

2024-2025 HIGH SCHOOL

# COURSE CATALOG



# Harlandale Independent School District

## 2024-2025

### Course Catalog

#### Using the Course Catalog

Harlandale ISD offers a variety of courses that will prepare students for college work and/or the workforce. The course catalog is designed to give both students and parents an overview of the courses offered at Harlandale High School, McCollum High School, Tejada High School and STEM Early College High School. Each course entry includes a description, school(s) where it is taught, recommended grade level(s), credit value, number of semesters it meets, graduation requirement it fulfills, and any prerequisite(s). Information to help in the decision-making process for next school year is also provided as well as information that is important for student success and high school completion.

#### Nondiscrimination Act

In accordance with Title VI, Civil Rights Act of 1964, Title IX, Education Amendment of 1972, Section 504, Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act of 1992, the Harlandale Independent School District does not discriminate on the basis of ethnicity, religion, military status, color, national origin, age, sex, disability or any other basis prohibited by law. Title IX Coordinator is Dr. Melinda Salinas, 102 Genevieve Dr, San Antonio, TX 78214, (210) 989-4417. Section 504 Coordinator is Erica Castro, 102 Genevieve Dr, San Antonio, TX 78214, (210) 989-4413.

If you have questions regarding information contained in this catalog, contact your student’s counselor at:

<p><b>Harlandale High School</b>    989-1043  <b>S.T.E.M Early College HS</b>    989-3507</p>	<p><b>McCollum High School</b>    989-1542  <b>Frank M Tejada Academy</b>    989-4906</p>
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De acuerdo con el título VI de la Ley de Derechos Civiles del año 1964, el Título IX de la Reforma Educativa del año 1972, el Artículo 504 de la Ley de Rehabilitación del año 1973 y el Título II de la Ley de los Estadounidenses con Discapacidades del año 1992, el Distrito Escolar Independiente de Harlandale no discrimina por motivos de raza, religión, estado militar, color, nacionalidad, edad, sexo, discapacidad ni por ningún otro motivo prohibido por la ley. La coordinadora del Título IX es Dr. Melinda Salinas, 102 Genevieve Dr, San Antonio, TX 78214, (210) 989-4417. La coordinadora del Artículo 504 es Erica Castro, 102 Genevieve Dr, San Antonio, TX 78214, (210) 989-4413.

Si tiene preguntas sobre el contenido de este documento, llame al número de los consejeros en la escuela de su alumno:

<p><b>Harlandale High School</b>    989-1043  <b>S.T.E.M Early College HS</b>    989-3507</p>	<p><b>McCollum High School</b>    989-1542  <b>Frank M Tejada Academy</b>    989-4906</p>
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**Harlandale High School**  
 114 E. Gerald  
 78214  
 (210) 989-1000



**STEM Early College HS**  
 4040 Apollo St.  
 78214  
 (210) 989-3501



**McCollum High School**  
 500 W. Formosa  
 78221  
 (210) 989-1500



**Frank M Tejada Academy**  
 12121 S.E. Loop 410  
 78221  
 (210) 989-4900

## Students Entering 9<sup>th</sup> Grade

All Harlandale ISD students **shall enroll** in the courses necessary to complete the curriculum requirements for the **Foundation Graduation Plan with Endorsements** or the advanced programming leading to the **Distinguished Level of Achievement**. Thereafter annual review of progress in course requirements will determine updates to graduation plans.

Graduation Requirements		
Courses	Foundation*	Foundation with Endorsement
English	4 credits	4 credits
Mathematics	3 credits	4 credits
Science	3 credits	4 credits
Social Studies	3 credits	3 credits
LOTE Language Other Than English (Same Language)	2 credits	2 credits
Fine Art	1 credit	1 credit
PE	1 credit	1 credit
CTE Program of Study / Endorsement Electives	5 credits	7 credits
<b>Total Credits</b>	<b>22 Credits</b>	<b>26 Credits</b>
<p><b>NOTE:</b> Harlandale ISD provides a continuum of special education services for students with disabilities. Special education services are provided according to the student's Individualized Education Plan (IEP) as per the recommendation of the Annual Review and Dismissal (ARD) Committee. The ARD includes graduation plans, course selections, transitions services and related services. *Foundation Graduation requirements require special circumstances.</p>		
Graduation requirements are determined by Board Policy		

### Grade Level Promotion

**Students must receive the appropriate number of credits to be promoted to the following grade levels:**

Freshman	9 <sup>th</sup> Grade	0 – 5	Credits
Sophomore	10 <sup>th</sup> Grade	6 – 12	Credits
Junior	11 <sup>th</sup> Grade	13 – 19	Credits
Senior	12 <sup>th</sup> Grade	20 +	Credits

### Texas First Early High School Completion Program

If at the end of your Junior year you have:

- earned 22 credits,
- have an unweighted GPA of 3.0 or higher,
- have scored in the 80th percentile [<https://texreg.sos.state.tx.us/fids/202202855-1.pdf>] in the ACT, SAT, PSAT, or TSIA2 test (or are in the top 10% of the Junior class),
- achieved Approaches or above on STAAR EOC in English 1, English 2, and Algebra 1

You are eligible to graduate under the Texas First Early HS Completion Program. A student who graduates early through the Program is considered to have earned a diploma with a distinguished level of achievement and receive a scholarship (approx \$5,000 per semester) at participating institutions of higher learning.

## Harlandale ISD Course Sequence Sample (HHS and MHS)

9th Grade	10th Grade	11th Grade	12th Grade
<b>English 4 credits</b>			
English I	English II	English III	English IV Advanced English Options
<b>Math 4 Credits</b>			
Algebra I Geometry	Geometry Algebraic Reasoning Algebra II	Algebra II Pre-Calculus Statistics	Pre-Calculus Statistics College Prep Math AP Calculus AB AP Computer Science A
<b>Science 4 Credits (students must have Biology as well as Chemistry and/or Physics)</b>			
Biology	Chemistry (if passed Alg 1) Aquatic Science Astronomy	Chemistry Physics Anatomy & Physiology Aquatic Science Forensic Science Astronomy On Ramps Chemistry On Ramps Physics	Aquatic Science Environmental Systems Anatomy & Physiology Medical Microbiology Forensic Science Astronomy Pathophysiology On Ramps Biology On Ramps GeoScience On Ramps Physics 2
<b>Social Studies 3 Credits</b>			
World History World Geography PreAP World Geog/ PreAP World History	US History World History AP	Government / Economics US History AP or DC	AP Macroeconomics and/or AP Government Psychology AP Sociology Mexican American Studies African American Studies
Language Other Than English I AND Language Other Than English II		*Can be taken during any year, must be two years of the same language	
Physical Education or Equivalent AND Fine Art		*Can be taken during any year	
CTE Program of Study Elective I	CTE Program of Study Elective II	CTE Program of Study Elective III	CTE Program of Study Elective IV

# HISD Endorsement Options

## Arts & Humanities Endorsement (Choose one from the following)

- 5 Social Studies courses
- 4 yrs. of the same World Language
- 2 yrs. each of two World Languages
- 4 courses in the same Fine Arts area
- 2 courses each of two Fine Arts areas
- 4 English Language Arts approved electives

## Business and Industry Endorsement (Choose one of the 4-yr programs of study)

- Architectural Drafting and Design
- Carpentry
- Electrical
- HVAC and Sheet Metal
- Plumbing and Pipefitting
- Welding
- Digital Communications
- Graphic Design and Interactive Media
- Printing and Imaging
- Accounting and Financial Services
- Culinary Arts
- Automotive and Collision Repair
- Robotics and Automation Technology

## Science, Technology, Engineering and Math (STEM) Endorsement (Choose one from the following)

- **Option 1:** MATH—(5) Math courses including Algebra I, Geometry, Algebra II and 2 or more advanced math courses. Math Models will NOT count as one of the 5 math courses.
- **Option 2:** SCIENCE—(5) Science courses including biology, chemistry, physics and 2 or more advanced science courses
- Bio-Medical Science
- Cybersecurity
- Programming and Software Development

## Multidisciplinary Studies Endorsement (Choose one from the following)

- **Option 1:** 4 credits in Advanced Placement selected from English, Math, Science, Social Studies, Languages other than English (LOTE), or Fine Arts.
- **Option 2:** 4 Dual Credit Courses selected from the same areas of study mentioned above.
- **Option 3:** “4x4” in each of the core areas (English, Math, Science, and Social Studies\*). Must include English IV, Chemistry, & Physics as well as World History.
- **Option 4:** Four (4) 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

## Public Service Endorsement (Choose one of the 4-yr programs of study)

- Teaching and Training
- Healthcare Diagnostic and Therapeutic Services
- Cosmetology
- Barbering
- Law Enforcement
- JROTC

# Explaining College Credit Earning Opportunities

## Harlandale ISD Programs That Allow Students to Earn College Credits

Each of the opportunities listed below are free to Harlandale ISD high school students. Dual Credit / AP / OnRamps courses are weighted +10 for GPA calculations only. This means that your official transcript will show the actual grade that you receive but when your overall Grade Point Average (GPA) is calculated, ten points will be added to your grade.



**Dual Credit** – through partnerships with local colleges and universities, HISD students who meet the standards of the Texas Success Initiative (TSIA2 exam) can enroll in dual credit courses. Dual credit courses can be taught in several different ways. One way is through an approved

high school teacher on campus and the class meets at the high school. In some cases, students go to the college itself where they are enrolled as a college student into the class(es) that they have selected and qualified for. Depending on the circumstances, the college course may also be offered online through the school's distance learning program.



**ALAMO COLLEGES DISTRICT**  
**Palo Alto College**



Since 1955, the College Board's **Advanced Placement** Program (AP) has been delivering excellence in education to millions of students across the country. The AP course is taught by a high school teacher trained by the College Board to deliver a high level of rigor in courses from not only the core subject but languages other than English, computer science, and the fine arts. Students do not have to pass TSI to be eligible to enroll in these courses

and college credit is determined by the results of an exam taken in May.

**OnRamps** Dual Enrollment is where students are enrolled in both a high school course, led by a high school teacher, and a distance college course, led by a University of Texas college instructor of record. Contingent on the grade received in the college course, students have the opportunity to accept college credit which is guaranteed to be transferable to any public institution in the state of Texas. Students do not have to pass TSI to be eligible to enroll in these courses.



**Alamo Academies** give juniors and seniors, with qualifying TSIA2 scores, the unique opportunity to explore a variety of STEM career paths so that they can make educated decisions on their futures. 94% of students who graduate from one of the Alamo Academies pursue higher education, join the armed forces or enter into high-wage employment in career fields related to Aerospace, Advanced Manufacturing, Information Technology/Security, Healthcare, and Diesel Technology. See pages 54-56 of this catalog for program information for each of the five academies.

Texas State Technical College was established 50 years ago to help create a strong Texas. We are efficiently and effectively helping Texas meet the high-tech challenges of today's global economy, in partnership with business and industry, government agencies and other educational institutions. TSTC graduates are highly valued by business and industry for their work ethic, knowledge and workplace skills. See page 52 of this catalog for the Automotive Program of Study and TSTC D/C information.



*Did you know that the top seven universities that HISD graduates attend after graduation are UTSA, TAMUSA, Texas State, UIW, TAMU, UT, and TAMUCC*



AlamoPROMISE makes college more accessible to graduating seniors by providing the support necessary to earn a certificate or associate's degree at one of the five Alamo Colleges: Northeast Lakeview College, Northwest Vista College, Palo Alto College, San Antonio College, and St. Philip's College.

It ensures that tuition and fees at the Alamo Colleges are covered for students who graduate from Harlandale Independent School District.

Through AlamoPROMISE, scholars who meet the eligibility criteria will receive a "last-dollar" scholarship for up to three years or the completion of an associate's degree or certificate, whichever comes first. The "last-dollar" scholarship funds the cost of tuition and required fees that your financial aid award does not cover. Your household income does not disqualify you and there is no minimum academic requirement to be considered for admission. Find more information and application process at [Alamo.edu/promise](http://Alamo.edu/promise)



The Jaguar Promise offers FREE TUITION to graduating HISD seniors in the top 10 percent of their class who enroll at Texas A&M University – San Antonio. Students in the top 35% are still eligible if family meets income requirements.



Additionally, graduating high school seniors from S.T.E.M. Early College High School who have at least 30 units of credit are eligible for FREE TUITION.

**These are just two of many amazing opportunities for graduates from HISD.  
Talk with your counselor about your goals and find the program that is best for you.**

## College Preparation Timeline

Freshman Year	Junior Year
<ul style="list-style-type: none"> <li>▪ Build strong academic, language, mathematics and critical thinking skills by taking challenging courses.</li> <li>▪ Challenge yourself to take Honors and PreAP courses</li> <li>▪ Become involved in co-curricular activities and community service</li> <li>▪ Meet the high school guidance counselor and discuss plans for the next four years and <b>create your Personal Graduation Four Year Plan</b></li> <li>▪ Get information and ideas of what kinds of schools are available for the career you are interested in.</li> <li>▪ Check out what high school courses colleges require.</li> <li>▪ Attend any STAAR-EOC strategy sessions.</li> <li>▪ Keep an academic portfolio and extra-curricular record and begin writing your resume for entrance into college and career.</li> <li>▪ Research college and career opportunities</li> <li>▪ Take responsibility for your own academic success</li> <li>▪ SAEP scholarships are available to all students who maintain an 80 average with 95% attendance all four years.</li> <li>▪ Attend College Night and other local fairs.</li> <li>▪ Visit colleges near you</li> <li>▪ Strengthen vocabulary by increasing reading levels.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Examine the educational opportunities available.</li> <li>▪ Study college admission requirements.</li> <li>▪ Meet with your counselor and <b>review Personal Graduation Four Year Plan</b></li> <li>▪ Apply for and participate in college prep/enrichment programs like college summer programs.</li> <li>▪ Take the Preliminary SAT and National Merit Scholarship Qualifying Test (PSAT/NMSQT) in October.</li> <li>▪ Attend College Nights, College &amp; Career Fairs, and Financial Aid Workshops</li> <li>▪ Talk with college representatives when they visit your school.</li> <li>▪ Select appropriate courses to meet college entrance requirements.</li> <li>▪ Set up a calendar for taking tests and completing college applications.</li> <li>▪ Examine financial resources &amp; review plan for financial aid.</li> <li>▪ Consider people to ask for recommendations – teachers, counselors, employers, and clergy.</li> <li>▪ Visit college campuses; talk to graduates and students at the colleges being considered.</li> <li>▪ Register for and take the SAT and Achievement Tests and/or the ACT, <b>by June</b>. Check with your counselor about fee waivers.</li> <li>▪ Update resume with activities.</li> </ul>
Sophomore Year	Senior Year
<ul style="list-style-type: none"> <li>▪ Take the PSAT in October</li> <li>▪ Sign up for extra-curricular activities and community service projects that interest you.</li> <li>▪ Keep a portfolio of academic and extra-curricular activities including grades, awards, volunteer work, and employment</li> <li>▪ Attend College Night and College Career Fairs</li> <li>▪ Do your best in your academic classes.</li> <li>▪ Research and learn about colleges through the internet and counseling center.</li> <li>▪ Review PSAT results and materials sent with your score.</li> <li>▪ Meet with your counselor to discuss college/career interests and to <b>revise your Personal Graduation Plan (PGP)</b>.</li> <li>▪ Review the course catalog and consider taking rigorous Dual Credit, AP, and/or CTE classes. <ul style="list-style-type: none"> <li>▪ Attend any SAT/ACT prep sessions.</li> </ul> </li> <li>▪ Take the TSI Test required for dual credit classes.</li> <li>▪ Fill out college admission forms for Dual Credit courses.</li> <li>▪ Volunteer and participate in community service projects.</li> <li>▪ Review your grades for the year and assess what it will take to get the highest GPA</li> <li>▪ Continue to research career options and consider possible college majors that will help you achieve your career goals.</li> <li>▪ Keep and organize records of your community service and leadership activities.</li> <li>▪ Use the internet to explore career and colleges options</li> <li>▪ Update your resume.</li> <li>▪ Take all SAT prep classes/workshops available and practice the SAT online at <a href="http://www.collegeboard.com/student/test">www.collegeboard.com/student/test</a> for to prepare for the October test date</li> <li>▪ Visit colleges near you</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Graduation conference with counselor, student, and parent.</b></li> <li>▪ Talk with your counselor. Write to five to ten colleges requesting application forms, and financial aid information.</li> <li>▪ Complete the “Local Scholarship Application” form available in the Counseling Center.</li> <li>▪ Set up a calendar for taking tests and completing college applications include early-decision admission deadlines.</li> <li>▪ Record progress in fulfilling application requirements.</li> <li>▪ Maintain or improve academic grades during senior year. Colleges look unfavorably upon failing grades.</li> <li>▪ Prepare your resume to give to people whom you ask to write recommendations. It’s polite to allow 2-3 weeks.</li> <li>▪ Attend College Night.</li> <li>▪ Apply for all applicable scholarships including the HEF Scholarship, which is available to all HISD graduates</li> <li>▪ <b>Apply for FAFSA-Oct 1: Requirement for graduation</b> <a href="https://studentaid.gov/h/apply-for-aid/fafsa">https://studentaid.gov/h/apply-for-aid/fafsa</a></li> <li>▪ Attend financial aid workshops</li> <li>▪ Register for TSI Test or alternate college placement test.</li> <li>▪ Complete financial aid application. Meet with the Project Stay representative in the Counseling Center.</li> <li>▪ Keep track of acceptances, denials, and awards of financial aid and scholarships. Take copies of all material to your counselor. <b>Meet deadlines or you may lose the acceptance you have gained.</b></li> <li>▪ All essays written for application for colleges and/or scholarships</li> <li>▪ Cancelled checks or money orders</li> <li>▪ Admission tickets to tests and correction forms (in case you need to make a correction up to the day of the test)</li> </ul> <p>Make sure you keep copies of:</p> <ul style="list-style-type: none"> <li>▪ Student accomplishment lists</li> <li>▪ All score reports and transcripts of grades</li> <li>▪ Copies of <b>all</b> correspondence sent to or received from colleges and scholarship entities.</li> </ul> <p style="text-align: center;"><b>Give copies of all scholarship financial awards to counselor.</b></p>

# Architectural Drafting and Design



The Architectural Drafting and 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.

This program of study is offered at [Harlandale High School](#). Transportation to and from McCollum High School will be provided.

## PROGRAM OF STUDY COURSE SEQUENCE

### Year 1

- **9100** Principles of Architecture

### Year 2

- **9105** Architectural Design I

### Year 3

- **9110** Architectural Design II

### Year 4

- **9115** Practicum in Architectural Design

#### **9100 Principles of Architecture**

**Prerequisite:** None

**Credit:** 1.0

Principles of Architecture covers architecture, interior design, and construction management. Proficiency in decision making and problem solving is crucial for career planning. Students use self-knowledge, education, and career information for realistic goals. Job-specific training is provided through modules in trade and industry. Classroom studies cover safety, ethics, communication, technology, health, leadership, teamwork, ethics, legal responsibility, employability, career development, and skills like problem solving and reading technical drawings. Transportation provided to and from home campus to HHS for Architectural Design classes.

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#### **9105 Architectural Design I**

**Prerequisites:** Algebra I and English I

**Credit:** 1.0

Architectural Design I students gain knowledge and skills for careers in architecture, construction, or related fields. The curriculum covers professional standards, cognitive skills, technical knowledge, tools, materials, and application of architectural concepts. Students work on architectural projects, explore architectural history and culture, and make informed career decisions, including applying communication, science, mathematics, and sustainability concepts. Transportation provided to and from home campus to HHS for Architectural Design classes.

**Certification Opportunity:** Autodesk Associate (Certified User) AutoCAD

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#### **9110 Architectural Design II**

**Prerequisite:** Architectural Design I

**Credits:** 2.0

Architectural Design II offers advanced knowledge and skills for careers in architecture, construction, or related fields. The curriculum covers professional standards, academic skills, technical knowledge, tools, materials, and the application of architectural concepts, including sustainability. Students are encouraged to participate in extended learning experiences, and teamwork and leadership skills are emphasized. The course delves into architectural history, culture, and career opportunities, and students develop employability skills for the architectural design industry.

**Certification Opportunity:** Autodesk Associate (Certified User) AutoCAD

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#### **9115 Practicum in Architectural Design**

**Prerequisite:** Architectural Design II

**Credits:** 2.0

In Practicum in Architectural Design, students gain technical knowledge, work ethics, and safety training in architectural design. The course emphasizes employability skills, core academic competencies, and problem-solving. Students also explore career opportunities, ethical and legal practices, and multimedia communication. The program prepares students for architecture and related fields.

**Certification Opportunity:** Autodesk Associate (Certified User) AutoCAD

# Carpentry



The Carpentry program of study explores the occupations and educational opportunities related to constructing, installing, or repairing structures and fixtures made of wood, such as concrete forms (including frameworks, partitions, joists, studding, rafters, and stairways). This program of study may also include exploration into installing, dismantling, or moving machinery and heavy equipment according to layout plans, blueprints, or other drawings.

This program of study is offered at [Harlandale High School](#). Transportation to and from McCollum High School will be provided.

## PROGRAM OF STUDY COURSE SEQUENCE

### Year 1

- 9101 - Principles of Construction

### Year 2

- 9106 - Construction Technology I

### Year 3

- 9111 - Construction Technology II

### Year 4

- 9116 - Practicum in Construction Technology

#### 9101 Principles of Construction

**Prerequisite:** None

**Credit:** 1.0

Principles of Construction is intended to provide an introduction and lay a solid foundation for those students entering the construction or craft skilled areas. The course provides a strong knowledge of construction safety, construction mathematics, and common hand and power tools. This course also provides communication and occupation skills to assist the student in obtaining and maintaining employment.

**Certification Opportunities:** NCCER Core AND OSHA 10 Hr. Construction

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#### 9106 Construction Technology I

**Prerequisite:** None

**Credits:** 2.0

In Construction Technology I, students will gain knowledge and skills needed to enter the workforce as carpenters or building maintenance supervisors or to prepare for a postsecondary degree in construction management, architecture, or engineering. Students will acquire knowledge and skills in safety, tool usage, building materials, codes, and framing. For safety and liability considerations, limiting course enrollment to 15 students is recommended.

**Certification Opportunities:** NCCER Carpentry I

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#### 9111 Construction Technology II

**Prerequisite:** Construction Technology I

**Credits:** 2.0

In Construction Technology II, students will gain advanced knowledge and skills needed to enter the workforce as carpenters, building maintenance technicians, or supervisors or to prepare for a postsecondary degree in construction management, architecture, or engineering. Students will build on the knowledge base from Construction Technology I and are introduced to exterior and interior finish out skills. For safety and liability considerations, limiting course enrollment to 15 students is recommended.

**Certification Opportunity:** NCCER Carpentry II

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#### 9116 Practicum in Construction Technology

**Prerequisite:** Construction Technology II

**Credits:** 2.0

In Practicum in Construction Technology, students will be challenged with the application of knowledge and skills gained in previous construction-related coursework. In many cases students will be allowed to work at a job (paid or unpaid) outside of school or be involved in local projects the school has approved for this class.

**Certification Opportunity:** NCCER Carpentry II

# HVAC and Sheet Metal



The HVAC and Sheet Metal program of study explores the occupations and educational opportunities associated with installing, serving, or repairing heating and air conditioning systems and also the fabrication, assembly, installation, and repair of sheet metal products and equipment, such as ducts, control boxes, drainpipes, and furnace casings. This program of study may also include exploration into preparing cost estimates for certain construction projects involving heating and air conditioning and sheet metal.

This program of study is offered at [Carroll Bell Education Center](#). Transportation to and from home campus will be provided.

## PROGRAM OF STUDY COURSE SEQUENCE

### Year 1

- 9101 - Principles of Construction, **OR**
- 9539 - Introduction to Welding (for those that already have Principles of Construction)

### AND

- 9108 - HVAC and Refrigeration Technology I

### Year 2

- 9118 - HVAC and Refrigeration Technology II

### Year 3

- 9116 - Practicum in Construction Technology

**9101 Principles of Construction—See page 9**

**Credits 1.0**

**Certification Opportunity: NCCER Core AND OSHA 10 Hr. General Industry**

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**9539 Introduction to Welding**

**Prerequisite: None**

**Credits 1.0**

Introduction to Welding offers a comprehensive exploration of welding technology, emphasizing fundamental laboratory principles and procedures for the three basic welding processes. The course equips students with the knowledge, skills, and technologies necessary for employment in the welding industry, fostering the integration of academic and technical proficiency to prepare them for future success in diverse settings and career paths.

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**9108 Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology I**

**Prerequisite: None**

**Credits 1.0**

Students will gain knowledge and skills needed to enter the industry as technicians in the HVAC and refrigeration industry or building maintenance industry, prepare for a postsecondary degree in a specified field of construction management, or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, principles of HVAC theory, use of tools, codes, and installation of HVAC and refrigeration equipment.

**Certification Opportunities: NCCER Heating, Ventilation, Air Conditioning Level I**

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**9118 Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology II**

**Prerequisite: HVAC and Refrigeration I**

**Credits: 2.0**

Students will gain advanced knowledge and skills needed to enter the industry as HVAC and refrigeration technicians or building maintenance technicians or supervisors, prepare for a postsecondary degree in a specified field of construction or construction management, or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, electrical theory, use of tools, codes, installation of commercial HVAC equipment, heat pumps, troubleshooting techniques, various duct systems, and maintenance practices.

**Certification Opportunity: NCCER Heating, Ventilation, Air Conditioning Level I**

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**9116 Practicum in Construction Technology - See page 9**

**Credits: 2.0**

# Electrical



The Electrical program of study explores the occupations and educational opportunities associated with installing, maintaining, and repairing electrical wiring, equipment, and fixtures. This program of study may also include exploration into installing and repairing telecommunications cable including fiber optics.

This program of study is offered at [Carroll Bell Education Center](#). Transportation to and from home campus will be provided.

## PROGRAM OF STUDY COURSE SEQUENCE

### Year 1

- 9101 - Principles of Construction, **OR**
- 9539 - Introduction to Welding (for those that already have Principles of Construction)

### **AND**

- 9109 - Electrical Technology I

### Year 2

- 9119 - Electrical Technology II

### Year 3

- 9116 - Practicum in Construction Technology

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**9101 Principles of Construction—See page 9** **Credits 1.0**  
**Certification Opportunity: NCCER Core AND OSHA 10 Hr. General Industry**

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**9539 Introduction to Welding** **Credits 1.0**  
**Prerequisite: None**  
Introduction to Welding offers a comprehensive exploration of welding technology, emphasizing fundamental laboratory principles and procedures for the three basic welding processes. The course equips students with the knowledge, skills, and technologies necessary for employment in the welding industry, fostering the integration of academic and technical proficiency to prepare them for future success in diverse settings and career paths.

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**9109 Electrical Technology I** **Credits 1.0**  
**Prerequisite: None**  
Students will gain knowledge and skills needed to enter the workforce as an electrician or building maintenance supervisor, prepare for a postsecondary degree in a specified field of construction or construction management, or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, electrical theory, tools, codes, installation of electrical equipment, and the reading of electrical drawings, schematics, and specifications.  
**Certification Opportunities: NCCER Electrical Level I**

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**9119 Electrical Technology II** **Credits:2.0**  
**Prerequisite: Electrical Technology I**  
Students will gain advanced knowledge and skills needed to enter the workforce as an electrician, a building maintenance technician, or a supervisor; prepare for a postsecondary degree in a specified field of construction or construction management; or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, electrical theory, tools, codes, installation of electrical equipment, alternating current and direct current motors, conductor installation, installation of electrical services, and electric lighting installation.  
**Certification Opportunity: NCCER Electrical Level II**

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**9116 Practicum in Construction Technology - See page 9** **Credits: 2.0**

# Plumbing and Pipefitting



The Plumbing and Pipefitting program of study explores the occupations and educational opportunities related to assembling, installing, or repairing pipes, fittings, or fixtures of heating, water, or drainage systems. This program of study may also include exploration into maintaining pipe supports or related hydraulic or pneumatic equipment for steam, hot water, heating, cooling, lubricating, sprinkling, or industrial production or processing systems.

This program of study is offered at [Carroll Bell Education Center](#). Transportation to and from home campus will be provided.

## PROGRAM OF STUDY COURSE SEQUENCE

### Year 1

- 9101 - Principles of Construction, **OR**
- 9539 - Introduction to Welding (for those that already have Principles of Construction)

### AND

- 9104 - Plumbing Technology I

### Year 2

- 9114 - Plumbing Technology II

### Year 3

- 9116 - Practicum in Construction Technology

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**9101 Principles of Construction—See page 9** **Credits 1.0**  
**Certification Opportunity: NCCER Core AND OSHA 10 Hr. General Industry**

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**9539 Introduction to Welding** **Credits 1.0**  
**Prerequisite: None**  
Introduction to Welding offers a comprehensive exploration of welding technology, emphasizing fundamental laboratory principles and procedures for the three basic welding processes. The course equips students with the knowledge, skills, and technologies necessary for employment in the welding industry, fostering the integration of academic and technical proficiency to prepare them for future success in diverse settings and career paths.

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**9104 Plumbing Technology I** **Credits 1.0**  
**Prerequisite: None**  
Students will gain knowledge and skills needed to enter the workforce as an electrician or building maintenance supervisor, prepare for a postsecondary degree in a specified field of construction or construction management, or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, electrical theory, tools, codes, installation of electrical equipment, and the reading of electrical drawings, schematics, and specifications.  
**Certification Opportunities: NCCER Plumbing Level I**

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**9114 Plumbing Technology II** **Credits:2.0**  
**Prerequisite: Electrical Technology I**  
Students will gain advanced knowledge and skills needed to enter the workforce as an electrician, a building maintenance technician, or a supervisor; prepare for a postsecondary degree in a specified field of construction or construction management; or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, electrical theory, tools, codes, installation of electrical equipment, alternating current and direct current motors, conductor installation, installation of electrical services, and electric lighting installation.  
**Certification Opportunity: NCCER Plumbing Level II**

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**9116 Practicum in Construction Technology - See page 9** **Credits: 2.0**

# Digital Communications



The Digital Communications program of study explores the occupations and educational opportunities associated with the production of audio and visual media formats for various purposes, such as TV broadcasts, advertising, video production, or motion pictures. This program of study may also include exploration into operating machines and equipment to record sound and images, such as microphones, sound speakers, video screens, projectors, video monitors, sound and mixing boards, and related electronic equipment.

This program of study is offered at both Harlandale High School and McCollum High School.

## PROGRAM OF STUDY COURSE SEQUENCE

### Year 1

- 9120 - Principles of Arts, Audio/Video Technology, and Communications

### Year 2

- 9160 - Audio/Video Production I

### Year 3

- 9195 - OnRamps Foundations of Arts and Entertainment Technology

### Year 4

- 9210 - Practicum of Audio/Video Production

#### **9120 Principles of Arts, Audio/Video Technology, and Communications**

**Prerequisite:** None

**Credit:** 1.0

The goal of this course is for the student to understand arts, audio/video technology, and communications systems. 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.

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#### **9160 Audio/Video Production I**

**Prerequisite:** None

**Credit:** 1.0

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 products.

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#### **9195 OnRamps Foundations of Arts & Entertainment Technologies DC**

**Prerequisite:** Audio/Video Production I

**Dual Enrollment +10 in GPA Calculations**

**Credits:** 2.0

Arts and Entertainment Technologies provides first-hand experiences with digital media technology, software, and applications for use in entertainment and artistic endeavors. Students engage with multi-disciplinary tools; build technological skills; and apply methods of design thinking to create products, applications, and experiences for specific audiences. Students engage in project-based learning to study an assortment of entertainment concepts and experiences; discover the underlying technology involved; and explore the cultural, philosophical, ethical, and practical aspects of entertainment technology.

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#### **9210 Practicum in Audio/Video Production**

**Prerequisite:** Audio/Video Production II/Lab

**Credits:** 2.0

Building upon the concepts taught in Audio/Video Production II and its co-requisite Audio/Video Production II Lab, in addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an increasing understanding of the industry with a focus on applying pre-production, production, and post-production audio and video products in a professional environment. This course may be implemented in an advanced audio/video or audio format. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

**Certification Opportunity:** Adobe Certified Professional in Digital Video Using Adobe Premiere Pro

# Graphic Design and Interactive Media



The Graphic Design and Interactive Media 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.

If a student wishes to study a specialized topic not on their campus, transportation to the other campus will be arranged.

## PROGRAM OF STUDY COURSE SEQUENCE Animation (HHS)

- Year 1**
  - **9120** - Principles of Arts, A/V Technology, and Communications
- Year 2**
  - **9145** - Animation I
- Year 3**
  - **9170** - Animation II/Lab
- Year 4**
  - **9185** - Practicum in Animation

## PROGRAM OF STUDY COURSE SEQUENCE Video Game Design (MHS)

- Year 1**
  - **9141** - Video Game Design
- Year 2**
  - **9142** - Video Game Programming
- Year 3**
  - **9143** - Advanced Video Game Programming
- Year 4**
  - **9144** - Web Game Development

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**9120 Principles of Arts, Audio/Video Technology, and Communications - see page 15** **Credit 1.0**

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**9141 Video Game Design** **Credit: 1.0**  
**Prerequisite: None**  
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 learn gaming, computerized gaming, evolution of gaming, artistic aspects of perspective, design, animation, technical concepts of collision theory, and programming logic. Students will participate in a simulation of a real video game design team while developing technical proficiency in constructing an original game design.

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**9145 Animation I** **Credit: 1.0**  
**Prerequisite: None**  
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 history and techniques of the animation industry.

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**9142 Video Game Programming** **Credit: 1.0**  
**Prerequisite: None**  
Video Game Programming expands on the foundation created in Video Game Design through programming languages such as: C# programming, XNA game studio, Java, and Android App. In this course, students will investigate the inner workings of a fully functional role-playing game (RPG) by customizing playable characters, items, maps, and chests and eventually applying customizations by altering and enhancing the core game code.  
**Certification Opportunity: Unity Certified User - Programmer**

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**9170 Animation II/ Lab** **Credits: 2.0**  
**Prerequisite: Animation I**  
In addition to developing advanced knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to create two- and three-dimensional animations. The instruction also assists students seeking careers in the animation industry.

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### 9143 Advanced Video Game Programming

**Prerequisite: None**

**Credit: 1.0**

Advanced Video Game Programming students will be introduced to mobile application design and programming using Java and Eclipse for Android devices. Time will be spent learning basic Java programming and working with Android Studio to develop real working apps. Using Unity as an introduction to 3D game development, students will have exposure to and an understanding of: object-oriented programming concepts; game development skill with programs such as Unity; 3D modeling with programs such as Blender; image manipulation with programs such as GIMP; concepts related to the design process; and the ability to communicate and collaborate on group-based projects.

**Certification Opportunity: Unity Certified User - Programmer**

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### 9144 Web Game Development

**Prerequisite: None**

**Credit: 1.0**

Web Game Development will allow students to demonstrate creative thinking, develop innovative strategies, and use digital and communication tools necessary to develop fully functional online games. Web Game Development has career applications for many aspects of the game industry, including programming, art principles, graphics, web design, storyboarding and scripting, and business and marketing.

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### 9185 Practicum in Animation

**Prerequisite: Animation II/ Lab**

**Credits: 2.0**

Careers in animation span all aspects of the arts, audio/video technology, and communications industry. Building upon the concepts taught in Animation II and its co-requisite Animation II Lab, in addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an increasing understanding of the industry with a focus on applying pre-production, production, and post-production animation products in a professional environment. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

**Certification Opportunity: Adobe Certified Professional - After Effects**

## Printing and Imaging



The Printing and Imaging regional program of study introduces CTE learners to knowledge and skills related to providing printing and imaging services. CTE learners may learn about or practice the foundations of business management, customer service, graphic design, graphic production and large format printing.

This program of study is offered at [McCollum High School](#). Transportation to and from Harlandale High School will be provided.

### PROGRAM OF STUDY COURSE SEQUENCE

#### Year 1

- 9140 - Graphic Design and Illustration I

#### Year 2

- 9136 - Printing and Imaging Technology I

#### Year 3

- 9137 - Printing and Imaging Technology II/Lab

#### Year 4

- 9181 Practicum in Graphic Design and Illustration (Phasing Out 24-25)

### 9140 Graphic Design and Illustration I

**Prerequisite: None**

**Credit: 1.0**

Careers in graphic design and illustration span all aspects of the advertising and visual communications industries. Within this context, in addition to developing 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

fundamental elements and principles of visual art and design.

### **9136 Printing and Imaging Technology I**

**Prerequisite: None**

**Credit: 1.0**

Careers in printing span all aspects of the industry, including prepress, press, and finishing and bindery operations. 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 printing industry with a focus on digital prepress and digital publishing.

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### **9137 Printing and Imaging Technology II/Lab**

**Prerequisite: None**

**Credits: 2.0**

Careers in printing span all aspects of the industry, including prepress, press, and finishing and bindery operations. In addition to developing advanced knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced understanding of the printing industry with a focus on digital prepress and desktop digital publishing.

**Certification Opportunities: Adobe Certified Professional - Illustrator, InDesign, and Photoshop**

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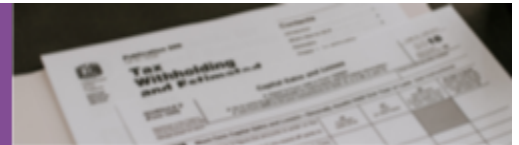
### **9181 Practicum in Graphic Design and Illustration**

**Prerequisite: None**

**Credits: 2.0**

This practicum in graphic design and illustration is designed to equip students with essential technical knowledge and skills vital for success in the Arts, Audio/Video Technology career field. Through immersive lab-based classroom experiences and career preparation opportunities, students will cultivate a nuanced understanding of the industry, emphasizing skill proficiency to excel in graphic design and illustration practices.

## Accounting and Financial Services



The Accounting and Financial Services program of study teaches CTE learners 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.

This program of study is offered at [McCollum High School](#). Transportation to and from Harlandale High School will be provided.

### **PROGRAM OF STUDY COURSE SEQUENCE**

#### **Year 1**

- **9220** - Principles of Business, Marketing, and Finance

#### **Year 2**

- **9235** - Accounting I

#### **Year 3**

- **9270** - Accounting II

#### **Year 4**

- **9305** - Practicum in Business Management

### **9220 Principles of Business, Marketing, and Finance**

**Prerequisite: None**

**Credit: 1.0**

In Principles of Business, Marketing, and Finance, students gain knowledge and skills in economies and private enterprise systems, the impact of global business, the 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.

## 9235 Accounting I

**Prerequisite:** None

**Credit:** 1.0

In Accounting I, 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. Students will reflect on this knowledge as they engage in the process of recording, classifying, summarizing, analyzing, and communicating accounting information. Students will formulate and interpret financial information for use in management decision making. Accounting includes such activities as bookkeeping, systems design, analysis, and interpretation of accounting information.

**Certification Opportunity:** *NOCTI Accounting Foundations*

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## 9270 Accounting II

**Prerequisite:** Accounting I

**Credit:** 1.0

In Accounting II, students will 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. Students will reflect on this knowledge as they engage in various managerial, financial, and operational accounting activities. Students will formulate, interpret, and communicate financial information for use in management decision making. Students will use equations, graphical representations, accounting tools, spreadsheet software, and accounting systems in real-world situations to maintain, monitor, control, and plan the use of financial resources. *This course satisfies a high school math graduation requirement.*

**Certification Opportunity:** *NOCTI Accounting Foundations*

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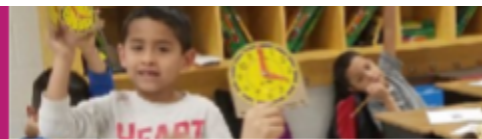
## 9305 Practicum in Business Management

**Prerequisite:** None

**Credits:** 2.0

Practicum in Business Management 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. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce or postsecondary education. Students apply technical skills to address business applications of emerging technologies.

## Teaching and Training



The Teaching and Training program of study prepares CTE learners for careers related to teaching, instruction, and creation of instructional and enrichment materials. The program of study introduces CTE learners to a wide variety of student groups and their corresponding needs. It familiarizes them with the processes for developing curriculum, coordinating educational content, and coaching groups and individuals.

*This program of study is offered at both Harlandale High School and McCollum pending minimum enrollment requirements.*

### PROGRAM OF STUDY COURSE SEQUENCE

#### Year 1

- 9340 - Principles of Education and Training

#### Year 2

- 9345 - Human Growth and Development

#### Year 3

- 9350 - Instructional Practices

#### Year 4

- 9355 - Practicum in Education and Training

## 9340 Principles of Education and Training

**Credit:** 1.0

Principles of Education and Training is designed to introduce learners to the various careers available within the Education and Training Career Cluster. Students use self-knowledge as well as educational and career information to analyze various careers within the Education and Training Career Cluster. Students will develop a graduation plan that leads to a specific career choice in the

student's interest area.

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**9345 Human Growth and Development**

**Credit: 1.0**

Human Growth and Development is an examination of human development across the lifespan with emphasis on research, theoretical perspectives, and common physical, cognitive, emotional, and social developmental milestones. The course covers material that is generally taught in a postsecondary, one-semester introductory course in developmental psychology or human development.

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**9350 Instructional Practices**

**Credits: 2.0**

**Prerequisite: 1 credit from Education and Training Career Cluster**

Instructional Practices is a field-based internship focusing on child and adolescent development, teaching principles, and training practices. Students collaborate with experienced educators in early childhood, middle childhood, and adolescence education, engaging in planning and directing individualized instruction, preparing materials, and assisting with various educational responsibilities. The program aims to provide a comprehensive understanding of effective teaching methods across different age groups in elementary, and middle settings.

**Certification Opportunity: Educational Aide I**

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**9355 Practicum in Education and Training**

**Credits: 2.0**

**Prerequisite: Instructional Practices**

Practicum in Education and Training is a field-based program that immerses students in child and adolescent development, along with effective teaching and training principles. Under the joint guidance of experienced educators, students participate in planning and delivering individualized and group instruction, preparing educational materials, and assisting with various responsibilities associated with teaching and training. The internship spans early childhood through adolescence, offering a holistic learning experience across elementary, middle school.

**Certification Opportunity: Educational Aide I**

## Health Professions High School (HPS) at Harlandale High School

If you are currently in the 9th or 10th grade during the academic year 2024-2025 and have an interest in joining the prestigious HPS cohort at Harlandale High School, we encourage you to reach out to your school counselor for comprehensive details and guidance.

Members of the HPS program will embark on a specialized academic journey, which includes engaging coursework such as PreAP, AP, Dual Credit, and/or OnRamps. Those who successfully navigate this educational path at HHS will have the privilege of graduating with the HPS stole. It's important to note that simply enrolling in the listed courses below will not be adequate to qualify for the HPS stole upon graduation.

### Diagnostic and Therapeutic Services



The Diagnostic and Therapeutic Services 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.

Year 1 and Year 2 courses are offered at both HHS and MHS

#### PROGRAM OF STUDY COURSE SEQUENCE

##### Year 1

- 9360 - Principles of Health Science

##### Year 2

- 9365 - Medical Terminology

##### Medical Assistant MHS & HHS

##### Year 3

- 9370 - Health Science Theory

##### Year 4

- 9410 - Practicum in Health Science-Medical Assistant

##### Phlebotomy HHS

##### Year 3

- 9370 - Health Science Theory

##### Year 4

- 9415 - Practicum in Health Science-Phlebotomy

##### Dental Assistant CBEC

##### Year 3

- 9370 - Health Science Theory
- 9810 - Dental Equipment and Procedures

##### Year 4

- 9805 - Dental Anatomy and Physiology
- 9815 - Practicum in Health Science-Dental Assistant

#### SCIENCE CLASSES AVAILABLE TO SUPPORT ANY PATHWAY

- 9390 - Medical Microbiology
- 9385 - Pathophysiology
- 9395 - Anatomy and Physiology

#### 9360 Principles of Health Science

Prerequisite: None

Credit: 1.0

Principles of Health Science course offers students a comprehensive introduction to the dynamic field of healthcare. This course equips students with the essential skills and knowledge required for a range of health science careers. Students will develop strong employability skills, apply mathematics and science in health-related contexts, refine their communication abilities, and gain an understanding of the ethical and legal aspects of the industry. Additionally, this course emphasizes leadership development, career exploration, and teamwork within a healthcare setting. Students will also explore technology in healthcare, safety standards, and the influence of diverse cultural practices on modern healthcare.

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**9370 Health Science Theory****Prerequisite: Biology****Credit: 1.0**

Designed for students with an interest in diverse health careers, this course provides advanced knowledge and hands-on experiences. From mastering professional skills to applying mathematics, science, and communication in healthcare contexts, students will gain a comprehensive understanding of the industry. They'll also delve into the ethical and legal responsibilities of healthcare professionals and the importance of leadership and teamwork. This course covers diverse aspects of healthcare systems, technology, safety, and the impact of cultural practices.

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**9365 Medical Terminology****Prerequisite: None****Credit: 1.0**

The Medical Terminology course is designed to introduce students to the structure of medical terms, including prefixes, suffixes, word roots, singular and plural forms, and medical abbreviations. The course allows students to achieve comprehension of medical vocabulary appropriate to medical procedures, human anatomy and physiology, and pathophysiology.

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**9410 Practicum in Health Science –Medical Assistant****Prerequisites: Health Science Theory and Biology****Credits: 2.0**

Prepare for a fulfilling career as a Medical Assistant with our specialized training course. Gain essential knowledge and skills aligned with industry standards in health science. This program includes hands-on experience allowing you to apply your learning in real-world settings. You'll develop professional communication, problem-solving, and teamwork abilities while understanding the ethical and legal responsibilities of healthcare. With a focus on employability skills, mathematical and scientific interpretation, and communication proficiency, this course equips you for success in the dynamic healthcare industry. Explore various career pathways, ensuring you're well-prepared for the world of health science.

**Certification Opportunity: Medical Assistant**

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**9415 Practicum in Health Science –Phlebotomy Technician****Prerequisites: Health Science Theory and Biology****Credits: 2.0**

Students will prepare for a rewarding career as a Phlebotomy Technician in our specialized program. Delve into the health science field with a focus on therapeutic and diagnostic services. Develop vital employability skills, learn to communicate effectively, and understand the ethical and legal responsibilities in healthcare. Gain proficiency in medical terminology and safety measures, ensuring a safe and efficient healthcare environment. Explore career pathways and engage in extended learning experiences, such as community service and student organizations.

**COURSE NOTE:** In order to take the exam needed to earn certification as a Certified Phlebotomy Technician, students taking this course must be 18 years old by the end of the academic school year.

**Certification Opportunity: Phlebotomy Technician**

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**9815 Practicum in Health Science-Dental Assistant****Prerequisites: Health Science Theory and Biology****Credits: 2.0**

Prepare for a rewarding career as a Dental Assistant with our specialized course. Develop essential professional skills, including effective communication and teamwork. Apply math, science, and English skills to interpret data, create technical reports, and deliver presentations. Gain expertise in medical terminology and problem-solving, ensuring you're ready for employment in the healthcare industry. Embrace ethical behavior, safety protocols, and knowledge transfer within the field. Join career and technical student organizations and explore extended learning experiences, setting you on a path to success in healthcare.

**Certification Opportunity: Registered Dental Assistant (RDA)**

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**9395 Anatomy and Physiology****Prerequisites: One credit in Biology AND one credit in Chemistry, IPC, or Physics****Credit: 1.0**

Uncover the intricacies of the skeletal, muscular, nervous, and other systems while investigating diseases and emerging technologies. Engage in scientific practices, refine employability skills, and enhance your scientific decision-making abilities. This course equips you with fundamental knowledge and problem-solving skills for future careers in healthcare and beyond. *This course satisfies a high school science graduation requirement.*

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**9385 Pathophysiology****Prerequisites: Biology and Chemistry****Credit: 1.0**

The Pathophysiology course is designed for students to conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Pathophysiology will study disease processes and how humans are affected. Emphasis is placed on prevention and treatment of disease. Students will differentiate between normal and abnormal physiology. Students should know that some questions are outside the realm of science because they deal with phenomena that are not testable. *This course satisfies a high school science graduation requirement.*

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### 9390 Medical Microbiology

**Prerequisites:** Biology and Chemistry

**Credit: 1.0**

The Medical Microbiology course is designed to explore the microbial world, studying topics such as pathogenic and non-pathogenic microorganisms, laboratory procedures, identifying microorganisms, drug resistant organisms, and emerging diseases. Students must meet the 40% laboratory and fieldwork requirement. *This course satisfies a high school science graduation requirement.*

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### 9805 Dental Anatomy and Physiology

**Credit: 1.0**

Dental Anatomy and Physiology is a health science course designed for exploration of the physiology of the head, neck, oral, and dental anatomy. Students will identify and describe functions of anatomical structures, including the bones, muscles, nerves, and blood vessels of the head and neck as well as their relationship to the corresponding body systems. Students will also identify and describe oral, head and neck pathologies, conditions, diagnostic tools, treatments, and professions. While this course is identified as dental, it is well suited for all students interested in pursuing any of the professions involved with the head and neck such as dentistry, otolaryngology, optometry, radiology, audiology, neurology, reconstructive/plastic surgery.

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### 9810 Dental Equipment and Procedures

**Recommended Prerequisite:** Dental Anatomy and Physiology

**Credit: 1.0**

This course provides the foundational content knowledge, skills, and hands-on practice of essential dental assisting skills and chairside dental assisting functions. Topics include examination and assessment procedures, equipment and materials, instrumentation techniques, and treatment procedures and skills performed by a clinical dental assistant during restorative procedures. The hands-on practice will prepare students for clinical experiences.

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## Bio-Medical Science



The Biomedical Science program of study focuses on the study of biology and medicine in order to introduce CTE learners to the knowledge and skills necessary to be successful in the healthcare field, such as researching and diagnosing diseases, pre-existing conditions, or other determinants of health. Students may also practice patient care and communication.

*This program of study is offered at [STEM Early College High School](#). Acceptance into STEM ECHS is required.*

### PROGRAM OF STUDY COURSE SEQUENCE

#### Year 1

- 9430 Principles of Biosciences

#### Year 2

- 9430 Biotechnology I

#### Year 3

- 9435 Biotechnology II
- 9390 Medical Microbiology

#### Year 4

- 9435 Pathophysiology

### 9425 Principles of Biosciences

**Credit: 1.0**

Principles of Biosciences is a strong reinforcement of Biology content that provides an overview of biotechnology, bioengineering, and related fields. Topics include genetics, cell structure, proteins, nucleic acids, and the impact of immunological events in biotechnology. Students will further study the increasingly important agricultural, environmental, economic, and political roles of bioenergy and biological remediation; the roles of nanoscience and nanotechnology in biotechnology medical research; and future trends in biological science and biotechnology.

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**9430 Biotechnology I****Credit: 1.0**

In Biotechnology I, students will apply advanced academic knowledge and skills to the emerging fields of biotechnology such as agricultural, medical, regulatory, and forensics. Students will have the opportunity to use sophisticated laboratory equipment, perform statistical analysis, and practice quality-control techniques. Students will conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Biotechnology I will study a variety of topics that include structures and functions of cells, nucleic acids, proteins, and genetics.

**9435 Biotechnology II****Credit: 1.0****Prerequisite: *Biology and Chemistry***

Biotechnology II has the components of any rigorous scientific or bioengineering program of study from the problem identification, investigation design, data collection, data analysis, and formulation and presentation of the conclusions. This course applies the standard skills mastered in Biotechnology I and includes assay design. After taking this course, students should be prepared for entry-level lab technician jobs.

**Certification Opportunity: Biotechnician Assistant Credentialing Exam (BACE)****9390 Medical Microbiology****Credit: 1.0****Prerequisite: *Biology and Chemistry***

The Medical Microbiology course is designed to explore the microbial world, studying topics such as pathogenic and non-pathogenic microorganisms, laboratory procedures, identifying microorganisms, drug resistant organisms, and emerging diseases. Students must meet the 40% laboratory and fieldwork requirement. **Students must meet the 40% laboratory and fieldwork requirement. This course satisfies a high school science graduation requirement.**

**9385 Pathophysiology****Credit: 1.0****Prerequisite: *Biology and Chemistry***

The Pathophysiology course is designed for students to conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Pathophysiology will study disease processes and how humans are affected. Emphasis is placed on prevention and treatment of disease. Students will differentiate between normal and abnormal physiology. Students should know that some questions are outside the realm of science because they deal with phenomena that are not scientifically testable. **Students must meet the 40% laboratory and fieldwork requirement. This course satisfies a high school science graduation requirement**

## Culinary Arts



The Culinary Arts program of study introduces CTE learners to occupations and educational opportunities related to the planning, directing, or coordinating activities of a food and beverage organization or department. This program of study also explores opportunities involved in directing and participating in the preparation and cooking of food.

This program of study is offered at [McCullum High School](#). Transportation to and from Harlandale High School will be provided.

### PROGRAM OF STUDY COURSE SEQUENCE

**Year 1**

- 9445 - Introduction to Culinary Arts

**Year 2**

- 9450 - Culinary Arts

**Year 3**

- 9455 - Advanced Culinary Arts

**Year 4**

- 9460 - Practicum in Culinary Arts

**9445 Introduction to Culinary Arts**

**Prerequisite: None**

**Credit: 1.0**

Introduction to Culinary Arts will emphasize the principles of planning, organizing, staffing, directing, and controlling the management of a variety of food service operations. The course will provide insight into the operation of a well-run restaurant. Introduction to Culinary Arts will provide insight into food production skills, various levels of industry management, and hospitality skills. This is an entry level course for students interested in pursuing a career in the food service industry. This course is offered as a classroom and laboratory-based course.

**9450 Culinary Arts**

**Prerequisites: Introduction to Culinary Arts**

**Credits: 2.0**

Culinary Arts begins with the fundamentals and principles of the art of cooking and the science of baking and includes management and production skills and techniques. Students can pursue a national sanitation certification or other appropriate industry certifications. This course is offered as a laboratory-based course.

**Certification Opportunity: ServSafe Food Handler**

**9455 Advanced Culinary Arts**

**Prerequisite: Culinary Arts**

**Credits: 2.0**

Advanced Culinary Arts will extend content and enhance skills introduced in Culinary Arts by in-depth instruction of industry-driven standards to prepare students for success in higher education, certifications, and/or immediate employment.

**Certification Opportunities: ServSafe Food Manager AND Culinary Meat Selection & Cookery Certification**

**9460 Practicum in Culinary Arts**

**Prerequisite: Culinary Arts**

**Credits: 2.0**

Practicum in Culinary Arts is a unique practicum that provides occupationally specific opportunities for students to participate in a learning experience that combines classroom instruction with actual business and industry career experiences. Practicum in Culinary Arts integrates academic and career and technical education; provides more interdisciplinary instruction; and supports strong partnerships among schools, businesses, and community institutions with the goal of preparing students with a variety of skills in a fast-changing workplace.

**Certification Opportunities: ServSafe Food Manager AND Culinary Meat Selection & Cookery Certification**



The Cosmetology and Personal Care Services regional program of study introduces CTE learners to knowledge and skills related to providing beauty and personal care services. CTE concentrators may learn about or practice managing personal care facilities and coordinating or supervising personal service workers.

If a student wishes to study a specialized topic not on their campus, transportation to the other campus will be arranged. Additional student fees are associated with these courses.

**PROGRAM OF STUDY COURSE SEQUENCE  
Cosmetology (HHS)**

- Year 1** (Sophomore or Junior Year)
  - **9315** - Cosmetology I/Lab (**Blind Lottery**)
- Year 2**
  - **9320** - Cosmetology II/Lab
  - AND**
  - **9325** - Principles of Cosmetology Design and Color Theory

**PROGRAM OF STUDY COURSE SEQUENCE  
Barbering (CBEC)**

- Year 1** (Sophomore or Junior Year)
  - **9317** - Barbering I (**Blind Lottery**)
- Year 2**
  - **9322** - Barbering II

**9315 Cosmetology I/Lab****Prerequisite: None****Credits: 2.0**

In Cosmetology I, students coordinate integration of academic, career, and technical knowledge and skills in this laboratory instructional sequence course designed to provide job-specific training for employment in cosmetology careers. Instruction includes sterilization and sanitation procedures, hair care, nail care, and skin care and meets the Texas Department of Licensing and Regulation (TDLR) requirements for licensure upon passing the state examination. Analysis of career opportunities, license requirements, knowledge and skills expectations, and development of workplace skills are included.

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**9325 Principles of Cosmetology Design and Color Theory****Prerequisite: None****Credit: 1.0**

In Principles of Cosmetology Design and Color Theory, students coordinate integration of academic, career, and technical knowledge and skills in this laboratory instructional sequence course designed to provide job-specific training for employment in cosmetology careers. Students will attain academic skills and knowledge as well as technical knowledge and skills related to cosmetology design and color theory. Students will develop knowledge and skills regarding various cosmetology design elements such as form, lines, texture, structure and illusion or depth as they relate to the art of cosmetology. Instruction includes sterilization and sanitation procedures, hair care, nail care, and skin care and meets the TDLR requirements for licensure upon passing the state examination. Analysis of career opportunities, license requirements, knowledge and skills expectations, and development of workplace skills are included.

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**9320 Cosmetology II/Lab****Prerequisite: Cosmetology I/Lab****Credits: 2.0**

In Cosmetology II, students will demonstrate proficiency in academic, technical, and practical knowledge and skills. The content is designed to provide the occupational skills required for licensure. Instruction includes advanced training in professional standards/employability skills; Texas Department of Licensing and Regulation (TDLR) rules and regulations; use of tools, equipment, technologies, and materials; and practical skills. This course provides students additional lab time to develop proficient and mastery level cosmetology skills and techniques as required by Texas Department of Licensing and Regulation licensing standards. Students are expected to develop proficient and mastery level work samples and to expand their work experiences.

**Certification Opportunity: Cosmetology Operator License**

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**9317 Barbering I****Prerequisites: None****Credits: 3.0**

In Barbering I, students coordinate integration of academic, career, and technical knowledge and skills in a laboratory instructional sequence of courses designed to provide job-specific training for employment in barbering careers. Instruction includes sterilization and sanitation procedures, hair care, nail care, and skin care and meets the Texas Department of Licensing and Regulation (TDLR) requirements for licensure upon passing the state examination. Analysis of career opportunities, license requirements, knowledge and skills expectations, and development of workplace skills are included.

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**9322 Barbering II****Prerequisites: Barbering I****Credits: 3.0**

In Barbering II, students will demonstrate proficiency in academic, technical, and practical knowledge and skills. The content is designed to provide the occupational skills required for licensure. Instruction includes advanced training in professional standards/employability skills; Texas Department of Licensing and Regulation (TDLR) rules and regulations; use of tools, equipment, technologies and materials; and practical skills.

**Certification Opportunity: Barber Operator License**

# Law Enforcement



The Law Enforcement program of study teaches CTE learners about the development of, adherence to, and protection of various branches of law. Students will 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.

This program of study is offered at both Harlandale High School and McCollum.

## PROGRAM OF STUDY COURSE SEQUENCE

## COURSEWORK AVAILABLE TO SUPPORT THIS PATHWAY

### Year 1

- **9490** - Principles of Law, Public Safety, Corrections, and Security

- **9500** - Criminal Investigation
- **9510** - Forensic Science

### Year 2

- **9495** - Law Enforcement I

### Year 3

- **9515** - Law Enforcement II

### Year 4

- **9520** - Practicum in Law Enforcement

#### **9490 Principles of Law, Public Safety, Corrections & Security**

**Prerequisite:** None

**Credit: 1.0**

Principles of Law, Public Safety, Corrections, and Security introduces students to professions in law enforcement, protective services, corrections, firefighting, 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, protective services, and corrections.

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#### **9495 Law Enforcement I**

**Prerequisite:** None

**Credit: 1.0**

Law Enforcement I is an overview of the history, organization, and functions of local, state, and federal law enforcement. Students will understand the role of constitutional law at local, state, and federal levels; the U.S. legal system; criminal law; and law enforcement terminology and the classification and elements of crime.

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#### **9515 Law Enforcement II**

**Prerequisite:** None

**Credit: 1.0**

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.

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#### **9520 Practicum in Law, Public Safety, Corrections, and Security**

**Prerequisite:** None

**Credits: 2.0**

The practicum course is designed to give students supervised practical application of previously studied knowledge and skills in law, public safety, corrections, and security. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.

**Certification Opportunity: Non-Commissioned Security Officer Level II**

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## 9500 Criminal Investigation

**Prerequisite: None**

**Credit: 1.0**

Criminal Investigation is a course that introduces students to the profession of criminal investigations. Students will understand basic functions of criminal investigations and procedures and will learn how to investigate or follow up during investigations. Students will learn terminology and investigative procedures related to criminal investigation, crime scene processing, evidence collection, fingerprinting, and courtroom presentation. Through case studies and simulated crime scenes, students will collect and analyze evidence such as fingerprint analysis, bodily fluids, hairs, fibers, shoe and tire impressions, bite marks, drugs, tool marks, firearms and ammunition, blood spatter, digital evidence, and other types of evidence.

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## 9510 Forensic Science

**Prerequisites: Biology and Chemistry**

**Credit: 1.0**

Forensic Science is a course that introduces students to the application of science to connect a violation of law to a specific criminal, criminal act, or behavior and victim. Students will learn terminology and procedures related to the search and examination of physical evidence in criminal cases as they are performed in a typical crime laboratory. Using scientific methods, students will collect and analyze evidence such as fingerprints, bodily fluids, hairs, fibers, paint, glass, and cartridge cases. Students will also learn the history and the legal aspects as they relate to each discipline of forensic science. Scientific methods of investigation can be experimental, descriptive, or comparative. The method chosen should be appropriate to the question being asked. Students must meet the 40% laboratory and fieldwork requirement. This course satisfies a high school science graduation requirement.

## Welding



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. CTE learners 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.

This program of study is offered at [Carroll Bell Education Center](#). Transportation to and from home campus will be provided.

### PROGRAM OF STUDY COURSE SEQUENCE

#### Year 1

- 9541 Welding I

#### Year 2

- 9542 Welding II

#### Year 3

- 9546 Practicum in Manufacturing

### 9541 Welding I

**Credit: 2.0**

Welding I provides the knowledge, skills, and technologies required for employment in metal technology systems. Students will 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. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for future success.

**Certification Opportunity: NCCER Core AND OSHA 10 Hr. General Industry**

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### 9542 Welding II

**Credit: 2.0**

Welding II builds on the knowledge and skills developed in Welding I. Students will develop advanced welding concepts and skills as related to personal and career development. Students will integrate academic and technical knowledge and skills. Students will have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems.

**Certification Opportunity: NCCER Welding Level I**

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### 9546 Practicum in Manufacturing

**Credit: 2.0**

The Practicum in Manufacturing course 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.

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## Robotics and Automation Technology



The Robotics and Automation Technology program of study focuses on the assembly, operation, maintenance, and repair of electromechanical equipment or devices. CTE learners 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.

This program of study is offered at [STEM Early College High School](#). Acceptance into STEM ECHS is required.

### PROGRAM OF STUDY COURSE SEQUENCE

#### Year 1

- **9525** Principles of Applied Engineering

#### Year 2

- **9530** Robotics I

#### Year 3

- **9535** Robotics II

#### Year 4

- **9546** Practicum in Manufacturing

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#### **9525 Principles of Applied Engineering**

**Credit: 1.0**

Principles of Applied Engineering provides an overview of the various fields of science, technology, engineering, and mathematics and their interrelationships. Students will develop engineering communication skills, which include computer graphics, modeling, and presentations, by using a variety of computer hardware and software applications to complete assignments and projects. Upon completing this course, students will have an understanding of the various fields of engineering and will be able to make informed career decisions. Further, students will have worked on a design team to develop a product or system. Students will use multiple software applications to prepare and present course assignments.

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#### **9530 Robotics I**

**Credit: 1.0**

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.

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#### **9535 Robotics II**

**Credit: 1.0**

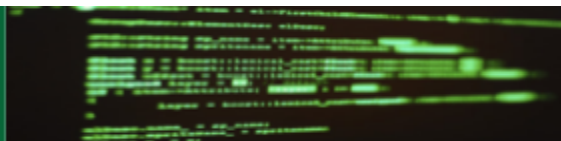
In Robotics II, students will explore artificial intelligence and programming in the robotic and automation industry. Through implementation of the design process, students will transfer academic skills to component designs in a project-based environment. Students will build prototypes and use software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

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#### **9546 Practicum in Manufacturing - See page 26**

**Credit: 2.0**

# Programming and Software Development



The Programming and Software Development program of study explores the occupations and education opportunities associated with researching, designing, developing, and testing operating systems-level software, compilers, and network distribution software for medical, industrial, military, communications, aerospace, business, scientific, and general computer applications. This program of study may also include exploration into creating, modifying, and testing the codes, forms, and script that allow computer applications to run.

This program of study is offered at [Carroll Bell Education Center](#) for HHS and MHS students. Transportation to and from home campus will be provided.

This program of study is also offered at [STEM Early College High School](#). Acceptance into STEM ECHS is required.

## Program of Study Course Sequence

### Year 1

- **9585** Fundamentals of Computer Science

### Year 2

- **9630** AP Computer Science Principles,
- **9631** Independent Study in Technology Applications

### Year 3

- **9633** AP Computer Science A
- **9634** Independent Study in Emergent Technologies

## STEM's Program of Study Course Sequence

### Year 1

- **9585** Fundamentals of Computer Science

### Year 2

- **9635** AP Computer Science Principles (4 sem)

### Year 3

- **9638** AP Computer Science A (4 sem)

### **9585 Fundamentals of Computer Science (offered at HHS, MHS, and STEM ECHS)**

**Prerequisite:** None

**Credit: 1.0**

Fundamentals of Computer Science is an introductory course designed for students entering the field. It covers essential computing tools, fostering creativity and problem-solving skills. Students collaborate, apply computer science concepts to real-world issues, and develop digital citizenship by researching laws and practicing integrity.

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### **9630 AP Computer Science Principles (offered at CBEC)**

### **9635 AP Computer Science Principles (STEM ECHS)**

**Prerequisite:** None

**Credit: 1.0**

The AP Computer Science Principles course is designed to be equivalent to a first-semester introductory college computing course. In this course, students will develop computational thinking skills vital for success across all disciplines, such as using computational tools to analyze and study data and working with large data sets to analyze, visualize, and draw conclusions from trends. The course engages students in the creative aspects of the field by allowing them to develop computational artifacts based on their interests. Students will also develop effective communication and collaboration skills by working individually and collaboratively to solve problems, and will discuss and write about the impacts these solutions could have on their community, society, and the world.

**Certification Opportunity:** CodeHS Python Level 1 Certification

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### **9631 Independent Study in Technology Applications (offered at CBEC)**

**Prerequisite:** None

**Credit: 1.0**

In Independent Study in Technology Applications, students explore technology foundations, learning to communicate information effectively using various technologies and formats. They develop critical decision-making skills, create original work aligned with professional standards, and publish across electronic and print media, all while efficiently acquiring and evaluating information through strategic technology use, fostering collaborative problem-solving.

**9633 AP Computer Science A (Math) (offered offered at CBEC)**

**9638 AP Computer Science A (Math) (offered at STEM ECHS)**

**Prerequisite: None**

**Credit: 1.0**

AP Computer Science A introduces students to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language.

**Certification Opportunity: Information Technology Specialist: Java**

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**9634 Independent Study in Evolving/Emerging Technologies (offered at CBEC)**

**Prerequisite: None**

**Credit: 1.0**

In the Independent Study in Evolving/Emerging Technologies, students explore and communicate information using diverse technologies, developing skills in decision-making, original work production, and effective use of electronic and print media. The course emphasizes efficient information acquisition, technology-supported problem-solving, and mastery of six key strands: creativity and innovation, communication and collaboration, research and information fluency, critical thinking, problem-solving and decision-making, digital citizenship, and technology operations and concepts.



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

This program of study is offered at [Carroll Bell Education Center](#). Transportation to and from home campus will be provided.

### Program of Study Course Sequence

**Year 1**

- **9590** Foundations of Cybersecurity

**Year 2**

- **9595** Computer Maintenance/ Lab

**Year 3**

- **9600** Networking/Lab

**Year 4**

- **9640** Digital Forensics
- **9645** Cybersecurity Capstone

**9590 Foundations of Cybersecurity (offered at HHS and MHS)**

**Prerequisite: None**

**Credit: 1.0**

This course develops the knowledge and skills needed to master fundamental concepts of cybersecurity. Students in the course will develop a basic foundation for continuing their cybersecurity education and choosing a career in the cybersecurity field. Students will explore the challenges facing information security professionals related to ethics, system security, network security, and application security. Students will conduct risk assessments and develop and implement security policies to mitigate those risks. Students will examine trends in cyberattacks, common vulnerabilities, and the emergence of cyber terrorism. \*\*\*Note: This course is offered for dual credit at the Information Technology and Security Academy in the Alamo Academy system. Please see your counselor for specific course sequence recommendations.

**9595 Computer Maintenance/ Lab****Prerequisite: Principles of Information Technology****Credits: 2.0**

In Computer Maintenance, students will analyze the social responsibility of business and industry regarding the significant issues relating to the environment, ethics, health, safety, and diversity in society and in the workplace as related to computer maintenance. Students will apply technical skills to address the IT industry and emerging technologies.

**Certification Opportunity: CompTIA A+ Certification**

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**9600 Networking/Lab****Prerequisites: None****Credits: 2.0**

In Networking Lab, students will develop knowledge of the concepts and skills related to telecommunications and data networking technologies and practices to apply them to personal or career development. To prepare for success, students must have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems.

**Certification Opportunity: CompTIA Network +**

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**9640 Digital Forensics****Prerequisites: None****Credit: 1.0**

Digital forensics is a critical discipline concerned with analyzing anomalous activity on computers, networks, programs, and data. As a discipline, it has grown with the expansion of a globally connected digital society. As computing has become more sophisticated, so too have the abilities to access systems and sensitive information. Digital forensics professionals investigate and craft appropriate responses to disruptions to governments, organizations, and individuals. Whereas cybersecurity takes a proactive approach to information assurance to minimize harm, digital forensics takes a reactive approach to incident response.

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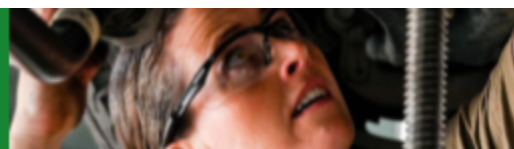
**9645 Cybersecurity Capstone****Prerequisite: None****Credit: 1.0**

In the Cybersecurity Capstone course, students will develop the knowledge and skills needed to explore advanced concepts related to the ethics, laws, and operations of cybersecurity. Students will examine trends and operations of cyberattacks, threats, and vulnerabilities. Students will develop security policies to mitigate risks. The skills obtained in this course prepare students for additional study toward industry certification. A variety of courses are available to students interested in the cybersecurity field. Cybersecurity Capstone may serve as a culminating course in this field of study.

**Certification Opportunity: CompTIA Security +**

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# Automotive and Collision Repair



The Automotive program of study teaches CTE learners how to repair and refinish automobiles and service various types of vehicles. CTE learners 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.

This program of study is offered at [McCollum High School](#). Transportation to and from Harlandale High School will be provided.

## Program of Study Course Sequence

### Year 1

- **9550 - Automotive Basics (Blind Lottery)**

### Year 2

- **9555 - Automotive Technology I**

### Year 3

- **9560 - Automotive Technology II/Lab**
- **9565 - Automotive Technology II/Lab *Dual Credit***

### Year 4

- **9570 - Practicum in Transportation Systems**
- **9700 - Practicum in Transportation Systems *Dual Credit***

#### **9550 Automotive Basics**

**Prerequisites:** None

**Credit: 1.0**

Automotive Basics includes knowledge of the basic automotive systems and the theory and principles of the components that make up each system and how to service these systems. Automotive Basics includes applicable safety and environmental rules and regulations. In Automotive Basics, students will gain knowledge and skills in the repair, maintenance, and servicing of vehicle systems. This study allows 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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#### **9555 Automotive Technology I**

**Prerequisite:** None

**Credits: 2.0**

Automotive Technology I: Maintenance and Light Repair includes 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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#### **9560 Automotive Technology II/Lab**

**9565 Automotive Technology II/Lab – Dual Credit +10 in GPA Calculations**

**Prerequisite:** Automotive Technology I

**Credits: 2.0**

Automotive Technology II: Automotive Service includes 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.

**Certification Opportunities:** ASE Entry Level Automobile: Maintenance and Light Repair (MR); Electronic/Electrical Systems (EE); Brakes (BR); Suspension and Steering (SS); Service Technology

**9570 Practicum in Transportation Systems**

**9700 Practicum in Transportation Systems—Dual Credit +10 in GPA Calculations**

**Prerequisite: None**

**Credits: 2.0**

Practicum in Transportation Systems 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 experience such as internships, mentorships, independent study, or laboratories. The Practicum can be either school lab based or worked based.

**Certification Opportunities: ASE Entry Level Automobile: Maintenance and Light Repair (MR); Electronic/Electrical Systems (EE); Brakes (BR); Suspension and Steering (SS); Service Technology**



**ALAMO ACADEMY: 2-YEAR PLANS**

<http://www.alamoacademies.com/>

**HEALTH PROFESSIONS ACADEMY at San Antonio College**

There is a high demand in San Antonio for nurses and other health careers. If you're pursuing a career in healthcare, consider enrolling in the Health Professions Academy. Courses in this program can transfer to other colleges and universities for those wanting to pursue other healthcare career paths. Once you complete the two-year program, you'll automatically be accepted into San Antonio College's Nursing program and can complete your nursing degree.

The Health Professions Academy offers a rigorous set of coursework both at the 11th and 12th grade levels.

**It is strongly recommended that students take Honors courses at the 9<sup>th</sup> and 10<sup>th</sup> grade levels to assist in preparation for the academic expectations required of this pathway.** See suggested coursework in HISD for 9<sup>th</sup> and 10<sup>th</sup> grades below.

**9th Grade:** English I (PreAP-recommended)

**9th Grade:** Biology (Honors-recommended)

**10th Grade:** English II (PreAP-recommended)

**10th Grade:** Chemistry (Honors-recommended)

**HISD offers the Nursing Science Program of Study with the opportunity to earn a Public Service Endorsement.**

**11th Grade:** 9396 Anatomy and Physiology –Dual Credit

**11th Grade:** 1339 English III-Dual Credit

**12th Grade:** 9391 Medical Microbiology—Dual Credit

**12th Grade:** 9386 Pathophysiology—Dual Credit

**12th Grade:** 9366 Medical Terminology—Dual Credit

**12th Grade:** 1596 Independent Study in English – (College Class is: Intro to Ethics)-Dual Credit

**12th Grade:** 4409 Psychology 2301 ACCD (Psychology DC)

**12th Grade:** 4414 Psych 2314 ACCD (AP Psychology)



## ALAMO ACADEMY: 2-YEAR PLANS

<http://www.alamoacademies.com/>

### **ADVANCED TECHNOLOGY AND MANUFACTURING ACADEMY** **at St. Philip's College, SW Campus**

Manufacturers in San Antonio are continually growing and in search of future employees that are familiar with and passionate about manufacturing. The manufacturing industry is one of the largest sectors of the San Antonio economy and contributed \$40.5 billion to it in 2016. At ATMA, you will acquire the entry-level skills necessary for success in the Advanced Manufacturing profession. At the conclusion of the program, you'll be able to identify machine operations, machine tools, and inspection procedures.

**HISD offers the Manufacturing Technology Program of Study through the Alamo Academies with the opportunity to earn a Business & Industry Endorsement and/or a STEM Endorsement.**

11<sup>th</sup> Grade: 9710 Precision Metal Manufacturing I Dual Credit

11<sup>th</sup> Grade: 9705 Principles of Manufacturing Dual Credit

12<sup>th</sup> Grade: 9715 Practicum in Manufacturing/Extended Practicum in Manufacturing (First Time Taken)

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### **Information Technology and Security Academy at St. Philip's College, SW Campus**

Cybersecurity is more necessary today than ever before. It can prevent companies from cyberattacks that cost them time, money, and their reputation. If you're interested in advancing your knowledge in cybersecurity, consider the Information Technology and Security Academy. **See suggested coursework in HISD for 9<sup>th</sup> and 10<sup>th</sup> grades below.**

**HISD offers the Cybersecurity Program of Study through the Alamo Academies with the opportunity to earn a STEM Endorsement.**

11<sup>th</sup> Grade: 9675 Computer Maintenance – Dual Credit

11<sup>th</sup> Grade: 9670 Networking/Lab - Dual Credit

12<sup>th</sup> Grade: 9680 Practicum in Information Technology

12<sup>th</sup> Grade: 9685 Cybersecurity Capstone—Dual Credit



## ALAMO ACADEMY: 2-YEAR PLANS

<http://www.alamoacademies.com/>

### **AEROSPACE ACADEMY at St. Philip's College, SW Campus**

The aerospace industry is in high demand in San Antonio. If you would like to learn more about working as an airframe and powerplant technician, aircraft electrician, aircraft avionics technician, or aircraft fuel systems technician, the Aerospace Academy may be right for you. Our program is accredited by the Federal Aviation Administration (FAA) and can help you earn FAA's Airframe and Powerplant license. You'll receive comprehensive training and become well-versed in the manufacturing and repair of small airplanes and jumbo jets.

***HISD offers the Aviation Maintenance Program of Study with the opportunity to earn a Business & Industry Endorsement.***

11<sup>th</sup> Grade: 9690 Introduction to Aircraft Technology-Dual Credit

11<sup>th</sup> Grade: 9695 Aircraft Airframe Technology--Dual Credit

11<sup>th</sup> Grade: 9697 Aircraft Powerplant Technology/Advanced Transportation Systems Lab-Dual Credit

12<sup>th</sup> Grade: 9700 Practicum in Transportation Systems/Extended Practicum in Transportation Systems (First Time Taken)

12<sup>th</sup> Grade: 9702 Practicum in Transportation Systems/Extended Practicum in Transportation Systems (Second Time Taken)

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### **DIESEL TECHNOLOGY ACADEMY at St. Philip's College, SW Campus**

There are numerous San Antonio companies in construction, transportation, agriculture, oil, gas, and mining that have the need for diesel technicians. If you'd like to find out what it's like to work in the highly technical and competitive field of diesel technology, the Diesel Technology Academy will be a good option.

***HISD offers the Diesel and Heavy Equipment Program of Study with the opportunity to earn a Business & Industry Endorsement.***

11<sup>th</sup> Grade: 9725 Diesel Equipment Technology I Dual Credit

11<sup>th</sup> Grade: 9720 Principles of Transportation Systems--Dual Credit

12<sup>th</sup> Grade: 9700 Practicum in Transportation Systems/Extended Practicum in Transportation Systems (First Time Taken)

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## Fine Arts - Art

### 7116 Art 1

**CREDIT: 1**      **TYPE: Regular**      **GRADE: 9-12**

Art I introduces students to the basic strands necessary to produce artwork and allows students to analyze artistic styles and historical periods, developing a respect for the traditions and contributions of diverse cultures. Students can express their thoughts and ideas creatively through production of their artwork.

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### 7117 Art 2 (Painting I)

### 7127 Art 3 (Painting II)

### 7137 Art 4 (Painting III)

**CREDIT: 1**      **TYPE: Regular**      **GRADE: 10-12**

**PREREQUISITE: Art 1**

Students will be taught watercolor, acrylic, tempera, and mixed media techniques to produce works that reflect individual ideas and expand painting techniques.

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### 7126 Art 2 (Drawing II)

### 7136 Art 3 (Drawing II)

### 7146 Art 4 (Drawing III)

**CREDIT: 1**      **TYPE: Regular**      **GRADE: 10-12**

**PREREQUISITE: Art 1**

Students further develop their creative expression through original artworks. They develop and organize ideas from their environment and make informed judgments about personal artworks. Art history is explored.

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### 7158 AP Art and Design: Two-Dimensional Art and Design

**CREDIT: 1**      **TYPE: Weighted +10 for GPA calculations**      **GRADE: 11-12**

**PREREQUISITE: ART 2 OR ABOVE Recommended**

Develop your 2-D skills through materials and processes such as graphic design, photography, collage, printmaking, fashion illustration, collage, and others. A qualifying portfolio score can earn you college credit and/or advanced placement. Some formats you can submit for your portfolio include graphic design, digital imaging, photography, collage, fabric design, weaving, fashion design, illustration, painting, and printmaking. College Course Equivalent: A one-semester, introductory college course in 2-D art and design.

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## Fine Arts - Band

7516 Band 1 –(9-12) (during the fall semester, successful students will also earn ½ of a PE credit if needed)

7526 Band 2- (10-12)(during the fall semester, successful students will also earn ½ of a PE credit if needed)

7536 Band 3-(11-12)

7546 Band 4-(12)

**CREDIT: 1**      **TYPE: Regular**

**Prerequisite: Courses taken sequentially; Audition**

Band students develop their instrument playing techniques and learn basic music theory and critical listening skills. Students participate in various marching events, including halftime football game performances. Band students are required to participate in the daily class and in various after school and evening activities as assigned. Opportunities to travel to football games, community concerts, and other field trips are provided. PE Substitution requires 100 minutes of moderate to rigorous physical activity weekly.

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**7716 Jazz Ensemble 1 (9-12)**

**7726 Jazz Ensemble 2 (10-12)**

**7736 Jazz Ensemble 3 (11-12)**

**7746 Jazz Ensemble 4 (12)**

**CREDIT: 1      TYPE: Regular      GRADE: 9-12**

**Prerequisite: Courses taken sequentially; Audition**

Students develop concepts of music improvisation with emphasis on jazz performance. This group performs at various jazz festivals and community activities. Students study jazz styles and rhythm, learn to read jazz music literature, and are introduced to the basics of composing and arranging principles as they apply to the music selected for performance.

**7370 Mariachi 1 (9-12)**

**7380 Mariachi 2 (10-12)**

**7385 Mariachi 3 (11-12)**

**7390 Mariachi 4 (12)**

**CREDIT: 1      TYPE: REGULAR      GRADE: 9-12**

**PREREQUISITE: Courses taken sequentially; Audition**

Mariachi invites students to develop techniques in mariachi music along with reflecting on musical periods and styles. Students will learn the different styles of mariachi music which includes, but not limited to Ranchera, Polka, Bolera and other traditional styles of mariachi music. Students may be required to attend rehearsals or performances outside of the regular school hours.

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## Fine Arts - Choir

**7316 Choir 1 (9-12)**

**7326 Choir 2 (10-12)**

**7336 Choir 3 (11-12)**

**7346 Choir 4 (12)**

**CREDIT: 1      TYPE: Regular      GRADE: 9-12**

**PREREQUISITE: Courses taken sequentially; Audition**

Concert choir is a mixed choir composed of the most advanced musicians and gives the students the opportunity to further develop skills in vocal production, music reading, and ensemble participation. Curriculum will include secular music such as folk songs, current hits, vocal jazz, and sacred music of all periods of music history. Students will perform in many public performances and other musical activities throughout the year.

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**7350 Vocal Ensemble 1 (9-12)**

**7351 Vocal Ensemble 2 (10-12)**

**7352 Vocal Ensemble 3 (11-12)**

**7353 Vocal Ensemble 4 (12)**

**CREDIT: 1      TYPE: Regular      GRADE: 9-12**

**PREREQUISITE: Courses taken sequentially; Audition**

Vocal ensembles meet the needs of students with a special interest in singing and performing choral literature other than that studied in the parent choral group. Size and composition of each group are designed to meet requirements of the music studied. Music will range from solos to any combination or two or more voices. Ensembles will consist of madrigals, vocal jazz, and other contemporary voice mixtures.

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## Fine Arts - Dance

**8445 Principles of Dance 1 (9-12)**

**8447 Principles of Dance 2 (10-12)**

**8458 Principles of Dance 3 (11-12)**

**8459 Principles of Dance 4 (12)**

**PREREQUISITE: Courses taken sequentially**

**CREDIT: 1      TYPE: Regular      Grade 9-12**

Principles of Dance courses are divided into five basic strands: Foundations: Perception; Creative Expression: Artistic Process/Performance; Historical and Cultural relevance, and Critical Evaluation and Response with developmental progression made at each level. Dance students develop self-discipline, perceptual thinking and movement abilities, technical skills, and gain a better understanding of choreographic and performance qualities. Students recognize dance as a vehicle for understanding historical and cultural relevance, heritage and traditions, while developing critical and creative thinking, and artistic and creative processes. This course teaches an overview of all major types of dance that include ballet, jazz, contemporary, hip-hop, social dance, etc.

## Fine Arts - Theatre

### **7212 Theatre Arts 1**

**CREDIT: 1      TYPE: Regular**

**GRADE: 9-12**

Theatre Arts I is offered to students who are new to high school theatre. Theatre Arts I students will learn an appreciation for Theatre as an art form while examining both the acting and technical aspects of theatre. The interdependence of theatrical elements, the collaborative process, and creative problem solving skills will be employed as students begin to identify the impact of theatre on contemporary society, relate historical and cultural influences on theatre, appreciate theatre as a reflection of life, give and receive constructive criticism, and identify career opportunities in the Theatrical Arts.

**PREREQUISITE: None**

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### **7222 Theatre Arts 2 (10-12)**

### **7232 Theatre Arts 3 (11-12)**

### **7242 Theater Arts 4 (12)**

**PREREQUISITE: Courses taken sequentially**

**CREDIT: 1      TYPE: Regular      GRADE: 10-12**

This is a theater arts course with a focus/emphasis on the acting component. Students will study the principles and practices regarding the analysis and performance of various characters with an emphasis on the use of body and voice in creating characterizations. Theater arts II-IV continues to provide the advanced theater student with extensive actor preparation as well as specialized training in areas of special interest to the individual student. Among these are theater literature, design, directing and play writing. Emphasis is on the refinement of skills. Involvement of productions, contests and/or other such activities is a requirement of the class.

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### **7215 Theatre Production 1**

### **7225 Theatre Production 2**

### **7235 Theatre Production 3**

### **7245 Theatre Production 4**

**PREREQUISITE: Courses taken sequentially; Audition**

**CREDIT: 1      TYPE: Regular      GRADE: 10-12**

This course provides for practical experiences in acting and stagecraft through the preparation and public performances of plays. Advanced acting concepts and skills are introduced and developed at each level. Opportunities are provided to attend and evaluate theatrical events. This course requires students to perform /work and commit to time outside the academic school day

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### **7216 Technical Theatre 1**

### **7226 Technical Theatre 2 (10-12)**

### **7236 Technical Theatre 3 (11-12)**

### **7246 Technical Theatre 4 (12)**

**PREREQUISITE: None**

**CREDIT: 1      TYPE: Regular      GRADE: 9-12**

Technical theatre courses emphasize theories of design and stagecraft techniques with construction and operation of the various technical theatre elements. These elements include scenery, properties, lighting, sound, costumes, makeup and public relations. Students are provided with the opportunity to attend and evaluate theatrical presentations in the area.

## Spirit Teams

Both comprehensive high schools provide spirit organizations whose major functions are to serve as spirit, service, and performing groups for their schools. Students must meet eligibility requirements to participate. No prior experience is required to enroll in Pep Squad. Students must try out for Cheer and Dance Team. Participation includes attendance at all designated activities, summer camp, practices, competitions, clinics, and enrollment in the required class. Each campus spirit organization has a constitution which outlines specific guidelines to remain in the program.

Students on the Pep Squad, Cheer, and Dance team will earn a PE substitute credit their first year as well as a Fine Arts credit, then a Fine Arts Dance credit is earned subsequently thereafter.

**PREREQUISITE:** Pep Squad - None

**PREREQUISITE:** Dance Team – One year of Pep squad and Tryout

**PREREQUISITE: \*Cheer - 1 year of Pep Squad and Tryout**

\*For Cheer Only: Incoming Freshman may be on the JV Cheer Team only if they 1) Prove they have sufficient cheer experience in the form of club cheer or organized cheer programs and 2) they try out for the cheer team and earn a spot.

## Pep Squad

8452 Pep Squad 1 (9-12)

8453 Pep Squad 2 (10-12)

8454 Pep Squad 3 (11-12)

8455 Pep Squad 4 (12)

**CREDIT: 1                    TYPE: Regular      Grade 9-12**

## Cheer

8448 Cheer 1 (9, 10)

8449 Cheer 2 (10-12)

8450 Cheer 3 (11,12)

8451 Cheer 4 (12)

**CREDIT: 1 TYPE: Regular GRADE 10-12**

## Dance Team

8442 Dance Performance 2 (10-12)

8443 Dance Performance 3 (11-12)

8444 Dance Performance 4 (12)

**CREDIT: 1                    TYPE: Regular                    Grade 10-12**

## Languages Other Than English (LOTE)

5016 Spanish 1

**CREDIT: 1                    TYPE: Regular                    GRADE: 9-11**

Spanish 1 is a beginner's course in which the student learns to develop the four basic skills of listening, speaking, reading, and writing in Spanish. Students will be able to communicate in Spanish on a novice low to novice mid-level regarding everyday situations.

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5026 Spanish 2

**CREDIT: 1                    TYPE: Regular                    GRADE: 9-12**

**PREREQUISITE: 5016 Spanish 1**

This course is designed to increase a student's ability to communicate in Spanish (both in speaking and writing) and to expand reading and comprehension skills. Student will also become acquainted with Spanish literature, poetry, and short stories.

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5036 Spanish 3

**CREDIT: 1                    TYPE: Regular                    GRADE: 9-12**

**PREREQUISITE: Spanish 1 and 2.**

This course is an extension of Spanish 1 and 2. Students will have the opportunity to acquire greater fluency in the Spanish language. The course also explores the culture, but with increased attention to short plays and novels.

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**5048 Spanish 4 AP (Language)****CREDIT: 1****TYPE: Advanced Placement +10 in GPA Calculations****GRADE: 9-12**

AP Spanish Language prepares students for the Advanced Placement Language Examination in May. This course is an upper level course, which gives students the opportunity to continue developing their listening skills while placing more emphasis on reading, writing and speaking skills. Students will take the AP Exam. Weighted.

**COURSE NOTE:** AP courses are based on a strong college curriculum. Students are expected to meet the rigorous academic demands and extra work. Failure to meet these requirements may result in dismissal from the program.

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**5049 Spanish 5 AP (Literature)****CREDIT: 1****TYPE: Advanced Placement +10 in GPA Calculations****GRADE: 9-12**

This course is a study of Spanish literature and intended to be the equivalent of the introductory Spanish literature course at the college level. Upon completion, students will have read the required reading list of Hispanic authors. Students will do a thorough reading of the text in Spanish and will work on oral and written critical analysis of the content. Students will take the AP Exam. Weighted.

**COURSE NOTE:** AP courses are based on a strong college curriculum. Students are expected to meet the rigorous academic demands and extra work. Failure to meet these requirements may result in dismissal from the program.

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**5116 American Sign Language 1****CREDIT: 1****TYPE: Regular****GRADE: 9-12**

This regular education course will introduce students to American Sign Language. Students will gain an understanding of and will produce learned signs for words, short phrases, and sentences. The course includes transcription of American Sign Language, engagement in a variety of signed exchanges of learned materials, and their application. In this course students will be expected to use American Sign Language, including applicable grammar, culture, and communication strategies.

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**5126 American Sign Language 2****CREDIT: 1****TYPE: Regular****GRADE: 9-12****PREREQUISITE: 5116 American Sign Language 1**

An extension of American Sign Language 1, this regular education course expands students' skills in understanding and signing words, short phrases, and sentences. Students will also identify main ideas in familiar material that is signed. Transcription from American Sign Language to English is required, as well as the context needed to connect with other subject areas and to use American Sign Language to acquire information and reinforce other areas of study.

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**5136 American Sign Language 3****5146 American Sign Language 4****CREDIT: 1****TYPE: Regular****GRADE: 10-12**

As upper division coursework, students in ASL 3, 4, and 5 will build upon existing skills and engage in activities that will enable them to continue to develop their ability to perform the tasks of the intermediate language learner. The student will participate in simple face-to-face communication; Create statements and questions to communicate independently.

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**5216 French 1****CREDIT: 1****TYPE: Regular****GRADE: 9-12**

French 1 is a beginner's course in which the student learns to develop the four basic skills of listening, speaking, reading, and writing in French. Students will be able to communicate in French on a simple level regarding everyday situations and also learn about French and francophone customs and culture.

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**5226 French 2****CREDIT: 1****TYPE: Regular****GRADE: 9-12****PREREQUISITE: 5216 French 1**

This course is designed to increase a student's ability to communicate in French (both in speaking and writing) and to expand reading and listening comprehension skills. Students continue to expand their study of French and francophone countries.

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**5236 French 3****CREDIT: 1****TYPE: Regular****GRADE: 10-12****PREREQUISITE: 5226 French 2**

This course is an extension of French 1 and 2. Students will have the opportunity to acquire greater fluency in the French language. This course explores the culture through poetry, short plays, readings, and novels.

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**5251 French 4 AP (Language)****CREDIT: 1      TYPE: Advanced Placement    +10 in GPA Calculations      GRADE: 11,12****PREREQUISITE: Parent Approval**

AP French prepares students for the Advanced Placement Examination in May. This course is an upper level course, which gives students the opportunity to continue developing their listening skills while placing more emphasis on reading, writing and speaking skills. Students will take the AP Exam. Weighted.

**COURSE NOTE:** AP courses are based on a strong college curriculum. Students are expected to meet the rigorous academic demands and extra work. Failure to meet these requirements may result in dismissal from the program.

**JROTC****8516 JROTC 1****8526 JROTC 2****8536 JROTC 3****8546 JROTC 4****CREDIT: 1      TYPE: Regular      GRADE: 9-12**

This is a course in which cadets are taught a variety of subjects with emphasis on practical application. Core subjects include fundamentals of leadership, drill and ceremonies, Army customs and courtesies, personal appearance and standards of conduct, first aid, physical fitness, citizenship and military history. Students will participate in community service projects. The credit awarded for this class is 1.0 credit for Physical Education.

**Sports Medicine****8500/8501 Sports Medicine I****8502/8503 Sports Medicine II****8504/8505 Sports Medicine III****CREDIT: 0.5      TYPE: Regular      GRADE: 11,12**

Sports medicine or Athletic Training 1 is an entry-level to advanced course for student trainers. Students will become certified in CPR and basic First Aid. Student trainers will be required to attend school sponsored sporting events. Students will assist the athletic trainer in injury care and with management of equipment.

**Athletics**

	FALL 1	SPRING 1	FALL 2	SPRING 2	FALL 3	SPRING 3	FALL 4	SPRING 4
<b>CROSS COUNTRY</b>	8386	8387	8388	8389	8393	8394	8395	8396
<b>TENNIS</b>	8366	8367	8368	8369	8370	8371	8372	8373
<b>GOLF</b>	8335	8336	8337	8338	8339	8340	8341	8342
<b>FOOTBALL</b>	8106	8107	8108	8109	8110	8111	8112	8113
<b>VOLLEYBALL</b>	8206	8207	8208	8209	8210	8211	8212	8213
<b>BOYS BASKETBALL</b>	8126	8127	8128	8129	8130	8131	8132	8133
<b>GIRLS BASKETBALL</b>	8226	8227	8228	8229	8230	8231	8232	8233
<b>BOYS SOCCER</b>	8177	8178	8179	8180	8181	8182	8183	8184
<b>GIRLS SOCCER</b>	8346	8347	8348	8349	8350	8351	8352	8353
<b>BASEBALL</b>	8186	8187	8188	8189	8191	8192	8193	8194
<b>SOFTBALL</b>	8306	8307	8308	8309	8310	8311	8312	8313
<b>BOYS TRACK</b>	8164	8165	8166	8167	8173	8174	8175	8176
<b>GIRLS TRACK</b>	8326	8327	8328	8329	8330	8331	8332	8333

**PREREQUISITE: Coach Review.**

**COURSE NOTE:** Student participation in each sport requires a review by the head coach of the respective sport, parent permission, a physical examination by a licensed physician, evidence of insurance, and maintenance of a satisfactory academic record as mandated by the State of Texas and the Harlandale Independent School District.

## Physical Education

### **8060 Lifetime Fitness and Wellness Pursuits**

**CREDIT: 1.0**      **TYPE: Regular**      **GRADE: 9-12**

This course offers current approaches for the foundation of personal fitness, physical literacy, lifetime wellness, and healthy living. Students in Lifetime Fitness and Wellness Pursuits will apply the knowledge and skills to demonstrate mastery of the concepts needed to achieve lifetime wellness. Students will participate in a variety of physical activities for attaining personal fitness and lifetime wellness.

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### **8061 Lifetime Recreation and Outdoor Pursuits**

**CREDIT: 1.0**      **TYPE: Regular**      **GRADE: 9-12**

This course provides opportunities for students to develop competency in five or more lifelong recreational and outdoor pursuits for enjoyment and challenge. Students in Lifetime Recreation and Outdoor Pursuits participate in activities that promote physical literacy, respect for and connection to nature and the environment, and opportunities for enjoyment for a lifetime. Students will experience opportunities that enhance self-worth and support community engagement.

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### **8062 Skill-Based Lifetime Activities**

**CREDIT: 1.0**      **TYPE: Regular**      **GRADE: 9-12**

This course offers students the opportunity to demonstrate mastery in basic sport skills, basic sport knowledge, and health and fitness principles. Students experience opportunities that promote physical literacy and lifetime wellness. Students will participate in at least one of the following: Target games, Striking and fielding games, Fitness activities, Rhythmic activities, and/or Innovative games.

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### **8980 Peer Assistance I**

### **8981 Peer Assistance II**

**CREDIT: 1.0**      **TYPE: Regular**      **GRADE: 9-12**

Peer Assistance for Students with Disabilities is designed to promote an inclusive educational environment for special education students. Peer assistants assist teachers in physical education settings by helping to facilitate inclusion in the physical education classroom. These credits will count as electives and cannot be used to satisfy PE requirements.

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## Health

### **8616 Health I**

### **8602 Health II**

**CREDIT: 0.5**      **TYPE: Regular**      **GRADE: 9-12**

Students will gain an understanding of health information and skills through six strands: physical health and hygiene; mental health and wellness; healthy eating and physical activity; injury and violence prevention and safety; alcohol, tobacco, and other drugs; and reproductive and sexual health.

### **8603 Your Health in the Real World**

**CREDIT: 0.5**      **TYPE: Regular**      **GRADE: 9-12**

The objective of this course is to empower students and their families to sustain or improve their quality of life as it relates to their own health and the health of their community. To achieve this objective, students will understand health care terminology as it relates to insurance and public health. Further, students will acquire the knowledge and skills needed to utilize community, state, and federal health care services and related resources.

# English Language Arts

## 1136 English 1

**CREDIT: 1**      **TYPE: Regular**      **GRADE: 9**

## 1138 English 1 PreAP

**CREDIT: 1**      **TYPE: Pre Advanced Placement/Gifted and Talented +5 in GPA calculations**      **GRADE: 9**

This course is designed on the interconnected nature of listening, speaking, reading, and writing based on seven strands: developing and sustaining foundational language, comprehension, response, multiple genres, author's purpose and craft, composition, and inquiry and research. All focus on academic oracy, authentic reading, and reflective writing to ensure literacy. Text complexity and depth of student insight increases and skills develop.

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## 1236 English 2

**CREDIT: 1**      **TYPE: Regular**      **GRADE: 10**

**PREREQUISITE: English 1**

## 1238 English 2 PreAP

**CREDIT: 1**      **TYPE: Honors/Gifted and Talented +5 in GPA calculations**      **GRADE: 10**

**PREREQUISITE: English 1 with English 1 PreAP preferred**

This course is designed on the interconnected nature of listening, speaking, reading, and writing based on seven strands: developing and sustaining foundational language, comprehension, response, multiple genres, author's purpose and craft, composition, and inquiry and research. All focus on academic oracy, authentic reading, and reflective writing to ensure literacy. Text complexity and depth of student insight increases and skills develop.

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## 1336 English 3

**CREDIT: 1**      **TYPE: Regular**      **GRADE: 11**

**PREREQUISITE: English 2**

This course is designed on the interconnected nature of listening, speaking, reading, and writing based on seven strands: developing and sustaining foundational language, comprehension, response, multiple genres, author's purpose and craft, composition, and inquiry and research. All focus on academic oracy, authentic reading, and reflective writing to ensure literacy. Text complexity and depth of student insight increases and skills develop. This course includes the study of literature, composition, and grammar usage. American authors' works and time periods, in conjunction with the study of genre and literary terms, are the focus of this course.

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## 1338 AP Language and Composition

**CREDIT: 1**      **TYPE: Advanced Placement +10 in GPA Calculations**      **GRADE: 11**

.This course is designed on the interconnected nature of listening, speaking, reading, and writing based on seven strands: developing and sustaining foundational language, comprehension, response, multiple genres, author's purpose and craft, composition, and inquiry and research. All focus on academic oracy, authentic reading, and reflective writing to ensure literacy. Text complexity and depth of student insight increases and skills develop. This course emphasizes critical thinking, advanced reading, and writing skills. Students will complete college level work. Outside reading required. Students will take the AP Exam.

\*1 Advanced Measure with AP score of 3 or higher. Weighted +10 for GPA calculations.

**COURSE NOTE:** AP courses are based on a strong college curriculum. Students are expected to meet the rigorous academic demands and extra work. Failure to meet these requirements may result in dismissal from the program

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**1339 English 3 Dual Credit****CREDIT: 1      TYPE: Dual Credit      +10 in GPA Calculations      GRADE: 11****PREREQUISITE: Honors classes (preferred), passing score on TSI ELAR test, Parent Approval.**

This course is designed on the interconnected nature of listening, speaking, reading, and writing based on seven strands: developing and sustaining foundational language, comprehension, response, multiple genres, author's purpose and craft, composition, and inquiry and research. All focus on academic oracy, authentic reading, and reflective writing to ensure literacy. Text complexity and depth of student insight increases and skills develop. This course emphasizes critical thinking, advanced reading and writing skills. Students will complete college level work. Outside reading required, with focus on American Literature. \*Each term grade of 80 or above = 1 Advanced Measure. A total of 6 college hours and 2 Advanced Measures can be earned.

**COURSE NOTE:** Students must maintain a 2.0 grade point average (GPA) in any dual credit course taken to be eligible to continue in the dual credit program.

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**1343 English 3 OnRamps****CREDIT: 1      TYPE: Dual Enrollment      +10 in GPA Calculations each semester      GRADE: 11****PREREQUISITE: English I and English 2, Honors classes (preferred), Parent Approval.**

This two-semester, six-credit writing intensive sequence features a fall "Research & Writing" (ENGL 1301) course in argumentation that situates rhetoric as an art of civic discourse, followed by the spring semester "Rhetoric of American Identity" (ENGL 1302) featuring an exciting series of case studies in race, gender, and ethnicity. Over the two courses, students analyze the various positions held in any public debate and learn to advocate their own positions effectively. In the fall, students explore the ethics of argumentation and what it means to "fairly" represent someone with whom they disagree. By the spring, students are ready to analyze and compose arguments about American identity and identity formation, both personal and cultural. The goal is to foster students' abilities to analyze arguments presented by others and to write sound and effective arguments of their own — abilities that contribute meaningfully to their academic, professional, personal, and civic lives.

**COURSE NOTE:** Students are not required to have met TSI requirements prior to the beginning of the course.

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**1436 English 4****CREDIT: 1      TYPE: Regular      GRADE: 12****PREREQUISITE: English 3**

This course is designed on the interconnected nature of listening, speaking, reading, and writing based on seven strands: developing and sustaining foundational language, comprehension, response, multiple genres, author's purpose and craft, composition, and inquiry and research. All focus on academic oracy, authentic reading, and reflective writing to ensure literacy. Text complexity and depth of student insight increases and skills develop. This course includes the study of literature, composition and grammar usage, and literary terms. Students will study British authors, focusing on poetry, drama, fiction, and nonfiction.

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**1438 English 4 AP Literature and Composition****CREDIT: 1      TYPE: Advanced Placement      +10 in GPA Calculations      GRADE: 12****PREREQUISITE: English 3 AP Language and Composition or English 3 Dual Credit or English 3 OnRamps preferred**

This course is designed on the interconnected nature of listening, speaking, reading, and writing based on seven strands: developing and sustaining foundational language, comprehension, response, multiple genres, author's purpose and craft, composition, and inquiry and research. All focus on academic oracy, authentic reading, and reflective writing to ensure literacy. Text complexity and depth of student insight increases and skills develop. British literature and American literature are studied. The course emphasizes critical thinking, and advanced reading and writing skills. Students will experience college level work. Outside reading and writing assignments are required. Students will take the AP Exam. \*1 Advanced Measure with AP score of 3 or higher.

**COURSE NOTE:** AP courses are based on a strong college curriculum. Students are expected to meet the rigorous academic demands and extra work. Failure to meet these requirements may result in dismissal from the program

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**1439 English 4 Dual Credit****CREDIT: 1      TYPE: Dual Credit      +10 in GPA Calculations      GRADE: 12****PREREQUISITE: Honors classes (preferred), passing score on college placement test, Parent Approval.**

This course is designed on the interconnected nature of listening, speaking, reading, and writing based on seven strands: developing and sustaining foundational language, comprehension, response, multiple genres, author's purpose and craft, composition, and inquiry and research. All focus on academic oracy, authentic reading, and reflective writing to ensure literacy. Text complexity and depth of student insight increases and skills develop. Contemporary and British literature are studied along with major movements and genres. This course emphasizes critical thinking and college level reading and writing skills. Outside reading and writing assignments are required. Student may earn 6 college hours.

**COURSE NOTE:** Students must maintain a 2.0 grade point average (GPA) in any dual credit course taken to be eligible to continue in the dual credit program.

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**1440 College Prep ELA****CREDIT: 1      TYPE: Regular      GRADE: 12****PREREQUISITE: English 3, successfully passed Eng1 and Eng 2 EOC**

In this college-preparatory course designed by local colleges and universities, students will improve integrated critical reading and writing skills through engagement with a variety of texts across content areas and genres. As a result, students will be able to develop and express ideas clearly and effectively to communicate with various audiences for various purposes and occasions. Students experience a performance-based portfolio assessment. If requirements are met, students are prepared to enter postsecondary coursework or careers with no additional remediation in reading and writing.

**COURSE NOTE:** This is a 4th year English course intended for students who have not met college ready criteria by other measures and plan to attend a college or university in Texas.

**1766 Journalism****CREDIT: 0.5      TYPE: Regular      GRADE: 9-12**

Journalism is a ½ credit course which includes a brief study of the history of news media. It also includes fact gathering and development of interviewing skills, writing news stories, sports, features, and editorials. Students will learn to determine newsworthiness. They will study and apply editing skills and journalistic style and technique of writing headlines and captions. Advertising, broadcast media, and yearbook production and photography will also be covered.

**1866 Photo Journalism****CREDIT: 0.5      TYPE: Regular      GRADE: 9-12**

Photojournalism includes a brief history of photography and an intensive study of camera controls, parts, and operations. Students practice camera techniques and darkroom procedures. Students will take, develop, and print photographs for use in school publications. Also covered are elements of photo composition; the selection, cropping and scaling of news photos; and elements of photo design and layout.

**1707 Advanced Journalism: ELA Yearbook 1****1708 Advanced Journalism: ELA Yearbook 2****1709 Advanced Journalism: ELA Yearbook 3****CREDIT: 1      TYPE: Regular      GRADE: 9-12      PREREQUISITE: 1766 Journalism**

The course includes planning and developing a theme for a school yearbook. It provides practice and application in writing captions and copy to produce the yearbook. Students learn to edit and proof yearbook material. Students also plan advertising, sales, and distribution campaigns. Students use computers to produce copy and keep records.

## Mathematics

**2516 Algebra 1****CREDIT: 1      TYPE: Regular      GRADE: 9****2518 Algebra 1 Honors****CREDIT: 1      TYPE: Honors, +5 in GPA calculations      GRADE: 9**

In Algebra 1 students build upon the knowledge and skills developed in middle school by extending their understanding of input-output tables, rates of change, linear equations, and graphs to determine solutions to real-world problems. New topics include the behavior of functions and the introduction of polynomial, power, and exponential functions. Students will also learn how to determine solutions to systems of linear equations both graphically and algebraically. This course is designed to prepare students for the Texas End-of-Course Algebra exam.

**2746 Geometry****CREDIT: 1      TYPE: Regular      GRADE: 9-11****PREREQUISITE: 2516 Algebra 1 or 2518 Algebra 1 Honors****2748 Pre-AP Geometry****CREDIT: 1      TYPE: Pre Advanced Placement/Gifted and Talented + 5 in GPA Calculations      GRADE: 9, 10****PREREQUISITE: Algebra 1 Honors preferred, Parent Approval**

In Geometry students build upon the knowledge gained in middle school including coordinate planes, areas and volumes of composite figures, and the properties of lines in a plane. In this course, students learn how to identify the mathematical relationships represented by geometric figures (including basic trigonometry) and use them to find unknown quantities. Students also learn how to use deductive reasoning to prove relationships between geometric figures, as well as the volume and areas of composite two and three dimensional figures. Skills developed in Geometry will appear on college entrance exams, including TSI, ACT, and SAT.

**2919 Algebraic Reasoning****CREDIT: 1**                      **TYPE: Regular**                      **GRADE: 10,11****PREREQUISITE: 2516 Algebra 1 or 2518 Algebra 1 Honors**

Algebraic Reasoning is designed to strengthen the math skills of students who have completed Algebra I and plan to take Algebra II. Emphasis is placed on recognizing the patterns that lie underneath Algebra, flexible problem solving, and the behavior of functions. In Algebraic Reasoning students represent mathematical relationships in multiple ways, using this insight to understand how to model and solve real world problems.

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**2826 Algebra 2****CREDIT: 1**                      **TYPE: Regular**                      **GRADE: 10,11****PREREQUISITE: 2516 – Algebra 1 or 2518 – Algebra 1 Honors****2830 Algebra 2 Honors****CREDIT: 1**                      **TYPE: Honors/Gifted and Talented +5 in GPA Calculations**                      **GRADE: 10-11**

In Algebra 2 students build upon the knowledge and skills developed during Algebra 1 by extending their knowledge of functions, solutions, and properties for quadratic and exponential. New functions include square root, logarithmic, rational, cubic, cube root and absolute value. In addition, more emphasis is placed on inequalities, systems, and inverse relationships.

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**2853 Algebra 2 OnRamps****CREDIT: 1**                      **TYPE: Dual Enrollment +10 in GPA Calculations**                      **GRADE: 10,11****PREREQUISITE: Algebra 1 and Geometry, Honors classes (preferred), Parent Approval.**

Algebra 2 OnRamps provides students with the opportunity to participate in a College Level Algebra, potentially earning college credit as well as high school credit. This course emphasizes Inquiry-Based Learning and encourages students to take an active role in the construction of their learning. Learning will be accomplished by abstraction, generalization, problem-solving, and modeling. Curriculum, assignments, and assessments are designed by the University of Texas.

**COURSE NOTE:** Students are not required to have met TSI requirements prior to the beginning of the course.

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**2831 Dual Credit Algebra 2 (should be taken with course #2910)****CREDIT: 1**                      **TYPE: Dual Credit +10 in GPA Calculations**                      **GRADE: 10-12**                      **Length: One semester (Fall)****PREREQUISITE: Geometry, Qualifying TSI score in Mathematics**                      **RECOMMENDED PREREQUISITE: Geometry Honors**

Students will take MAT 1073. Algebra for Scientists and Engineers. (TCCN = MATH 1314) at the University of Texas at San Antonio. Transportation will be provided to and from the campus unless the course is designated as on-line by UTSA. Topics may include algebraic expressions; equations; inequalities over the real numbers; relations; functions; polynomial and rational functions; logarithmic and exponential functions; systems of linear equations and inequalities; matrices and determinants; complex numbers; sequences; series binomial expansion; mathematical induction; permutations, and combinations.

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**2972 Statistics****CREDIT: 1**                      **TYPE: Regular**                      **GRADE: 10,11****PREREQUISITE: 2516 Algebra 1 or 2518 Algebra 1 Honors**

In statistics students learn to identify patterns, generate hypotheses and make predictions of future behavior. This includes designing and applying statistics tests, determining confidence intervals, and creating linear models. Most in class activities focus on real-world applications and scenarios. Note that a solid foundation in statistics is needed for many post graduate studies and careers, including engineering, the sciences, business, and health professions.

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**2963 Statistics OnRamps****CREDIT: 1**      **TYPE: Dual Enrollment +10 in GPA Calculations**      **GRADE: 10,11****PREREQUISITE: Algebra 1, Algebra 2 and Geometry, Honors classes (preferred), Parent Approval.**

Statistics OnRamps provides students with the opportunity to participate in a College Level Algebra, potentially earning college credit as well as high school credit. This course emphasizes Inquiry-Based Learning and encourages students to take an active role in the construction of their learning. Learning will be accomplished by abstraction, generalization, problem-solving, and modeling. Curriculum, assignments, and assessments are designed by the University of Texas.

**COURSE NOTE:** Students are not required to have met TSI requirements prior to the beginning of the course.**2906 Pre-Calculus****CREDIT: 1**      **TYPE: Regular**      **GRADE: 11,12****PREREQUISITE: Geometry & Algebra 2**

Pre-Calculus expands upon the function families studied in Algebra II and is designed to strengthen and enhance conceptual understanding and mathematical reasoning used when modeling and solving mathematical and real-world problems. Students investigate and explore mathematical ideas, develop multiple strategies for analyzing complex situations, and use technology to build understanding, make connections between representations, and provide support in solving problems.

**2908 AP Pre-Calculus****CREDIT: 1**      **TYPE: Advanced Placement +10 in GPA Calculations**      **GRADE: 11,12****PREREQUISITE: Algebra 2, Honors preferred**

In AP Precalculus, students explore everyday situations using mathematical tools and lenses. Through regular practice, students build deep mastery of modeling and functions, and they examine scenarios through multiple representations. They will learn how to observe, explore, and build mathematical meaning from dynamic systems, an important practice for thriving in an ever-changing world.

**2916 Pre-Calculus OnRamps****CREDIT: 1**      **TYPE: Dual Enrollment +10 in GPA Calculations**      **GRADE: 11,12****PREREQUISITE: Algebra 2 and Parent Approval.**

OnRamps Pre-Calculus provides students with the opportunity to participate in a College Level Pre-Calculus course, potentially earning college credit as well as high school credit. This course emphasizes Inquiry-Based Learning and encourages students to take an active role in the construction of their learning. Learning will be accomplished by abstraction, generalization, problem-solving, and modeling. Curriculum, assignments, and assessments are designed by the University of Texas. Students should be prepared to invest additional time in processing ideas and completing assignments.

**COURSE NOTE:** Students are not required to have met TSI requirements prior to the beginning of the course.**2910 Dual Credit Pre-Calculus (can only be taken after course #2831)****CREDIT: 1**      **TYPE: Dual Credit+10 in GPA Calculations**      **GRADE: 10-12**      **Length: One semester (Spring)****PREREQUISITE: MAT 1073, Qualifying TSI score in Mathematics**      **PREREQUISITE: MAT 1073 (course 2831)**

Students will take MAT 1093. Precalculus. (TCCN = MATH 2312) at the University of Texas at San Antonio. Transportation will be provided to and from the campus unless the course is designated as on-line by UTSA.

**2928 Advanced Placement (AP) Calculus AB****CREDIT: 1**      **TYPE: Advanced Placement +10 in GPA Calculations**      **GRADE: 11,12****PREREQUISITE: Parent Approval**      **RECOMMENDED PREREQUISITE: Pre-Calculus Honors**

This course covers the material typically presented during the first semester of university level Engineering Calculus. Students scoring at a three or above on the Advanced Placement Test may be eligible for four hours of college credit. Content requirements for AP Calculus AB are prescribed in the College Board publication *Advanced Placement Course Description, Math: Calculus AB*.

**COURSE NOTE:** AP courses are based on a strong college curriculum. Students are expected to meet the rigorous academic demands and extra work. Failure to meet these requirements may result in dismissal from the program.

**2975 College Prep Math****CREDIT: 1****TYPE: Regular****GRADE: 12****PREREQUISITE: 3 years of Math**

The College Prep Math curriculum was designed by our Texas Community College partners to help ensure that high school graduates have the mathematical foundations needed for postsecondary work. It is ideal for students who have not met TSI requirements by their junior year. Course content focuses on reviewing key concepts from middle school and Algebra 1. Semester exams and course guidelines are provided by the Region 20 Educational Service Center in coordination with local colleges and universities.

Students who complete College Prep Math successfully will receive a certificate that allows them to bypass normal TSI requirements for college admissions.

## Science

**3316 Biology****CREDIT: 1****TYPE: Regular****GRADE: 9****3318 Biology Honors****CREDIT: 1****TYPE: Honors/Gifted and Talented +5 in GPA Calculations****GRADE: 9**

Students in Biology 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.

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**3516 Chemistry****CREDIT: 1****TYPE: Regular****GRADE: 10,11****PREREQUISITE: 1 Unit of high school Science, Algebra 1****3518 Chemistry Honors****CREDIT: 1****TYPE: Honors/Gifted and Talented +5 in GPA Calculations****GRADE: 10,11****PREREQUISITE: 1 Unit of Science, Algebra 1, Parent Approval**

Students 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, thermochemistry, and nuclear chemistry. Students will investigate how chemistry is an integral part of our daily lives.

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**3716 Physics****CREDIT: 1****TYPE: Regular****GRADE: 10-12****PREREQUISITE: 1 Unit of Science, Algebra 1**

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.

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**3348 Biology OnRamps****CREDIT: 1****TYPE: Dual Enrollment +10 in GPA Calculations****GRADE: 11,12****PREREQUISITE: HS Biology and HS Chemistry**

This year-long course explores three big ideas of biology: the structure and function of biomolecules, the flow of energy through living systems via photosynthesis and cellular respiration, and how genetic information is expressed and transmitted both within and between cells.

**COURSE NOTE:** Students are not required to have met TSI requirements prior to the beginning of the course.

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### **3519 Chemistry OnRamps 1**

**CREDIT: 1**

**TYPE: Dual Enrollment +10 in GPA Calculations**

**GRADE: 11,12**

**PREREQUISITE: Algebra 1,**

In conjunction with UT Austin students will study the nature of matter, energy, chemical reactions, and chemical thermodynamics. The course begins with a review of descriptive chemistry of matter in the natural world as well as compositional and reaction stoichiometry of chemical compounds. Throughout the course, students learn to think like scientists by exploring the underlying theoretical foundations of chemistry, making intuitive arguments for how the world works, and supporting those arguments with quantitative measures.

**COURSE NOTE:** Students are not required to have met TSI requirements prior to the beginning of the course.

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### **3810 Physics OnRamps**

**CREDIT: 1.0**

**TYPE: Dual Enrollment +10 in GPA Calculations**

**GRADE: 11,12**

**PREREQUISITE: Algebra 1, Algebra 2 or Algebra 2 Honors, Geometry**

Mechanics, Heat, and Sound introduces big ideas in physics, such as Newtonian mechanics (including motion, force, energy, and rotation), as well as solid, and fluid mechanics, oscillations, waves, sound, and heat. Taken together, the topics reinforce the general idea that the behavior of many systems in the world can be described precisely with simple mathematics. This is an algebra-based (non-calculus) course in mechanics that fulfills a general physics requirement. Proficiency in algebra and geometry is assumed. This course lays the conceptual groundwork for STEM majors. Students will experience high-quality curriculum designed by the faculty at UT Austin. Students can earn four hours of UT credit with feedback and assessment provided by UT course staff. General Physics Laboratory I, the course's lab component, engages students in both guided and open inquiry investigations of physical principles. It is designed to instill foundational scientific reasoning, data collection, and analytical skills.

**COURSE NOTE:** Students are not required to have met TSI requirements prior to the beginning of the course.

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### **3903 Introduction to Geoscience OnRamps**

**CREDIT: 1.0**

**TYPE: Dual Enrollment +10 in GPA Calculations**

**GRADE: 11,12**

**PREREQUISITE: Biology and Chemistry**

Earth, Wind, and Fire is a course in geoscience literacy. It covers the fundamentals of how the Earth works, and how its various systems—the lithosphere, atmosphere, hydrosphere, and biosphere—interact to form the complex world in which we live.

**COURSE NOTE:** Students are not required to have met TSI requirements prior to the beginning of the course.

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### **3930 Aquatic Science**

**CREDIT: 1**

**TYPE: Regular**

**GRADE: 10-12**

Aquatic Science is the study of the interactions of biotic and abiotic components in aquatic environments, including impacts on aquatic systems. Investigations and field work in this course may emphasize freshwater or marine aspects of aquatic science depending primarily upon the natural resources available for students 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.

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### **9395 Anatomy and Physiology of Human Systems**

**CREDIT: 1**

**TYPE: Regular**

**GRADE: 11,12**

**PREREQUISITE: Chemistry**

Students investigate the structures and functions of the components of the human body. In depth investigation is required into cell specialization and function, body, tissue, organs, and systems. Course is designed to prepare students for a medically related career.

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**3976 Astronomy****CREDIT: 1****TYPE: Regular****GRADE: 11,12****PREREQUISITE: 1 Unit science.**

Astronomy provides students with a comprehensive education in the field of astronomy, covering a wide range of topics, from the fundamentals of celestial objects to the latest developments in the field. Students will develop critical thinking skills and a strong foundation in scientific and engineering practices, preparing them for further studies or careers related to astronomy and space exploration.

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**9510 Forensic Science****CREDIT: 1****TYPE: Regular****GRADE: 11,12****PREREQUISITE: Biology & Chemistry**

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.

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**3926 Environmental Systems****CREDIT: 1****TYPE: Regular****GRADE: 11,12****PREREQUISITE: Recommended: 2 science credits, including Biology and Chemistry or Physics**

This course is designed to enable a better understanding of man's impact on our surroundings and the environmental needs of the future. 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 through an environmental system; relationships between carrying capacity and changes in populations and ecosystems. Lab work, multimedia, computer simulations, and laboratory and field investigations are important components of this course.

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**9730 Anatomy and Physiology of Human Systems DC (Health Professions Academy)****CREDIT: 1****TYPE: Dual Credit +10 in GPA Calculations****GRADE: 11,12****PREREQUISITE: Chemistry**

Students investigate the structures and functions of the components of the human body. In depth investigation is required into cell specialization and function, body, tissue, organs, and systems. Course is designed to prepare students for a medically related career.

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# Social Studies

## 4116 World Geography

**CREDIT: 1**                      **TYPE: Regular**                      **GRADE: 9-12**                      *Regular course is full year*

## 4118 World Geography Pre-AP (Must be taken with #4218)

**CREDIT: 1**                      **TYPE: Pre-AP +5 in GPA Calculations**                      **GRADE: 9**                      *Note – One semester course*

World Geography is a survey course covering both physical and human geography with emphasis on the five geographic themes. Students will study the influence of geography on events of the past and present; The characteristics of major land forms, climates, and ecosystems; and the political, economic, and social processes that shape cultural patterns and regions.

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## 4216 World History

**CREDIT: 1**                      **TYPE: Regular**                      **GRADE: 9,10**                      *Regular course is full year*

## 4218 World History Pre-AP (Must be taken with #4118)

**CREDIT: 1**                      **TYPE: Pre-AP +5 in GPA Calculations**                      **GRADE: 9**                      *Note – One semester course*

World History is a general survey course starting with prehistory and ending in the present. Traditional historical points of reference are identified as students analyze significant people, issues, and events of world history. Students will examine the historical development of the political, economic, geographic, and social processes of major world civilizations.

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## 4219 World History AP

**CREDIT: 1**                      **TYPE: Advanced Placement +10 in GPA Calculations**                      **GRADE: 10 -12**

World History AP is a rigorous, college level course designed to deeply explore the evolution of global processes and contact throughout human history. Based primarily on the last thousand years of world history, this course builds on an understanding of cultural, institutional, geographical, and technological precedents that set the human stage. The collegiate writing component of the course involves the critical evaluation of primary and secondary sources, analysis of historiography, and inquiry into global connections that have shaped the present world. This class is taken as preparation for the National AP Exam. This course prepares students for future AP courses.

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## 4016 United States History

**CREDIT: 1**                      **TYPE: Regular**                      **GRADE: 10,11**

US History is the second course of a two-year study of American history which began in grade 8. It is a general survey of American history from Reconstruction to the present with emphasis on the 20th Century. In this course, students will focus on the political, economics, and social issues and events that have impacted U.S. History.

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## 4018 United States History AP

**CREDIT: 1**                      **TYPE: Advanced Placement +10 in GPA Calculations**                      **GRADE: 10,11**

U.S. History is a general survey of American History from pre-civil war to present with emphasis on the 20th Century. This course is designed to study the political and social events that have significantly impacted the history of the United States. Students will take the AP Exam. Weighted.

**COURSE NOTE:** AP courses are based on a strong college curriculum. Students are expected to meet the rigorous academic demands and extra work. Failure to meet these requirements may result in dismissal from the program.

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## 4028 United States History OnRamps

**CREDIT: 1**                      **TYPE: Dual Enrollment +10 in GPA calculations each semester**                      **GRADE: 10,11**

Using lectures, primary and secondary readings, videos, maps, and other graphics, students work both independently and collaboratively to develop the critical thinking skills to evaluate the historical record. History 315K surveys from the colonial beginnings through the Civil War, and History 315L considers the post-Civil War era to the end of the 20th century. Exams include essay questions that require students to craft well-written narratives and arguments that set events in historical context, engage the complexity of cause and consequence, and make connections that reveal the dynamic of change over time.

**COURSE NOTE:** Students are not required to have met TSI requirements prior to the beginning of the course. Students are eligible to earn college credit (HIST 1301) in the fall semester as well as college credit (HIST 1302) in the spring semester.

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**4019 United States History Dual Credit****CREDIT: 1**      **TYPE: Dual Credit**      **+10 in GPA calculations**      **GRADE: 11,12****PREREQUISITE: Passing score on college placement test, Parent Approval.**

Students will have the opportunity to earn high school honors credit and six hours of college credit (History 1301 and History 1302) during a 36week period. The major aspects of the political, social, economic, and intellectual history of the United States will be studied. Part 1 will focus on key events that occurred from the discovery of America to the Civil War era. Part 2 will include the major events from the Civil War era to the present. Weighted.

**COURSE NOTE:** Students must maintain a 2.0 grade point average (GPA) in any dual credit course taken to be eligible to continue in the dual credit program.

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**4316 United States Government****CREDIT: 0.5**      **TYPE: Regular**      **GRADE: 11,12****PREREQUISITE: US History**

United States Government is a survey course of the structure, function, and power at the federal, state, and local levels. This course focuses on the principles and beliefs upon which the United States was founded.

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**4318 United States Government AP****CREDIT: 0.5**      **TYPE: Advanced Placement**      **+10 in GPA calculations**      **GRADE: 11,12**

United States Government AP is a rigorous, college level course designed to deeply study the structure, function and power of the federal, state, and local governments. In addition to studying the principles and beliefs upon which the United States was founded, students will analyze the role these ideas play on American politics. Students will take the AP Exam. \*Advanced Measure with AP score of 3 or higher.

Weighted.

**COURSE NOTE:** AP courses are based on a strong college curriculum. Students are expected to meet the rigorous academic demands and extra work. Failure to meet these requirements may result in dismissal from the program.

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**4319 United States Government Dual Credit****CREDIT: 0.5**      **TYPE: Dual Credit**      **+10 in GPA calculations**      **GRADE: 11,12**      **LOCATION: UTSA downtown**

United States Government DC is a rigorous, college level course designed to deeply study the structure, function, and power of the federal, state, and local governments. In addition to studying the principals and beliefs upon which the United States was founded, students will analyze the role these ideas play on American politics. Weighted.

**COURSE NOTE:** Students must maintain an overall GPA of 2.0 in any dual credit course to remain eligible

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**4916 Economics – Emphasis on the Free Enterprise System and its Benefits****CREDIT: 0.5**      **TYPE: Regular**      **GRADE: 11,12****PREREQUISITE: US History**

United States Economics is a survey course that focuses on the basic principles concerning the production, consumption, and distribution of goods and services in the United States and a comparison to the other world nations. Students will study the rights and responsibilities of consumers and businesses in a free enterprise system.

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**4918 AP Macroeconomics – Free Enterprise****CREDIT: 0.5**      **TYPE: Advanced Placement**      **+10 in GPA calculations**      **GRADE: 11,12****PREREQUISITE: Parent Approval.**

The AP Economics course assists students to understand basic economic concepts. The students will study the principles that apply to an economic system as a whole plus the economics of international trade, government fiscal policies and Federal Reserve Board monetary policies. Weighted. \*1 Advanced Measure with AP score of 3 or higher.

**COURSE NOTE:** AP courses are based on a strong college curriculum. Students are expected to meet the rigorous academic demands and extra work. Failure to meet these requirements may result in dismissal from the program.

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**4919 Economics – Free Enterprise Dual Credit****CREDIT: 0.5**      **TYPE: Dual Credit**      **+10 in GPA calculations**      **GRADE: 11,12**      **LOCATION: UTSA downtown****PREREQUISITE: Passing score on college placement test or Parent Approval.**

Economics is a survey course of micro economic and macro-economic principles of the free enterprise system. The course emphasizes basic economic concepts including market forces, market structures, business organization and international trade. \*Term grade of 80 or above = 1 Advanced Measure. Weighted.

**COURSE NOTE:** Students must maintain an overall GPA of 2.0 in any dual credit course to remain eligible

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**4923 Economics On Ramps****CREDIT: 0.5****TYPE: Dual Enrollment****+10 in GPA calculations****GRADE: 11,12**

**COURSE NOTE:** Students are not required to have met TSI requirements prior to the beginning of the course.

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**4400 Ethnic Studies: Mexican American Studies****CREDIT: 1****TYPE: Regular ELECTIVE****GRADE: 9-12**

In Mexican American Studies, students will learn about the historical, political, and contemporary experiences of Mexican Americans in the United States. They will have opportunities to interact with relevant film, literature, art, and other culturally relevant media. The course emphasizes developments in the twentieth and twenty-first centuries.

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**4405 Ethnic Studies: African American Studies****CREDIT: 1****TYPE: Regular ELECTIVE****GRADE: 9-12**

In African American Studies, students will learn about the history, citizenship, culture, economics, science, technology, geography, and the political realities of African Americans. The course is designed to assist students in understanding the historical roots of African American culture, especially as it pertains to social, economic, and political interactions within the broader context of American history.

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**4416 Psychology****CREDIT: 0.5****TYPE: Regular****GRADE: 10-12**

Psychology is a survey course covering the field of psychology, its theory and application to everyday life. Students study topics such as theories of human development, personality, motivation, and learning

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**4409 Psychology-Dual Credit (Health Professions Academy)****CREDIT: 0.5****TYPE: Dual Credit****+10 in GPA calculations****GRADE: 10-12**

Psychology is a survey course covering the field of psychology, its theory and application to everyday life. Students study topics such as theories of human development, personality, motivation, and learning

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**4414 Psychology AP—Dual Credit (Health Professions Academy)****CREDIT: 0.5****TYPE: Advanced Placement****GRADE: 11,12****PREREQUISITE: Parent Approval.**

The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice.

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**4426 Sociology****CREDIT: 0.5****TYPE: Regular****GRADE: 10-12**

This course is an introduction to the study of human relationships with focus on interaction with social environment. Students study topics such as the history and systems of sociology, cultural and social norms, social institutions, and mass communication.

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**4880 Personal Financial Literacy****CREDIT: 0.5****TYPE: Elective****GRADE: 10-12**

Students completing this course will have the skills necessary to make informed financial decisions concerning a variety of life situations ranging from earning and spending, saving and investing, credit and borrowing, insuring and protecting, to college and post-secondary education and training.

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**4925 Personal Financial Literacy and Economics****CREDIT: 0.5****TYPE: Regular****GRADE 11,12****PREREQUISITE: US History**

This course emphasizes the economic way of thinking, which serves as a framework for personal financial decision-making. Students will demonstrate the ability to anticipate and address financial challenges as these challenges occur over their lifetime. In addition, this course provides a foundation in both microeconomics and macroeconomics.

**Note: Students can take this course INSTEAD of 4916 “Economics – Emphasis on the Free Enterprise System and its Benefits” to meet the Social Studies credit requirements for graduation. However, they CANNOT be awarded credit for this course and 4880 Personal Financial Literacy.**



**HARLANDALE**  
INDEPENDENT SCHOOL DISTRICT

