inspector	Welding Technology/ Welder	Welding Engineering Technology/ Technician	
ASW SENSE Level 1	Machining Level 1 - CNC Milling: Programming Setup & Operations	Machine Shop Technology/ Assistant	Biomedical Technology/ Technician	Occupational Health and Industria Hygiene
API 1104 Welding Certificate	Certified Welding Engineering	Operations Management and Supervision		
NCCER Welding, Level 1	Certified Environmental, Safety, and Health Trainer	Occupational Safety and Health Technology/ Technician	Environmental Health	

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Welders, Cutters, Solderers, and Brazers	$41,350	6,171	9%

The Welding program of study focuses on the development and use of automatic and computer-controlled machines, tools, and robots that perform work on metal or plastic. Students will learn how to modify parts to make or repair machine tools or maintain individual machines, and how to use hand-welding or flame-cutting equipment.

The Manufacturing Career Cluster® focuses on planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance, and manufacturing/process engineering.

Public Services

A student may earn a Public Services endorsement by completing foundation and general endorsement requirements. In addition, students must complete one career cluster in the following Program of Study categories:

Healthcare Therapeutic (Dental / Pharmacy)
Family and Consumer Services
Nursing Science
Law Enforcement
Emergency Services
JROTC

General Endorsement Requirements

A. Mathematics
1. Algebra I
2. Geometry
3. Advanced Mathematics
4. Advanced Mathematics

B. Science
1. Biology
2. IPC or Chemistry
3. Advanced Science
4. Advanced Science

C. A coherent sequence of courses for four or more credits in the Public Services endorsement area, from one of the following:

1. CTE (4 credits) -- A coherent sequence of courses for four or more credits in the Business and Industry endorsement area, as listed in any one of the career clusters below and outlined on the following Program of Study pages.
   - Education and Training
   - Health Science
   - Human Services
   - Law and Public Service

1. JROTC (4 credits)

PROGRAMS OF STUDY

PUBLIC SERVICES ENDORSEMENT

COURSES

LEVEL 1 — Principles of Health Science

LEVEL 2 — Medical Terminology

LEVEL 3 — Anatomy and Physiology ~Standard or Honors
Health Science Theory

LEVEL 4 — Practicum in Health Science (Dental/Pharmacy)

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Registered Dental Assistant	Dental Assistant	Dental Hygienist		Dentist
Certified Patient Care Technician	Surgical Technologist			Physician Assistant
Certified Nur se Aide / Assistant	Medical Assistant	Medical / Clinical Assistant		Family and General Practitioners
Pharmacy Technician	Pharmacy Aides			Pharmacist

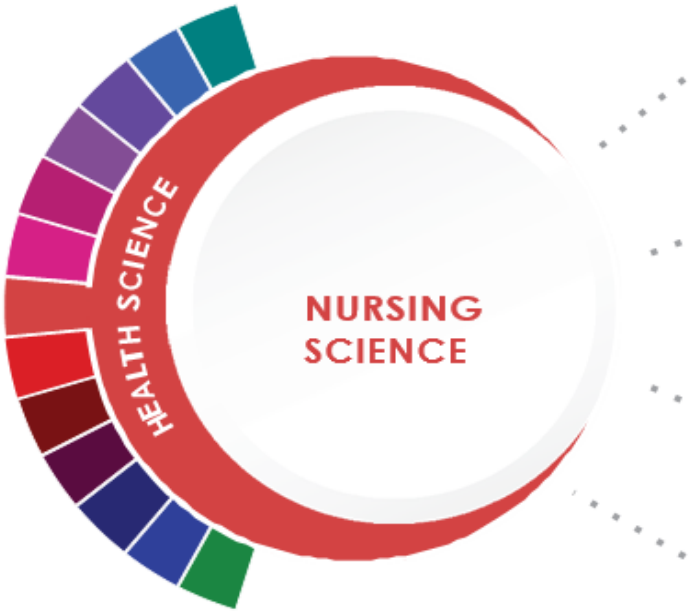
OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Medical Assistants	$29,598	8,862	30%
Surgical Technologists	$46, 310	1,150	21%
Dental Hygienists	$73,507	1,353	38%
Physicians and Surgeons	$213,071	1,151	30%
Dental Assistants	$34,840	4,422	31%

The Healthcare Therapeutic program of study introduces students to occupations and educational opportunities related to diagnosing and treating acute, episodic, or chronic illness independently or as part of a healthcare team. This program of study also includes an introduction to the opportunities associated with providing treatment and counsel to patients as well as rehabilitative programs that help build or restore daily living skills to persons with disabilities or developmental delays.

The Health Science Career Cluster® focuses on planning, managing, and providing therapeutic services, diagnostics services, health informatics, support services, and biotechnology research and development. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, communicate effectively, and work well with others.

PROGRAMS OF STUDY

PUBLIC SERVICES ENDORSEMENT



COURSES

LEVEL 1 — Principles of Health Science

LEVEL 2 — Medical Terminology

LEVEL 3 — Anatomy and Physiology ~Standard or Honors
** Health Science Theory*

LEVEL 4 — Practicum in Nursing (CNA / EKG)

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Certified Medical Assistant	Licensed Vocational Nurse	Registered Nursing / Registered Nurse	Informatics Nurse Specialists	Nurse Practitioner
Certified Nur se Aide / Assistant				Nursing Administration
Certified Patient Care Technician				Nurse Anesthesist

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Licensed Vocational Nurses	$45,180	7,186	21%
Registered Nurses	$68,682	17,493	26%
Nurse Practitioners	$107,827	977	50%
Informatics Nurse Specialists	$88,270	4,610	15%
Nurse Anethesists	$154,856	357	23%

The Nursing Program of Study introduces students to knowledege and skills related to patient care. CTE concentrators may learn about or practice caring for patients, routine procedures such as monitoring vital signs, development and implementation of care plans, maintenance of medical records, and disease or pain management. Students may focus on the healthcare system and research system designs and make recommended modifications.

The Health Science Career Cluster® focuses on planning, managing, and providing therapeutic services, diagnostics services, health informatics, support services, and biotechnology research and development. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, communicate effectively, and work well with others.

PUBLIC SERVICES ENDORSEMENT

COURSES

LEVEL 1

- Principles of Human Services
- Professional Communications *(0.5 credits)*
- Interpersonal Studies *(0.5 credits)*
- Dollars and *Sense* *(0.5 credits)*

LEVEL 2

- Lifetime Nutrition and Wellness *(0.5 credits)*
- Child Development

LEVEL 3

LEVEL 4

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Community Health Worker	Human Development and Family Studies	Human Development and Family Studies		
Certified Associate in Project Management	Community Health Services/ Liaison/ Counseling	Human Services/Sciences, General		Marriage and FamilyTherapy/ Counseling
	Distance Credentialed Counselor	Family and Consumer Sciences		Human Services/ Sciences
	Educator Certificationin Family and Consumer Sciences	Community Health Services	Child and Family Services	Family Studies

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Child, Family, and School Social Workers	$41,350	2,221	17%
Social and Community Services Managers	$65,146	608	33%
Marriage and Family Therapists	$42,266	217	35%
Social and Human Service Assistants	$32,448	2,822	25%
Mental Health and Substance Abuse and Behavioral Disorder Counselors	$42,120	576	39%

The Family and Community Services program of study introduces students to knowledge and skills related to social services, including child and human development and consumer sciences. CTE concentrators may learn about or practice managing social and community services or teaching family and consumer sciences. Students may follow career paths in social work or therapy for children, families, or school communities.

The Human Services Career Cluster® focuses on preparing individuals for employment in career pathways that relate to families and human needs such as counseling and mental health services, family and community services, personal care services, and consumer services.

PROGRAMS OF STUDY

PUBLIC SERVICES ENDORSEMENT

COURSES

LEVEL 1 — Principles of Law, Public Safety, Corrections, and Security

LEVEL 2 — Disaster Response

LEVEL 3 — Anatomy and Physiology

LEVEL 4

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Emergency Medical Technician - Basic		Emergency Medical Technology/Technician (EMT Paramedic)		
Emergency Telecommunicator	Fire Protection Personnel/ Firefighter	Fire Prevention and Safety Technology/ Technician	Natural Resources Law Enforcement and Protective Services	
Basic Structure Fire Protection Certification	Fire Protection System Contractor	Fire Science/ Fire-fighting		
	Fire Inspector			

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Firefighters	$50,149	2,309	13%
Fire Inspectors and Investigators	$54,787	161	14%
Emergency Medical Technicians	$34,091	1,880	31%

The Emergency Services program of study focuses on training students to respond to emergency situations, namely medical emergencies and fire-based emergencies. Students may learn how to prevent emergencies, respond appropriately and in accordance with rules and regulations during crises, and investigate and delineate the source of the emergency.

The Law and Public Service Career Cluster® focuses on planning, managing, and providing legal services, public safety, protective services, and homeland security, including professional and technical support services. Students will examine the roles and responsibilities of police, courts, corrections, private security, and protective agencies of fire and emergency services.

PUBLIC SERVICES ENDORSEMENT

COURSES

LEVEL 1 — Principles of Law, Public Safety, Corrections, and Security

LEVEL 2 — Law Enforcement I

LEVEL 3 — Law Enforcement II
Correctional Services

LEVEL 4 — Forensic Science

POSTSECONDARY OPTIONS

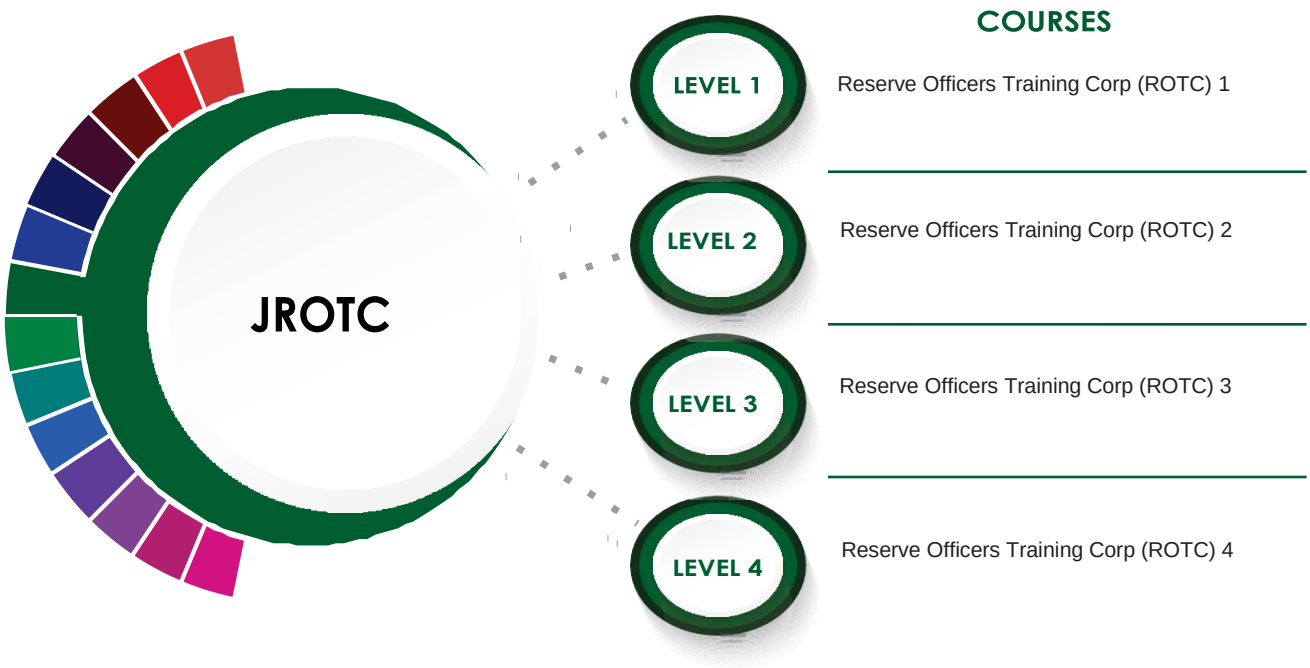
HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE / LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Non-Commissioned SecurityOfficerLevel II	Law Enforcement Officer	Criminal Justice/Safety Studies/Law Enforcement Administration		
	Private Investigator/ Security Guard	Criminal Justice/ Police Science		
	Code Enforcement Officer	Corrections	Juvenile Corrections	
	Certified Law Enforcement Planner	Criminalistics and Criminal Science	Cyber/ Computer Forensics and Counterterrorism	Natural Resources Law Enforcement and Protective Servies

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Police and Sheriff's Patrol Officers	$60,112	5,241	13%
Probation Officers and Correctional Treatment Officers	$44,054	793	9%
Correctional Officers and Jailers	$40,186	4,683	9%
Immigration and Customs Inspectors	$78,104	1,236	9%
First-Line Supervisors of Police and Detectives	$91,312	253	25%

The Law Enforcement program of study teaches students about the development of, adherence to, and protection of various branches of law. Students may learn how to appropriately and legally respond to breaches in the law according to statutory rules and regulations as well as investigate how and why the breaches occurred.

The Law and Public Service Career Cluster® focuses on planning, managing, and providing legal services, public safety, protective services, and homeland security, including professional and technical support services. Students will examine the roles and responsibilities of police, courts, corrections, private security, and protective agencies of fire and emergency services.

PUBLIC SERVICES ENDORSEMENT



In order to achieve a Public Service Endorsement in this Program of Study, a student must earn FOUR credits from the above courses.

**If no other PE requirement is satisfied, then the PE substitution of JROTC 1 may satisfy the PE graduation requirement.

Science, Technology, Engineering, and Mathematics

A student may earn a STEM endorsement by completing foundation and general endorsement requirements including Algebra II, Chemistry and Physics. In addition, students must complete one career cluster in the following Program of Study categories:

Aero-Science
Mathematics
Science
Engineering
Cybersecurity

General Endorsement Requirements

A. Mathematics

1. Algebra I
2. Geometry
3. Algebra II
4. Advanced Mathematics

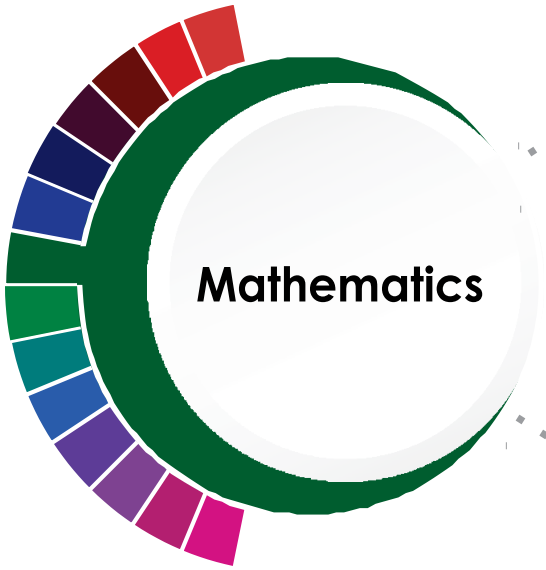
B. Science

1. Biology
2. Chemistry
3. Physics (May be Principles of Technology for all categories except Science). STEM Science Program of Study requires Physics.
4. Advanced Science

C. A coherent sequence of courses in the STEM endorsement area, from one of the following:

1. CTE (4 credits) – A coherent sequence of courses for four or more credits in the STEM endorsement area, from one of the following:
   -Engineering
   -Aero-Science
   -Cybersecurity
2. Computer Science (4 credits)
3. Mathematics (5 credits including 2 mathematics courses for which Algebra 2 is a prerequisite.)
4. Science (5 credits)
5. Combination

STEM ENDORSEMENT



COURSES

COURSE 1 — Algebra 1

COURSE 2 — Geometry

COURSE 3 — Algebra 2

COURSE 4 & 5

Pre-Calculus	~Standard or PAP
College Algebra *(0.5 credits)*	~ DC
Statistics *(0.5 credits)*	~ DC
Trigonometry *(0.5 credits)*	~ DC
Calculus	~AP

In order to achieve a STEM Endorsement in this Program of Study, a student must earn three credits in mathematics by successfully completing Algebra II and two additional mathematics courses for which Algebra II is a prerequisite, by selecting courses from the list above.

**Please see pre-requirements for the courses above in the course descriptions, of the current catalog.

COURSE

LEVEL 1 — Biology

LEVEL 2 — Chemistry

LEVEL 3 — Physics

LEVEL 4

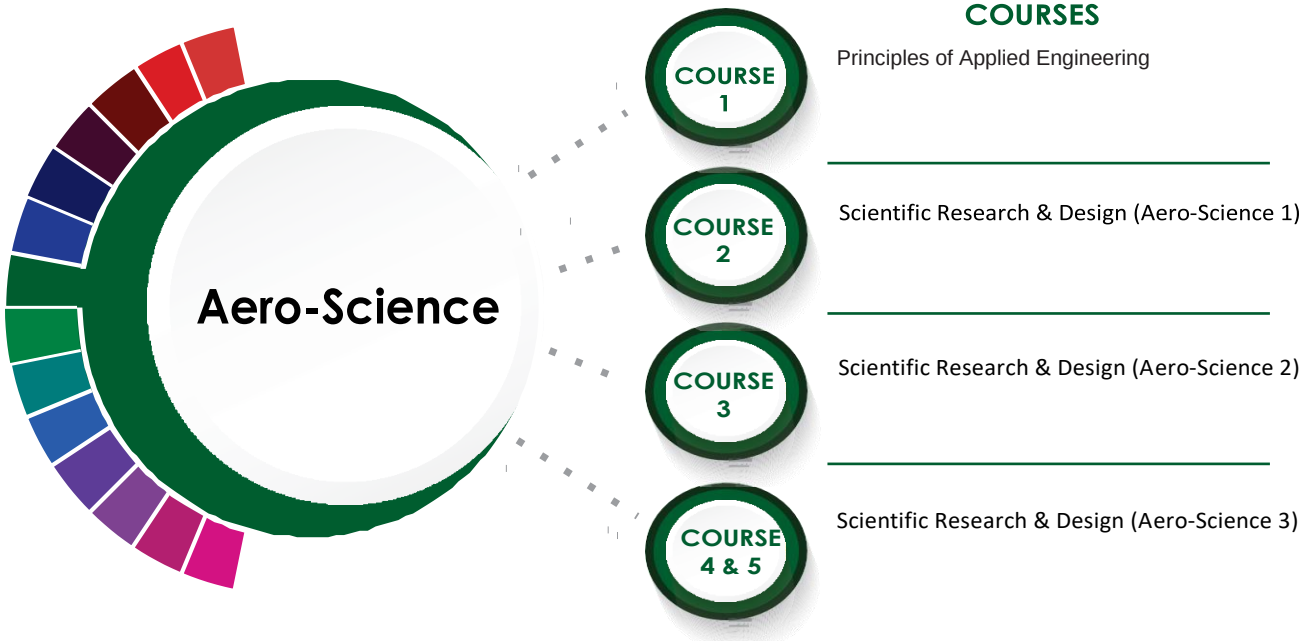
4th Science
5th Science

In order to achieve a STEM Endorsement in this Program of Study, a student must earn four credits in Science by successfully completing Chemistry, Physics and two additional Science courses selected from the following:

4th & 5th Science Courses:

-Scientific Research & Design (Aero-Science 1)
-AP Physics
-DC Biology
-Aquatic Science
-Environmental Systems
-Scientific Research & Design (Aero-Science 2)
-AP Biology
-Anatomy & Physiology
-Earth & Space Science
-Forensic Science

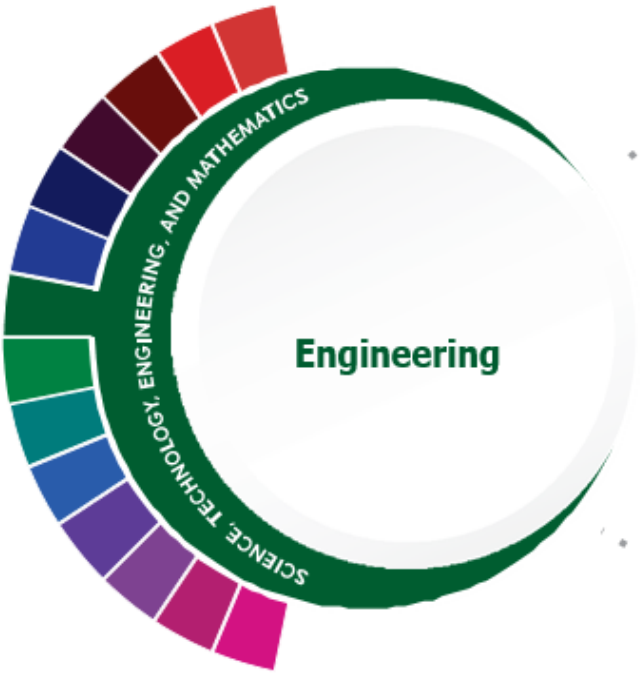
STEM ENDORSEMENT



In order to achieve a STEM Endorsement in this Program of Study, a student must earn a coherent sequence of FOUR credits from the above listed courses.

A minimum course enrollment policy exists for these courses.

STEM ENDORSEMENT



COURSES

LEVEL 1

Principles of Applied Engineering

LEVEL 2

LEVEL 3

Engineering Design and Presentation I

LEVEL 4

Engineering Design and Presentation II

Scientific Research and Design *(Aero-Science 1)*

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Autodesk Certified Professional or User (ACU)-Inventor	Engineer, Professional	Electrical and Electronics Engineering	Electrical and Electronics Engineering	Electrical and Electronics Engineering
Certified SolidWorks Associate (CSWA)	Fluid Power Systems Designer	Drafting and Design Technology/ Technician, General	CAD/CADD Drafting and/or Design Technology/ Technician	Mechanical Engineering
Certified Engineering Technician - Audio Systems	Certified Biomedical Auditor	Engineering Technology	Bioengineering and Biomedical Engineering	Bioengineering and Biomedical Engineering
	Certified Cost Estimator/ Analyst		Construction Engineering Technology/ Technician	

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Aerospage Engineers	$110,843	481	9%
Industrial Engineers	$97,074	1,263	10%
Mechanical Engineers	$91,707	1,535	11%
Chemical Engineers	$112,819	474	9%
Electrical Engineers	$98,405	1,137	10%

The Engineering program of study focuses on the design, development, and use of engines, machines, and structures. Students will learn how to apply science, mathematical methods, and empirical evidence to the innovation, design, construction, operation, and maintenance of different manufacturing systems.

The Science, Technology, Engineering, and Mathematics (STEM) Career Cluster® focuses on planning, managing, and providing scientific research and professional and technical services, including laboratory and testing services, and research and development services.

STEM ENDORSEMENT

COURSES

LEVEL 1

Principles of Information Technology

** Principles of Applied Engineering*

LEVEL 2

Computer Maintenance/Lab

Computer Science I (UT OnRamps)

LEVEL 3

LEVEL 4

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Oracle Certified Associate Java SE 8	GIAC Reverse Engineering Malware	System Networking, and LAN/WAN Management	Computer Systems Networking and Telecommunications	Computer Systems Analysis/Analyst
Oracle Certified Database Associate	Certified Advanced Windows Forensic Examiner	Information Technology	Computer Systems Networking and Telecommunications	Information Technology
Cisco Certified Entry Networking Technician (CCENT)	SAP Certified Technology Professional System Security Architect	Computer and Information Sciences, General		
Associate of (ISC)2	Cisco Certified Network Professional Security Certification	Computer Science		

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Information Security Analysts	$91,915	814	29%
Network and Computer System Administrators	$82,597	2,814	19%
Computer Systems Analyst	$87,568	5,937	29%

The Cybersecurity program of study includes the occupations and educational opportunities related to planning, implementing, upgrading, or monitoring security measure for the protection of computer networks and information. This program of study may also include exploration into responding to computer security breaches and virus and administering network security measures.

The Science, Technology, Engineering, and Mathematics (STEM) Career Cluster focuses on planning, managing, and providing, scientific research and professional and technical services, including laboratory and testing services, and research and development services.

Multidisciplinary

A student may earn a Multidisciplinary Endorsement by completing foundation and general endorsement requirements. In addition, students must complete one of the Program of Study options listed below.

Workforce / College Preparedness
Four by Four
Dual Credit
Advanced Placement

General Endorsement Requirements

A. Mathematics
1. Algebra I
2. Geometry
3. Advanced Mathematics
4. Advanced Mathematics

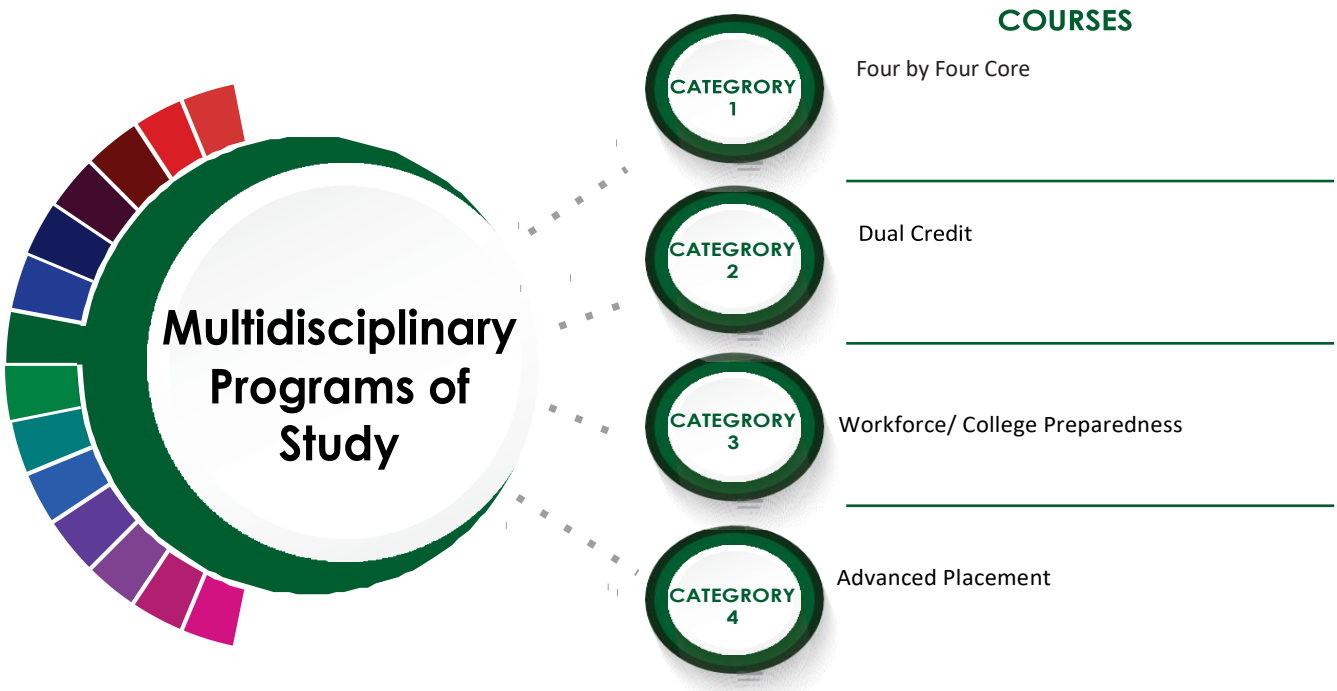
B. Science
1. Biology
2. IPC or Chemistry
3. Advanced Science
4. Advanced Science

C. A coherent sequence of courses from the Multidisciplinary Endorsement course options, in one of the Programs of Study listed below and highlighted on the following pages.
1. Workforce Preparedness (4 advanced courses)
2. Postsecondary Preparedness (no remediation required, 4 advanced courses)
3. Four by Four to include English IV and Chemistry, recommend Physics (4 credits)
4. Advanced Placement (4 credits)
5. Dual Credit (4 credits)

Special Note:
- Most TM students will select from one of the other four Endorsement Areas specific to their academic career goals.
- Consider the most rigorous course work for college and career readiness.

PROGRAMS OF STUDY

MULTIDISCIPLINARY ENDORSEMENT



In order to achieve a Multidisciplinary Endorsement in this Program of Study, a student must complete one of the four categories listed above, and explained below.

FOUR BY FOUR CORE

Students complete four credits in each of the four foundation subject areas to include Chemistry and/or Physics and English IV or a comparable AP/DC course.

ENGLISH	MATHEMATICS
-English 1 -English 2 -English 3 -English 4	-Algebra 1 -Geometry -Advanced Math -Advanced Math
SCIENCE	**SOCIAL STUDIES**
-Biology -Chemistry -Advanced Science -Advanced Science	-World Geography -World History -United States History -Government/Economics

DUAL CREDIT

Students must complete four credits in Dual Credit courses selected from English, Mathematics, Science, Social Studies, Economics, Languages Other Than English, or Fine Arts.

ENGLISH	MATHEMATICS
-English 1301/English 1302 *(English 4)*	-Math 1314/Math 1316 *(College Algebra/ Trigonometry)* -Statistical Methods 1342 (0.5)
SCIENCE	
-Biology 1406/1407	**SOCIAL STUDIES** -United States History *(UT OnRamps)*
FINE ARTS	-Government 2301/Economics 2301
-Music Appreciation1306 (0.5)	-Psychology 2301/ Sociology 1301 -Government/Economics

WORKFORCE/ COLLEGE PREPAREDNESS

Four advanced courses that prepare a student to enter the workforce successfully or postsecondary education without remediation from within one endorsement area or among endorsement areas that are not in a coherent sequence.

ADVANCED PLACEMENT

Four credits in Advanced Placement selected from English, Mathematics, Science, Social Studies, Economics, Languages Other Than English, or Fine Arts.

ENGLISH	MATHEMATICS
-AP English Language (English 3) -AP English Language (English 4)	-AP Calculus -AP Computer Science
SCIENCE	**SOCIAL STUDIES**
-AP Biology AP Chemistry AP Physics	-AP United States History -AP Government (0.5) -AP Economics (0.5)
FINE ARTS	
-AP Art Studio	