

# **DENISON HIGH SCHOOL**

## **Guidance Handbook**

**School Year  
2021-22**

**HOME OF THE YELLOW JACKETS**



**DENISON INDEPENDENT SCHOOL DISTRICT  
DENISON, TEXAS**



# DENISON INDEPENDENT SCHOOL DISTRICT



## MISSION STATEMENT

TO ENSURE QUALITY LEARNING FOR ALL STUDENTS...SO THAT UPON GRADUATION, THEY WILL BE PREPARED TO ASSUME THE ROLES AND RESPONSIBILITIES OF PRODUCTIVE ADULT CITIZENS IN OUR SOCIETY.

### WE BELIEVE:

OUR STUDENTS ARE UNIQUE AND VALUABLE INDIVIDUALS CAPABLE OF HIGHER LEVELS OF LEARNING.

THEREFORE OUR COMMITMENT IS TO:

- Maintain high expectations so that students take responsibility for their learning.
- Design learning experiences to accommodate students' mastery of tasks in different ways and at different times.
- Expect students to assume responsibility for behaviors and actions.
- Provide each student the information, assistance, and support that enable him or her to develop educational and career goals.



### WE BELIEVE:

EVERY EMPLOYEE OF THE DISTRICT HAS THE RESPONSIBILITY TO PROVIDE AND SUPPORT QUALITY LEARNING EXPERIENCES FOR STUDENT SUCCESS.

THEREFORE OUR COMMITMENT IS TO:

- Focus on our core business... student learning.
- Provide clear and compelling understanding of what students are expected to know and be able to do.
- Design rigorous, engaging work that leads students to higher levels of learning.
- Collaborate through professional learning communities to provide quality learning experiences.
- Provide a safe, trusting environment for learning.
- Develop teachers as leaders of students - leading by inspiring, facilitating, encouraging and nurturing.
- Monitor and assess student learning continuously.
- Provide support for student success - "Whatever it Takes"



### WE BELIEVE:

PUBLIC EDUCATION PROVIDES THE OPPORTUNITIES AND EXPERIENCES THAT ENRICH LIVES AND ARE ESSENTIAL TO THE SUCCESS OF OUR COMMUNITY AND COUNTRY.

THEREFORE OUR COMMITMENT IS TO:

- Collaborate with families, businesses, and government and education agencies to develop a partnership between the community and school in order to support public education for a mutual benefit.
- Expect and enable parents to play an active role in education by monitoring their children's performance and working collaboratively and positively to maximize their children's experiences.
- Serve as good stewards of resources provided by the community.





DENISON HIGH SCHOOL  
4200 N. State Hwy 91  
Denison, Texas 75020

### Counseling Mission Statement

The counseling staff of Denison High School is dedicated to providing each student with the opportunity to obtain a successful and challenging learning experience which is intended to build a positive self-image and encourage a desire for life-long learning.

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Dear Parents and Students:

The purpose of this course catalog is to help you develop an understanding of the secondary school program and course offerings at Denison High School.

It is the goal of our school to offer a challenging academic program for every student. Society demands that young adults be well prepared academically if they are to function as future successful citizens of the community. The decisions you make today will affect the rest of your life. Select those courses that will challenge and prepare you to live in a modern technical society.

Students need 26 credits to graduate on the Foundation Graduation Plan with an Endorsement in a Career Plan of Study. All students must select an Endorsement when enrolling in high school for the first time. Students may change their Endorsement at any time and may graduate with more than one endorsement. Students may only drop the Endorsement after the 10<sup>th</sup> grade year, and must have written permission of the parent. Further information about the graduation plans is located in this handbook.

Your teachers, principals, counselors, district administrators, and Board of Trustees are ready to assist and provide you with the guidance necessary to help you plan your secondary school course of studies.

### Denison High School Counselors

Carrie Boettger, Lead Counselor (Class of 2024)  
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#### ASSURANCE OF NON-DISCRIMINATION

No student shall be denied the right to participate in any school program because of race, religion, color, sex, or national origin. The district has designated Dr. David Kirkbride to coordinate its efforts to comply with Title IX and Section 504, dealing with rights of the handicapped. All complaints shall be handled through established channels and procedures beginning with the building principal, followed by appeal to the Title IX and 504 Coordinator, the Superintendent, and finally, the Board of Trustees.

## **TESTING**

There are a number of standardized tests, both required and voluntary, which are administered at Denison High School or at area testing sites. Described below are those tests.

### **STAAR (State of Texas Assessments of Academic Readiness)**

	<b>EOC (End-of-Course) Assessed Curriculum</b>
<b>English Language Arts</b>	English I   English II
<b>Mathematics</b>	Algebra I
<b>Science</b>	Biology
<b>Social Studies</b>	U.S. History

### **PSAT/NMSQT – practice college entrance exam & National Merit Scholarship Qualifying Test**

Grade 10/11 – Preliminary SAT – 11<sup>th</sup> grade scores used to qualify for National Merit scholarships – Taken for practice by ALL 10<sup>th</sup> and select 9<sup>th</sup> grade students.

### **ACT and SAT—college entrance exams**

Grade 11/12 – College entrance exams. It is very important to plan ahead and take these exams in 11<sup>th</sup> grade.

- Denison HS offers an SAT (fall semester) and ACT (spring semester) prep class open to juniors and seniors. This class meets during the school day.
- Denison HS also offers an ACT workshop on the Saturday one week prior to the December ACT. There is a fee for this workshop.

### **TSI (Texas Success Initiative) for college entrance in Texas**

Grade 11/12 – Required for enrollment in any Texas public college or university unless exempt based on STAAR, ACT, SAT or PSAT scores. This test is often required prior to enrolling in dual credit courses. Denison HS facilitates TSI testing for students in May each year.

### **AP (Advanced Placement)**

Students in Advanced Placement courses are required to take the AP exam at the end of the year. There is no cost to the student for these exams. College credit may be awarded for qualifying scores on AP exams. Review each college's credit-by-exam policy for more information.

### **ASVAB (Armed Services Vocational Aptitude Battery)**

As an aptitude test, the ASVAB measures strengths, weaknesses, and potential for future success. The ASVAB also provides career information for various civilian and military occupations and is an indicator for success in future endeavors whether you choose to go to college, vocational school, or a military career. Military recruiters administer this exam. The ASVAB is offered twice a year at Denison HS. Students will have the opportunity to test during the school day. This test is offered on a voluntary basis.

### **Top 10 Percent Rule for Admissions**

In accordance with Texas Education Code (TEC), §51.803, a student is eligible for automatic admission to a college or university as an undergraduate student if the applicant earned a grade point average in the top **10 percent** of the student's high school graduating class, or the top **6 percent\*** of eligible 2021 freshman applicants for admission to the University of Texas at Austin, and the applicant:

- Earned distinguished level of achievement under the foundation high school program
- Satisfied ACT's College Readiness Benchmarks on the ACT assessment or earned on the SAT assessment a score of at least 1,500 out of 2,400 or the equivalent.

In accordance with Title 19 Texas Administrative Code (TAC), §5.5(e), high school rank for students seeking automatic admission to a general academic teaching institution on the basis of class rank is determined and reported as follows.

- Class rank shall be based on the end of the 11th grade, middle of the 12th grade, or at high school graduation, whichever is most recent at the application deadline.
- The top 10 percent of a high school class shall not contain more than 10 percent of the total class size.
- The student's rank shall be reported by the applicant's high school or school district as a specific number out of a specific number total class size.
- Class rank shall be determined by the school or school district from which the student graduated or is expected to graduate.

#### **To qualify for automatic admission an applicant must:**

- (1) submit an application before the deadline established by the college or university to which the student seeks admission; and
- (2) provide a high school transcript or diploma that indicates whether the student has satisfied or is on schedule to satisfy the requirements of Distinguished Achievement.

Colleges and universities are required to admit an applicant for admission as an undergraduate student if the applicant is the child of a public servant who was killed or sustained a fatal injury in the line of duty and meets the minimum requirements, if any, established by the governing board of the college or university for high school or prior college-level grade point average and performance on standardized tests.

Source: Texas Education Agency

[https://tea.texas.gov/Academics/Graduation\\_Information/Automatic\\_College\\_Admission/](https://tea.texas.gov/Academics/Graduation_Information/Automatic_College_Admission/)

## **Volunteer Opportunities**

### **Helping Others Can Help You**

Volunteering has a meaningful, positive impact on your community. But did you know that it can have many benefits for you, too?

You may have heard that volunteering helps you get into college, but keep in mind they're not just looking for a list of organizations and dates. Colleges want to see a complete picture of you, and real examples of your commitment, dedication, and interests.

### **Reasons to Volunteer**

#### **Gain Valuable Life Experiences and Skills**

Whether you build houses for the homeless or mail flyers for a local politician, you'll experience the real world through hands-on work. You can use this experience to explore your major or career interests.

#### **Meet Interesting People**

Volunteering brings together a variety of people. Both the recipients of your volunteer efforts and your co-workers can be rich sources of insight. For example, maybe you'll learn about the legal profession from a former lawyer you visit at a convalescent center.

#### **Send a Signal to Colleges**

Colleges pay attention to your life inside and outside the classroom. Your extracurricular activities reveal a great deal about you, such as what your interests are, whether you can manage your priorities and maintain a long-term commitment, what diversity you'd bring to the student body, and how you've made a meaningful contribution to something.

Keep in mind; colleges are not interested in seeing you do it all. It's more meaningful to colleges to see your dedication to and/or leadership in one or two causes or activities than to see that you've spread yourself thin.

### **More....**

Volunteering has many other intangible benefits. It can help you give back to society, break down barriers of misunderstanding or fear, explore personal issues, and even have fun.

"Community service, which was required at my high school, was a big wow with interviewers. It's even better if you can match your service with your career interest. For example, volunteer at a hospital if you're planning on med school." says Faith, college student.

### **How to Get Involved**

There are many people places, and organizations that need volunteers. Here are some tips for getting started:

- Look around your community to see what programs are there. Call and ask if they need help.
- Visit your city or town website. It may list volunteer opportunities in your community.
- Contact your local United Way, cultural arts association, student organization, or another association that can point you in the right direction.
- Ask your library, church or synagogue, and/or community colleges if they sponsor any volunteer groups.

### **Questions to Ask Yourself before You Volunteer**

It's important that you enjoy the type of service you choose and that you have the time to stick with it. Ask yourself these questions before you commit to an organization.

- How much time do I have to commit?
- Do I want an ongoing, regularly-scheduled assignment, a short-term assignment, or a one-time assignment?
- Am I willing to participate in a training course, or do I want to start my volunteer work immediately?
- Which talents or skills do I offer?
- What would I most like to learn by volunteering?
- What don't I want to do as a volunteer?
- Do I want to work alone or with a group?
- With what kind of people do I want to work –both in terms of who is receiving my services and who my co-workers might be?



## **HELPFUL HINTS FOR PARENTS AND STUDENTS**

To help make a student eligible for as many scholarships, awards, or honors as possible, students are strongly encouraged to:

- Have at least 200 hours of volunteering or mentoring, before graduating.
  - Document time spent working with church or community organizations, volunteering, tutoring students, etc.
  - While it is fresh on your mind, type up a short note about what you did and keep it in a file and track these hours.
- Join at least two school organizations.
  - Well-rounded students have an edge.
  - Develop leadership by being an officer, captain, squad leader, etc.
  - Stick with it—four years show evidence of focus and commitment.
  - It is better to be a leader in a few organizations, than to simply be a member of many organizations.
- Keep track of honors and awards (school, church, community, etc.)
  - Keep a list and add to it.
  - Begin developing a resume.
  - When you fill out applications for scholarships, awards, or honors KEEP COPIES. Often, the same questions will be asked on the next application.

## CLUBS AND ORGANIZATIONS AT DENISON HIGH SCHOOL

Club / Organization Name	Sponsor
Art Club	Schielack, Elizabeth
Athletic Training	Garrett, Kara/ Cabello-Bowers, Christian
AVID	Bach, Holly
Band - Touch of Gold	Lewis, Melissa
Baseball	Bollinger, Brent
Basketball – Girls / Boys	Rhodes, Dale
Cheerleading	Hawkins, Nicole / Taylor, Shelli
Chorus	Sitz, Hunter
Color Guard/Gold Guard (JV)	Bowers, Raquel
Construction - Woodshop	Conditt, Rick
Cosmetology / Skills USA	Black, Suzanne
Criminal Justice	Cherry, Steve
Cross Country	Voight, Scotty / Wafer, Vanessa
Debate / Speech Club	Silva, Nikki
Den-Teens	Morrison, Brooke / Rogers, Leanne
Drama Club	Jordan, Amy / Silva, Nikki / Omundson, Bear
Drill Team - Stingerettes	Mitchell, Christi
Encroix - Fellowship of Christian Dancers	Mitchell, Christi
Fashion Club	Hawkins, Nicole
FCA (Fellowship of Christian Athletes)	Garrett, Kara
FCCLA (Family, Career & Comm. Leaders of America)	Hawkins, Nicole
FCM (Fellowship of Christian Musicians)	Lewis, Melissa/Armstrong, Austin
FFA (Future Farmers of America)	Nix, Kate
Fishing Team	Noble, Caleb
Football	
Golf	
Guitar	Armstrong, Austin
Hope Squad	Danielson, Mandy/ Kempson, Kelli / Luper, Odis
HOSA (Health Occupations Students of America)	Cowan, Ashlyn/McCammack, Britney
Interact Club	Crump, Tonya / Redwine, Sabrina
International Thespian Society Troupe 6319 (Theatre)	Jordan, Amy
Jacket Greeters	DHS Counselors
Jacket Update – Media	Dyer, Trisa
Jazz Ensemble	Lewis, Melissa
Junior Class	Dyer, Trisa
Metal Trades - Welding	Crump, Mark
Musical Theatre	Jordan, Amy
National Honor Society	
One Act Play – UIL	Jordan, Amy / Silva, Nikki / Omundson, Bear
Photography	Dyer, Trisa
Power Lifting	Bigelow, Gary
Robotics	Pridemore, Aaron/Munoz, Arthur
Route 91 Vocal Jazz Ensemble	Sitz, Hunter
Science Club	
Senior Class	Brown, Jennifer
Soccer – Girls / Boys	Bach, Aaron / Voight, Scotty
Softball	Green, Jeremy
Spanish Club	
Stinger - Newspaper	Dyer, Trisa
Student Council	Cowan, Ashlyn
Swarm of Friends	Kelly, Josh
Swim Team	Damuth, Michelle
TAFE (Texas Association of Future Educators)	Hawkins, Nicole
Technology/Engineering	Munoz, Arthur
Tennis	Roscoe, Derek
Track	Scott, Wes / Luper, Joel
Tri M Music Honor Society	Lewis, Melissa
UIL Academic Team	Green, Mike
UIL Science Team	Vogel, Sarah
Volleyball	Kelly, Jana
Yearbook	Dyer, Trisa

## **FAFSA REQUIRED**

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**Note:** Education Code 28.0256 applies beginning with students enrolled at the 12th grade level during the 2021–22 school year.

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**FAFSA Required:** Before graduating from high school, each student must complete and submit a free application for federal student aid (FAFSA) or a Texas application for state financial aid (TASFA).

A student is not required to comply with the above provision if:

- The student's parent or other person standing in parental relation submits a signed form indicating that the parent or other person authorizes the student to decline to complete and submit the financial aid application;
- The student signs and submits the form described above on the student's own behalf if the student is 18 years of age or older or the student's disabilities of minority have been removed for general purposes under Family Code Chapter 31; or
- A school counselor authorizes the student to decline to complete and submit the financial aid application for good cause, as determined by the school counselor.

A district shall adopt a form to be used for purposes of this provision. The form must be approved by the Texas Education Agency (TEA) and made available in English, Spanish, and any other language spoken by a majority of the students enrolled in a bilingual education or special language program under Education Code Subchapter B, Chapter 29, in the district.

If a school counselor notifies a district whether a student has complied with this section for purposes of determining whether the student meets high school graduation requirements under Education Code 28.025, the school counselor may only indicate whether the student has complied with this section and may not indicate the manner in which the student complied.

*Education Code 28.0256*

# Texas Grant

## **Program Purpose**

The Texas Legislature established the TEXAS (Towards EXcellence, Access and Success) Grant to make sure that well-prepared high school graduates with financial need could go to college.

## **Eligibility Requirements**

**Beginning Fall 2014, Public community, technical, and state colleges will no longer be able to make Initial Year (IY) TX Grant awards to students.**

To receive a basic initial award through the TEXAS Grant Program, a Baccalaureate student must:

- \* Be registered with Selective Service, or be exempt;
- \* Be classified by the institution as a Texas resident;
- \* Have not been convicted of a felony or crime involving a controlled substance;
- \* Be enrolled at least three-quarter time as:

A Baccalaureate student who:

- graduated from an accredited public or private high school in Texas;
- enrolled in an undergraduate degree or certificate program at an approved institution within 16 months from high school graduation having not accumulated more than 30 SCH's (excluding credits for dual enrollment or by examination); OR

A Baccalaureate student who:

- earned an associate's degree from a public or private nonprofit institution of higher education in Texas, and
- enrolled in an eligible institution within 12 months after receiving the associate's degree; OR

A Baccalaureate student who:

- graduated from an accredited public or private high school in Texas May 1, 2013 or later; and
- enlisted in military service within 12 months of high school graduation and enrolled in an eligible GATI within 12 months of receiving an honorable discharge; OR

A Baccalaureate student who:

- transferred into a public university in Texas with at least 24 SCH's and a minimum 2.5 GPA; and
- received an initial year (IY) Texas Educational Opportunity Grant (TEOG) in Fall 2014 or later;

***To receive priority consideration for an initial award through the TEXAS Grant Program, a student must:***

- Meet the basic initial year (IY) student eligibility requirements (see section above);
- Meet the state priority deadline of January 15; and
- Meet the requirements in at least 2 of the following 4 areas:

AREA	REQUIREMENT(S)
<b>Advanced Academic Program</b>	Complete 12 hours of college credit (dual credit or AP courses), the Recommended or Advanced High School Program or its equivalent, or the International Baccalaureate Program (IB).
<b>TSI Readiness</b>	Meet the Texas Success Initiatives (TSI) assessment thresholds or qualify for an exemption.
<b>Class Standing</b>	Graduate in the top one-third of the HS graduating class or have a B average.
<b>Advanced Math</b>	Complete at least one math course beyond Algebra II as determined by the Texas Education Agency (TEA). Complete at least one advanced career and technical course, as determined by TEA,

**To receive an RY award through the TEXAS Grant Program, a student must:**

- Be enrolled at least three-quarter time as an undergraduate student who previously received a TEXAS Grant award and has not yet been granted a baccalaureate degree;
- Have not been convicted of a felony or crime involving a controlled substance.
- Have a calculated financial need;
- Maintain satisfactory academic progress:

**2.5 Cumulative GPA**

**24 Semester Credit Hours in an Academic Year**

*Each recipient's maximum time frame must be monitored to ensure compliance as outlined below:*

<b>Recipient Entering the Program as a High School Graduate</b>	<b>Maximum time frame for receiving the grant is the first of:</b> <ul style="list-style-type: none"><li>• 5 years from the start of the semester in which the student received the first award if in a degree plan of 4 years or less;</li><li>• 6 years from the start of the semester in which the student received the first award if in a degree plan of more than 4 years;</li><li>• 150 SCH attempted while receiving the grant; or</li><li>• completion of a baccalaureate degree.</li></ul>
<b>Recipient Entering the Program with an Associate's Degree</b>	<b>Maximum time frame for receiving the grant is the first of:</b> <ul style="list-style-type: none"><li>• 3 years from the start of the semester in which the student received the first award if in a degree plan of 4 years or less;</li><li>• 4 years from the start of the semester in which the student received the first award if in a degree plan of more than 4 years;</li><li>• 90 SCH attempted while receiving the grant; or</li><li>• completion of a baccalaureate degree.</li></ul>
<b>Recipient Entering the Program as a Transfer Student</b>	<b>Maximum time frame for receiving the grant is the first of:</b> <ul style="list-style-type: none"><li>• if 1<sup>st</sup> award was made out of high school, no more than 150SCHs;</li><li>• if 1<sup>st</sup> award was made after obtaining an associate degree, no more than 90 SCHs; or</li><li>• completion of a baccalaureate degree.</li></ul>

Beginning with awards for the 2015-16 academic year, a student's eligibility for TEXAS Grant ends once he or she has attempted 150 SCH's or the equivalent unless the student is granted a hardship extension.

**Award Amount**

Eligible students may receive up to \$4896/semester in TEXAS Grant funds during the 2019-2020 academic year.

**Application Process**

You apply when you complete and submit the Free Application for Federal Student Aid (FAFSA) or Texas Application for State Financial Aid (TASFA). Funding is limited, so you need to submit your application as soon as possible after October 1st. The financial aid office at each college and university will determine your eligibility.

**Additional Information**

- Your eligibility for this program is determined by the financial aid office at your college. Contact your college financial aid office for additional information on eligibility or availability of funds.
- To read more about this program check out:

[Texas Education Code, §56.301](#) and [Coordinating Board Rules, Chapter 22 L](#).

Source: <http://www.collegeforalltexas.com/apps/financialaid/tofa2.cfm?ID=458>

# Introducing:



## Texas Scholars *High School And Beyond*

**Texas Scholars** – Is a community-based initiative through which volunteers and educators working together motivate students to take a more purposeful approach in high school, and to plan for and work toward a career of their choosing after high school.

Since 1992, *Texas Scholars* has a record of success in motivating students and influencing policy toward the goal of completing a full academic course of study in high school. Now that students are required by law to enter 9th grade with a plan to complete the Foundation High School Program, Texas Scholars is focusing on the transition to life after high school.

To receive recognition as a Texas Scholar, students will be required to:

• Graduate from high school having completed the *Foundation High School Program with an Endorsement*

**AND**

• Complete at least two courses while in high school eligible for college credit:

- Dual credit (high school and college credit earned simultaneously) with a grade earned of 80 or above; or
- Articulated (ETC – early technical credit) college credit through Grayson College; or
- AP tests of 3 or higher (earned prior to the senior year)

The college course credit requirement was added to encourage students to begin postsecondary work while still in high school. Some examples of courses eligible for college credit are: Advanced Placement (AP) courses, International Baccalaureate courses (IB), CTE courses leading to a post-secondary certification (ETC) and dual credit (DC)/concurrent enrollment courses.

**A picnic is held in the spring to honor DHS Seniors who are Texas Scholars.  
Students also receive a medal to wear at graduation.**

*This program is sponsored by the Denison Education Foundation  
and the Denison Area Chamber of Commerce.*

## **ACADEMIC ACHIEVEMENT: CLASS RANKINGS**

For the purpose of determining graduation honors and class rank, grade points shall be used to evaluate performance on each level of instruction as follows (points assigned per semester credit):

### **LEVEL 3**

ENGLISH I & II Honors  
ENGLISH III & IV AP

GEOMETRY Honors  
ALG II Honors  
PRE CAL Honors  
CALCULUS AP  
STATISTICS AP

BIOLOGY Honors and AP  
CHEMISTRY Honors and AP  
PHYSICS Honors and AP  
ENVIRONMENTAL SCIENCE AP

HUMAN GEOGRAPHY AP  
WORLD HISTORY AP  
U.S. HISTORY AP  
GOVERNMENT AP  
ECONOMICS AP

SPANISH IV Honors

MUSIC THEORY AP

COMPUTER SCIENCE AP

(15 AP COURSES)

### **LEVEL 2**

SPANISH III  
FRENCH III

PRE-CALCULUS

DUAL CREDIT COLLEGE

### **LEVEL 1**

ALL OTHER REGULAR COURSES  
COURSES

### **LEVEL 0**

MODIFIED COURSES  
REMEDIAL COURSES

## **GRADE POINT SCALE**

Grade	Grade Points Assigned			
	level 3	level 2	level 1	level 0
100	6.00	5.00	4.00	2.00
99	5.90	4.90	3.90	1.95
98	5.80	4.80	3.80	1.90
97	5.70	4.70	3.70	1.85
96	5.60	4.60	3.60	1.80
95	5.50	4.50	3.50	1.75
94	5.40	4.40	3.40	1.70
93	5.30	4.30	3.30	1.65
92	5.20	4.20	3.20	1.60
91	5.10	4.10	3.10	1.55
90	5.00	4.00	3.00	1.50
89	4.90	3.90	2.90	1.45
88	4.80	3.80	2.80	1.40
87	4.70	3.70	2.70	1.35
86	4.60	3.60	2.60	1.30
85	4.50	3.50	2.50	1.25
84	4.40	3.40	2.40	1.20
83	4.30	3.30	2.30	1.15
82	4.20	3.20	2.20	1.10
81	4.10	3.10	2.10	1.05
80	4.00	3.00	2.00	1.00
79	3.90	2.90	1.90	0.95
78	3.80	2.80	1.80	0.90
77	3.70	2.70	1.70	0.85
76	3.60	2.60	1.60	0.80
75	3.50	2.50	1.50	0.75
74	3.40	2.40	1.40	0.70
73	3.30	2.30	1.30	0.65
72	3.20	2.20	1.20	0.60
71	3.10	2.10	1.10	0.55
70	3.00	2.00	1.00	0.50

A grade of 87 in level 3 = 4.7

A grade of 87 in level 2 = 3.7

A grade of 87 in level 1 = 2.7

A grade of 87 in level 0 = 1.35

**CLASS RANK:** All courses\*

**GRADE POINT AVERAGE:** All courses\*

*\*Exception: credit by exams, credits earned in middle school, local credit courses, correspondence courses, credit recovery courses, and summer school courses*



## **ADVANCED ACADEMIC OPPORTUNITIES**

Denison High School is proud to provide an abundance of advanced academic learning opportunities, including **Dual Credit (DC)** and **Advanced Placement (AP)** courses.

**Dual Credit (DC)** courses receive credit toward high school graduation and credit through Grayson College. Students are responsible for meeting TSI requirements prior to enrolling in Dual Credit courses. In addition, students are responsible for paying all tuition, fees, and textbooks. Registration will be facilitated by Denison HS Counselors and Grayson College Dual Credit Director, prior to the start of each semester. **All Dual Credit courses receive Level 2 grade points (unless they are taught within an AP course where Level 3 grade points are awarded).**

**Because Honors, AP and Dual Credit courses are actual college courses and use college-level textbooks, parents and students are advised to consider that some material, discussions, etc. may be of a more mature nature than those of a regular high school course. Students are expected to conduct themselves in a manner consistent with that which would be expected if the course were being taken on a college campus.**

**Advanced Placement (AP)** courses are college level courses taught in accordance with the Advanced Placement curriculum. Students are required to take the AP exam at the end of each AP course. Colleges may award credit on the basis of scores made on the AP exam. Students may receive monetary awards through AP incentive programs, based on scores on AP exams. Students take Honors courses in preparation for the Advanced Placement courses. **All Honors and Advanced Placement (AP) courses receive Level 3 grade points.**

## **SOCRATES PROGRAM**

The Socrates Program is an initiative of the Denison Independent School District to encourage each student to achieve his or her maximum potential.

The program will honor Denison High School students who have completed four years of English, Science, Mathematics, and Social Studies in grades 9-12. Middle School credits will not meet the criteria.

The following is the criteria:

- 16 credits in the core areas (ELA, Math, Science, Social Studies) — 4 from each area (in grades 9-12).
- a minimum of 8 credits are required to be from Honors, AP courses, and/or Dual Credit core courses (Dual Credit added beginning with Class of 2022)
- a minimum of a 3.5 cumulative GPA (not rounded) by the end of the first semester of the senior year

Each Socrates graduate will be recognized at an awards banquet where students honor their most influential educator. In addition, these students will receive a medal to be worn at graduation. Their parents will receive preferential seating during graduation exercises.

**GRAYSON COLLEGE OPPORTUNITIES**  
**Sample Early High School Associate of Arts**  
**Degree Plan**  
**Grayson College**

**10th grade**

GC Course		DHS Course	Hours
PSYC 1300 (Learning Frameworks)		Online at DHS	3

**11th grade**

Summer Semester			
GC Course		DHS Course	Hours
Social & Behavioral Sciences Core	GC Campus		3
HIST 1301 or 1302	GC Campus		3

Fall Semester			
GC Course		DHS Course	Hours
Academic Elective		Online at DHS	3

Winter Minimester			
GC Course		DHS Course	Hours
Academic Elective**	Online GC		3

Spring Semester			
GC Course		DHS Course	Hours
Academic Elective**		Online at DHS	3
Academic Elective**		Online at DHS	3

**12th Grade**

Spring/Summer Minimester			
GC Course		DHS Course	Hours
Component Area Option 2*	Online GC		3

Fall Semester			
GC Course		DHS Course	Hours
ENGL 1301		DC Engl 4	3
Life & Physical Sciences Core		DC Anat/Phys	3
Science Lab		DC Anat/Phys	1
Mathematics Core (MATH 1314)		DC College Alg	3
GOVT 2305		DC Gov	3
Creative Arts Core		Online at DHS	3

Summer Semester			
GC Course		DHS Course	Hours
History Core	GC Campus		3
Language, Philosophy & Culture Core	GC Campus		3

Spring Semester			
GC Course		DHS Course	Hours
Communication Core (ENGL 1302)		DC Engl 4	3
Life & Physical Sciences Core		DC Anat/Phys	3
Science Lab		DC Anat/Phys	1
Academic Elective		DC Alg	3
GOVT 2306		DC Gov	3

Winter Minimester			
GC Course		DHS Course	Hours
Social & Behavioral Sciences Core	Online GC	DC Econ	3

Total Semester Hours

62

Please note: This is a sample degree plan only. All coursework will be customized to meet the needs of the desired major.

# Sample Early High School Associate of Science Degree Plan Grayson College

## 10th grade

GC Course		DHS Course	Hours
PSYC 1300 (Learning Frameworks)		Online at DHS	3

## 11th grade

Summer Semester			
GC Course		DHS Course	Hours
Social & Behavioral Sciences Core	GC Campus		3
HIST 1301 or 1302	GC Campus		3

Winter Minimester			
GC Course		DHS Course	Hours
Academic Elective**	Online GC		3

## 12th Grade

Spring/Summer Minimester			
GC Course		DHS Course	Hours
Component Area Option 2*	Online GC		3

Summer Semester			
GC Course		DHS Course	Hours
History Core	GC Campus		3

Winter Minimester			
GC Course		DHS Course	Hours
Language, Philosophy & Culture Core	Online GC		3

Fall Semester			
GC Course		DHS Course	Hours
Academic Elective		Online at DHS	3

Spring Semester			
GC Course		DHS Course	Hours
Academic Elective**		Online at DHS	3
Academic Elective**		Online at DHS	3

Fall Semester			
GC Course		DHS Course	Hours
ENGL 1301		DC Engl 4	3
Life & Physical Sciences Core		DC Anat/Phys	3
Science Lab		DC Anat/Phys	1
Mathematics Core (MATH 1314)		DC College Alg	3
GOVT 2305		DC Gov	3
Creative Arts Core		Online at DHS	3

Spring Semester			
GC Course		DHS Course	Hours
Communication Core (ENGL 1302)		DC Engl 4	3
Life & Physical Sciences Core		DC Anat/Phys	3
Science Lab		DC Anat/Phys	1
Academic Elective		DC Alg	3
Social & Behavioral Sciences Core		DC Econ	3
GOVT 2306		DC Gov	3

Total Semester Hours

62

Please note: This is a sample degree plan only. All coursework will be customized to meet the needs of the desired major.

## GRADUATION REQUIREMENTS

Students must complete the requirements of the Foundation Plan to earn a diploma. All students must also select an Endorsement when enrolling in high school for the first time. Students may change their Endorsement at any time and may graduate with more than one endorsement. Changes to the Endorsement may only be made with written permission of the parent.

FOUNDATION PLAN		
STATE REQUIREMENTS		DENISON HIGH SCHOOL REQUIREMENTS
ENGLISH	English I (1)	English I (1)
	English II (1)	English II (1)
	English III (1)	English III (1)
	Advanced English (1)	Advanced English (1)
MATH	Algebra I (1)	Algebra I (1)
	Geometry (1)	Geometry (1)
	Advanced Math (1)	Advanced Math (1)
SCIENCE	IPC or Advanced Science (1)	IPC or Advanced Science (1)
	Advanced Science (1)	Advanced Science (1)
	Biology (1)	Biology (1)
SOCIAL STUDIES	World Geography, or World History (1)	World Geography, or World History (1)
	Government (0.5)	Government (0.5)
	Economics (0.5)	Economics (0.5)
	US History (1)	US History (1)
PHYSICAL EDUCATION	1	1
FOREIGN LANGUAGE	2	2
FINE ARTS	1	1
ELECTIVES	5	9
<b>TOTAL</b>	<b>22</b>	<b>26</b>

<b>Endorsement Plans</b> <b>(must total 26 credits)</b>	
ARTS AND HUMANITIES	Additional Advanced Math (1)
	Additional Advanced Science (1) (A student pursuing an arts and humanities endorsement who has the written permission of the student's parent may substitute an English language arts course, a social studies course, a LOTE course, or a fine arts course for the additional science credit required to earn an endorsement.)
	A total of <b>5 social studies courses</b> , or <b>4 foreign language courses</b> , or <b>a coherent sequence of 4 credits in fine arts</b> from no more than two disciplines or <b>4 advanced English electives</b> .
BUSINESS AND INDUSTRY	Additional Advanced Math (1)
	Additional Advanced Science (1)
	A coherent sequence of <b>3 courses</b> for <b>4 or more credits</b> in CTE in approved clusters.
MULTIDISCIPLINARY STUDIES	Additional Advanced Math (1)
	Additional Advanced Science (1)
	<b>4 advanced CTE</b> courses, or <b>4 postsecondary</b> courses, or <b>4 credits in each core</b> to include English IV, chemistry and/or physics, or 4 credits in AP or DC core, LOTE, or fine arts.
PUBLIC SERVICES	Additional Advanced Math (1)
	Additional Advanced Science (1)
	A coherent sequence of <b>3 courses</b> for <b>4 or more credits</b> in CTE in approved clusters.
STEM	Additional Advanced Math (must take <b>Algebra II</b> ) (1)
	Additional Advanced Science (must take <b>Chemistry and Physics</b> ) (1)
	A coherent sequence of <b>3 courses</b> for <b>4 or more credits</b> in CTE in approved clusters.

## FOUNDATION ADVANCED COURSES

<u>English Language Arts</u> Fourth Credit After completion of: <ul style="list-style-type: none"> <li>English 1</li> <li>English 2</li> <li>English 3</li> </ul>	English IV
	Debate III
	Dual Credit English IV
	AP English Literature and Composition
<u>Mathematics</u> Third Credit After completion of: <ul style="list-style-type: none"> <li>Algebra 1</li> <li>Geometry</li> </ul>	Algebraic Reasoning
	Math Models with Applications
	Statistics
	Algebra II
	Honors Algebra II
	Precalculus
	Honors Precalculus
	AP Statistics
	AP Calculus
<u>Science</u> Second Credit Biology is required	DC College Algebra + DC Elem Statistics
	Integrated Physics and Chemistry (IPC)
	Chemistry
	Honors Chemistry
	AP Chemistry
	Principles of Technology - Physics
	Honors Physics
<u>Science</u> Third Credit Biology is required and one course from above.	AP Physics
	Chemistry
	Honors Chemistry
	AP Chemistry
	Principles of Technology
	Physics
	Honors Physics
	AP Physics
	Environmental Systems
	AP Environmental Science
	AP Biology
	Food Science
	Advanced Animal Science
	Anatomy and Physiology
	Forensic Science

## ENDORSEMENT ADVANCED COURSES

<u>Mathematics</u> Fourth Credit for Endorsements	Algebraic Reasoning
	Statistics
	Algebra II
	Honors Algebra II
	Precalculus
	Honors Precalculus
	Advanced Quantitative Reasoning
	AP Statistics
	AP Calculus
	AP Computer Science
	College Prep Math
	College Level Math
<u>Science</u> Fourth Credit for Endorsements	Chemistry
	Honors Chemistry
	AP Chemistry
	Principles of Technology - Physics
	Honors Physics
	AP Physics
	Environmental Systems
	AP Environmental Science
	AP Biology
	Advanced Animal Science
	Anatomy and Physiology
	Food Science
	Forensic Science
	College Level Science

## DISTINGUISHED ACHIEVEMENT

A student may graduate with distinguished achievement by completing the following requirements:

- Four credits in science
- Four credits in math, including credit in Algebra II, and
- Completion of curriculum requirements for at least one endorsement.

A student must earn distinguished level of achievement to be eligible for top 10% automatic admission to a public college or university in Texas.

## **PERFORMANCE ACKNOWLEDGMENTS**

### **Dual Credit Acknowledgment**

A student may earn a performance acknowledgment on their transcript for outstanding performance in a dual credit course by successfully completing:

- at least 12 hours of college academic courses, including those taken for dual credit as part of the Texas core curriculum, and advanced technical credit courses, including locally articulated courses, with a grade of the equivalent of 3.0 or higher on a scale of 4.0; or
- an associate degree while in high school.

### **Bilingualism and Biliteracy Acknowledgment**

A student may earn a performance acknowledgment on their transcript for outstanding performance in bilingualism and biliteracy as follows.

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



**College Board or International Baccalaureate Performance Acknowledgment**

A student may earn a performance acknowledgment on the student's transcript for outstanding performance on a College Board advanced placement test or International Baccalaureate examination by earning:

- a score of 3 or above on a College Board advanced placement examination; or
- a score of 4 or above on an International Baccalaureate examination for a higher-level course.

**College Readiness Performance Acknowledgment**

A student may earn a performance acknowledgment on the student's diploma and transcript for outstanding performance on the PSAT®, the ACT-PLAN®, the SAT®, or the ACT® by:

- earning a score on the Preliminary SAT/National Merit Scholarship Qualifying Test (PSAT/NMSQT®) that qualifies the student for recognition as a commended scholar or higher by the College Board and National Merit Scholarship Corporation, as part of the National Hispanic Recognition Program (NHRP) of the College Board or as part of the National Achievement Scholarship Program of the National Merit Scholarship Corporation;
- achieving the college readiness benchmark score on at least two of the four subject tests on the ACT-PLAN® examination;
- earning scores of at least 410 on the evidence-based reading section and 520 on the mathematics section of the SAT®; or
- earning a composite score on the ACT® examination of 28 (excluding the writing subscore).

**Business or Industry Certification /Licensure Performance Acknowledgment**

A student may earn a performance acknowledgment on their transcript for earning a state-recognized or nationally or internationally recognized business or industry certification or license with:

- performance on an examination or series of examinations sufficient to obtain a nationally or internationally recognized business or industry certification; or
- performance on an examination sufficient to obtain a government-required credential to practice a profession.

*Statutory Authority: The provisions of this §74.14 issued under the Texas Education Code, §§7.102, 28.002, and 28.025.*

*Source: The provisions of this §74.14 adopted to be effective July 8, 2014, 39 TexReg 5149; amended to be effective August 22, 2016, 41 TexReg 5040.*

## ENDORSEMENTS

### Arts & Humanities Endorsement

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**A student may earn an Arts & Humanities endorsement by completing foundation and general endorsement requirements and:**

- (A) a total of 5 social studies courses, or
- (B) 4 levels of the same language in a language other than English, or
- (C) 2 levels of the same language in a language other than English and 2 levels of a different language in a language other than English, or
- (D) 4 levels of American sign language, or
- (E) a coherent sequence of 4 credits by selecting courses from 1 or 2 categories or disciplines in fine arts or innovative courses approved by the commissioner, or
- (F) 4 English elective credits by selecting from the following:
  - English IV
  - AP English Literature and Composition
  - Dual Credit English Composition

## Business and Industry Endorsement

A student may earn a business & industry endorsement by completing foundation and general endorsement requirements and:

- A. A coherent sequence for 4 or more credits in CTE that consists of at least 2 courses in the same career cluster including at least 1 advanced CTE course. The courses may be selected from courses in all CTE career clusters or CTE innovative courses approved by the commissioner of education. The final course in the sequence must be selected from one of the following CTE career clusters:



- Veterinary Medical Applications
- Advanced Animal Science
- Ag Structures Design & Fabrication
- Ag Equipment Design & Fabrication
- Ag Power Systems
- Practicum in Ag, Food, & Natural Res



- Construction Technology II
- Practicum in Construction Tech



- Audio/Video Production II
- Graphic Design & Illustration II
- Commercial Photography II
- Fashion Design II
- Animation I



- Culinary Arts
- Advanced Culinary Arts
- Practicum in Culinary Arts



- Computer Programing
- AP Computer Science
- Practicum in Information Technology Solutions



- Welding II
- Practicum in Manufacturing

(B) 4 English elective credits by selecting 3 levels in one of the following areas:

- Debate

(C) 4 technology applications credits

(D) a coherent sequence of 4 credits from (A), (B) or (C).

## COHERENT SEQUENCES IN BUSINESS & INDUSTRY ENDORSEMENTS

### Agriculture, Food, and Natural Resources Coherent Sequences

#### Business and Industry Endorsement

VET MEDICAL APPLICATIONS		
Prerequisite(s)	Required Prerequisite	Advanced Course
Any CTE courses totaling 4 or more credits in this sequence.	1 credit in Ag, Food & Natural Recourses cluster.	Veterinary Medical Applications (1)

ADVANCED ANIMAL SCIENCE		
Prerequisite(s)	Required Prerequisite	Advanced Course
Any CTE courses totaling 4 or more credits in this sequence.	Veterinary Medical Applications (1)	Advanced Animal Science (1)

AG STRUCTURES DESIGN & FABRICATION		
Prerequisite(s)	Required Prerequisite	Advanced Course
Any CTE courses totaling 4 or more credits in this sequence.	1 credit in Ag, Food & Natural Recourses cluster.	Ag Structures Design & Fabrication (1)

AG EQUIPMENT DESIGN & FABRICATION		
Prerequisite(s)	Required Prerequisite	Advanced Course
Any CTE courses totaling 4 or more credits in this sequence.	1 credit in Ag, Food & Natural Recourses cluster.	Ag Equipment Design & Fabrication (1)

AG POWER SYSTEMS		
Prerequisite(s)	Required Prerequisite	Advanced Course
Any CTE courses totaling 4 or more credits in this sequence.	1 credit in Ag, Food & Natural Resources cluster.	Agricultural Power Systems (2)

PRACTICUM IN AG, FOOD & NATURAL RESOURCES		
Prerequisite(s)	Required Prerequisite	Advanced Course
Any CTE courses totaling 4 or more credits in this sequence.	1 credit in Ag, Food & Natural Resources cluster.	Practicum in Ag, Food & Natural Resources (2-3)

## Architecture & Construction Coherent Sequences

### Business and Industry Endorsement

CONSTRUCTION TECHNOLOGY II		
Prerequisite(s)	Required Prerequisite	Advanced Course
Principles of Construction (1)	Construction Technology I (2)	Construction Technology II (2)

PRACTICUM IN CONSTRUCTION TECHNOLOGY		
Prerequisite(s)	Required Prerequisite	Advanced Course
Principles of Construction (1)	Construction Technology I (2)	Practicum in Const Tech (2)

Arts, A/V Technology, & Communications Coherent Sequences  
Business and Industry Endorsement

AUDIO VIDEO PRODUCTION II		
Prerequisite(s)	Required Prerequisite	Advanced Course
Any CTE courses totaling 4 or more credits in this sequence.	AV Production I (1) (with lab 2)	AV Production II (1) (with lab 2)

COMMERCIAL PHOTOGRAPHY II		
Prerequisite(s)	Required Prerequisite	Advanced Course
Any CTE courses totaling 4 or more credits in this sequence.	Commercial Photography I (1) (with lab 2)	Commercial Photography II (1) (with lab 2)

GRAPHIC DESIGN AND ILLUSTRATION II		
Prerequisite(s)	Required Prerequisite	Advanced Course
Any CTE courses totaling 4 or more credits in this sequence.	Graphic Design and Illustration I (1) (with lab 2)	Graphic Design and Illustration II (1) (with lab 2)

FASHION DESIGN II		
Prerequisite(s)	Required Prerequisite	Advanced Course
Any CTE courses totaling 4 or more credits in this sequence.	Fashion Design (1)	Fashion Design II (1)

DIGITAL ART AND ANIMATION		
Prerequisite(s)	Required Prerequisite	Advanced Course
Any CTE courses totaling 4 or more credits in this sequence.	Digital Arts and Animation (1)	Animation I (1)

## Hospitality & Tourism Coherent Sequences

### Business and Industry Endorsement

CULINARY ARTS		
Prerequisite(s)	Required Prerequisite	Advanced Course
Principles of Hospitality & Tourism (1)	Introduction to Culinary Arts (1)	Culinary Arts (2)

ADVANCED CULINARY ARTS		
Prerequisite(s)	Required Prerequisite	Advanced Course
Principles of Hospitality & Tourism (1) and Introduction to Culinary Arts (1)	Culinary Arts (2)	Advanced Culinary Arts (2)

## Information Technology Coherent Sequences

### Business and Industry Endorsement

COMPUTER PROGRAMMING		
Prerequisite(s)	Required Prerequisite	Advanced Course
Any CTE courses totaling 4 or more credits in this sequence.	Web Technologies (1)	Computer Programming (1)

AP COMPUTER SCIENCE		
Prerequisite(s)	Required Prerequisite	Advanced Course
Web Technologies (1) and 1 other CTE course in this sequence.	Computer Programming (1)	AP Computer Science (1)



WEB GAME DEVELOPMENT		
Prerequisite(s)	Required Prerequisite	Advanced Course
Web Technologies (1) and 1 other CTE course in this sequence.	Computer Programming (1)	Web Game Development (1)

PRACTICUM IN INFORMATION TECHNOLOGY		
Prerequisite(s)	Required Prerequisite	Advanced Course
1 credit in any CTE course.	Computer Programming (1)	Practicum in Information Technology (2)

## Manufacturing Coherent Sequences

### Business and Industry Endorsement

WELDING II		
Prerequisite(s)	Required Prerequisite	Advanced Course
Introduction to Welding (1)	Welding I (2)	Welding II (2)

PRACTICUM IN MANUFACTURING		
Prerequisite(s)	Required Prerequisite	Advanced Course
Course related to manufacturing	Course related to manufacturing	Practicum in Manufacturing

## Multidisciplinary Endorsement

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**A student may earn a Multidisciplinary Studies endorsement by completing foundation and general endorsement requirements and:**

- (A) 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; or



- ☐ Veterinary Medical Applications
- ☐ Advanced Animal Science
- ☐ Ag Structures Design & Fabrication
- ☐ Ag Equipment Design & Fabrication
- ☐ Ag Power Systems
- ☐ Practicum in Ag, Food, & Natural Res



- ☐ Construction Technology II
- ☐ Practicum in Construction Technology



- ☐ Audio/Video Production II
- ☐ Graphic Design & Illustration II
- ☐ Commercial Photography II
- ☐ Fashion Design II
- ☐ Animation I



- Culinary Arts
- Advanced Culinary Arts



- Welding II
- Practicum in Manufacturing



- Engineering Design & Presentation I
- Engineering Design & Presentation II
- Robotics I
- Robotics II



- Instructional Practices
- Practicum in Education & Training



- Health Science Theory/Clinical
- Practicum in Health Science
- Anatomy and Physiology



- Cosmetology I
- Cosmetology II



- Law Enforcement II
- Forensic Science

- (B) 4 credits in each of the four foundation subject areas to include English IV, and chemistry and/or physics, or
- (C) 4 credits in AP or dual credit selected from English, math, science, social studies, economics, LOTE, or fine arts.

## Public Services Endorsement

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A student may earn a Public Services endorsement by completing foundation and general endorsement requirements and:

A coherent sequence of courses for 4 or more credits in CTE that consists of at least 2 courses in the same career cluster including at least 1 advanced CTE course. The courses may be selected from courses in all CTE career clusters or CTE innovative courses approved by the commissioner of education. The final course in the sequence must be selected from one of the following CTE career clusters:



- ☐ Instructional Practices in Education & Training
- ☐ Practicum in Education & Training



- ☐ Health Science Theory/Clinical
- ☐ Practicum in Health Science
- ☐ Anatomy and Physiology



- ☐ Cosmetology I
- ☐ Cosmetology II



- ☐ Law Enforcement II
- ☐ Forensic Science

## Education & Training Coherent Sequences

### Public Services Endorsement

INSTRUCTIONAL PRACTICES		
Prerequisite(s)	Required Prerequisite	Advanced Course
Any CTE courses totaling 4 or more credits in this sequence.	Principles of Education & Training (1)	Instructional Practices (2)

PRACTICUM IN EDUCATION & TRAINING		
Prerequisite(s)	Required Prerequisite	Advanced Course
Principles of Education & Training (1)	Instructional Practices (2)	Practicum in Education & Training (2)

## Health Science Coherent Sequences

### Public Services Endorsement

HEALTH SCIENCE THEORY/CLINICAL		
Prerequisite(s)	Required Prerequisite	Advanced Course
Any CTE courses totaling 4 or more credits in this sequence.	Principles of Health Science (1)	Health Science Theory/Clinical (2)

PRACTICUM IN HEALTH SCIENCE		
Prerequisite(s)	Required Prerequisite	Advanced Course
Principles of Health Science (1)	Health Science Theory/Clinical (2)	Practicum in Health Science (2)

ANATOMY & PHYSIOLOGY		
Prerequisite(s)	Required Prerequisite	Advanced Course
Any CTE courses totaling 4 or more credits in this sequence.	Any course in this cluster.	Anatomy & Physiology (1)

## Human Services Coherent Sequences

### Public Services Endorsement

COSMETOLOGY I		
Prerequisite(s)	Required Prerequisite	Advanced Course
Any CTE courses totaling 4 or more credits in this sequence.	Introduction to Cosmetology (1)	Cosmetology I (2)

COSMETOLOGY II		
Prerequisite(s)	Required Prerequisite	Advanced Course
Introduction to Cosmetology (1)	Cosmetology I (2)	Cosmetology II (2)

## Law, Public Safety, Corrections Coherent Sequences

### Public Services Endorsement

LAW ENFORCEMENT II		
Prerequisite(s)	Required Prerequisite	Advanced Course
Principles of Law, Public Safety, Corrections & Security (1), and any CTE courses totaling 4 or more credits in this sequence.	Law Enforcement I (1)	Law Enforcement II (1)

FORENSIC SCIENCE		
Prerequisite(s)	Required Prerequisite	Advanced Course
Principles of Law, Public Safety, Corrections & Security (1), and any CTE courses totaling 4 or more credits in this sequence.	Law Enforcement I (1)	Forensic Science (1)

## STEM Endorsement (Science, Technology, Engineering & Math)

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A student may earn a STEM endorsement by completing foundation and general endorsement requirements including Algebra II, chemistry, and physics and:

- (A) a coherent sequence of courses for 4 or more credits in CTE that consists of at least 2 courses in the same career cluster including at least one advanced CTE course. The courses may be selected from all CTE career clusters or CTE innovative courses approved by the commissioner of education. The final course in the sequence must be selected from the STEM career cluster.



- ☐ Engineering Design & Presentation I
- ☐ Engineering Design & Presentation II
- ☐ Robotics I
- ☐ Robotics II
- ☐ AP Computer Science

- (B) A total of **5 credits in math** by successfully completing Algebra I, geometry, Algebra II and 2 additional math courses for which Algebra II is a prerequisite, or

- (C) A total of **5 credits in science** by successfully completing biology, chemistry, physics, and 2 additional science courses, or

- (D) In addition to Algebra II, chemistry, and physics, a coherent sequence of 3 additional credits from no more than 2 of the areas listed in (A), (B), and (C)



## STEM (Science, Technology, Engineering & Math) Coherent Sequence

### STEM (Science, Technology, Engineering and Math) Endorsement

ENGINEERING DESIGN & PRESENTATION I		
Prerequisite(s)	Required Prerequisite	Advanced Course
Any CTE courses totaling 2 or more credits in this sequence.	Principles of Applied Engineering (1)	Engineering Design & Presentation I (1)

ENGINEERING DESIGN & PRESENTATION II		
Prerequisite(s)	Required Prerequisite	Advanced Course
Principles of Applied Engineering (1) or another applicable CTE course.	Engineering Design & Presentation I (1)	Engineering Design & Presentation II (2)

ROBOTICS I		
Prerequisite(s)	Required Prerequisite	Advanced Course
Any CTE courses totaling 4 or more credits in this sequence.	One course from the Construction Trades, Manufacturing, STEM, or Information Technology Clusters. (1)	Robotics (1)

ROBOTICS II		
Prerequisite(s)	Required Prerequisite	Advanced Course
One course from the Construction Trades, Manufacturing, STEM, or Information Technology Clusters. (1)	Robotics (1)	Robotics II (1)

AP Computer Science		
Prerequisite(s)	Required Prerequisite	Advanced Course
Any CTE courses totaling 4 or more credits in this sequence.	Any course from the STEM cluster.	AP Computer Science (1)

## ENGLISH LANGUAGE ARTS

### ENGLISH I

011020

Level 1

Grade Level: 9

Credit: 1

Welcome to a world filled with the excitement of reading world literature, including short stories, novels, nonfiction, and poetry by American authors as well as classic works such as *Romeo and Juliet* and *The Odyssey*. Students will work to increase their skills in listening, speaking, reading, writing, and thinking to enhance their learning across all subjects and throughout their lives.

### ENGLISH I— Honors

011010

Level 3

Grade Level: 9

Credit: 1

Prerequisite: Summer Reading & Dept. Approval

This course offers an integrated approach to literature, writing, and grammar. The students will use short stories, *Romeo and Juliet*, *The Odyssey*, additional novels, poetry, and nonfiction selections as springboards for writing and thinking. The conventions of written English are emphasized through the context of the student's own writing and speaking. Novel activities emphasizing "literary literacy", vocabulary skills, and similar competencies are interspersed throughout the course. Most exercises involve higher-level thinking skills. Students and parents should understand that any course labeled Honors is a college preparatory course. Reading selections are at a mature level, and the curriculum is rigorous. In addition, students will be required to write course specific essays and answer higher level multiple choice questions in a strictly timed setting. All work and projects must be completed on time.

### ENGLISH II

012020

Level 1

Grade Level: 10

Credit: 1

Students will read and respond to a variety of contemporary world literature and nonfiction, including works by Shakespeare, Sophocles, O'Henry, Poe, T.H.White, Tennyson, and a variety of contemporary Texas authors. This course includes a review of language skills, the teaching of intermediate composition skills, and an examination of literary themes and forms. Literary studies will cover the short story, novel, poetry, drama, and non-fiction. Emphasis in both semesters will be placed on vocabulary development, composition skills, close reading, and critical writing skills. EOC-assessed skills will continue to be emphasized with strong focus on the persuasive and expository essay.

## ENGLISH II— Honors

012010

Grade Level: 10

Level 3

Credit: 1

Prerequisite: English I, Summer Reading & Dept. Approval

Students will advance literary analysis and writing skills acquired in Honors English I, and extend their study of vocabulary, the short story, the novel, poetry, and drama. Considerable time will be devoted to the development of critical reading skills with numerous requirements for outside reading. Composition will support all literary study. During second semester, attention will be given to preparation for English III-AP Language and Composition and the AP Language and Composition Test. Honors is a college preparatory course. Reading selections are at a mature level, and the curriculum is rigorous. Student work and projects will be graded stringently based on literary relevance. In addition, students will be required to write course specific essays and answer higher level multiple choice questions in a strictly timed setting. All work and projects must be completed on time and are expected to be exemplary.

## ENGLISH III

013020

Grade Level: 11

Level 1

Credit: 1

Students read novels and nonfiction by American authors, including Poe, Fitzgerald, Hemingway, Hawthorne, Thoreau, Whitman, and Miller. The emphasis is on reading, writing, and thinking. Students will focus on academic and commonly tested SAT and ACT vocabulary, test taking skills, résumé writing, and scholarship essays.

## ENGLISH III—AP (AP English Language and Composition)

013010

Grade Level: 11

Level 3

Credit: 1

Prerequisite: English I/II, Summer Reading, & Dept. Approval

This course is designed to prepare motivated students for the AP English Language exam given at the end of the course in May. The main focus is on close reading and analysis of rhetoric and persuasion. Students will also become more familiar with classic literature, as well as more modern readings, giving students the opportunity to hone their thinking and writing skills. Students and parents should understand that AP classes are considered “college level” and so will many of these readings. Some will deal with controversial and mature subjects, many with frank language that some could find objectionable. In addition, students will be required to write course specific essays and answer higher level multiple choice questions in a strictly timed setting. All work and projects must be completed on time. Students are expected to complete the summer assignment prior to entering the class in the fall. Students are required to take the AP English Language exam at the end of the course.

## ENGLISH IV

014020

Level 1

Grade Level: 12

Credit: 1

This course includes a survey of the major literary works by English writers, as well as the study of composition, which culminates in a formal writing. Students understand major literary works which dominate an age and the various literary devices employed by writers. This course covers English literature from the Anglo-Saxon period to the Modern period.

## ENGLISH IV - COLLEGE PREPARATORY ENGLISH LANGUAGE ARTS

014100 (CPELA - CP110100)

Level 1

Grade Level: 12

Credit: 1

Prerequisite: English I + EOC, English II + EOC, English III

This course is for seniors whose performance on measures indicate the student is not ready to perform entry-level college coursework in English. This course addresses a variety of topics needed to prepare students for success in college-level English. Successful completion of this course grants the student an exemption to TSI requirements for English at the partnering institution.

## ENGLISH IV—AP (AP English Literature)

014010

Level 3

Grade Level: 12

Credit: 1

Prerequisite: English I/II/III, Summer Reading & Dept. Approval

AP English Literature and Composition is designed to engage students in the careful reading and critical analysis of imaginative literature, consisting of approximately 50% poetry and 50% prose. Through the close reading of selected texts, students deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students consider a work's structure, style, and themes, as well as the use of figurative language, imagery, symbolism, and tone. Students are required to take the AP exam for this course at the end of the school year.

Students and parents should understand that any course labeled AP is a class equivalent to a college course. Reading selections are at a mature level, and the curriculum is rigorous. Student work will be graded stringently. In addition, students will be required to write course-specific essays and answer higher-level multiple choice questions in a strictly timed setting. All work and projects must be completed on time for credit. There will almost always be an outside reading or assignment in progress. Dedication and work ethic are required for success in the course.

#### ENGLISH IV - COMPOSITION I (DUAL CREDIT)

ENG4DC (Semester 1)

Level: 2

Prerequisite: English I/II/III

Grade Level: 12

Credits: ½ (High School)

3 hours (College) ENGL 1301

#### **MUST PAY TUITION and BUY BOOKS**

ENGL 1301. Composition I. (3-1-3). Principles and techniques of written, expository, and persuasive composition; analysis of literary, expository, and persuasive texts; and critical thinking. The first half of freshman composition encourages process writing. Using computer technology, students write essays that result from their evaluating, analyzing, and synthesizing experience and texts. The course requires a lab component. Prerequisite: College readiness in reading and writing required. On the high school side, students will complete a research paper this semester.

#### ENGLISH IV - COMPOSITION II (DUAL CREDIT)

ENG4DC (Semester 2)

Level: 2

Prerequisite: DC English Composition I (ENGL 1301)  
or score of 3+ on English Lang AP Exam

Grade Level: 12

Credits: ½ (High School)

3 hours (College) ENGL 1302

#### **MUST PAY TUITION and BUY BOOKS**

ENGL 1302. Composition II. (3-1-3). The course further develops principles and techniques of written, expository, and persuasive composition begun in English 1301 through the analysis of mainly non-fiction texts, with a smaller emphasis on fiction, poetry, or drama. Competence in these areas will be attained through expository and persuasive essay writing, oral presentations, the use of research methods, both print and electronic, critical thinking and the writing of a research paper. This course requires a lab component.

#### DEBATE I – IV

011210, 012210, 013210, 014210

Level: 1

Grade Level: 9-12

Credit: 1

Students study an argument from different viewpoints to understand argumentation, to develop arguments logically, to improve speaking skills, and to do research. The course will include cross-examination for problem solving. UIL participation is required in Debate II-IV. Debate IV is for local credit only. This is a challenging course.

#### PROFESSIONAL COMMUNICATIONS

015001/2

Level 1

Grade Level: 9-12

Credit: ½

This course blends written, oral, and graphic communication in a career-based environment. Careers in the global economy require individuals to be creative and have a strong background in computer and technology applications, a strong and solid academic foundation, and a proficiency in professional oral and written communication. Within this context, students will be expected to develop and expand the ability to write, read, edit, speak, listen, apply software applications, manipulate computer graphics, and conduct Internet research.

## MATHEMATICS

### ALGEBRA I & LAB

ALGLABBLK (020120 / ALGLAB )

Level 1

(Class meets every day)

Grade Level: 9

Credit: 1 state + 1 local

Students will meet daily to solve linear and quadratic functions by using a variety of methods. The study of real numbers and problem solving is emphasized.

### ALGEBRA II

022230

Level 1

Prerequisite: Algebra I

Grade Level: 10-12

Credit: 1

This course extends what students learned in Algebra I by studying equations and functions of higher degree than those covered in Algebra I. Students will solve rational, exponential, and square root functions using graphs, tables, and algebraic methods.

### ALGEBRA II— Honors

022020

Level 3

Prerequisite: Algebra I

Grade Level: 10-12

Credit: 1

This course covers Algebra II at an accelerated pace. This allows topics to be covered in greater depth. Online assignments and projects will be required. Most exercises involve higher-level thinking skills. This is a college preparatory class.

### GEOMETRY

023020

Level 1

Prerequisite: Algebra I

Grade Level: 10-12

Credit: 1

This course includes the study of points, lines, and planes in space. Students will apply Algebra skills to topics including 2 dimensional shapes and 3 dimensional figures.

### GEOMETRY— Honors

023040

Level 3

Prerequisite: Algebra 1

Grade Level: 9-12

Credit: 1

This course is an accelerated Geometry course which allows topics to be covered in greater depth. Special topics of Geometry are considered. Most exercises involve higher-level thinking skills. This is a college preparatory class.

### STATISTICS

024080

Level 1

Prerequisite: Algebra I

Grade level: 11-12

Credit: 1

Student will broaden their knowledge of variability and statistical processes. Students will connect data and statistical processes to real-world situations. In addition, students will extend their knowledge of data analysis.

### ALGEBRAIC REASONING

024090

Level 1

Prerequisite: Algebra I

Grade level: 11-12

Credit: 1

Students will build on the knowledge and skills for mathematics in Kindergarten-Grade 8 and Algebra I. Students will broaden their knowledge of multiple representations and linear, quadratic, square root, rational, cubic, cube root, exponential, absolute value, and logarithmic functions. Students will study these functions through explorations of patterns and structure, composition of functions, number and algebraic methods, and modeling from data.

### PRE CALCULUS

024030

Level 2

Prerequisite: Algebra I, Algebra II and Geometry

Grade Level: 11-12

Credit: 1

This course includes the study of higher level topics of mathematics. Students will use functions and symbolic reasoning to connect ideas in Geometry, Algebra II, Trigonometry and Beginning Calculus. Students will cover one section per day.

### PRE CALCULUS— Honors

024010

Level 3

Prerequisite: Algebra I, Algebra II and Geometry

Grade level: 11-12

Credit: 1

This course consists of an accelerated pre-calculus course, which allows topics to be covered in greater depth at a much faster pace. Students will be expected to cover material at a quicker pace and to a great depth. Most exercises involve higher-level thinking skills. This is a college preparatory class.

### COLLEGE ALGEBRA (DUAL CREDIT)

024061 (semester 1)

Level 2

Prerequisite: Algebra I/II, Geometry, Pre-Cal  
(Teacher recommendation only if no Pre Cal)

Grade: 11-12

Credit: ½ (High School)

3 (College) MATH 1314

### **MUST PAY TUITION and BUY BOOKS**

This course is a further study of quadratics and polynomial functions; rational, logarithmic, and exponential functions; progressions, sequences and series. Students must meet college entrance requirements. **Students are responsible for all tuition, fees and books.** This is a college course.

### ELEMENTARY STATISTICS (DUAL CREDIT)

024062 (semester 2)

Level 2

Prerequisite: Algebra I/II & Geometry

Basic algebra skills are needed for this course.

Students who have successfully completed Algebra II should have the necessary algebra skills

Grade: 11-12

Credit: ½ (High School)

3 (College) MATH 1342

### **MUST PAY TUITION and BUY BOOKS**

This course is a study of presentation and interpretation of data, probability, sampling correlation and regression, analysis of variance, and the use of statistical software. Students must meet college entrance requirements. **Students are responsible for all tuition, fees and books.** This is a college course.

### AP STATISTICS

024050

Level 3

Prerequisite: Algebra I/II & Geometry, Teacher Recommendation

Grade Level: 11-12

Credit: 1

AP Statistics involves the major concepts and tools for collecting, analyzing and drawing conclusions from data. An introductory statistics course is often required for college majors such as social sciences, health sciences and business majors. Students are required to take the AP Statistics exam at the end of the course. This is a college-level course.

### AP CALCULUS (AB)

024020

Level 3

Prerequisite: Pre-Calculus

Grade Level: 12

Credit: 1

This course will include the study of limits, derivatives, and integrals. These topics will be used to solve maximum-minimum problems, area and volumes relating to curves, and other applications to real life problems. Students are required to take the AP Calculus AB exam at the end of the course. This is a college-level course.

### COLLEGE PREPARATORY MATH

024100 (CPMAT - CP111200)

Level 1

Prerequisite: Algebra II

Grade Level: 12

Credit: 1

This course is for seniors whose performance on measures indicates that the student is not ready to perform entry-level college coursework in math. This course addresses a variety of mathematical topics needed to prepare students for success in college-level math. Successful completion of this course grants the student an exemption to TSI requirements for math at the partnering institution.

### MATHEMATICAL MODELS WITH APPLICATIONS

024040

Level 1

Prerequisite: Algebra I, Geometry and Teacher/Admin. Rec.

Grade Level: 10-12

Credit: 1

This course will concentrate on studying real life problems using graphs, statistical data, and algebraic methods. Students will use Algebra and Geometrical models to describe and solve problems.



## SCIENCE

### INTEGRATED PHYSICS AND CHEMISTRY (IPC)

031020

Grade Level: 9

Level 1

Credit: 1

An entry level science course intended for students with little or no previous instruction in physics or chemistry. IPC is best designed for students needing instruction in the basic principles of physics and chemistry prior to further course work in these science subjects.

### BIOLOGY I – Honors

032030

Grade Level: 9

Level 3

Credit: 1

Content consists of an in-depth study of the structure and function of living systems. This course provides insight into the finite nature of resources and interdependence of living systems to each other and biotic systems. Provides basic information needed for AP Biology. Most exercises involve higher-level thinking skills. This is a college preparatory class.

### CHEMISTRY I

033010

Grade Level: 10-12

Level 1

Credit: 1

Prerequisite: IPC & Algebra I

In Chemistry, students conduct field and laboratory investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students study a variety of topics that include: characteristics of matter; energy transformations during physical and chemical changes; atomic structure; periodic table of elements; behavior of gases; bonding; nuclear fusion and nuclear fission; oxidation-reduction reactions; chemical equations, solutes; properties of solutions; acids and bases; and chemical reactions.

### BIOLOGY I

032020

Grade Level: 11

Level 1

Credit: 1

Recommended local prerequisites: IPC & Chemistry

Students gain an understanding of the complex interactions with the living and non-living environments and their role in these interactions. Lab investigations are required.

### CHEMISTRY I – Honors

033020

Level 3

Prerequisite: Biology I Honors & Algebra I

Grade Level: 10-12

Credit: 1

Honors Chemistry is a course intended to prepare students for AP Chemistry. Students will conduct field and laboratory investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students will complete an in depth study of a variety of topics which include: characteristics of matter; energy transformations during physical and chemical changes, atomic structure; periodic table of elements; behavior of gases; chemical bonding; nuclear fission and nuclear fusion; oxidation-reduction reactions; chemical equations; properties of solutions; acids and bases; and chemical reactions. Most exercises involve higher-level thinking skills. This is a college prep class.

### PRINCIPLES OF TECHNOLOGY (PHYSICS I)

121050

Level 1

Prerequisite: Two courses in Science and Algebra I

Grade Level: 11-12

Credit: 1

A physics course designed to provide a study in force, work, rate, resistance, energy, power, and force transformers as applied to mechanical, fluid, thermal, and electrical energy that comprise simple and technological devices and equipment. The course reinforces the mathematics applications a student needs to understand to apply the principles being studied.

### PHYSICS I – Honors

034110

Level 3

Prerequisite: Biology I, Algebra I, & Geometry  
Algebra II or above (concurrent)

Grade Level: 11-12

Credit: 1

Mathematical relationships are used to develop and explore the concepts of mechanics, heat, sound, light, electricity, and magnetism. Students will develop critical problem solving skills while gaining a better understanding of the world around them. Emphasis is on preparation for AP Physics. Most exercises involve higher-level thinking skills. This is a college preparatory class.

### ENVIRONMENTAL SYSTEMS

031010

Level 1

Prerequisites: IPC

Grade Level: 10-12

Credit: 1

The study of the environment will include the natural cycles and the role of man in the natural cycles. The course will emphasize the finiteness of resources and the importance of man's efforts to protect them.

### ENVIRONMENTAL SCIENCE—AP

031110

Level 3

Prerequisite: Biology AND Chemistry or Physics

Grade Level: 11-12

Credit: 1

The AP Environmental Science course provides students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. Students in this course are required to take the AP exam.

### BIOLOGY—AP

032060

Level 3

Prerequisite: Biology I Honors

Grade Level: 10-12

Credit: 1

This AP course is designed to be the equivalent of a college introductory course usually taken by biology majors during their first year. The textbook for the AP course will be a college level text and the students will conduct labs equivalent to those done by college students. There is a two-hour lab requirement one night a week. Biology AP includes those topics regularly covered in a college biology course for majors. Students are required to take the AP exam at the end of the school year. This is a college-level course.

### CHEMISTRY—AP

033030

Level 3

Prerequisite: Chemistry I Honors

Grade Level: 11-12

Credit: 1

AP Chemistry is equivalent to the general chemistry course taken during the first year of college. Topics covered include: atomic structure and bonding, states of matter, chemical reactions and stoichiometry, kinetics, equilibria, thermodynamics, and electrochemistry. AP Chemistry involves a rigorous laboratory component, including maintaining a laboratory notebook. The student is required to take the AP exam at the end of the school year. This is a college-level course.

### PHYSICS 1—AP

034220

Level 3

Prerequisite: Physics Honors, Pre-Calculus (concurrent),  
College Alg/Stat (concurrent)

Grade Level: 11-12

Credit: 1

AP Physics 1 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of physics through inquiry-based investigations as they explore these topics: kinematics; dynamics; circular motion and gravitation; energy; momentum; simple harmonic motion; torque and rotational motion; electric charge and electric force; DC circuits; and mechanical waves and sound. This course corresponds to the college courses typically taken by biology, premed, biochemistry and other life-science majors. High emphasis is placed on advanced level critical thinking and problem solving. Students who enroll are required to take the AP exam.

ANATOMY & PHYSIOLOGY of HUMAN SYSTEMS (Dual Credit)

030420 – DC

Level 2

Prerequisite: Biology, Chemistry, and Physics Science Credit

Grade Level: 12

Credit: 1 (High School)

8 Credit Hours: (College)

Fall: BIOL 2301/2101

Spring: BIOL 2302/2102

**MUST PAY TUITION and BUY BOOKS**

Students will conduct laboratory investigations and fieldwork, use scientific methods during investigations, and make informed decisions using critical thinking and problem solving. Topics will be presented through an integration of biology, chemistry, and physics. Students will study the structures and functions of the human body and body systems and will investigate body's responses to forces, maintenance of homeostasis, electrical interactions, transport systems, and energy systems. This is a college level course.

**The Dual Credit A&P will have a lab requirement—two hours, one night per week. Additionally, the study of each of the listed areas will be more intensive in the Dual Credit A&P class.**

ADVANCED ANIMAL SCIENCE (satisfies 1 credit of Advanced Science)

111030

Level: 1

Prerequisite: Biology, Chemistry, and Physics

Recommended prerequisite: two credits of science and a minimum of one credit from the courses in the Agriculture, Food, and Natural Resources cluster

Grade Level: 11-12

Credit: 1

To be prepared for careers in the field of animal science, students need to obtain academic skills and knowledge, acquire knowledge and skills related to animal systems, and develop knowledge and skills regarding career opportunities, entry requirements, and industry standards. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings. This course examines the interrelatedness of human, scientific, and technological dimensions of livestock production. Instruction is designed to allow for the application of scientific and technological aspects of animal science through field and laboratory experiences.

FORENSIC SCIENCE (CTE Credit) (satisfies 1 credit of Advanced Science)

140030

Level: 1

Recommended prerequisites: Principles of Law, Public Safety, Corrections, and Security; and Law Enforcement I

Grade Level: 11-12

Credit: 1

This course uses a structured and scientific approach to the investigation of crimes. Students will learn terminology and investigative procedures. Using scientific methods, students will collect and analyze evidence through case studies and simulated crime scenes.

FOOD SCIENCE (CTE Credit) (satisfies 1 credit of Advanced Science)

FOODSCI

Level: 1

General requirements: The course is recommended for students in Grades 11-12.

Recommended prerequisites: three units of science.

Grade Level: 11-12

Credit: 1

In Food Science students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Food Science is the study of the nature of foods, the causes of deterioration, the principles underlying food processing, and the improvement of foods for the consuming public.

## SOCIAL STUDIES

### WORLD GEOGRAPHY

042020

Level 1

Grade Level: 9

Credit: 1

The student shall be provided with the opportunity to compare physical and cultural geography using geographical terminology. The course of study will cover the nature of geography, the physical setting of the earth, interactions of physical environments, and urban analysis.

### HUMAN GEOGRAPHY—AP

042220

Level 3

Grade Level: 9-12

Credit: 1

Prerequisites: Summer Assignment and Department Approval

The AP Human Geography course is equivalent to an introductory college-level course in human geography. The course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine socioeconomic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications. Students in this course are required to take the AP exam. (This course will satisfy the World Geography graduation requirement.) This is a college-level course.

### UNITED STATES GOVERNMENT

044021/2 (one-semester course; fall/spring)

Level 1

Grade Level: 10

Credit: ½

United States Government is a study of the national government with special attention directed to the executive, legislative, and judicial branches. The primary emphasis of the course focuses on the historical development, organization, and functions of each branch.

### ECONOMICS

044011/2 (one-semester course; fall/spring)

Level 1

Grade Level: 10

Credit: ½

This course introduces students to economics as related to the American free enterprise system; and how the forces of supply and demand determine prices. The student will also study the role of financial institutions in saving, investing, and borrowing. The student will be able to compare the U.S. capitalist system with traditional and command economics. Economics strives to prepare students for their role in the American free enterprise system.

## WORLD HISTORY—AP

Course 042110

Level 3

Grade Level: 10-12

Credit: 1

The course emphasizes relevant factual knowledge deployed in conjunction with leading interpretive issues and types of historical evidence. This course focuses primarily on the last thousand years of the global experience, the course builds on an understanding of cultural, institutional, and technological precedents that, along with geography, set the human stage prior to 650 C.E. to Present. Periodization, explicitly discussed, forms the organizing principle for dealing with change and continuity from that point to the present. Specific themes provide further organization to the course, along with the consistent attention to contacts among societies that form the core of world history as a field of study. Students are required to complete the course with the College Board's World History AP Exam. This is a college-level course.

## US HISTORY

041010

Level 1

Grade Level: 11

Credit: 1

This course is a brief recapitulation of eighth grade early American history to 1877, and a more comprehensive concentration on recent American history, starting with the Reconstruction Period and ending with the most current events of American history.

## US HISTORY (DUAL CREDIT)

04101D

Level 2

Prerequisite: World Geography, Government and Economics

Grade: 11-12

Credit: 1 (High School)

6 (College) UT HIS 315K

HIS 315L

**MUST PAY TUITION**

**Online books are provided**

Dual Credit US History is taught cooperatively through the OnRamps Program at University of Texas at Austin and Denison High School. The curriculum is online and supported with face to face instruction from high school faculty. In these two sequential first-year college courses, students study significant themes to uncover the range and depth of the American story from 1492 to present. 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.

## US HISTORY—AP

041020

Level 3

Grade Level: 11

Credit: 1

AP U.S. History is a challenging course that is meant to be the equivalent of an honor's level college course. It is a two-semester survey of American history from the age of exploration to the present. Solid reading and writing skills, along with a willingness to devote considerable time to homework and study are absolutely necessary to succeed. Emphasis is placed on critical and evaluative thinking skills, essay writing, interpretation of primary source materials, and historiography. Students are required to take the AP exam at the end of the school year. This is a college level course.

## WORLD HISTORY

042010

Level 1

Grade Level: 12

Credit: 1

An understanding of the various cultures of the world is an important method of developing a solution to world problems. This course of study will attempt to foster a knowledge and understanding of the different peoples of the world and their cultural history.

## UNITED STATES GOVERNMENT (DUAL CREDIT)

044121 (fall semester)

Level 2

Grade Level: 12

Credit: ½ (High School)

**MUST PAY TUITION and BUY BOOKS**

3 (College) GOVT 2305

Course is taught on DHS campus during the regular school day by a Grayson College instructor. Student is responsible for payment of tuition, fees and books. Students must meet college entrance requirements.

## UNITED STATES GOVERNMENT AND POLITICS—AP

044131/2 (one-semester course; fall/spring)

Level 3

Grade Level: 12

Credit: ½

An effectively designed AP course in U.S. Government and Politics will give students an analytical perspective on government and politics in the United States. This course involves both the studies of general concepts used to interpret U.S. politics and the analysis of specific case studies. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. political reality. While there is no single approach that an AP United States Government and Politics course must follow, certain topics are generally covered in college courses. Students are required to take the AP exam at the end of the school year. This is a college-level course.

## ECONOMICS (DUAL CREDIT)

040122 (spring semester)

Level 2

Grade Level: 12

Credit: ½ (High School)

**MUST PAY TUITION and BUY BOOKS**

3 (College) ECON 2301

Course is facilitated on the DHS campus during the regular school day. Student is enrolled in a college course with instruction delivered online by a Grayson College instructor. Student is responsible for payment of tuition, fees and books. Students must meet college entrance requirements.

## ECONOMICS—AP (Macro)

044111/2 (one-semester course; fall/spring)

Level 3

Grade Level: 12

Credit: ½

The purpose of this course is to give students a thorough understanding of the principles that apply to an economic system as a whole, including national income and price determination, economic performance measures, economic growth, and international economics. The course will help prepare students to pass the AP exam, resulting in the student having the opportunity to receive both high school and college credit for this course. Students will develop study skills that will be the basis for advanced college courses. Students are required to take the AP exam at the end of the school year. This is a college-level course.

## HEALTH AND PHYSICAL EDUCATION

### HEALTH

052021/2 (one-semester course; fall/spring)

Level 1

Grade Level: 9-12

Credit: ½

The student will study physical and mental health and realize the importance of each of these issues. Subject areas will include parts and functions of body systems, senses of the body, physical fitness needs and importance, body hygiene, foods and nutrition, mental health, drugs and alcohol, communicable and non-communicable diseases, malfunctions of the body, immune system of the body, pollution and cancer, CPR and first aid, and current health issues.

### PHYSICAL EDUCATION

PE1/PE2/PE3/PE4

Level 1

Grade Level: 9-12

Credit: 1

Personal fitness classes include fitness activities and textbook instruction in how to develop a personal fitness program, and emphasis is placed on good technique and training. Aerobic activities and sports are used to develop the individual's overall physical fitness.

### ATHLETICS

The following teams are composed of members who will compete with teams from other schools. Tryouts for most teams are arranged by the team coach. The time and location should be posted for students interested in that particular sport. For more information on tryouts call the Athletic Office at 903-462-7620. To remain eligible, a team member must pass all classes.

**All sports require a tryout or coach approval.**

<b>Sports/PE credits at Denison High School</b>	
Athletic Trainer	Golf
Baseball	Marching Band (Sem. 1)
Basketball-Boys	Soccer- Boys
Basketball-Girls	Soccer- Girls
Cheerleading	Softball
Color Guard	Swim Team
Cross Country (Sem. 1—before school)	Tennis
Dance/Drill Team	Track – boys & girls (activity only—no credit)
Football	Volleyball
Powerlifting—boys & girls (activity only—no credit)	



### CHEERLEADING

050070 (year 1 = PE Credit)

050080 (years 2 – 4 = local credit)

Level 1

Grade Level: 9-12

Credit: 1

Cheerleaders must meet and retain UIL eligibility by consistently having passing grades in all classes. A student will make application for candidacy and must successfully pass evaluation procedures as set forth by the cheerleading coaches to be considered a candidate. Cheerleaders are selected in the spring, after a week-long clinic, by the cheerleading coaches. Cheerleaders are required to attend camp every summer and must purchase a variety of workout clothes and other required materials.

### DANCE for PE Credit

DANCE-PE

Level 1

Grade Level: 9-12

Credit: 1

The purpose of this class is to learn dance terms, techniques, choreography, proper stretching, and a variety of dances.

### COLOR GUARD (Year 1 will meet the 1.0 state PE requirement)

COLGRD1 = PE credit; COLGRD 2-4 = Fine Art Credit

Level 1

Grade Level: 9-12

Credit: 1

Prerequisite: Tryouts in April

Color Guard is a performance group that uses a combination of flag, mock rifle, sabers and dance to interpret music. Color Guard performs with the Marching Band at all Marching competitions and all football games. In addition, the Color guard competes indoors during the spring months of the Winter Guard competition circuit.

### BAND I, II-BLK (two years will meet the 1.0 state PE requirement)

MARCH1-2 (Fall = PE) + BAND1-2 (Spring = Fine Art)

Grade Level: 9-10

Credit: ½ PE + ½ Fine Art

Students in the marching band rehearse 6-8 hours per calendar week (outside of the school day) beginning the first week of school until the final marching contest of the season usually around the beginning of November. Summer marching rehearsals begin the last week of July or August 1 depending on the needs of the band program and the school calendar. Marching band students attend all varsity football games including playoff games. Marching rehearsal requirements for playoff games are significantly reduced to 1 or 2 hours per week. Members of competition marching bands participate in 3-5 marching contests as well. Marching bands may advance to the UIL Area and State Marching Championships.

## FINE ARTS

### ART I

061010

Level 1

Grade Level: 9-12

Credit: 1

Students will explore technique and expression and learn to apply individual ideas and express these ideas in visual form for observation by others. They study and learn the mechanics of using lines, colors, shades, and textures, and will be able to apply these.

### ART II

062010

Level 1

Prerequisite: Art I

Grade Level: 10-12

Credit: 1

This course is an advanced art class where the student uses more advanced techniques in creativity to express an awareness and sensitivity of both natural and man-made environments.

### ART III

063010

Level 1

Prerequisite: Art I and II

Grade Level: 11-12

Credit: 1

This course is an advanced art class for the student that places emphasis on individual technique and style in creating original works of art.

### ART IV

064010

Level 1

Prerequisite: Art I, II, III

Grade Level: 12

Credit: 1

An advanced art course that allows the senior level student to center on individual interests and talents that will prepare him/her for college level art work. Each student is involved with planning his/her course load.

### COLOR GUARD (Year 1 will meet the 1.0 state PE requirement)

COLGRD1 = PE credit; COLGRD 2-4 = Fine Art Credit

Level 1

Prerequisite: Tryouts in April

Grade Level: 9-12

Credit: 1

Color Guard is a performance group that uses a combination of flag, mock rifle, sabers and dance to interpret music. Color Guard performs with the Marching Band at all Marching competitions and all football games. In addition, the Color guard competes indoors during the spring months of the Winter Guard competition circuit.

BAND I, II-BLK (two semesters will meet the 1.0 state PE requirement)  
MARCH1-2 (Fall = PE) + BAND1-2 (Spring = Fine Art)

Grade Level: 9-10  
Credit: ½ PE + ½ Fine Art

BAND III, IV  
BAND3-4 (Fine Art Credit)

Grade Level: 11-12  
Credit: 1

The high school band program consists of several performance-based ensembles. Instructional priorities include instrumental technique, musicianship, critical listening, cultural growth, basic music theory, creative self-expression, rehearsal and concert etiquette, self-discipline, responsible citizenship, effective communication, problem solving, and production of quality products. Band students receive instruction on both marching and concert fundamentals. During marching season, students learn marching fundamentals, marching chart reading, how to play and march simultaneously, spatial awareness, kinesthetic awareness and movement memory. A variety of musical styles are performed. Physical conditioning is also emphasized. Students should be in good physical condition to participate. Concert season is ongoing and provides students an opportunity to continue musical growth and experience music literature. Individual, small, and large ensemble concepts and skills are emphasized.

Two or more levels of performing bands are offered at the high school. Students are placed in each level by specific performance criteria including an audition. Performances during the concert season include 3-5 concerts and 3-5 festival performances. Students may also participate in a series of auditions related to the all-state process as well as solo and ensemble contests.

Students in the marching band rehearse 6-8 hours per calendar week (outside of the school day) beginning the first week of school until the final marching contest of the season usually around the beginning of November. Summer marching rehearsals begin the last week of July or August 1 depending on the needs of the band program and the school calendar. Marching band students attend all varsity football games including playoff games. Marching rehearsal requirements for playoff games are significantly reduced to 1 or 2 hours per week. Members of competition marching bands participate in 3-5 marching contests as well. Marching bands may advance to the UIL Area and State Marching Championships.

JAZZ ENSEMBLE I - IV  
061430, 062430, 063430, 064430  
Level 1

Grade Level: 9-12  
Credit: 1

A performance oriented ensemble that focuses on big band literature and proper interpretation of many styles including swing, ballad, Latin and contemporary. Improvisation will be discussed and performed in many different settings. Admission to this group is by audition only and subject to director's discretion. Students who audition for this ensemble must also be enrolled in Band I-IV.

PERCUSSION ENSEMBLE I-IV  
064110, 064210, 064310, 064410  
Level 1

Grade Level 9-12  
Credit: 1

Students in Percussion Ensemble will learn specific techniques related to playing percussion instruments such as snare, drum set, keyboard percussion and accessories. Students will explore various styles and cultures of music through playing individually and in small groups. The Percussion Ensemble will perform at band concerts throughout the school year and compete both in solo and ensemble competitions.

### MUSIC THEORY I

063630

Level 1

Prerequisite: Ability to read and understand music and music symbols

Grade Level: 9-12

Credit: 1

This course enables students to develop an understanding of the theoretical elements of music and their relevance to music composition. Common student expectations include reading and writing music in treble and bass clefs; knowledge of C clefs; identifying chords in major, minor and modal scales; and accurately taking rhythmic and melodic dictation. Students use common cadences in creative composition assignments, compose short musical works, demonstrate an understanding of basic sequences of chord progressions, and perform compositions.

### AP MUSIC THEORY

061630

Level 3

Prerequisite: Music Theory I

Grade Level: 10-12

Credit: 1

This is an advanced placement course covering the fundamentals of music theory, triad and chord building, harmonization of melodies, keyboard harmony, simple modulation, harmonic analysis, ear training and sight singing. Much emphasis will be on the acquisition of part writing and analytical skills. Prerequisites include Music Theory I and a thorough knowledge of all major/minor scales and keys, an understanding of rhythmic patterns in all common time signatures, and the ability to demonstrate this knowledge and understanding on an instrument. Instructor approval required. Students who enroll are required to take the AP exam.

### CLASSICAL GUITAR I - IV

065110/065120/065130/065140

Level 1

**Students must provide their own 6-string acoustic guitar for the class.**

Classical Guitar I is designed to introduce the student to playing the guitar. The class will cover the basic understanding of the guitar, including but not limited to, proper positioning, hand and finger dexterity, right and left hand techniques and basic master chords. Classical Guitar II – IV proceeds to more challenging aspects of the guitar. This course will focus on all styles of Guitar and incorporate techniques for students to continue advancing at a pace to keep them challenged and engaged. The students will learn music theory and will learn to compose and perform songs.

Grade Level 9-12

Credit: 1

### ADVANCED CLASSICAL GUITAR II - IV

066120/066130/066150

Level I

Prerequisites: Classical Guitar 1 and audition with the instructor.

**Student must provide their own 6-string acoustic guitar for the class.**

Grade Level 10-12

Credit: 1

This is an advanced class for students who are selected by the instructor. This class will be accelerated and proceed to more challenging aspects of the guitar. This course will focus on all styles of Guitar and incorporate techniques for students to continue advancing at a pace to keep them challenged and engaged. The students will learn music theory and will learn to compose and perform songs.

**Varsity Mixed Choir I, II, III, IV**

061240, 062240, 0663240, 064240

Level 1

Prerequisite: Director approval and audition required

Grade Level: 10-12

Credit: 1

Varsity Mixed Choir is an **auditioned** choir made up of sophomore through senior men and women. Students enrolled in the course are highly encouraged to audition for the All-State Choir and/or UIL Solo & Ensemble and represent the Denison Choirs in a positive and professional manner. Varsity Mixed Choir travels to UIL Concert & Sight-Reading Contest each year as a varsity choir and also competes in local and regional choral competitions. Membership requires attendance at extra-curricular activities, including concerts, rehearsals, and/or sectionals.

**Junior Varsity Women's Choir I, II, III, IV**

060140, 060240, 060340, 060440

Level 1

Prerequisite: Director approval and audition required

Grade Level: 9-12

Credit: 1

Varsity Women's Choir is an **auditioned** choir open to freshmen through senior women only and specializes in the performance of treble choir music. Previous enrollment in choir is preferred, but not required. Students enrolled in the course will continue development of singing, listening, sight-reading, and music theory skills. Varsity Women's Choir travels to UIL Concert & Sight-Reading Contest as a varsity choir each year and also competes in local and regional choral competitions. Membership requires attendance at extra-curricular activities, including concerts, rehearsals, and/or sectionals.

**Treble Choir I, II, III, IV**

061040, 062040, 063030, 063040

Level 1

Grade Level: 9-12

Credit: 1

Treble Choir is an un-auditioned choir open to freshmen through senior women only and specializes in the performance of treble choir music. Previous enrollment in choir is preferred, but not required. Students enrolled in the course will continue development of singing, listening, sight-reading, and music theory skills. Treble Choir travels to UIL Concert & Sight-Reading Contest as a non-varsity choir each year and also competes in local and regional choral competitions. Membership requires attendance at extra-curricular activities, including concerts, rehearsals, and/or sectionals.

**Men's Choir I, II, III, IV**

061040, 062040, 063030, 063040

Level 1

Grade Level: 9-12

Credit: 1

Men's Choir is an un-auditioned choir open to freshmen through senior men only and specializes in the performance of tenor-bass choir music. Previous enrollment in choir is preferred, but not required. Students enrolled in the course will continue development of singing, listening, sight-reading, and music theory skills. Men's Choir travels to UIL Concert & Sight-Reading Contest as a non-varsity choir each year and also competes in local and regional choral competitions. Membership requires attendance at extra-curricular activities, including concerts, rehearsals, and/or sectionals.

### ROUTE 91 – VOCAL JAZZ ENSEMBLE

060150, 060250, 060350, 060450

Level 1

Prerequisite: Director approval and audition required

Grade Level: 10-12

Credit: 1

Route 91 is an auditioned choir open to men and women and specializes in the performance of jazz music. Previous enrollment in choir is strongly preferred. Students enrolled in the course will continue to develop singing, listening, sight-reading and music theory skills. Jazz choir focuses on performance in the community and surrounding areas. Membership requires attendance at extra-curricular activities such as concerts, rehearsals, and/or sectionals.

### MUSICAL THEATRE

062210

Level 1

Prerequisite: Theatre I, Dance I, or Choir I; **Director Approval Required**

**Does not satisfy State Fine Arts requirement – Local credit only**

Grade Level: 9-12

Credit: 1 local

In this class, students will learn and perform solos, duets, and ensembles from the musical theatre repertoire. Students will explore musical theatre history, forms, and styles. This course will explore the styles of the various musical theatre composers and lyricists of this century. The class will be performance oriented and will require that students learn and perform music of the era being studied. Singing, acting and dancing skills will be developed individually through various exercises, and then combined into routines. You must be in Musical Theatre to be in the Spring Musical.

### THEATRE ARTS I

061020

Level 1

Grade Level: 9-12

Credit: 1

The purpose of this course is to acquaint students with the various aspects of drama and a basic understanding of theatre and its function. The course will cover acting exercises, improvisation, monologues, group performances, playwriting, as well as the history of theatre. Main emphasis in this class will be on performance.

### THEATRE ARTS II - IV

062020, 063020, 064020

Level 1

Prerequisite: Theatre Arts I

Grade Level: 10-12

Credit: 1

This course is designed to emphasize advanced study in acting performance. Students will study various methods of acting, technique-improvisation, extensive scene/character study, student direction, and specific elements of play production. Students will be required to perform in front of an invited audience various times throughout the year, culminating in a one-act class play performance during the fall semester. Note- The ability/willingness to memorize scripted lines will be critical for success in this course.

### TECHNICAL THEATRE I

061120

Grade Level: 9-12

Level 1

Credit: 1

This course will focus on introductory level skills by learning the application and design of Technical Theatre trades. Students will study Technical Theatre basics through elements of design in: theatre/shop safety, theatrical locations, production terms, stage curtains/counterweight fly system, set construction & UIL OAP unit set, painting/color theory, lighting, sound, hair & makeup, costuming, props, and much more. Working in the classroom, theatre, shop and other fine arts locations, this class utilizes Technical Theatre vocabulary through projects, some hands-on experience, and technical concepts of theatrical production.

### TECHNICAL THEATRE II - IV

062120, 063120, 064120

Grade Level: 10-12

Level 1

Credit: 1

Prerequisite: Technical Theatre I

This course is an extension of Technical Theatre I. It is a more advanced look into the technical aspects of the theatre, along with scenic painting, set design, and construction. The advanced technician will study an area of design that is of special interest to develop his/her skills.

### PRODUCTION THEATRE I - IV

061110, 061210, 061310, 061410

Grade Level: 9-12

Level 1

Credit: 1

Prerequisite: Previous level of theatre and audition; **Director Approval Required**

This class will focus on productions & special projects. They will attend competitions at the Texas Thespian Festival during the fall semester and UIL One Act Play contests during the spring semester. The student will work to develop skills of special interest for each production. Students are required to audition each semester. There will be time outside of school hours required for this class.

### THEATRE AND MEDIA COMMUNICATIONS I, II

061510, 061520

Grade Level: 9-12

Level 1

Credit: 1

Prerequisite: **Director Approval Required**

This course combines the knowledge and skills of theatre study with those of digital media. Students learn how to bridge traditional stagecraft with current technology applications to create new media such as animations, digital images, multimedia presentation, digital video, websites, and interactive performances. Students learn valued workplace skills such as how to work in teams, how to think critically, how to maintain motivation, how to plan and document project progress, and how to present their ideas to their audience.

### CHILDREN'S THEATRE

ELEMTH-LC

Grade Level: 10-12

Level 1

Credit: 1 local

Prerequisite: **Director Approval Required**

**Does not satisfy State Fine Arts requirement – Local credit only**

The course provides practical knowledge, skills, and field experience for students potentially interested in Children's Theatre & Special Education Theatre. In the fall semester students will be involved in all phases of mounting a children's touring production which will be performed for DISD elementary schools. In the spring semester students will focus on providing fine arts education to students with disabilities.

### DANCE I

051040

Level 1

Grade Level: 9-12

Credit: 1

The purpose of this class is to learn dance terms, techniques, choreography, proper stretching, and a variety of dances.

### DANCE II - IV

052040, 053040, 054040

Level 1

Grade Level: 10-12

Credit: 1

The purpose of this course is to learn intermediate and advanced levels of dance technique and choreography.

### DANCE PRODUCTION II - IV

052150, 053150, 054150

Level 1

Grade Level: 10-12

Credit: 1

This course will focus on beginning stage/performance craft techniques that are the foundation for production. Students will learn how to execute projects and work on dance and/or musical theater productions. Research in costume and basic production terminology will be taught. This will be a hands-on course that will promote creativity. In addition to class assignments, students will participate in the spring show: Stage crew, box office, lighting, costume/make-up, sound, etc.

### DRILL TEAM (Dance I, II, III, IV)

DRILLTM1 = PE credit; DRILLTM2-4 = FA credit

Level 1

Grade Level: 9-12

Credit: 1

Candidates for drill team must meet the UIL eligibility requirements by having passing grades in all of their classes. No membership in any other D.H.S. organization or particular class is a prerequisite. A student will make application for candidacy and must successfully pass evaluation procedures as set forth by the drill team director to be considered a candidate. Drill team members are selected in December/January for the following year by tryout. Drill team members are required to attend camp every summer and must purchase all of their workout clothes and other required materials by the drill team director and/or constitution.

### DIGITAL ART AND ANIMATION

081080

Level 1

Grade Level: 9-12

Credit: 1

Digital Art and Animation consists of computer images and animations created with digital imaging software. Digital Art and Animation has applications in many careers, including graphic design, advertising, web design, animation, corporate communications, illustration, character development, script writing, storyboarding, directing, producing, inking, project management, editing, and the magazine, television, film, and game industries. Students in this course will produce various real-world projects and animations.



## FOREIGN LANGUAGE

### SPANISH I

072030

Level 1

Grade Level: 9-12

Credit: 1

This course includes an introduction to the Spanish language with an emphasis on basic grammatical concepts, conversational skills, and building a vocabulary base needed for the advanced Spanish levels.

### SPANISH II

073030

Level 1

Grade Level: 10-12

Credit: 1

Prerequisite: Spanish I

This course includes continued development of reading, writing, speaking, and listening skills in Spanish. Emphasis is placed on everyday conversational skills through a variety of learning activities such as songs, videos, and listening activities.

### SPANISH III

074030

Level 2

Grade Level: 11-12

Credit: 1

Prerequisite: Spanish I and II

After a thorough review of previous levels, students will read and converse in Spanish with the goal of developing some degree of fluency.

### SPANISH IV— Honors

075030

Level 3

Grade Level: 12

Credit: 1

Prerequisite: Spanish I, II, and III

Having mastered most grammatical structures in the first three levels, students at this advanced level work to perfect skills needed to do well in college Spanish. This course enables the student to listen, read, write and speak in the target language. The course is instructed entirely in the target language.

### AMERICAN SIGN LANGUAGE I and II

072040/073040 (ASL 1 – 03980100/ASL 2 – 03980200)

Level 1

Grade Level: 9-12

Credit: 1 per course

Students are awarded one unit of credit per level for successful completion of each level. ASL I is offered in the fall and ASL II is offered in the spring.

Acquiring ASL incorporates expressive and receptive communication skills. Students develop these communication skills by using knowledge of the language, including grammar, and culture, communication and learning strategies, technology, and content from other subject areas to socialize, to acquire and provide information, to express feelings and opinions, and to get others to adopt a course of action. While knowledge of other cultures, connections to other disciplines, comparisons between languages and cultures, and community interaction all contribute to and enhance the communicative language learning experience, communication skills are the primary focus of language acquisition.

Students of ASL gain the knowledge to understand cultural practices (what people do) and products (what people create) and to increase their understanding of other cultures as well as to interact with members of those cultures. Through the learning of ASL, students obtain the tools and develop the context needed to connect with other subject areas and to use the language to acquire information and reinforce other areas of study. Students of ASL develop an understanding of the nature of language, including grammar, and culture and use this knowledge to compare languages and cultures and to expand insight into their own language and culture. Students enhance their personal and public lives and meet the career demands of the 21st century by using ASL to participate in Deaf communities in Texas, in other states, and around the world.

### AMERICAN SIGN LANGUAGE III and IV

074040/075040 (ASL 1 – 03980300/ASL 2 – 03980400)

Level 1

Grade Level: 10-12

Credit: 1 per course

Students are awarded one unit of credit per level for successful completion of each level. ASL III is offered in the fall and ASL IV is offered in the spring.

Using age-appropriate activities, students in ASL Level III and Level IV will expand their ability to perform novice tasks and develop their ability to perform the tasks of the intermediate-to-advanced language learner. The intermediate language learner, when dealing with everyday topics, should understand ASL phrases receptively and respond expressively with learned material; sign learned words, concepts, phrases, and sentences; apply acquired knowledge of Deaf cultural norms to the development of communication skills; and apply knowledge of the components of ASL to increase accuracy of expression. Students use expressive and receptive skills for comprehension.

## MISCELLANEOUS

### TEACHER/OFFICE ASSISTANT

150040 / 150010

Grade Level: 12

Prerequisite: Good Attendance and teacher  
and/or administrator approval; Above Average Citizenship

Credit: ½ - 1 local

Students must be courteous, pleasant, honest, dependable, and good-natured. They will perform many functions, including running errands, filing, typing, answering telephone, and assisting new students with the enrollment procedure.

### ENGLISH AS A SECOND LANGUAGE (ESL)

011030, 011040, 011050, 011060

Grade Level: 9-12

Prerequisite: Limited English proficiency

Credit: 1 local

The ESL student will receive instruction on the affective, linguistic, and cognitive components to learn the English language, including comprehension, speaking, reading, and writing, to enable the student to develop English skills, both oral and written; develop self-assurance and a positive identity; receive instruction in other content areas; become acclimated to the school and non-school environments; and become familiar with American customs and heritage.

### PSAT/NMSQT TEST PREPARATION

TESTPREP

Grade Level: 11

Credit: local

Enrollment in this course is by invitation only. The course is designed to provide assistance, to eligible students, to improve scores on the PSAT prior to taking the test in October. This course lasts for the first marking- period. At the end of the course, students may continue in the SAT preparation course, move into a study skills class, or use a junior release, if they qualify.

### SAT/ACT TEST PREPARATION

TESTPREP

Grade Level: 11-12

Credit: ½ - 1 local credit

Students who qualify for the PSAT preparation class have priority enrollment in these classes, should they choose to enroll. Others interested in the course may be enrolled as class size allows (limited at 20 students/semester). In the fall, the class meets for the second and third marking periods. The curriculum is designed to improve student performance on the SAT. The spring class has curriculum designed to focus on the ACT. Students may enroll in one semester or both.

### SENIOR TUTORIAL (release)

166010, 166020, 16605A, 16605B, 166060

1<sup>st</sup>, 2<sup>nd</sup>, 5A, 5B or 6<sup>th</sup>

Grade Level: 12

Credit: None

Seniors may qualify for tutorial periods if they have passed all EOC assessments and do not need a full schedule of classes to meet graduation requirements. Due to scheduling issues, release periods may not be available to all students. Students may remain on campus for scheduled tutorials or may be excused from campus.

### JUNIOR TUTORIAL (release)

167010 / 167060

1<sup>st</sup> or 6<sup>th</sup> periods

Grade Level: 11

Credit: None

Juniors who are on track to graduate may earn the privilege of junior release. Junior release allows students to either arrive late or depart early. To participate in junior release, students must:

- ☐ Pass all state assessments during his/her sophomore year
- ☐ Have an adequate number of credits and be on track to graduate on time
- ☐ Be in good standing on attendance
- ☐ Have no significant discipline issues
- ☐ Students may remain on campus for scheduled tutorials or may be excused from campus.

### AVID (Advancement Via Individual Determination)

AVID, AVID2, AVID3, AVID4

Level 1

Grade Level: 9-12

Credit: 1

In the AVID Elective class, students receive daily instruction and support to prepare them for college from a trained AVID Elective teacher.

#### AVID:

- ☐ Teaches skills and behaviors for academic success
- ☐ Provides intensive support with tutorials and strong student/teacher relationships
- ☐ Creates a positive peer group for students
- ☐ Develops a sense of hope for personal achievement gained through hard work and determination

### SPORTS MEDICINE I

055010

Level 1

Grade Level: 9-12

Credit: 1

The course provides an opportunity for the study and application of the components of sports medicine including sports medicine, concepts of sports injury, athletic healthcare team, sports injury law, sports injury prevention, sports psychology, nutrition, recognition of injuries, emergency action plan, initial injury evaluation, first aid CPR/AED, the injury process, immediate care of athletic injuries of specific body areas, skin conditions in sports, blood borne pathogens, thermal injuries, and specific medical concerns of the adolescent athlete.

Sports Med I will acknowledge student interest in medical progressions and sport related fields of study provides instruction and skills to students who are interested in medical related careers, including sports medicine, athletic training, orthopedics, and physical therapy.

## SPORTS MEDICINE II

055020

Level 1

Prerequisite: Sports Medicine I

Grade Level 10-12

Credit: 1

Sports Med II provides a more in-depth study and application of the components of sports medicine including CPR and AED certification, rehabilitative techniques, therapeutic modalities; prevention, recognition and care of injuries to the head and face, spine, upper extremity, lower extremity, taping and bandaging; injuries to the young athlete; substance abuse in sports; and general medical concerns in sports medicine. Individualized and independent assignments will be included in this course. This course will involve outside of class time homework and time required working with athletes and athletic teams. Students will need to have completed Sports Medicine I in order to take this course.

## ECONOMICS WITH EMPHASIS ON THE FREE ENTERPRISE SYSTEM AND ITS BENEFITS

Grade Level: 12

Credit: ½

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

## PERSONAL FINANCIAL LITERACY

Grade Level: 12

Credit: ½

Personal Financial Literacy is designed to be an interactive and research-based course. The course will teach students to apply critical-thinking and problem-solving skills to analyze decisions involving earning and spending, saving and investing, credit and borrowing, insuring and protecting, and college and postsecondary education and training. There are many references to conducting a cost-benefit analysis for spending and investing decisions. Students evaluate the necessity of the purchase, the quality or value of the purchase or investment compared to other alternatives, and the total cost of acquisition, particularly in the context of financing options. Students also understand the power of both compound growth on investments and compound interest on debt and how these concepts affect the ability to build wealth over time.

## INDEPENDENT STUDY IN ENGLISH: HEBREW SCRIPTURES AND NEW TESTAMENT

Grade Level: 12

Credit: ½ -1

The course content for this independent study course is the Old and New Testaments of the Bible, and its impact on history and literature.

## DUAL CREDIT COURSES

Level 2

Grade Level: 11-12

Credit: ½ - 1

Prerequisite: Must meet college entrance requirements and have administrator approval. Grayson College offers many online college courses allowing students to earn both college and high school credit at the same time. **STUDENTS DO HAVE TO PAY TUITION TO GC AND PURCHASE THE REQUIRED TEXTBOOKS.** Some students may qualify for fee waivers.



### Grayson College Dual/Concurrent Enrollment Program

GC works with DHS to offer courses for high school juniors and seniors who desire to complete college credit while in high school. Some courses are taught face-to-face on the high school campus and some are taught online via the internet.

#### Courses Offered face-to-face on DHS Campus:

ENGL 1301 (Freshman Comp I)  
ENGL 1302 (Freshman Comp II)  
GOVT 2305 (US Govt)  
MATH 1314 (College Algebra)  
MATH 1342 (Elementary Statistics)

#### Courses Offered Online:

HIST 1301 (US History 1—concurrent)  
MUSI 1306 (Music Appreciation)  
ARTS 1301 (Art Appreciation)  
PSYC 2301 (General Psychology)  
SOCI 1301 (Intro to Sociology)  
ECON 2301 (Macro)  
DRAM 1310 (Intro to Theatre)

(other options available on a case-by-case basis)



The Texas Virtual School Network (TxVSN) provides additional opportunities and options for Texas students through online courses. Texas Virtual School Network provides courses to supplement the instructional programs of public schools. Through regular review of student needs, schools may determine that TxVSN courses provide useful instructional options. A student then requests courses, the district-designated TxVSN Site Coordinator reviews and approves course selection, and finally the district-designated purchasing approver allocates funding to pay for the course. This system of checks and balances allows the public school to have an active role in the acquisition of TxVSN courses.

The Texas Virtual School Network (TxVSN) has been established as one method of distance learning. A student has the option, with certain limitations, to enroll in a course offered through the TxVSN to earn course credit for graduation. Depending on the course in which a student enrolls, the course may be subject to the "no pass, no play" rules.

**Prior approval from Principal and Counselor is required for any online courses. In most cases, the student is responsible for the tuition fees for these courses.**

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THE FUTURE IS HERE

## Career and Technical Education

### IMPORTANT FACTS

#### According to a National Education Goals Panel Survey in Texas

- For every 1000 high school students, 86% graduate.
- Of that 86% or 860 students, 50% or 430 attend a four-year college.
- Of that 50%, only 20% or 86 students ever achieve a college level education.
- By the year 2030, between 30-40% of the Texas workforce will be a dropout.
- For every college graduate, there will be three individuals who do not finish high school.

### LEARNING AND EARNING

**DOES SCHOOL REALLY PAY OFF?** The answer is a DEFINITE YES!! One of the largest factors in determining your future is the amount of school you have completed.

Did you know that if you drop out of high school, your average annual income will be only \$28,756? If you stay in school and graduate from high school, your average income jumps to \$37,960?

**Talk about a great return on your investment!** Just think, by staying in school, you are probably going to earn \$9204 more per year than if you dropped out.

The best part is that the more school you complete, the higher your average annual salary could be! The chart below depicts average annual incomes based on the highest level of school completed.

Earnings and unemployment rate by educational attainment, 2018

Education attained	Median usual weekly earnings (\$)	Unemployment rate (%)
Doctoral degree	1,825	1.6
Professional degree	1,884	1.5
Master's degree	1,434	2.1
Bachelor's degree	1,198	2.2
Associate's degree	862	2.8
Some college, no degree	802	3.7
High school diploma	730	4.1
Less than a high school diploma	553	5.6

Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.

Source: U.S. Bureau of Labor Statistics, Current Population Survey.



## CAREER AND TECHNICAL EDUCATION

This section of the guidance handbook is designed to help students select an educational plan and courses that are appropriate to their needs and career interest. The career and technical education program includes courses that provide a solid background for advanced college training in various fields, on-the-job training and usable skills upon graduation from Denison High School.

After an analysis of the results of interest inventories and ability scores, students are encouraged to pursue a coherent sequence of courses in their chosen career pathway. Students must also complete all the requirements of their graduation plan. Students should review each program described and the courses enumerated after each description before making their four-year plans. The coherent sequence of courses for some subject areas may vary somewhat to the plans set forth in this section due to individual student interest, course offerings, and changes in state and local requirements.

Students should discuss their individual academic career plan with parents, school counselors, and teachers in their chosen field.

### CAREER CLUSTERS @ DENISON HIGH SCHOOL

It is our goal at Denison High School to properly prepare all students for future careers. One of the ways we help students prepare is to administer and interpret career interest assessments. The assessments help students begin to understand how interest and abilities play a major role in the selection of a career. These tools enable the student to see a relationship between his/her interest and possible future occupations.

Once students have chosen one of our eleven career clusters, either by an interest inventory or by personal preference, they are encouraged to select an endorsement including a coherent sequence of classes that will best prepare them for that chosen field. The following pages explain the courses we offer in each career cluster.

Each career cluster also lists elective classes we offer that the students may take to best prepare them for furthering their education and then obtaining a certain job. Denison High School offers thirteen of the sixteen career clusters designed by the U.S. Department of Education.

To search for a pathway to your career, study the eleven career clusters offered at DHS and try to find one which best corresponds to your interest, abilities, and future plans. Students should carefully consider college admission requirements as he/she selects courses. DHS then suggests you take the courses within your career pathway to help prepare you for your future career.

The following courses will count toward any coherent sequence in any career cluster for any endorsement.

#### **★Touch System Data Entry**

081051/2 (TSDATAE 13011300)  
Level 1

Grade Level: 9-12  
Credit: ½

Students apply technical skills to address business applications of emerging technologies. Students enhance reading, writing, computing, communication, and reasoning skills and apply them to the business environment. Students will need to apply touch system data entry for production of business documents.

#### **Professional Communications**

015001/2  
Level 1

Grade Level: 9-12  
Credit: ½

This course blends written, oral, and graphic communication in a career-based environment. Careers in the global economy require individuals to be creative and have a strong background in computer and technology applications, a strong and solid academic foundation, and a proficiency in professional oral and written communication. Within this context, students will be expected to develop and expand the ability to write, read, edit, speak, listen, apply software applications, manipulate computer graphics, and conduct Internet research.

## Career Clusters offered @ Denison High School

	The production, processing, marketing, distribution, financing, and development of agricultural commodities and resources including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.
	Careers in designing, planning, managing, building and maintaining the built environment.
	Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.
	Planning, managing and providing education and training services, and related learning support services.
	Planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.
	Jobs in the hospitality and tourism career cluster involve planning, managing, and providing lodging, food, recreation, conventions, and tourism, and related planning and support services such as travel-related services.
	Preparing individuals for employment in career pathways that relate to families and human needs.
	Building Linkages in IT Occupations Framework: For Entry Level, Technical, and Professional Careers Related to the Design, Development, Support and Management of Hardware, Software, Multimedia, and Systems Integration Services.
	Planning, managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services.
	Planning, managing and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.
	Planning, managing, and providing scientific research and professional and technical services (e.g., physical science, social science, engineering) including laboratory and testing services, and research and development services.

## **CAREER PREPARATION PROGRAM FOR DENISON INDEPENDENT SCHOOL DISTRICT**

Career and Technical Education programs in the Denison Independent School District continue to identify employer needs and to ensure that students who complete their training are prepared for employment and continued postsecondary training following graduation from high school. In order to compete successfully in the global economy, Texas must have a skilled and educated work force that provides a base for continued economic productivity.

In a spirit of cooperation and coordination, the Texas Education Agency, the Texas Higher Education Coordinating Board, and the Texas Department of Commerce formed a unique tri-agency partnership to promote and implement Quality Work Force Planning in Texas. Quality Work Force Planning Committees have been established in accordance with partnerships among employers, educators, and training providers which will coordinate the development of a skilled and educated work force.

The Denison Independent School District currently utilizes employment data from the North Central Texas Interlink Targeted Occupations and the Texoma Workforce Development Area Occupational Employment Projections.

In order to provide students with career awareness and preparation, eleven different career clusters are available at Denison High School that are designed by the U.S. Department of Education. A coherent sequence of both academic and career and technology courses are included in each career preparation program which directly relates to, and leads to, both academic and occupational competencies. There are also many different six-year plans offered through articulation agreements between Denison Independent School District and Grayson College.

DENISON HIGH SCHOOL ARTICULATED CREDIT  
PARTNERSHIP WITH GRAYSON COLLEGE

EARLY TECHNICAL CREDIT  
(ETC) JUMP START TO  
POSTSECONDARY TRAINING

High school students have the opportunity to get a jump start on their career by preparing for a college technical degree program at their local high school. They can earn BOTH high school AND community college credit for completing select high school courses which seamlessly transition into an [AAS degree](#) (Associate of Applied Science).

**Grayson College** has four criteria to receive this credit:

1. Complete your high school classes for a specific program with a final average of 80 or above.
2. Enroll at Grayson College within (1) year of high school graduation.
3. Successfully complete six hours of approved college course work at Grayson College.
4. Go online and complete the [Petition for ETC Credit](#) form at [www.grayson.edu](http://www.grayson.edu).

**The following GC programs have articulation agreements with Denison HS:**

**Grayson College**

- Advanced Manufacturing
- Agriculture
- Welding Technology
- Computer Technology
- Education and Training
- Culinary
- Health Science
- Criminal Justice

GC = Grayson College

ATC = Advanced Technical Credit (credit awarded at various community colleges in Texas) ETC – Early Technical Credit

**★Denotes courses with Early Technical Credit**

★★★★★ LOOK FOR THE ★ IN THE COURSE DESCRIPTIONS FOR ETC COURSES★★★★★

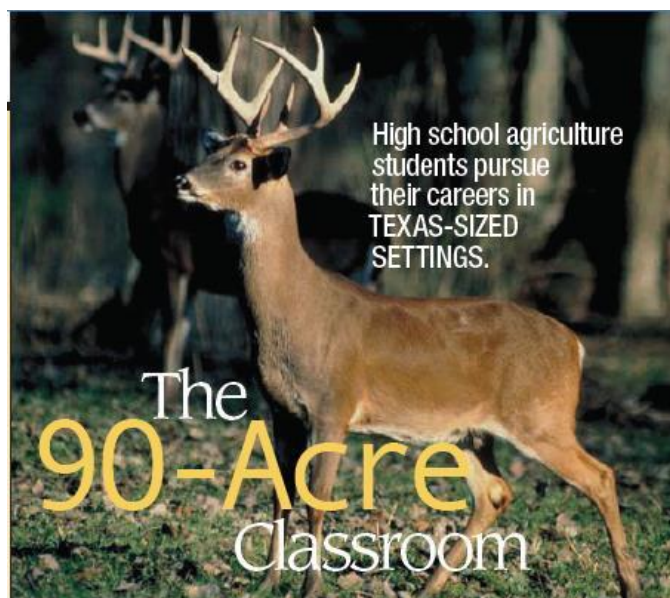
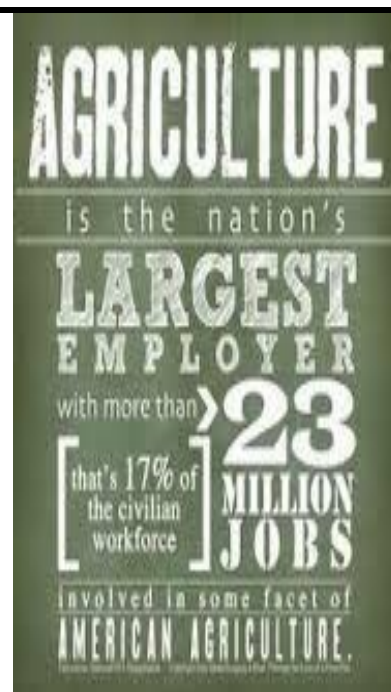
## Agriculture, Food & Natural Resources Career Cluster



### Business & Industry Endorsement

#### COHERENT SEQUENCES

- VET MEDICAL APPLICATIONS
- ADVANCED ANIMAL SCIENCE
- AG STRUCTURES DESIGN & FABRICATION
- AG EQUIPMENT DESIGN & FABRICATION
- AG POWER SYSTEMS
- PRACTICUM IN AG, FOOD & NATURAL RESOURCES

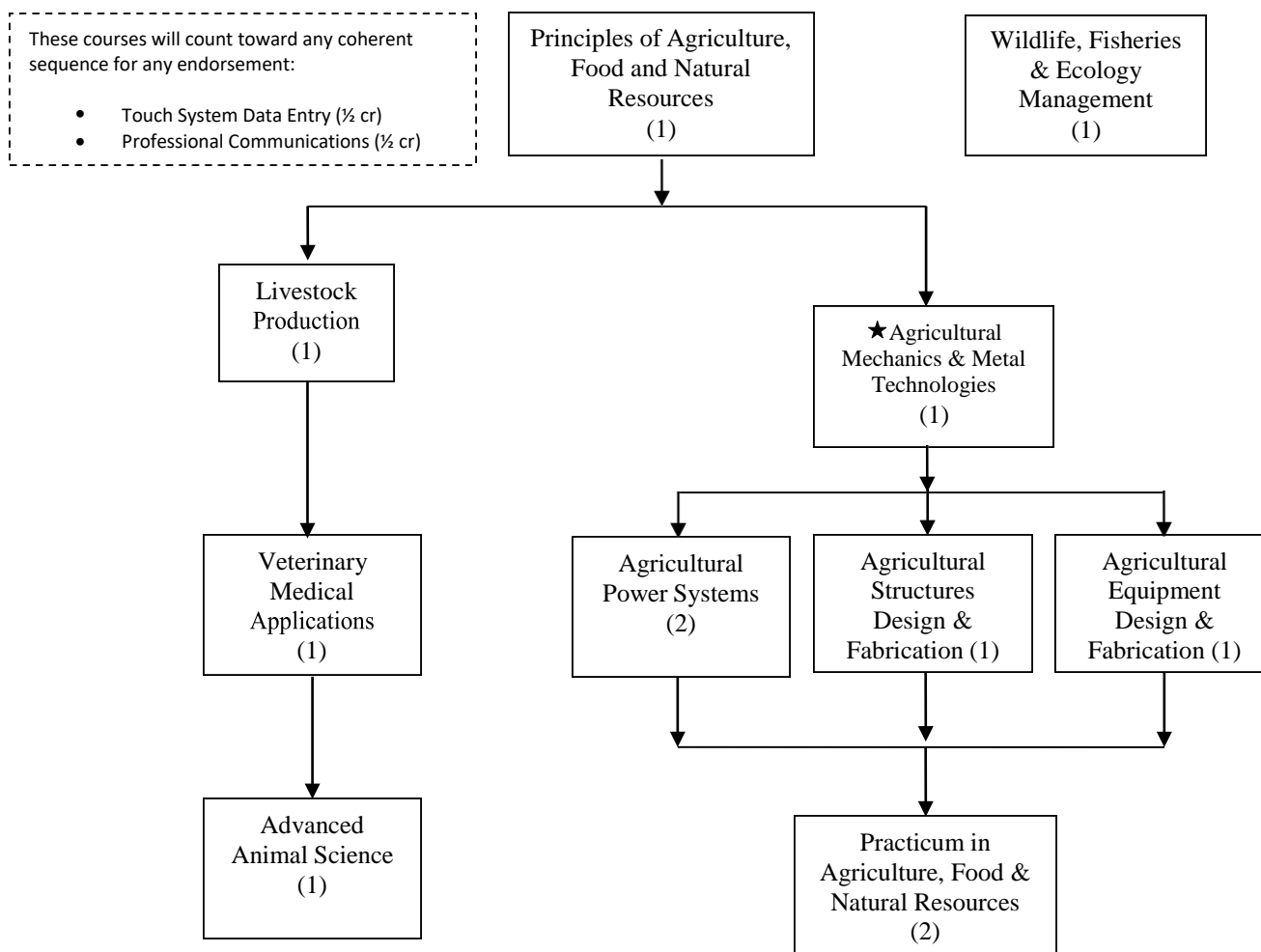


### 10 Top-Paying Careers

Occupation	Average Wage	Entry-Level Wage	Experienced Wage
Environmental Engineer	\$35.97	\$22.87	\$42.53
Conservation Scientist	\$25.49	\$17.49	\$29.49
Purchasing Agent and Buyer, Farm Products	\$25.26	\$13.23	\$31.27
Power Plant Operator	\$24.41	\$18.52	\$27.35
Zoologist and Wildlife Biologist	\$23.10	\$11.50	\$28.91
Gas Plant Operator	\$22.70	\$18.02	\$25.04
Farm, Ranch, and Other Agricultural Manager	\$20.40	\$13.24	\$23.98
Environmental Engineering Technician	\$20.25	\$13.00	\$23.87
Geological and Petroleum Technician	\$19.11	\$9.50	\$23.91
First-Line Supervisor of Farming, Fishing, and Forestry Workers	\$18.76	\$10.98	\$22.65

This is a chart of hourly wages for 10 of the top-paying careers in the Agriculture, Food & Natural Resources cluster in Texas. Note how entry-level wages are often much lower than pay for the average worker and experienced workers in each profession. Source: Texas Workforce Commission.

# Agriculture, Food and Natural Resources Coherent Sequence



	Grade	Prerequisite(s)	★ETC
Prin of Ag, Food, & Natural Rec	9-10		
Livestock Production	10-12	Prin of Ag, Food, & Natural Rec	
Veterinary Medical Applications	10-12	Sm An Mgmt, Livestock Prod, or Equ Sci	
Advanced Animal Science	12	One credit from this cluster	
Wildlife, Fisheries & Ecology Mgmt	11-12		
Practicum in Ag, Food & Nat Res	11-12	By special arrangement	
Ag Mechanics & Metal Tech	10-12	Prin of Ag, Food, & Natural Rec or Principles of Applied Engineering	GC
Agricultural Power Systems	10-12	Ag Mechanics & Metal Tech	
Ag Equipment Design & Fabrication	11-12	Ag Power Systems	
Ag Structures Design & Fabrication	11-12	Ag Power Systems	

**★Denotes courses with college Early Technical Credit**

## COURSE DESCRIPTIONS



### **Agriculture, Food, & Natural Resources**

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#### **Principles of Agriculture, Food, and Natural Resources (1 Credit)**

112350 (PRINAFNR 13000200)

Grades 9-10

Principles of Agriculture, Food, and Natural Resources will allow students to develop knowledge and skills regarding career and educational opportunities, personal development, globalization, industry standards, details, practices, and expectations. To prepare for careers in agriculture, food, and natural resources, students must attain academic skills and knowledge in agriculture. To prepare for success, students need opportunities to learn, reinforce, experience, apply, and transfer their knowledge and skills in a variety of settings.

#### **Livestock Production (1 Credit)**

112150 (LIVEPROD 13000300)

Grades 10-12

Prerequisite: Principles of Agriculture, Food, and Natural Resources

In Livestock Production, students will acquire knowledge and skills related to livestock and the livestock production industry. Livestock Production may address topics related to beef cattle, dairy cattle, swine, sheep, goats, and poultry. To prepare for careers in the field of animal science, students must attain academic skills and knowledge, acquire knowledge and skills related to animal systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings.

#### **Veterinary Medical Applications (1 Credit)**

112010 (VETMEDAP 13000600)

Grades 11-12

Prerequisite: Livestock Production

Veterinary Medical Applications covers topics relating to veterinary practices, including practices for large and small animal species. To prepare for careers in the field of animal science, students must attain academic skills and knowledge, acquire technical knowledge and skills related to animal systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations.

#### **Advanced Animal Science (1 Credit) (can count as advanced science)**

111030 (ADVANSKI 13000700)

Grade 12

Prerequisite: Veterinary Medical Applications

To receive credit in science, students must meet the 40% laboratory and fieldwork requirement identified in §74.3(b)(2)(C) of this title (relating to Description of a Required Secondary Curriculum).

Advanced Animal Science examines the interrelatedness of human, scientific, and technological dimensions of livestock production. Instruction is designed to allow for the application of scientific and technological aspects of animal science through field and laboratory experiences. To prepare for careers in the field of animal science, students must attain academic skills and knowledge, acquire knowledge and skills related to animal systems, and develop knowledge and skills regarding career opportunities, entry requirements, and industry standards.



**Wildlife, Fisheries, and Ecology Management (1 Credit)**

112160 (WFECGT 13001500)

Grades 11-12

Wildlife, Fisheries, and Ecology Management examines the management of game and non-game wildlife species, fish, and aquacrops and their ecological needs as related to current agricultural practices. To prepare for careers in natural resource systems, students must attain academic skills and knowledge, acquire technical knowledge and skills related to natural resources, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations.

**Practicum in Ag, Food & Natural Resources (2 Credits)**

112140 (PRACAFNR1 13002500)

Grades 11-12

Prerequisite: a minimum of one credit from the courses in the Agriculture, Food, and Natural Resources cluster.

The Practicum is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experiences such as employment, independent study, internships, assistantships, mentorships, or laboratories. The practicum course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Agriculture, Food, and Natural Resources cluster.

**★Agricultural Mechanics and Metal Technologies (1 Credit)**

112320 (AGMECHMT 13002200)

Grades 10-12

Prerequisite: Principles of Agriculture, Food, and Natural Resources or Principles of Applied Engineering

**Students must obtain OSHA certification to work in the shop.**

Personal protective clothing is mandatory for this class and is the responsibility of the student. Minimum clothing requirements are: all leather boots, 100% cotton pants, and 100% cotton long sleeve shirt.

Agricultural Mechanics and Metal Technologies is designed to develop an understanding of agricultural mechanics as it relates to safety and skills in tool operation, electrical wiring, plumbing, carpentry, fencing, concrete, and metal working techniques. To prepare for careers in agricultural power, structural, and technical systems, students must attain academic skills and knowledge; acquire technical knowledge and skills related to power, structural, and technical agricultural systems and the industry; and develop knowledge and skills regarding career opportunities, entry requirements, industry certifications, and industry expectations.

**Agricultural Power Systems (2 Credits)**

112330 (AGPOWSYS 13002400)

Grades 10-12

Prerequisite: Ag Mechanics and Metal Tech

**Students must obtain OSHA certification to work in the shop.**

Personal protective clothing is mandatory for this class and is the responsibility of the student. Minimum clothing requirements are: all leather boots, 100% cotton pants, and 100% cotton long sleeve shirt.

To be prepared for careers in agricultural power, structural, and technical systems, students should obtain academic skills and knowledge; acquire technical knowledge and skills related to power, structural, and technical agricultural systems and the workplace; and develop knowledge and skills regarding career opportunities, entry requirements, industry certifications, and industry expectations. To prepare for success, students should have opportunities to learn, reinforce, apply, and transfer their knowledge and technical skills in a variety of settings. This course is designed to develop an understanding of power and control systems as related to energy sources, small and large power systems, and agricultural machinery.



**Agricultural Structures Design and Fabrication (1 Credit)**

112410 (AGSDF 13002300)

Grades 11-12

Prerequisite: Ag Mechanics and Metal Tech

**Students must obtain OSHA certification to work in the shop.**

Personal protective clothing is mandatory for this class and is the responsibility of the student. Minimum clothing requirements are: all leather boots, 100% cotton pants, and 100% cotton long sleeve shirt.

In Agricultural Structures Design and Fabrication, students will explore career opportunities, entry requirements, and industry expectations. To prepare for careers in mechanized agriculture and technical systems, students must attain knowledge and skills related to agricultural structures design and fabrication.

**Agricultural Equipment Design and Fabrication (1 Credit)**

112430 (AGEQDF 13002350)

Grades 11-12



Prerequisite: Ag Mechanics and Metal Tech

**Students must obtain OSHA certification to work in the shop.**

Personal protective clothing is mandatory for this class and is the responsibility of the student. Minimum clothing requirements are: all leather boots, 100% cotton pants, and 100% cotton long sleeve shirt.

In Agricultural Equipment Design and Fabrication, students will acquire knowledge and skills related to the design and fabrication of agricultural equipment. To prepare for careers in mechanized agriculture and technical systems, students must attain knowledge and skills related to agricultural equipment design and fabrication.

## Architecture & Construction Career Cluster

	
<h3>Business &amp; Industry Endorsement</h3>	
<p><b><u>COHERENT SEQUENCES</u></b></p> <ul style="list-style-type: none"> <li>▪ CONSTRUCTION TECHNOLOGY II</li> <li>▪ PRACTICUM IN CONSTRUCTION TECH</li> </ul>	<p><b>Construct Your Future</b></p> <p><b>[YOUR GUIDE to careers in ARCHITECTURE &amp; CONSTRUCTION]</b></p> <ul style="list-style-type: none"> <li>➤ Showcasing 25 Careers</li> <li>➤ How to Create a Texas Achievement Plan (TAP)</li> <li>➤ Inside College Admissions</li> </ul> <p><b>AchieveTexas</b></p>



**Building Dreams**

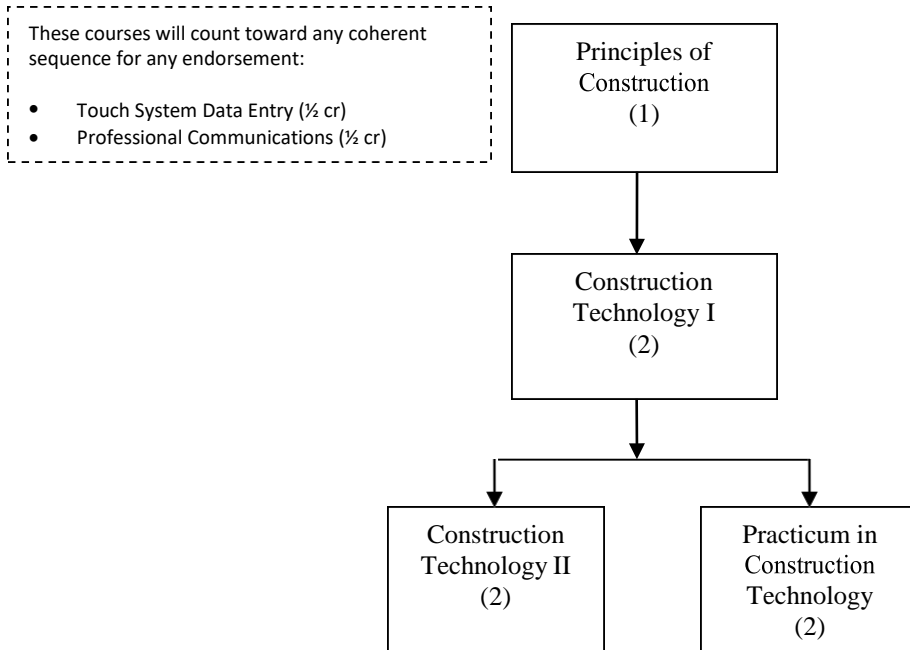
**11,270 MEMBERS**  
OF THE TEXAS ASSOCIATION OF BUILDERS ([WWW.TEXASBUILDERS.ORG](http://WWW.TEXASBUILDERS.ORG))  
REPRESENT 550,000 JOBS AND  
\$37 BILLION OF THE TEXAS ECONOMY.

### 10 Top-Paying Careers

Occupation	Average Wage	Entry-Level Wage	Experienced Wage
Construction Manager	\$32.68	\$19.69	\$39.17
Architect, except Landscape and Naval	\$31.45	\$19.49	\$37.43
Cost Estimator	\$26.34	\$16.69	\$31.17
Landscape Architect	\$24.11	\$16.16	\$28.08
Mechanical Drafter	\$23.13	\$14.72	\$27.33
Interior Designer	\$21.81	\$13.16	\$26.14
Construction and Building Inspector	\$19.83	\$13.42	\$23.04
Surveyor	\$19.28	\$10.99	\$23.42
Architectural and Civil Drafter	\$18.89	\$12.93	\$21.88
Rigger	\$17.60	\$12.02	\$20.38

This is a chart of hourly wages for 10 of the top-paying careers in the Architecture & Construction cluster in Texas. Note how entry-level wages are often much lower than pay for the average worker and experienced workers in each profession. Source: Texas Workforce Commission.

## Architecture and Construction Coherent Sequence



	Grade	Prerequisite(s)	★ETC
Principles of Construction	9-10		
Construction Technology I	10-12	Principles of Construction	
Advanced Construction Tech II	11-12	Construction Technology I	
Practicum in Construction Tech	11-12	Advanced Construction Tech II	



### Architecture & Construction

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#### **Principles of Construction (1 credit over 1 semester)**

121011/121012 (PRINCON 13004220)

Grades 9-10

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.

#### **Construction Technology I (2 credits/1period)**

122020 (CONTECH1 13005100)

Grades 10-12

Prerequisite: Principles of Construction

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.

#### **Construction Technology II (2 credits/2 periods)**

122040 (CONTECH2 13005200)

Grades 11-12

Prerequisite: Construction Technology I

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.

#### **Practicum in Construction Technology (2 credits/2 periods)**

155050 (PRACCT1 13005250)

Grade 12

Prerequisite: Construction Technology II

In Practicum in Construction Technology, students will be challenged with the application of gained knowledge and skills from Construction Technology I and II. 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.

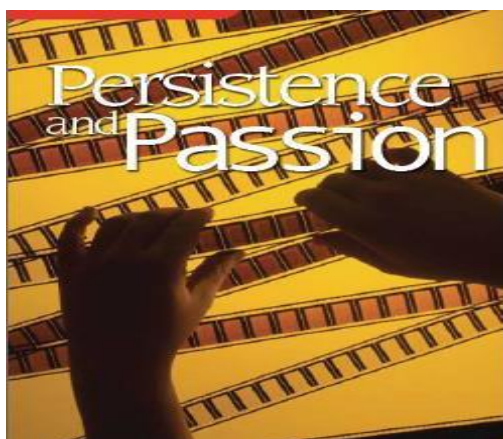
## Arts, Audio-Video Technology & Communications Career Cluster



### Business & Industry Endorsement

#### COHERENT SEQUENCES

- AV PRODUCTION II
- COMMERCIAL PHOTOGRAPHY II
- GRAPHIC DESIGN AND ILLUSTRATION II
- FASHION DESIGN II

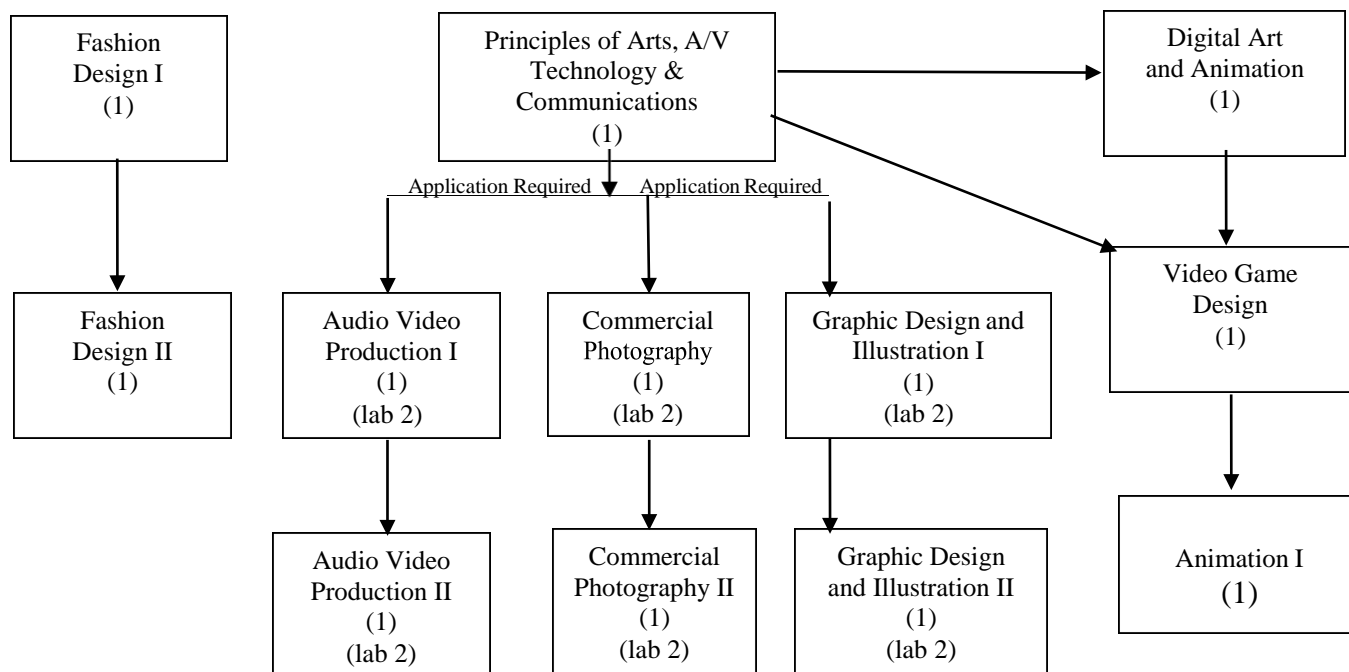


#### 10 Top-Paying Careers

Occupation	Average Wage	Entry-Level Wage	Experienced Wage
Art Director	\$32.25	\$18.64	\$39.06
Producer and Director	\$25.82	\$12.18	\$32.65
Public Relations Specialist	\$23.70	\$13.49	\$28.81
Librarian	\$21.84	\$16.33	\$24.60
Writer and Author	\$21.74	\$11.57	\$26.82
Sound Engineering Technician	\$21.44	\$8.97	\$27.68
Multimedia Artist and Animator	\$20.91	\$15.29	\$23.72
Editor	\$20.68	\$12.15	\$24.94
Graphic Designer	\$19.83	\$12.30	\$23.60
Music Director and Composer	\$19.55	\$7.36	\$25.65

This is a chart of hourly wages for 10 of the top-paying careers in the Arts, A/V Technology & Communications cluster in Texas. Note how entry-level wages are often much lower than pay for the average worker and experienced workers in each profession. Source: Texas Workforce Commission.

## Arts, A/V Technology and Communication Coherent Sequence



**These courses will count toward any coherent sequence for any endorsement:**

- Touch System Data Entry (½ cr)
- Professional Communications (½ cr)

Professional  
Communications  
(½)

	Grade	Prerequisite(s)	★ETC
Prin of Arts, AV Tech, and Comm	9-10		
Fashion Design	10-12		
Fashion Design II	11-12	Fashion Design	
AV Production	10-12	Prin of Arts, AV Tech & Communications	
AV Production II	11-12	AV Production I	
Graphic Design & Illustration I	10-12	Prin of Arts, AV Tech, and Comm	GC
Graphic Design & Illustration II	11-12	Graphic Design & Illustration I	GC
Commercial Photography I	10-12	Prin of Arts, AV Tech, and Comm	GC
Commercial Photography II	11-12	Commercial Photography I	
Professional Communications	9-12		
Digital Art and Animation	9-12		GC
Video Game Design	10-12	Digital Art and Animation or Prin of Arts & AV	
Animation I	11-12	Video Game Design or Prin of Arts & AV	

## Arts, Audio-Video Technology & Communications Career Cluster



### Arts, Audio-Video Technology & Communications

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#### **Principles of Arts, Audio/Video Technology, and Communications (1 credit/1period)**

015010 (PRINAAVTC 13008200)

##### **Introductory Course**

Grade 9-10

Careers in the Arts, Audio/Video Technology, and Communications Career Cluster require a creative aptitude, a strong background in computer and technology applications, a strong academic foundation, and a proficiency in oral and written communication. Students will gain an understanding of the history of journalism, the ethics of a journalist and the requirements of staff positions within the program. 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.

#### **Audio/Video Production I (1 Credit) [Media Staff]**

015020 (AVPROD1 13008500)

Optional Lab 01502L (AVPLAB1 13008510) (2 credits/1 period)

##### **Application required – Jacket Update Staff**

Grades 10-12

Recommended prerequisite: Principles of Arts, Audio/Video Technology, and Communications

This is an advanced journalism staff position. Students must apply for this class.

Careers in audio and video technology and film production span all aspects of the audio/video communications industry. Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the industry with a focus on pre-production, production, and post-production audio and video products.

#### **Audio/Video Production II (1 Credit) [Media Staff]**

015030 (AVPROD2 13008600)

Optional Lab 01503L (AVPLAB2 13008610) (2 credits/1 period)

##### **Application required – Jacket Update Staff**

Grades 10-12

Prerequisite: Audio/Video Production

This is an advanced journalism staff position. Students must apply for this class.

Careers in audio and video technology and film production span all aspects of the audio/video communications industry. Building upon the concepts taught in Audio/Video Production, 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 industry with a focus on pre-production, production, and post-production products.



**★Graphic Design and Illustration I (1 Credit) [Newspaper/Yearbook Staff]**

015050 (GRAPHDI1 13008800)

Optional Lab 01505L (GRDLAB1 13008810) (2 credits/1 period)

**Application required**

Grades 10-12

Recommended prerequisite: Principles of Arts, Audio/Video Technology, and Communications

This is an advanced journalism staff position. Students must apply for this class.

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, along with developing communication skills, interview skills and photography skills.

**★Graphic Design and Illustration II (1 Credit) [Newspaper/Yearbook Staff]**

015060 (GRAPHDI2 13008900)

Optional Lab 01506L (GRDLAB2 13008910) (2 credits/1 period)

**Application required**

Grades 11-12

Prerequisite: Graphic Design and Illustration

This is an advanced journalism staff position. Students must apply for this class.

Careers in graphic design and illustration span all aspects of the advertising and visual communications industries. Within this context, 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 advanced understanding of the industry with a focus on mastery of content knowledge and skills, along with developing communication skills, interview skills and photography skills.

**★Commercial Photography I (1 Credit) [Photojournalism]**

015070 (CPHOTO1 13009100)

Optional Lab 01507L (CPHLAB1 13009110) (2 credits/1 period)

**Introductory Course** Grades 10-12

Recommended prerequisite: Graphic Design and Illustration or Art I

All students must provide their own digital camera

Careers in commercial photography require skills that span all aspects of the industry from setting up a shot to delivering products in a competitive market. 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 commercial photography industry with a focus on creating quality photographs.

**Commercial Photography II (1 Credit)**

015080 (CPHOTO2 13009200)

Optional Lab 01508L (CPHLAB2 13009210) (2 credits/1 period)

**Application required**

Grades 11-12

Prerequisite: Commercial Photography

This is an advanced journalism staff position. Students must apply for this class.

Careers in commercial photography span all aspects of the industry from setting up a shot to delivering products in a competitive market. 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 advanced technical understanding of the commercial photography industry with a focus on producing, promoting, and presenting professional quality photographs.



**Fashion Design I (1 Credit)**  
015040 (FASHDSN1 13009300)  
Grade 10-12

Careers in fashion span all aspects of the textile and apparel industries. Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the fashion industry with an emphasis on design and construction.

**Fashion Design II (1 Credit)**  
015140 (FASHDSN2 13009400)  
Grade 11-12  
Recommended prerequisite: Fashion Design I

Careers in fashion span all aspects of the textile and apparel industries. Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the fashion industry with an emphasis on design and construction.

**Professional Communications (½ Credit)**  
015001/015002 (PROFCOMM 13009900)  
Grade 9-12

Professional Communications blends written, oral, and graphic communication in a career-based environment. Careers in the global economy require individuals to be creative and have a strong background in computer and technology applications, a strong and solid academic foundation, and a proficiency in professional oral and written communication. Within this context, students will be expected to develop and expand the ability to write, read, edit, speak, listen, apply software applications, manipulate computer graphics, and conduct Internet research.

**Audio/Video Production II (1 Credit) [Media Staff]**  
015030 (AVPROD2 13008600)  
Optional Lab 01503L (AVPLAB2 13008610) (2 credits/1 period)  
**Application required – Jacket Update Staff**  
Grades 10-12  
Prerequisite: Audio/Video Production  
This is an advanced journalism staff position. Students must apply for this class.

Careers in audio and video technology and film production span all aspects of the audio/video communications industry. Building upon the concepts taught in Audio/Video Production, 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 industry with a focus on pre-production, production, and post-production products.

**★Digital Art and Animation (1 credit)**  
081080 (TADGAA 03580500)  
Grade 9-12

Digital Art and Animation consists of computer images and animations created with digital imaging software. Digital Art and Animation has applications in many careers, including graphic design, advertising, web design, animation, corporate communications, illustration, character development, script writing, storyboarding, directing, producing, inking, project management, editing, and the magazine, television, film, and game industries. Students in this course will produce various real-world projects and animations.

**Video Game Design (1 Credit)**

082080 (VIDGD 13009970)

(Grades 10-12)

Recommended prerequisite: Principles of Arts, AV and Communications.

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.

**Animation (1 Credit)**

083080 (ANIMAT1 13008300)

Grades 11-12

Recommended prerequisite: Principles of Arts, AV and Communications.

Recommended corequisite: Animation Lab I

Animation spans all aspects of motion graphics. Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the history and techniques of the animation industry.

## Education & Training Career Cluster



### Public Services Endorsement

#### COHERENT SEQUENCES

- INSTRUCTIONAL PRACTICES
- PRACTICUM IN EDUCATION & TRAINING



### 10 Top-Paying Careers

Occupation	Average Wage	Entry-Level Wage	Experienced Wage
Law Teacher, Postsecondary	\$53.04	\$19.52	\$69.80
Health Specialties Teacher, Postsecondary	\$44.61	\$21.87	\$55.98
Anthropology and Archeology Teacher, Postsecondary	\$41.95	\$28.40	\$48.72
Education Administrator, Elementary and High School	\$41.39	\$32.54	\$45.81
Library Science Teacher, Postsecondary	\$34.96	\$25.40	\$39.74
Art, Drama, and Music Teacher, Postsecondary	\$33.57	\$18.09	\$41.31
Communications Teacher, Postsecondary	\$32.15	\$19.32	\$38.57
Criminal Justice and Law Enforcement College Teacher	\$30.98	\$18.08	\$37.42
Foreign Language and Literature Teacher, Postsecondary	\$30.88	\$18.16	\$37.24
Career and Technical Education Teacher, Secondary School	\$29.64	\$22.91	\$33.01

*This is a chart of hourly wages for 10 of the top-paying careers in the Education & Training cluster in Texas. Note how entry-level wages are often much lower than pay for the average worker and experienced workers in each profession. Source: Texas Workforce Commission.*

## Education and Training Coherent Sequence

These courses will count toward any coherent sequence for any endorsement:

- Touch System Data Entry (½ cr)
- Professional Communications (½ cr)

Principles of  
Education &  
Training  
(1)



★Instructional  
Practices  
(2)



★Practicum in  
Education &  
Training  
(2)

Child Development  
may count in the  
coherent sequence in  
this cluster.  
(1)  
(See Human Services)

	Grade	Prerequisite(s)	★ETC
Principles of Education & Training	9-10		
Instructional Practices	11-12	Principles of Education & Training	GC
Practicum in Education & Training	12	Instructional Practices	GC

**★Denotes courses with Early Technical Credit**

## Education & Training Courses



### Education & Training

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#### **Principles of Education and Training (1 Credit over 1 semester)**

111061/111062 (PRINEDTR 13014200)

Grades 9-10

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 and educational and career information to analyze various careers within the education and training career cluster. Students will also gain an understanding of the basic knowledge and skills essential to careers within the education and training career cluster.

#### **★Instructional Practices (2 Credits)**

111040 (13014400 INPRAC)

Grades 11-12

Prerequisite: Principles of Education and Training.

This course is a field-based internship that provides students with background knowledge of child and adolescent development as well as principles of effective teaching and training practices. Students work under the joint direction and supervision of both a teacher with knowledge of early childhood education and exemplary educators or trainers in direct instructional roles with elementary-, middle school-, and high school-aged students. Students learn to plan and direct individualized instruction and group activities, prepare instructional materials, develop materials for educational environments, assist with record keeping, and complete other responsibilities of teachers, trainers, paraprofessionals, or other educational personnel.

#### **★Practicum in Education and Training (2 Credits)**

111150 (PRACEDT1 13014500)

Grade 12

Prerequisite: Instructional Practices in Education and Training.

This course is a field-based internship that provides students background knowledge of child and adolescent development principles as well as principles of effective teaching and training practices. Students in the course work under the joint direction and supervision of both a teacher with knowledge of early childhood education and exemplary educators in direct instructional roles with elementary-, middle school-, and high school-aged students. Students learn to plan and direct individualized instruction and group activities, prepare instructional materials, assist with record keeping, make physical arrangements, and complete other responsibilities of classroom teachers, trainers, paraprofessionals, or other educational personnel.

## Health Science Career Cluster



### Public Services Endorsement

#### COHERENT SEQUENCES

- HEALTH SCIENCE THEORY/CLINICAL
- PRACTICUM IN HEALTH SCIENCE
- ANATOMY & PHYSIOLOGY



### 10 Top-Paying Careers

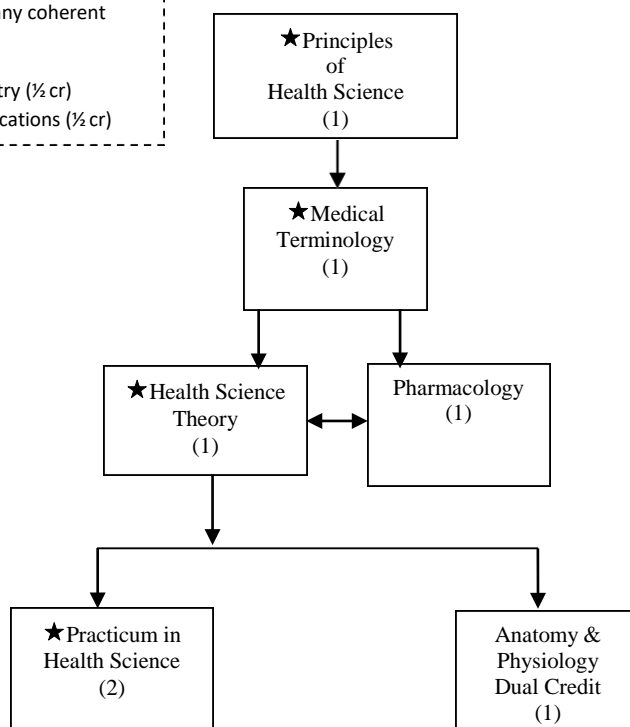
Occupation	Average Wage	Entry-Level Wage	Experienced Wage
Dentist, General	\$66.89	\$31.85	\$84.42
Family and General Practitioner	\$65.22	\$31.60	\$82.03
Physician Assistant	\$37.20	\$28.37	\$41.61
Medical and Health Services Manager	\$34.16	\$21.33	\$40.57
Physical Therapist	\$32.58	\$22.80	\$37.47
Radiation Therapist	\$28.93	\$21.93	\$32.43
Nuclear Medicine Technologist	\$25.93	\$21.08	\$28.36
Orthotist and Prosthetist	\$25.84	\$16.68	\$30.42
Diagnostic Medical Sonographer	\$25.49	\$20.12	\$28.18
Registered Nurse	\$25.32	\$18.91	\$28.52

*This is a chart of hourly wages for 10 of the top-paying careers in the Health Science cluster in Texas. Note how entry-level wages are often much lower than pay for the average worker and experienced workers in each profession. Source: Texas Workforce Commission.*

## Health Science Coherent Sequence

These courses will count toward any coherent sequence for any endorsement:

- Touch System Data Entry (½ cr)
- Professional Communications (½ cr)



	Grade	Prerequisite(s)	★ETC
Principles of Health Science	9-10		GC
Medical Terminology	10-12	Prin of Health Science	GC
Pharmacology	11-12	Chemistry and Prin of Health Science	
Health Science Theory	11-12	Prin of Health Science & Medical Term	GC
Practicum in Health Science	11-12	Health Science Theory	GC
Anatomy & Physiology	12	Biology and one other credit of Science	Dual Credit

**★Denotes courses with Early Technical Credit**

## Health Science Courses



### Health Science

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#### ★Principles of Health Science (1 Credit)

130040 (PRINHLSC 13020200)

Grades 9-10

This course provides an overview of the therapeutic, diagnostic, health informatics, support services, and biotechnology research and development systems of the health care industry.

#### ★Medical Terminology (1 Credit)

131130 (MEDTERM 13020300)

Grades 10-12

Prerequisite: Principles of Health Science

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

#### ★Pharmacology (1 Credit)

131140 (PHARMC 13020950)

Grades 11-12

Prerequisite: Chemistry and Principles of Health Science

This course is designed to study how natural and synthetic chemical agents such as drugs affect biological systems. Knowledge of the properties of therapeutic agents is vital in providing quality health care. It is an ever-changing, growing body of information that continually demands greater amounts of time and education from health care workers.

#### ★Health Science Theory (1 Credit)

130550 (HLSCLIN 13020400)

Grades 10-12

Prerequisite: Principles of Health Science and Medical Terminology

The Health Science course is designed to provide for the development of advanced knowledge and skills related to a wide variety of health careers. Students will have hands-on experiences for continued knowledge and skill development. The course will be taught by different methodologies where students will employ hands-on experiences for continued knowledge and skill development.

#### ★Practicum in Health Science (2 Credits)

130060 (PRACHLS1 13020500)

Grades 11-12

Prerequisite: Health Science Theory/Clinical

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



**Anatomy and Physiology (1 Credit) (also an advanced science)**

030420 (dual credit) (ANATPHYS 13020600)

Grade 12

Recommended prerequisites: Biology and one credit of science.

THIS IS A DUAL CREDIT COURSE AND STUDENTS MUST ENROLL AT GRAYSON COLLEGE AND PAY APPLICABLE TUITION.

The Anatomy and Physiology 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 Anatomy and Physiology will study a variety of topics, including the structure and function of the human body and the interaction of body systems for maintaining homeostasis.

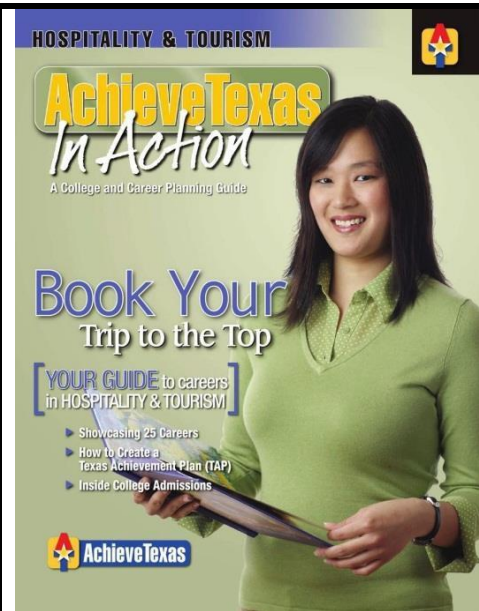
## Hospitality and Tourism Career Cluster



### Business & Industry Endorsement

#### COHERENT SEQUENCES

- CULINARY ARTS
- ADVANCED CULINARY ARTS

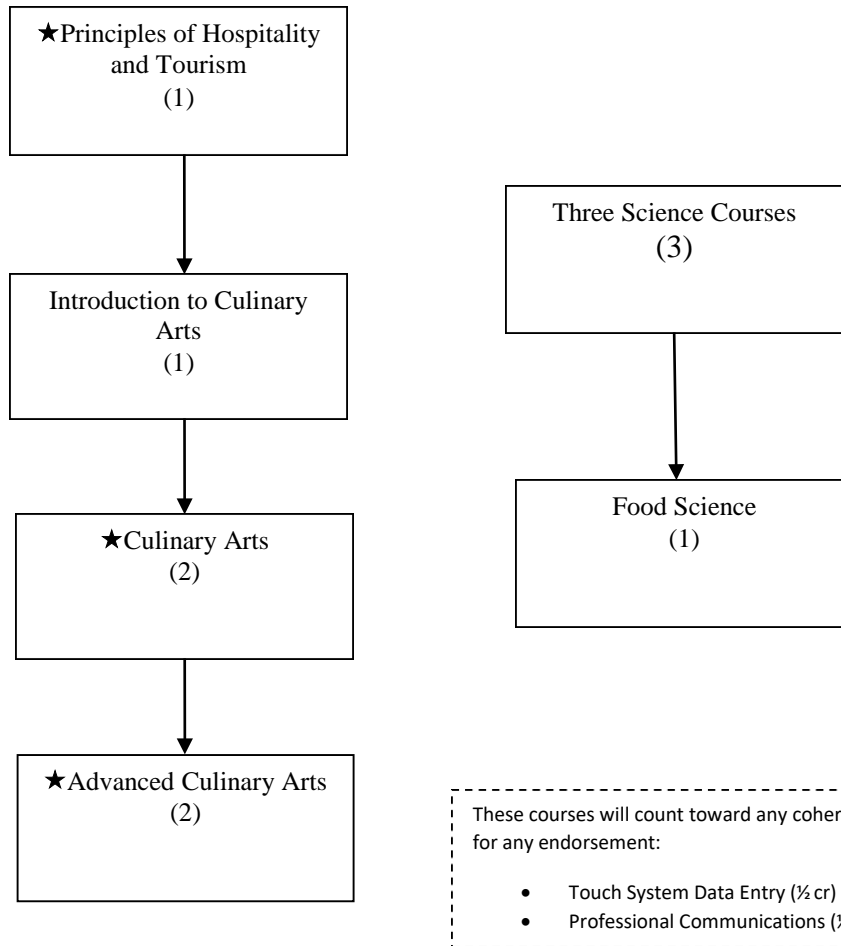


### 10 Fast-Growing Careers

Occupation	% Growth (2006–2016)	New Jobs Created (2006–2016)
Interpreter and Translator	35.0%	244
Cook, Restaurant	34.0%	2,491
Host/Hostess, Restaurant, Lounge, and Coffee Shop	33.0%	12,534
Customer Service Representative	31.0%	12,534
Waiter/Waitress	31.0%	14,825
Food Preparation Worker	29.0%	1,853
First-Line Supervisor of Food Prep and Serving Workers	27.0%	2,741
Coach and Scout	24.0%	587
Concierge	23.0%	50
Amusement and Recreation Attendant	23.0%	1,203

This is a projection of 10 fast-growing careers in Hospitality & Tourism in Texas from the year 2006 to 2016 and the number of new jobs created in each occupation. Note that whereas the percentage of growth in jobs may be high, the actual number of jobs created may be low. For example, there will be only 100 new jobs for umpires, referees, and other sports officials created in Texas during the decade that the data covers.  
Source: Texas Workforce Commission.

## Hospitality and Tourism Coherent Sequence



	Grade	Prerequisite(s)	★ETC
Principles of Hospitality & Tourism	9-10		GC
Introduction to Culinary Arts	9-10	Principles of Hospitality & Tourism	
Culinary Arts	10-12	Introduction to Culinary Arts	GC
Advanced Culinary Arts	11-12	Culinary Arts	GC
Food Science	11-12	Two Science Courses	

**★Denotes courses with Early Technical Credit**

## Hospitality and Tourism Courses



### Hospitality and Tourism

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#### ★Principles of Hospitality and Tourism (1 Credit over 1 semester – fall only)

110211 (PRINHOSP 13022200)

Grades 9-10

Principles of Hospitality and Tourism introduces students to an industry that encompasses lodging, travel and tourism, recreation, amusements, attractions, and food/beverage operations. Students learn knowledge and skills focusing on communication, time management, and customer service that meet industry standards. Students will explore the history of the hospitality and tourism industry and examine characteristics needed for success in that industry.

#### Introduction to Culinary Arts (1 Credit over 1 semester – spring only)

111222 (INCULART 13022550)

Grades 9-10

Prerequisite: Principles of Hospitality and Tourism

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.

#### ★Culinary Arts (2 Credits over 1 period)

110230 (CULARTS 13022600)

Grades 10-12

Prerequisite: Introduction to Culinary Arts

**Application APPROVAL ONLY**

**Students MUST provide a current Food Handlers Card**

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.

*\* Students will be required to purchase a Culinary Uniform (approximately \$50.00) within the first two weeks of the course. Students will be required to participate in Laboratory Hours after school hours.\**

**★Advanced Culinary Arts (2 Credits)**

110250 (ADCULART 13022650)

Grades 11-12

Prerequisite: Culinary Arts

**Application APPROVAL ONLY**

**Students MUST provide a current Food Handlers Card**

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

*\* Students will be required to purchase a Culinary Uniform (approximately \$50.00) within the first two weeks of the course. Students will be required to participate in Laboratory Hours after school hours\**

**Food Science (1 CTE Credit) (also an advanced science)**

FOODSCI (FOODSCI 13023000)

Grades 11-12

Recommended prerequisites: three units of science.

In Food Science, students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Food Science is the study of the nature of foods, the causes of deterioration, the principles underlying food processing, and the improvement of foods for the consuming public.

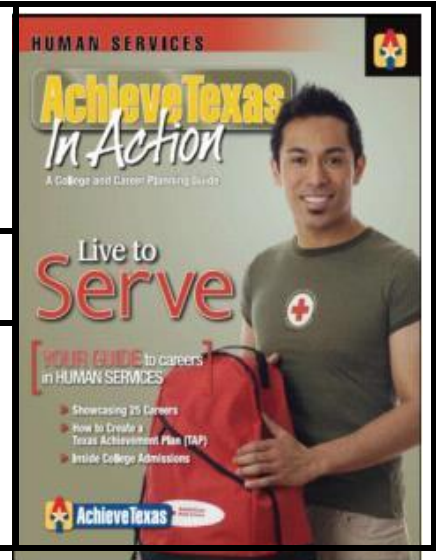
## Human Services Career Cluster



### Public Services Endorsement

#### COHERENT SEQUENCES

- COSMETOLOGY I
- COSMETOLOGY II

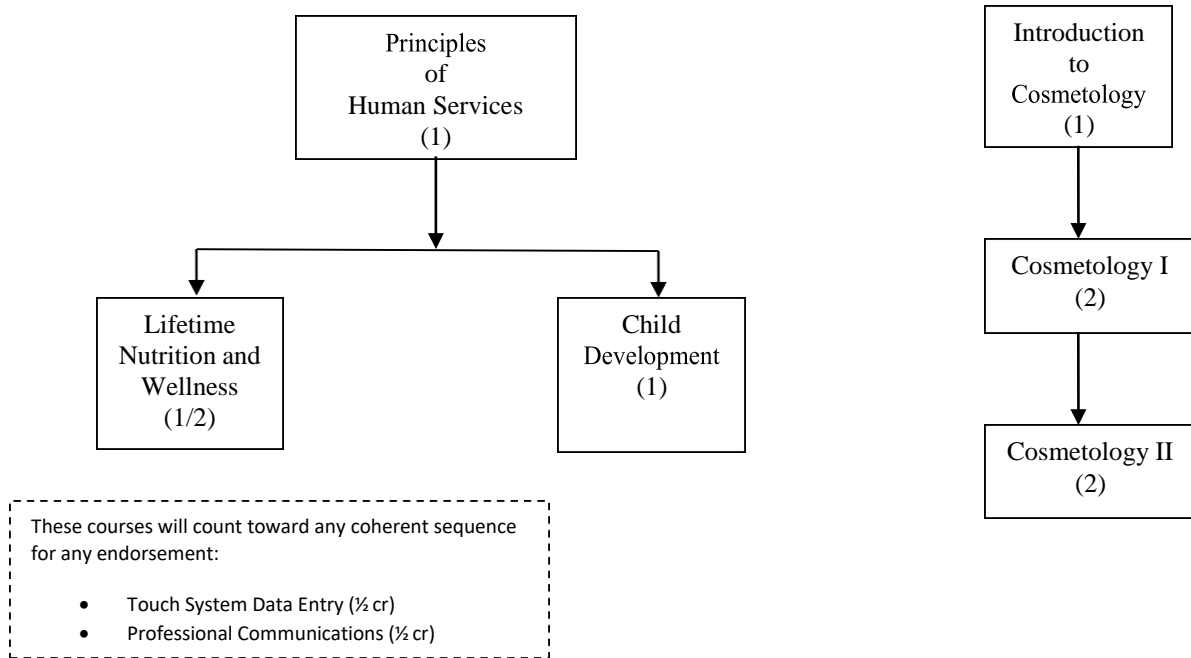


### 10 Top-Paying Careers

Occupation	Average Wage	Entry-Level Wage	Experienced Wage
Sales Manager	\$44.80	\$21.81	\$56.29
Financial Manager	\$43.06	\$23.95	\$52.62
Personal Financial Advisor	\$39.24	\$16.02	\$50.85
Clinical, Counseling, and School Psychologist	\$25.63	\$16.96	\$29.97
Marriage and Family Therapist	\$25.35	\$14.85	\$30.60
Sales Representative, Wholesale and Manufacturing, except Technical Products	\$25.00	\$12.50	\$31.25
Dietitian/Nutritionist	\$22.01	\$16.07	\$24.99
Medical and Public Health Social Worker	\$19.19	\$13.40	\$22.09
Clergy	\$18.18	\$11.92	\$21.31
Mental Health Counselor	\$17.78	\$13.02	\$20.16

This is a chart of hourly wages for 10 of the top-paying careers in the Human Services cluster in Texas. Note how entry-level wages are often much lower than pay for the average worker and experienced workers in each profession. Source: Texas Workforce Commission.

## Human Services Coherent Sequence



	Grade	Prerequisite(s)	★ETC
Prin of Human Services	9-10		
Lifetime Nutrition and Wellness	10-12	Principles of Human Services	
Child Development	10-12		
Introduction to Cosmetology	9-10		
Cosmetology I	10-11	Introduction to Cosmetology	
Cosmetology II	11-12	Cosmetology I	

## Human Services Courses



### Human Services

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#### **Principles of Human Services (1 Credit)**

111000 (PRINHUSR 13024200)

Grades 9-10

This laboratory course will enable students to investigate careers in the human services career cluster, including counseling and mental health, early childhood development, family and community, and personal care services. Each student is expected to complete the knowledge and skills essential for success in high-skill, high-wage, or high-demand human services careers.

#### **Lifetime Nutrition and Wellness (½ Credit)**

110051/110052 (LNURTWEL 13024500)

Grades 10-12

Prerequisite: Principles of Human Services or Principles of Hospitality and Tourism

Lifetime Nutrition and Wellness is a laboratory course that allows students to use principles of lifetime wellness and nutrition to help them make informed choices that promote wellness as well as pursue careers related to hospitality and tourism, education and training, human services, and health sciences.

#### **Child Development (1 Credit)**

110060 (CHILDDEV 13024700)

Grades 10-12

Prerequisite: Principles of Human Services

Child Development is a technical laboratory course that addresses knowledge and skills related to child growth and development from prenatal through school-age children, equipping students with child development skills. Students use these skills to promote the well-being and healthy development of children and investigate careers related to the care and education of children



**Introduction to Cosmetology (1 Credit)**

120270 (INTCOSMO 13025100)

Grades 9-10

**\*\*A ONE-TIME LAB FEE OF \$25 IS REQUIRED\*\***

In Introduction to Cosmetology, students explore careers in the cosmetology industry. To prepare for success, students must have academic and technical knowledge and skills relative to the industry. Students may begin to earn hours toward state licensing requirements.

**Cosmetology I (2 Credits + *optional local Lab Credit*)**

COSMO-I (COSMET1 13025200)

*COSMO-LAB*

Grades 10-11

Prerequisite: Introduction to Cosmetology

**\*\*A ONE-TIME LAB FEE OF \$25 IS REQUIRED\*\***

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 requirements for licensure upon passing the state examination. Analysis of career opportunities, requirements, expectations, and development of workplace skills are included.

**Cosmetology II (2 Credits + *optional local Lab Credit*)**

COSMO-II (COSMET2 13025300)

*COSMO-LAB*

Grades 11-12

Prerequisite: Cosmetology I

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.

## Information Technology Career Cluster



### Business & Industry Endorsement

#### COHERENT SEQUENCES

- COMPUTER PROGRAMMING
- AP COMPUTER SCIENCE
- PRACTICUM IN INFORMATION TECHNOLOGY

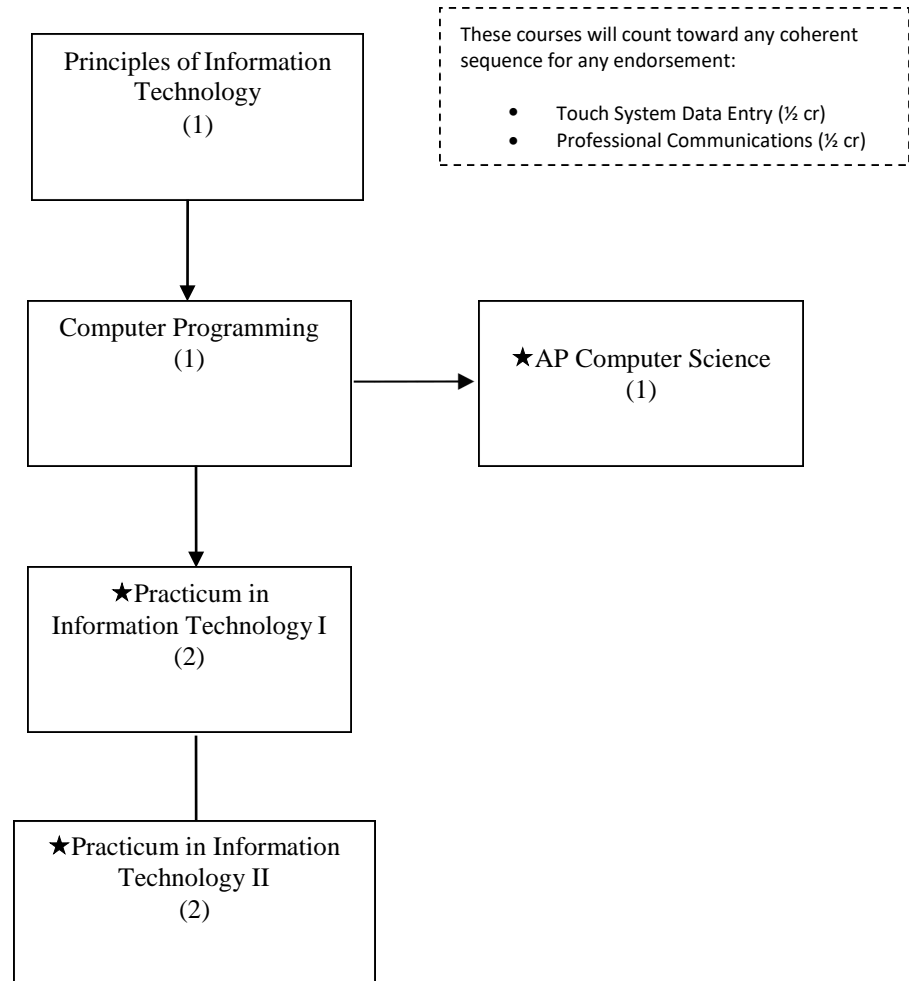


### 10 Top-Paying Careers

Occupation	Average Wage	Entry-Level Wage	Experienced Wage
Computer and Information Systems Manager	\$46.15	\$27.83	\$55.30
Electrical Engineer	\$39.74	\$26.58	\$46.32
Computer Hardware Engineer	\$39.05	\$26.04	\$45.56
Computer Science Teacher, Postsecondary	\$38.67	\$21.45	\$47.29
Computer Software Engineer, Systems Software	\$38.27	\$26.04	\$44.38
Computer and Information Scientist, Research	\$38.02	\$26.67	\$43.70
Computer Software Engineer, Applications	\$37.26	\$23.72	\$44.03
Computer Programmer	\$33.92	\$20.32	\$40.71
Computer Systems Analyst	\$32.11	\$21.47	\$37.42
Database Administrator	\$30.92	\$18.64	\$37.07

This is a chart of hourly wages for 10 of the top-paying careers in the Information Technology cluster in Texas. Note how entry-level wages are often much lower than pay for the average worker and experienced workers in each profession. Source: Texas Workforce Commission.

## Information Technology Coherent Sequence



	Grade	Prerequisite(s)	★ETC
Principles of Information Technology	9-10		
Computer Programming	10-12	Principles of Information Tech	
AP Computer Science	11-12	Computer Programming & Algebra II	
Practicum in Information Technology	11-12	By application only	GC
Practicum in Information Technology	12	By application only	GC

**★Denotes courses with Early Technical Credit**

## Information Technology Courses



### Information Technology

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#### **Principles of Information Technology (1 Credit)**

080010 (PRINIT 13027200)

Grades 9-10

In Principles of Information Technology, students will develop computer literacy skills to adapt to emerging technologies used in the global marketplace. Students will implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. Students will enhance reading, writing, computing, communication, and reasoning skills and apply them to the information technology environment.

#### **Computer Programming I (1 Credit)**

090020 (COMPPRO1 13027600)

Grades: 11-12

Prerequisites: Principles of Information Technology, Web Technologies

Students acquire knowledge of structured programming techniques and concepts appropriate to developing executable programs and creating appropriate documentation. Students 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 it relates to computer programming. Students apply technical skills to address business applications of emerging technologies.

#### **Advanced Placement Computer Science Principles (1 Credit)**

09003P (APCSPRIN A3580100)

Level 3

Grades: 11-12

Prerequisites: Computer Programming I and Algebra II

The AP Computer Science A course is equivalent to a first-semester, college-level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes object-oriented and imperative problem solving and design using the Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. Students are required to take the AP Computer Science Principles exam at the end of the course.

**★Practicum in Information Technology I (2 or 3 Credits)\***

090050 (2 credits) (PRACIT1 13028000)

090150 (3 credits) (EXPRIT1 13028005)

Grades: 11-12

Prerequisites: a minimum of two high school information technology courses and by application only.

Students gain advanced knowledge and skills in the application, design, production, implementation, maintenance, evaluation, and assessment of products, services, and systems. Knowledge and skills in the proper use of analytical skills and application of information technology concepts and standards are essential to prepare students for success in a technology-driven society. Critical thinking, information technology experience, and product development may be conducted in a classroom setting with an industry mentor, or both, as an unpaid internship, or as career preparation.

**★Practicum in Information Technology II (2 or 3 Credits)\***

090250 (2 credits) (PRACIT2 13028010)

090350 (3 credits) (EXPRIT2 13028050)


Grades: 12

Prerequisite: Practicum in Information Technology I

Students gain advanced knowledge and skills in the application, design, production, implementation, maintenance, evaluation, and assessment of products, services, and systems. Knowledge and skills in the proper use of analytical skills and application of information technology concepts and standards are essential to prepare students for success in a technology-driven society. Critical thinking, information technology experience, and product development may be conducted in a classroom setting with an industry mentor, or both, as an unpaid internship, or as career preparation.

\*Articulated credit at Grayson College will only be awarded if students score 80% or higher on the exit exam.


## Law, Public Safety, Corrections & Security Career Cluster

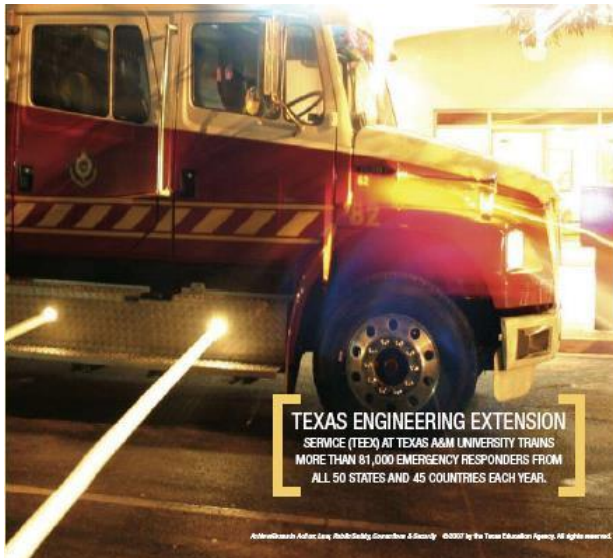


### Public Services Endorsement

**COHERENT SEQUENCES**

- LAW ENFORCEMENT II
- FORENSIC SCIENCE



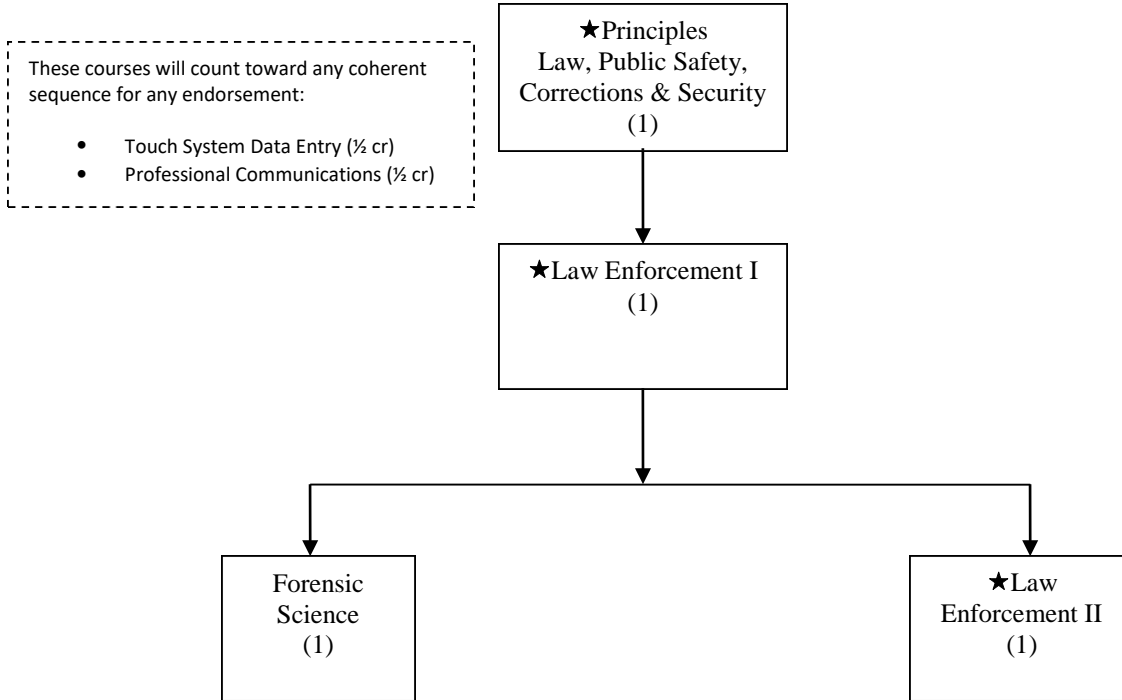


### 10 Top-Paying Careers

Occupation	Average Wage	Entry-Level Wage	Experienced Wage
Lawyer	\$54.80	\$26.58	\$68.91
Administrative Law Judge and Hearing Officer	\$34.90	\$13.91	\$45.39
Judge, Magistrate Judge, and Magistrate	\$31.42	\$10.87	\$41.70
First-Line Supervisor / Manager of Police and Detectives	\$30.68	\$21.09	\$35.47
First-Line Supervisor / Manager of Firefighting Workers	\$27.53	\$19.54	\$31.52
Court Reporter	\$25.65	\$14.48	\$31.24
Radio Operator	\$25.19	\$12.18	\$31.70
Detective and Criminal Investigator	\$24.35	\$15.77	\$28.64
Fire Inspector and Investigator	\$21.45	\$16.76	\$23.80
Transit and Railroad Police	\$21.03	\$16.65	\$23.23

*This is a chart of hourly wages for 10 of the top-paying careers in the Law, Public Safety, Corrections & Security cluster in Texas. Note how entry-level wages are often much lower than pay for the average worker and experienced workers in each profession. Source: Texas Workforce Commission.*

## Law, Public Safety, Corrections and Security Coherent Sequence



	Grade	Prerequisite(s)	★ETC
Prin of Law, Pub Sfty, Corr & Sec	9-10		GC
Law Enforcement I	10-12	Prin of Law, Pub Sfty, Corr & Sec	GC
Law Enforcement II	11-12	Law Enforcement I	GC
Forensic Science	11-12	Three previous science courses.	

★Denotes courses with Early Technical Credit



## Law, Public Safety, Corrections & Security Courses



### Law, Public Safety, & Security

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#### ★Principles of Law, Public Safety, Corrections, and Security (1 Credit)

140000 (PRINLPCS 13029200)

Grades 9-10

This course prepares students for professions in law enforcement, security, corrections, and fire and emergency management services. Students will examine the roles and responsibilities of police, courts, corrections, private security, and protective agencies of fire and emergency services. The course provides students with an overview of the skills necessary for careers in law enforcement, fire service, security, and corrections.

#### ★Law Enforcement I (1 Credit)

140010 (LAWENF1 13029300)

Grades 10-12

Recommended prerequisite: Principles of Law, Public Safety, Corrections, and Security

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

#### ★Law Enforcement II (1 Credit)

140020 (LAWENF2 13029400)

Grades 11-12

Recommended prerequisite: Law Enforcement I

This course provides the knowledge and skills necessary to prepare for a career in law enforcement. This course includes the ethical and legal responsibilities, operation of police and emergency telecommunication equipment, and courtroom testimony.

#### Forensic Science (1 Credit) (will count as advanced science)

140030 (FORENSCI 13029500)

Grades 11-12

Prerequisites: Three previous science courses (to include biology and chemistry).

Recommended prerequisites: Principles of Law, Public Safety, Corrections, and Security and Law Enforcement I

This course uses a structured and scientific approach to the investigation of crimes. Students will learn terminology and investigative procedures. Using scientific methods, students will collect and analyze evidence through case studies and simulated crime scenes.



## Manufacturing Career Cluster



### Business & Industry Endorsement

#### COHERENT SEQUENCE

- WELDING II
- PRACTICUM IN MANUFACTURING
- ADVANCED MANUFACTURING CERTIFICATION

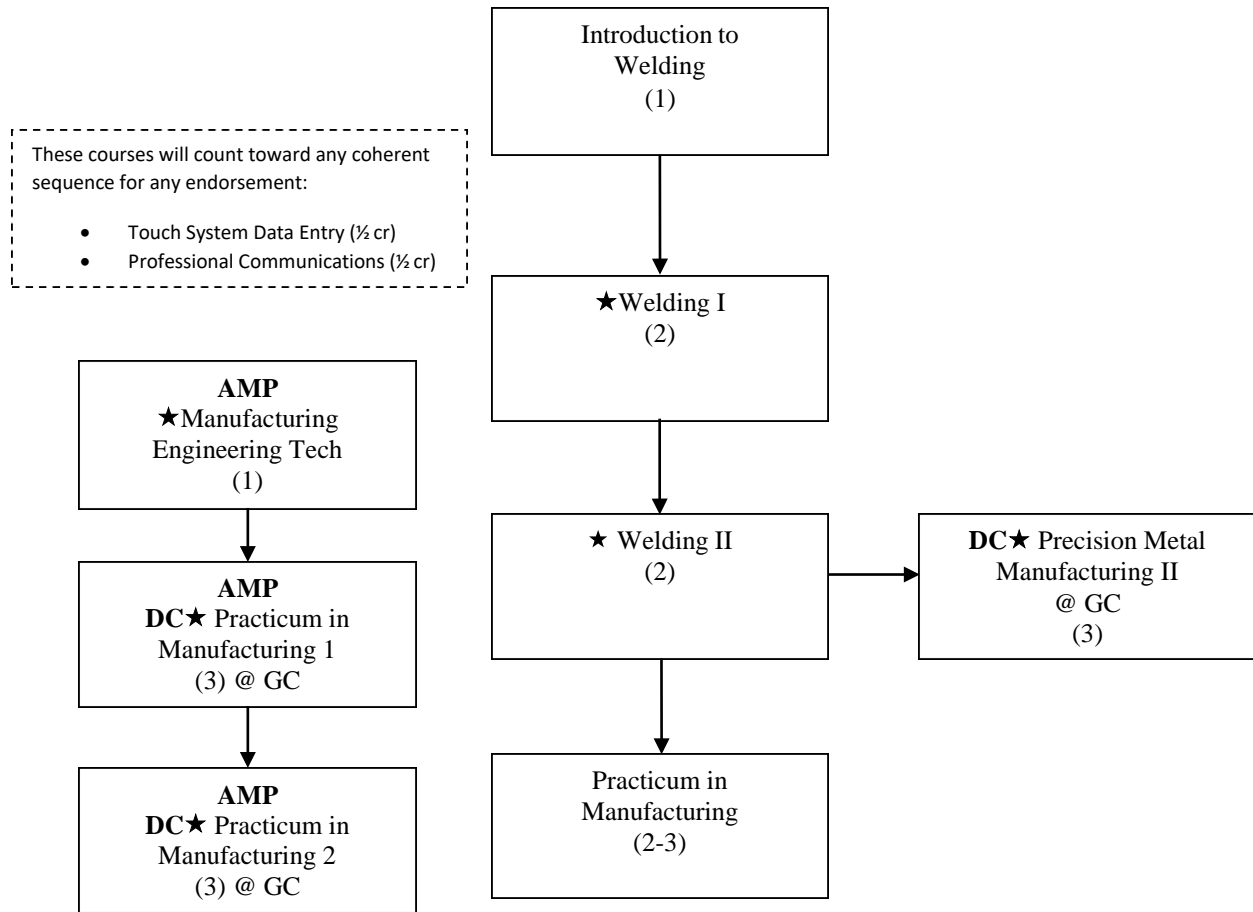


### 10 Top-Paying Careers

Occupation	Average Wage	Entry-Level Wage	Experienced Wage
General and Operations Manager	\$42.74	\$19.78	\$54.23
Environmental Engineer	\$35.97	\$22.87	\$42.53
Commercial and Industrial Designer	\$25.07	\$13.39	\$30.91
Industrial Engineering Technician	\$24.46	\$15.42	\$28.98
Electrical and Electronic Engineering Technician	\$24.06	\$15.75	\$28.22
Mechanical Engineering Technician	\$23.41	\$15.71	\$27.26
Purchasing Agent, except Wholesale, Retail, and Farm Products	\$23.39	\$14.69	\$27.74
First-Line Supervisor of Production and Operating Workers	\$22.94	\$13.90	\$27.46
Electromechanical Technician	\$21.86	\$15.06	\$25.26
Avionics Technician	\$20.19	\$13.42	\$23.58

This is a chart of hourly wages for 10 of the top-paying careers in the manufacturing cluster in Texas. Note how entry-level wages are often much lower than pay for the average worker and experienced workers in each profession. Source: Texas Workforce Commission.

# Manufacturing Coherent Sequence



	Grade	Prerequisite(s)	★ETC
Introduction to Welding	9-10		
Welding I	10-12	Intro to Welding Manufacturing	GC
Welding II	11-12	Welding I	GC
Manufacturing Engineering Tech	10-11	1 course related to manufacturing	GC
Practicum in Manufacturing	11-12	2 courses related to manufacturing	
Precision Metal Manufacturing II	12	2 courses related to manufacturing	GC dual credit

**★Denotes courses with Early Technical Credit**



While in high school, the Advanced Manufacturing Program provides students with the following:

- Up to \$4,900 worth of tuition and books for **FREE!**\*
- Up to 41 college credit hours completed in high school
- Two College Certificates:
  - Basic Manufacturing Technology Certificate
  - Advanced Manufacturing Technology Certificate
- Opportunity to earn a Nationally Recognized Manufacturing Certification
- Paid internship at a local manufacturing industry\*
- A pathway to a career you can be proud of!

\*Must apply for scholarship annually and proof of authorization to work in the United States is required.

## ADVANCED MANUFACTURING PROGRAM (AMP) (10-12 grade + post high school)

Basic Manufacturing Certification and Advanced Manufacturing Certification are awarded by Grayson College following completion of the following courses, delivered on the DHS and GC campuses. Admission to Grayson College is not required. There is **no cost\*** to qualifying students for this college credit that will be awarded as Early Technical Credit and Dual Credit.

\*Must apply for scholarship annually and proof of authorization to work in the U.S. is required.

<b>Basic Manufacturing Technology Certification</b>	
<b>10th Grade Fall Semester ETC</b>	<b>10th Grade Spring Semester ETC</b>
Manufacturing Engineering Technology <b>MANENGT1 1303900</b> – 0.5 HS credit <ul style="list-style-type: none"> <li>TECH 1303 Technical Calculations</li> </ul>	Manufacturing Engineering Technology <b>MANENGT1 1303900</b> – 0.5 HS credit <ul style="list-style-type: none"> <li>MCHN 1302 Print Reading for Machining Trades</li> </ul>
<b>11th Grade Fall Semester DC</b>	<b>11th Grade Spring Semester DC</b>
Practicum in Manufacturing 1/Extended <b>EXPRMAN1 13033000</b> – 1.5 HS credit <ul style="list-style-type: none"> <li>MCHN 1438 Basic Machine Shop</li> <li>MCHN 1320 Precision Tools &amp; Measurement</li> </ul>	Practicum in Manufacturing 1/Extended <b>EXPRMAN1 13033000</b> – 1.5 HS credit <ul style="list-style-type: none"> <li>MCHN 1326 Intro to Computer Aided Mfg</li> <li>MCHN 1454 Intermediate Machine Shop</li> </ul>
<b>Advanced Manufacturing Technology Certification</b>	
<b>12th Grade Fall Semester DC</b>	<b>12th Grade Fall Semester DC</b>
Practicum in Manufacturing 2/Extended <b>EXPRMAN2 13033015</b> – 1.5 HS credit <ul style="list-style-type: none"> <li>QCTC 1343 Quality Assurance</li> <li>ELPT 1311 Basic Electricity</li> </ul>	Practicum in Manufacturing 2/Extended <b>EXPRMAN2 13033015</b> – 1.5 HS credit <ul style="list-style-type: none"> <li>ELPT 2319 Basic PLC Theory</li> <li>ELPT 1311 Basic Electrical Theory</li> <li>MCHN 1371 HYB – Mfg Skills Standards</li> </ul>
<b>College – May Mini and Summer</b>	
<ul style="list-style-type: none"> <li>INMT 2688 Internship – Manufacturing Technology</li> <li>INMT 1391 Special Topics – Soft Skills</li> </ul>	
This plan of study totals 41 college hours. These courses may be paired with dual credit academic core classes to attain an Applied Associate of Science Degree. Most of the required core academic courses are available on the Denison High School campus. Interested students should discuss these options with their school counselor.	

## Manufacturing Courses



### Manufacturing

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#### **Introduction to Welding (1 Credit over 1 semester)**

120151/120152 (INTRWELD 13032250)

Grades 9-10

Students must obtain OSHA certification to work in the shop.

##### **Personal protective clothing is mandatory for this class.**

Minimum clothing requirements are: all leather shoes, 100% cotton pants, and 100% cotton long sleeve shirt.

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

#### **★Welding I (2 Credits over 1 period)**

120050 (WELD1 13032300)

Grades 10-12

Prerequisite: Algebra 1 and Introduction to Welding

Students must obtain OSHA certification to work in the shop.

##### **Personal protective clothing is mandatory for this class.**

Minimum clothing requirements are: all leather shoes, 100% cotton pants, and 100% cotton long sleeve shirt.

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.

#### **★Welding II (2 Credits)**

120350 (WELD2 13032400)

Grades 11-12

Prerequisites: Algebra I or Geometry and Welding

Students must obtain OSHA certification to work in the shop.

##### **Personal protective clothing is mandatory for this class.**

Minimum clothing requirements are: all leather shoes, 100% cotton pants, and 100% cotton long sleeve shirt.

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.

#### **Practicum in Manufacturing (2 Credits)**

112800 (2 credits) (PRACMAN1 13033000) (on DHS campus – 3<sup>rd</sup> year welding)

Grade 12

Prerequisites: Two to three courses related to manufacturing.

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.

★ **Precision Metal Manufacturing II w/ Lab (3 Credits) – Dual Credit**

120056 (3 credits) (PRMMLAB2 13032610) (on Grayson College campus)

Grade 12

Prerequisite: Welding II

Students must apply to Grayson College to participate in this program. Tuition will be charged, but fee waivers are available.

The Welding Program will prepare student for most of the basic welding processes to join such metals as carbon, aluminum, and stainless steel, which will provide students with the information and training to step directly into employment. The program will also prepare students for many types of employment related to welding, such as engineering, quality control, manufacturing technician, etc.

Grayson College offers an Associate of Applied Science degree and two certificate of completions that train students in **Combination Welding** and **Structural Welding**.

Students must provide their own equipment as listed here:

- Welding Gloves
- Leather Work Boots
- Welding Goggles
- Welding Helmet, Auto darkening (Price range \$100 - \$150)
- Flint Striker
- Wire Brush
- Tip Cleaner
- Chipping Hammer
- MIG Pliers
- Z87.1 Safety Glasses
- Welding Jacket (leather) or Denim Shirt
- Ear plugs
- 4" Grinding rocks (minimum two 1/4" and two 1/8" per semester)
- 4" Grinder
- 4" Flap Sanding Disks (36-40 grit), 5 per semester
- 4" Wire Wheels (minimum of 3 will be needed per semester)
- Tool bag or roll around tool box
- 25 foot tape measure
- Metal Vise Clamps (2)

**★Manufacturing Engineering Technology I [for AMP Program] (1 Credit)**

(Technical Calculations fall semester. Precision Tools and Measurements spring semester)

1131D0 (MANENGT1 13032900)

Grade 10

**This course is the first in the Advanced Manufacturing Program through Grayson College. Enrollment is by invitation only. This course is taught at DHS.**

In Manufacturing Engineering Technology I, students will gain knowledge and skills in the application, design, production, and assessment of products, services, and systems and how those knowledge and skills are applied to manufacturing. Students will prepare for success in the global economy. The study of manufacturing engineering will allow students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in a manufacturing setting.

**★Diversified Manufacturing I [for AMP Program] (1 Credit)**

(Basic Machine Shop I)

1132D0 (DIMANU1 13032650)

Grade 11 Fall Semester - double blocked

**This course is the second in the Advanced Manufacturing Program through Grayson College. Enrollment is by invitation only. This course will be taught at GC.**

In Diversified Manufacturing I, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems and how those knowledge and skills are applied to manufacturing. The study of manufacturing systems allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in a manufacturing setting. Diversified Manufacturing I allows students the opportunity to understand the process of mass production by using a wide variety of materials and manufacturing techniques. Knowledge about career opportunities, requirements, and expectations and the development of skills prepare students for workplace success.

**★Diversified Manufacturing II [for AMP Program] (1 Credit)**

(Pumps, Compressors, Mechanical Drives; Quality Assurance)

1133D0 (DIMANU2 13032660)

Grade 11 Spring Semester – double blocked

**This course is the third in the Advanced Manufacturing Program through Grayson College. Enrollment is by invitation only. This course will be taught at GC.**

In Diversified Manufacturing II, students will gain knowledge and skills in the application, design, production, and assessment of products, services, and systems and how those knowledge and skills are applied to manufacturing. The study of manufacturing systems allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in a manufacturing setting. Diversified Manufacturing II allows students the opportunity to understand the process of mass production by using a wide variety of materials and manufacturing techniques. Knowledge about career opportunities, requirements, and expectations and the development of skills prepare students for workplace success.

**★Practicum in Manufacturing [for AMP Program] (3 Credits)**

(Fundamentals of Electrical I & Print Reading for Machining fall semester. Programmable Logic Controllers I & Basic Fluid Power spring semester.)

1134D0 (3 credits) (EXPRMAN1 13033005)

Grade 12

**This course is the fourth in the Advanced Manufacturing Program through Grayson College. Enrollment is by invitation only. This course will be taught at GC.**

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.



## Science, Technology, Engineering & Mathematics Career Cluster



### STEM Endorsement

#### COHERENT SEQUENCES

- ENGINEERING DESIGN & PRESENTATION I
- ENGINEERING DESIGN & PRESENTATION II
- ROBOTICS I
- ROBOTICS II



### 10 Top-Paying Careers

Occupation	Average Wage	Entry-Level Wage	Experienced Wage
Engineering Manager	\$50.25	\$33.59	\$58.58
Petroleum Engineer	\$46.95	\$27.25	\$56.80
Natural Sciences Manager	\$44.65	\$30.25	\$51.85
Physicist	\$40.95	\$26.74	\$48.06
Materials Scientist	\$40.14	\$24.11	\$48.15
Marine Engineer and Naval Architect	\$37.93	\$25.41	\$44.19
Biomedical Engineer	\$34.00	\$20.56	\$40.72
Civil Engineer	\$33.18	\$22.71	\$38.42
Biochemist and Biophysicist	\$32.42	\$23.10	\$37.08
Nuclear Technician	\$31.33	\$26.64	\$33.68

*This is a chart of hourly wages for 10 of the top-paying careers in the Science, Technology, Engineering & Mathematics cluster in Texas. Note how entry-level wages are often much lower than pay for the average worker and experienced workers in each profession. Source: Texas Workforce Commission.*



While in high school, the Advanced Manufacturing Program provides students with the following:

- Up to \$4,900 worth of tuition and books for **FREE!**\*
- Up to 41 college credit hours completed in high school
- Two College Certificates:
  - Basic Manufacturing Technology Certificate
  - Advanced Manufacturing Technology Certificate
- Opportunity to earn a Nationally Recognized Manufacturing Certification
- Paid internship at a local manufacturing industry\*
- A pathway to a career you can be proud of!

\*Must apply for scholarship annually and proof of authorization to work in the United States is required.

## ADVANCED MANUFACTURING PROGRAM (AMP) (10-12 grade + post high school)

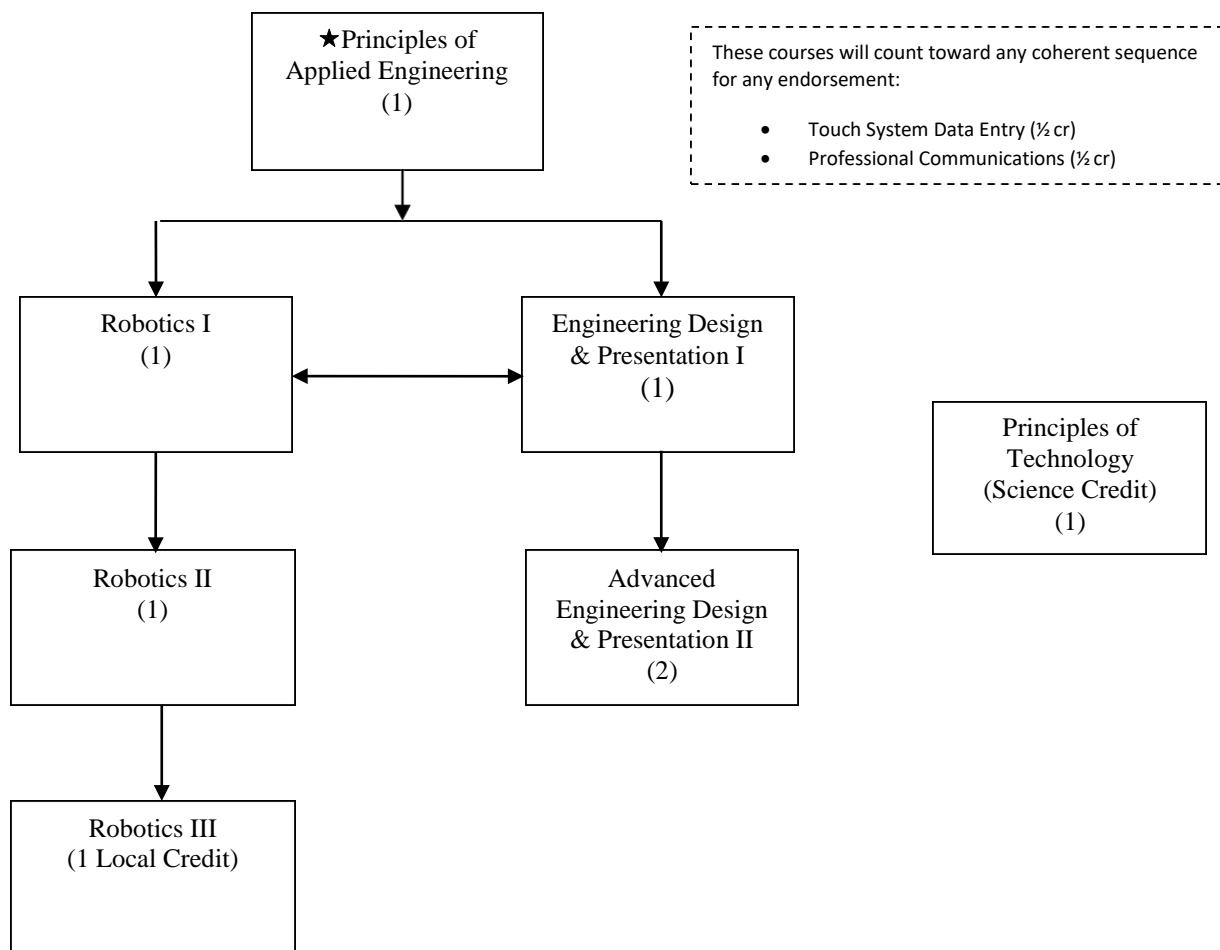
Basic Manufacturing Certification and Advanced Manufacturing Certification are awarded by Grayson College following completion of the following courses, delivered on the DHS and GC campuses. Admission to Grayson College is not required. There is **no cost\*** to qualifying students for this college credit that will be awarded as Early Technical Credit and Dual Credit.

\*Must apply for scholarship annually and proof of authorization to work in the U.S. is required.

<b>Basic Manufacturing Technology Certification</b>	
<b>10th Grade Fall Semester ETC</b>	<b>10th Grade Spring Semester ETC</b>
Manufacturing Engineering Technology <b>MANENGT1 1303900</b> – 0.5 HS credit <ul style="list-style-type: none"> <li>• TECH 1303 Technical Calculations</li> </ul>	Manufacturing Engineering Technology <b>MANENGT1 1303900</b> – 0.5 HS credit <ul style="list-style-type: none"> <li>• MCHN 1302 Print Reading for Machining Trades</li> </ul>
<b>11th Grade Fall Semester DC</b>	<b>11th Grade Spring Semester DC</b>
Practicum in Manufacturing 1/Extended <b>EXPRMAN1 13033000</b> – 1.5 HS credit <ul style="list-style-type: none"> <li>• MCHN 1438 Basic Machine Shop</li> <li>• MCHN 1320 Precision Tools &amp; Measurement</li> </ul>	Practicum in Manufacturing 1/Extended <b>EXPRMAN1 13033000</b> – 1.5 HS credit <ul style="list-style-type: none"> <li>• MCHN 1326 Intro to Computer Aided Mfg</li> <li>• MCHN 1454 Intermediate Machine Shop</li> </ul>
<b>Advanced Manufacturing Technology Certification</b>	
<b>12th Grade Fall Semester DC</b>	<b>12th Grade Fall Semester DC</b>
Practicum in Manufacturing 2/Extended <b>EXPRMAN2 13033015</b> – 1.5 HS credit <ul style="list-style-type: none"> <li>• QCTC 1343 Quality Assurance</li> <li>• ELPT 1311 Basic Electricity</li> </ul>	Practicum in Manufacturing 2/Extended <b>EXPRMAN2 13033015</b> – 1.5 HS credit <ul style="list-style-type: none"> <li>• ELPT 2319 Basic PLC Theory</li> <li>• ELPT 1311 Basic Electrical Theory</li> <li>• MCHN 1371 HYB – Mfg Skills Standards</li> </ul>
<b>College – May Mini and Summer</b>	
<ul style="list-style-type: none"> <li>• INMT 2688 Internship – Manufacturing Technology</li> <li>• INMT 1391 Special Topics – Soft Skills</li> </ul>	
This plan of study totals 41 college hours. These courses may be paired with dual credit academic core classes to attain an Applied Associate of Science Degree. Most of the required core academic courses are available on the Denison High School campus. Interested students should discuss these options with their school counselor.	



## Science, Technology, Engineering and Mathematics Coherent Sequence



	Grade	Prerequisite(s)	★ETC
Principles of Applied Engineering	9-10		GC
Robotics I	10-12	Principles of Applied Engineering	
Robotics II	11-12	Robotics I	
Engineering Design & Presentation I	10-12	Principles of Applied Engineering	
Engineering Des & Presentation II	11-12	Engineering Design & Presentation I	
Principles of Technology	11-12	Two Science courses and Algebra I	

## Science, Technology, Engineering & Mathematics Courses



### Science, Technology, Engineering & Mathematics

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#### ★Principles of Applied Engineering (1 Credit over 1 semester)

124011/124012 (PRAPPENG 13036200)

Grades 9-10

Personal protective clothing is mandatory for this class and is the responsibility of the student. Minimum clothing requirements are: all leather boots, 100% cotton pants, and 100% cotton long sleeve shirt.

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.

#### Robotics I (1 Credit)

124100 (ROBOTIC1 13037000)

Grades 10-12

Prerequisites: Two courses in Manufacturing, STEM or Science.

Personal protective clothing is mandatory for this class and is the responsibility of the student. Minimum clothing requirements are: all leather boots, 100% cotton pants, and 100% cotton long sleeve shirt.

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

#### Robotics II (1 Credit)

124200 (ROBOTIC2 13037050)

Grades 11-12

Prerequisites: Robotics I

Personal protective clothing is mandatory for this class and is the responsibility of the student. Minimum clothing requirements are: all leather boots, 100% cotton pants, and 100% cotton long sleeve shirt.

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.

**Robotics III (1 LOCAL Credit)**

124300 (84900ROB)

Grades 11-12

Prerequisites: Robotics II

Personal protective clothing is mandatory for this class and is the responsibility of the student. Minimum clothing requirements are: all leather boots, 100% cotton pants, and 100% cotton long sleeve shirt.

In Robotics III, 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.

**Engineering Design and Presentation I (1 Credit)**

124010 (ENGDSPI 13036500)

Grades 10-12

Recommended prerequisite: Principles of Applied Engineering

Personal protective clothing is mandatory for this class and is the responsibility of the student. Minimum clothing requirements are: all leather boots, 100% cotton pants, and 100% cotton long sleeve shirt.

Engineering Design and Presentation I is a continuation of knowledge and skills learned in Principles of Applied Engineering. Students enrolled in this course will demonstrate knowledge and skills of the design process as it applies to engineering fields using multiple software applications and tools necessary to produce and present working drawings, solid model renderings, and prototypes. Students will use a variety of computer hardware and software applications to complete assignments and projects. Through implementation of the design process, students will transfer advanced academic skills to component designs. Additionally, students explore career opportunities in engineering, technology, and drafting and what is required to gain and maintain employment in these areas.

**Engineering Design and Presentation II (2 Credits)**

124020 (ENGDSPII 13036600)

Grades 11-12

Prerequisite: Engineering Design and Presentation I

Personal protective clothing is mandatory for this class and is the responsibility of the student. Minimum clothing requirements are: all leather boots, 100% cotton pants, and 100% cotton long sleeve shirt.

Engineering Design and Presentation II is a continuation of knowledge and skills learned in Engineering Design and Presentation I. Students enrolled in this course will demonstrate knowledge and skills of the design process as it applies to engineering fields using multiple software applications and tools necessary to produce and present working drawings, solid model renderings, 3D and prototypes. Students will use a variety of computer hardware and software applications to complete assignments and projects. Through implementation of the design process, students will transfer advanced academic skills to component designs. Emphasis will be placed on using skills from ideation through prototyping.

**Principles of Technology I (Physics Credit) (also an advanced science)**

121050 (PRINTECH 13037100)

Grades 11-12

Prerequisites: Two courses in Science and Algebra I

An applied physics course designed to provide a study in force, work, rate, resistance, energy, power, and force transformers as applied to mechanical, fluid, thermal, and electrical energy that comprise simple and technological devices and equipment. The course reinforces the mathematics applications a student needs to understand to apply the principles being studied.

## CAREER & TECHNICAL EDUCATION COURSE SUBSTITUTIONS

CTE COURSE	STATE APPROVED SUBSTITUTIONS
Professional Communications (1/2)	Communication Applications/Speech (1/2 credit)
Advanced Animal Science (1)	Advanced Science (1 credit/semester)
Food Science (1)	Advanced Science (1 credit/semester)
Anatomy and Physiology (1)	Advanced Science (1 credit/semester)
Forensic Science (1)	Advanced Science (1 credit/semester)
Principles of Technology/Physics (1)	Advanced Science (1 credit/semester)

# PARENTS!

## WE WILL PAY FOR YOUR STUDENT'S CAREER PATH

### Your student will...

- Gain skills that will prepare them to enter the high demand career field of Advanced Manufacturing
- Start as early as the 10th grade
- Experience real-world, hands-on training
- Graduate and start earning a living while continuing their education



Carley Byrum  
Pottsboro AMP Graduate

— “ —

*By the end of my second year in the program, it became clear that what I was originally viewing as something to fall back on as a career was now my first choice. Overall, the program provided me countless opportunities to tour factories, make connections, and learn new things about what goes into the manufacturing process. I can honestly say that AMP was one of the best turning points in my life and something I highly recommend any student to consider.*

— ” —

## AMP Scholarships

- Up to \$4,900 worth of tuition and books **FOR FREE\***
- Up to 41 college credit hours completed in high school
- 2 Nationally Recognized Manufacturing Certifications in Basic & Advanced Manufacturing Technology
- Paid internship at a local manufacturing company\*

\*Must apply for the scholarship annually and proof of authorization to work in the United States is required.



**Lowellaus Bowman**  
Denison AMP Graduate

“

*The Advanced Manufacturing Program was a great experience for me. It opened a window of options as far as careers. You learn technical and hands-on skills that high school just doesn't offer. Before AMP, I wasn't sure about what I wanted to do. I was never interested in engineering until I got to see what engineers do, and that's what I strive to achieve. Don't go into the world without a plan.*

”



## Courses



*Note: The second and third year classes are held on the Grayson College campus.*

- Technical Calculations
- Print Reading for Machining Trades
- Basic Electrical Theory
- Quality Assurance
- Basic Machine Shop I
- Precision Tools and Measurement
- Introduction to Computer-Aided Manufacturing (CAM)
- Programmable Logic Controllers I
- Local Needs Course
- Special Topics in Manufacturing Technology/Technician Motor Controls
- Internship – Manufacturing Technology/Technician



# Programs of Study

## Beginning 2020-21 School Year

Programs of study are course sequences that prepare students with the knowledge and skills necessary for success in their chosen career. These sequences embed relevant, real world experiences and culminate in a postsecondary credential.

A student may complete a plan of study by completing 3 or more courses for 4 or more credits including at least one advanced course (level 3 or level 4) within an approved program of study.

## Agriculture, Food, and Natural Resources

### Applied Agricultural Engineering:

- Level I
  - Principals of Agriculture, Food, and Natural Resources
- Level II
  - Agricultural Mechanics and Metal Technologies/Lab
- Level II
  - Agricultural Structures Design and Fabrications/Lab
- Level IV
  - Practicum in Agriculture, Food, and Natural Resources

### Animal Science:

- Level I
  - Principals of Agriculture, Food, and Natural Resources
- Level II
  - Small Animal Management
- Level III
  - Livestock Production/Lab
- Level IV
  - Advanced Animal Science
  - Veterinary Medical Applications/Lab
  - Practicum in Agriculture, Food, and Natural Resources



# Architecture and Construction

## Carpentry:

- Level I
  - Principals of Construction
  - Principals of Architecture
- Level II
  - Construction Technology
- Level II
  - Construction Technology II
- Level IV
  - Practicum in Construction Technology

## Architectural Design

- Level I
  - Principals of Architecture
- Level II
  - Architectural Design I
  - Computer Aided Drafting for Architecture
- Level III
  - Architectural Design II
- Level IV
  - Practicum in Architectural Design

# Arts, Audio Video Technology, and Communications

## Design & Multimedia Arts:

- Level I
  - Principles of Arts, A/V Technology, and Communications
  - Video Game Design
- Level II
  - Graphic Design and Illustration I/Lab
  - Video Game Programming
  - Commercial Photography I/Lab
  - Fashion Design I/Lab
- Level III
  - Graphic Design and Illustration II/Lab
  - Advanced Video Game Programming
  - Commercial Photography II/Lab
  - Fashion Design II/Lab
  - Digital Art and Animation
- Level IV
  - Practicum in Graphic Design and Illustration
  - Practicum in Animation
  - Practicum in Commercial Photography



**Digital Communications:**

- Level I
  - Principles of Arts, A/V Technology, and Communications
  - Professional Communications
- Level II
  - Audio Video Production I /Lab
- Level III
  - Audio Video Production II/Lab
- Level IV
  - Practicum in Audio Video Production

## **Education and Training**

**Teaching and Training:**

- Level I
  - Principles of Education and Training
  - Principles of Human Services
- Level II
  - Child Development
- Level II
  - Instructional Practices
- Level IV
  - Practicum in Education and Training

## **Health Science**

**Healthcare Diagnostics**

- Level I
  - Principles of Health Science
- Level II
  - Medical Terminology
- Level II
  - Health Science Theory
- Level IV
  - Anatomy and Physiology
  - Practicum in Health Science

## **Healthcare Therapeutic**

- Level I
  - Principles of Health Science
- Level II
  - Medical Terminology
  - Pharmacy I
- Level II
  - Health Science Theory
  - Anatomy and Physiology
- Level IV
  - Pharmacology
  - Practicum in Health Science

## **Hospitality**

### **Culinary Arts**

- Level I
  - Introduction to Culinary Arts
  - Principles of Hospitality and Tourism
- Level II
  - Culinary Arts
  - Foundations of Restaurant Management
- Level III
  - Advanced Culinary Arts
- Level IV
  - Food Science
  - Practicum in Culinary Arts

## **Human Services**

### **Cosmetology**

- Level I
  - Principles of Cosmetology and Color Design
- Level II
  - Introductions to Cosmetology
- Level III
  - Cosmetology I / Cosmetology I Lab
- Level IV
  - Cosmetology II / Cosmetology II Lab

# Information Technology

## Web Development

- Level I
  - Principles of Information Technology
- Level II
  - Computer Programming I
  - Web Technologies
- Level III
  - Web Game Development
- Level IV
  - Practicum in Information Technology

# Law and Public Service

## Law Enforcement

- Level I
  - Principles of Law, Public Safety, Corrections, and Security
- Level II
  - Law Enforcement I
- Level III
  - Law Enforcement II
- Level IV
  - Forensic Science
  - Practicum in Law, Public Safety, Corrections, and Security

# Manufacturing

## Advanced Manufacturing Technologies

- Level I
  - Principles of Manufacturing
  - Principles of Applied Engineering
- Level II
  - Engineering Design and Presentation I
  - Robotics I
  - Manufacturing Engineering Technology I
  - Programing Logical Controller I
- Level III
  - Manufacturing Engineering Technology II
  - Robotics II
  - Programmable Logical Controller II
- Level IV
  - Practicum in Manufacturing

## **Manufacturing Technology**

- Level I
  - Principles of Manufacturing
  - Principles of Applied Engineering
  - Blue Print Reading for Manufacturing Applications
- Level II
  - Metal Fabrication and Machining I
  - Diversified Manufacturing
- Level III
  - Diversified Manufacturing II
- Level IV
  - Practicum in Manufacturing

## **Welding**

- Level I
  - Introduction to Welding
- Level II
  - Welding I
- Level II
  - Welding II/Lab
- Level IV
  - Practicum in Manufacturing

## **Science, Technology, Engineering and Math**

### **Engineering**

- Level I
  - Principles of Applied Engineering
- Level II
  - Manufacturing Engineering Technology I
- Level II
  - Engineering Design and Presentation I
- Level IV
  - Engineering Design and Presentation II
  - Practicum in STEM

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