



**COURSE**



**CATALOG**



2025-2026



**HONORING  
EMBRACING  
INSPIRING**



# 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.

## 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 10th 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.*

### 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. Andru Gilbert 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.

## DENISON HIGH SCHOOL COUNSELORS

**Class of 2026**

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**Class of 2027**

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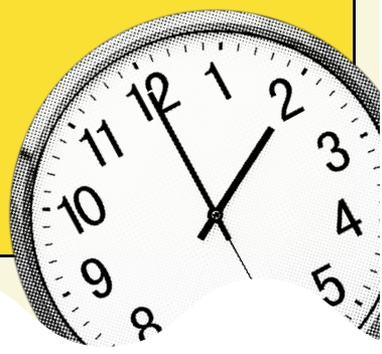
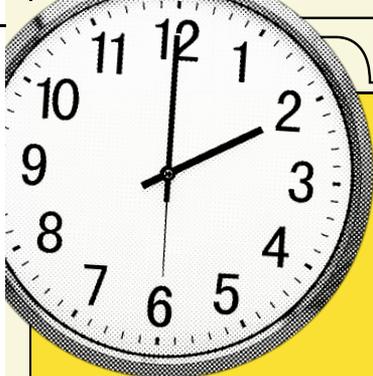
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**Career & Technical/Testing**

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**STATE LAW:**  
**90%**  
**ATTENDANCE**  
**REQUIREMENT**

**Attendance Requirements in Texas Schools**

**Compulsory Attendance**

Good attendance is important for many reasons. Your child receives the maximum benefit of education by being in school every day, and numerous studies show a strong link between academic performance and consistent attendance. Because attendance is so critical for the quality of your child’s education, Texas has a compulsory attendance law.

State law requires children to attend school each day that instruction is provided. Avoid truancy court and fines by ensuring your child attends school and meets the 90 percent rule.

**The 90 Percent Rule**

In addition to compulsory attendance law, districts are required to enforce the 90 percent rule, which states that students must attend class for 90 percent of the time it is offered to receive credit or a final grade.

The 90 percent rule applies to ALL absences, including excused absences

**ATTENDANCE IS CRITICAL!**

Absences are absences are absences. Excused or unexcused—ALL count.

Exceptions for absences:

- Student attends part of the school day (90-minutes minimum)
  - AND
- The part of the day missed is for a doctor, dental or court appointment
  - AND
- Verification/proof of this appointment is returned within 3 school days.

**STATE LAW – 90% ATTENDANCE REQUIREMENT**

Students who miss more than 9 days per semester may **lose credits** and have to retake all their classes. **JUST COME TO SCHOOL. IT IS THE LAW!**

**In addition, you may have to pay a fine for truancy.**

# UNIVERSITY

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 11 – Preliminary SAT – 11th grade scores used to qualify for National Merit scholarships.

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

Grade 11/12 – College entrance exams. It is very important to plan ahead and take these exams in 11th 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.
- ACT and SAT School Day are both offered at DHS.

## **TSIA2 (Texas Success Initiative Assessment) 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 TSIA2 testing for students in the spring each year.

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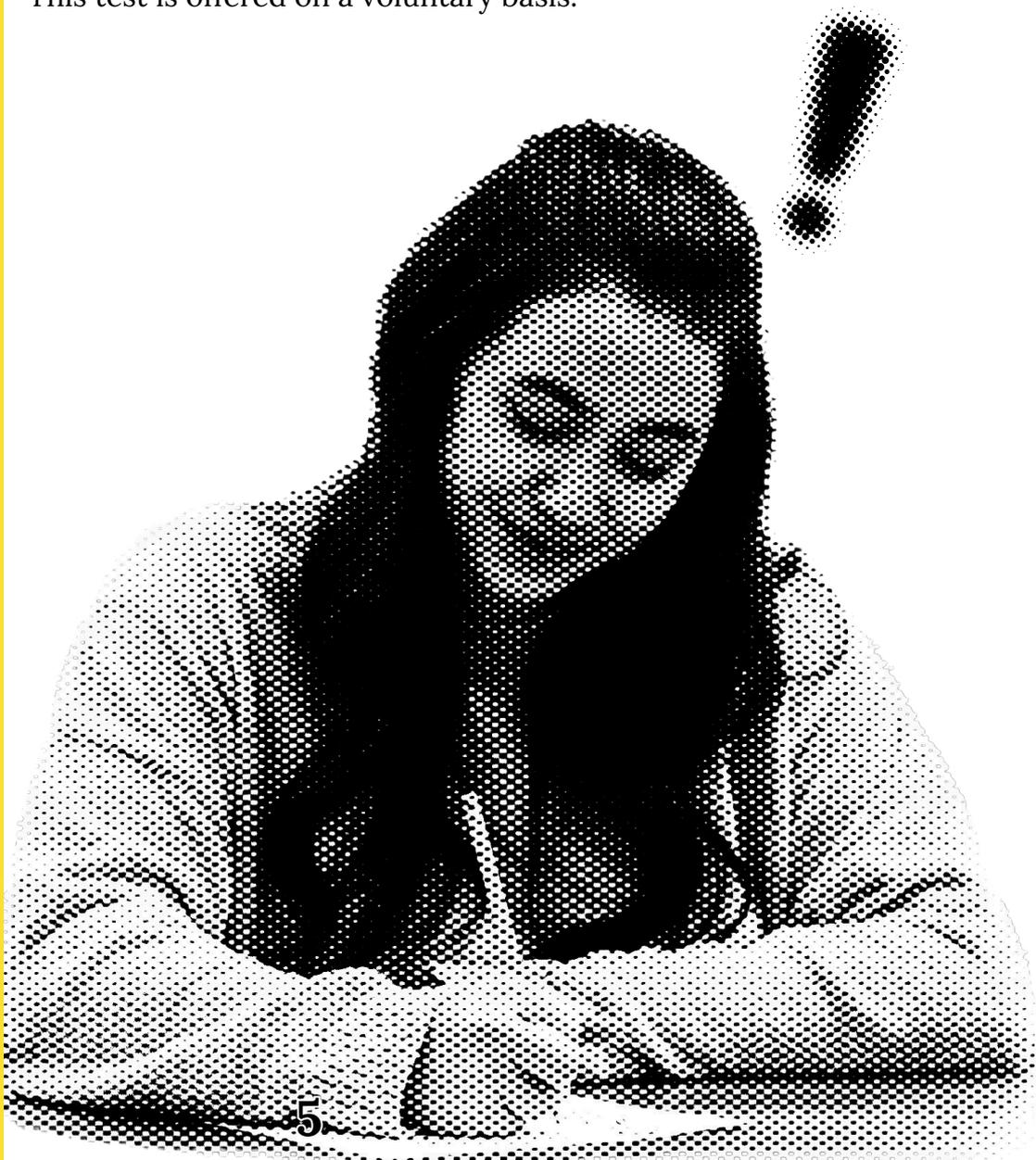
# COLLEGE TESTS

## **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.



# COLLEGE, CAREER, AND MILITARY READINESS (CCMR)

ALL HIGH SCHOOL GRADUATES NEED TO BE CCMR READY

## College Ready

- Meet criteria of 3 or greater on AP exam.
- Meet Texas Success Initiative (TSI) criteria in ELAR AND Math\*:
  - SAT (530 Math; 480 Reading/Writing)
  - ACT – Prior to 2/23 (23 composite with 19 in ELAR & Math)  
After 2/23 (ELAR E+R=40 and Math 22, no composite)
  - TSIA2 (ELAR 945; Math 950)
  - Complete college prep math or college prep English course.
    - Can mix/match these for TSI readiness
- Complete a course for dual credit (nine hours or more in any subject OR three hours ELAR or mathematics).
- Complete an OnRamps course in any subject and earn college credit.

## Career Ready

- Earn an industry-based certification.
- Graduate with completed IEP and workforce readiness.

## Military Ready

- Student must enlist in one of the Armed Forces and complete and submit the DD Form 4 in full, including all required signatures by the student and the enlistment officer.

# TESTING FOR CCMR

## **PSAT (college entrance pre-test)**

- Given in October (register and take at DHS)
- National Merit Scholarship Qualifying Test

## **ASVAB – November and/or February (military aptitude test)**

- FREE – register and take at DHS

Can register and take these any time. See counselor for fee waiver options.

- SAT National Testing – College Entrance Exams [www.sat.org](http://www.sat.org)
  - Given seven times a year on Saturdays at various locations.
- ACT National Testing – College Entrance Exams [www.act.org](http://www.act.org)
  - Given seven times a year on Saturdays at various locations.

## **ACT – SCHOOL DAY**

- MARCH (spring of junior year) – will register and take at DHS
- \*OCTOBER (fall of senior year) – will register and take at DHS

## **SAT – SCHOOL DAY**

- \*OCTOBER (fall of senior year) – will register and take at DHS  
*\*OCTOBER school-day testing is for seniors only*

## **TSIA2 SCHOOL DAY** – Texas college entrance assessment ([more info here](#))

- Used for dual credit enrollment but may be needed in addition to ACT/SAT scores.
- Offered at DHS every spring

*School day assessments - ACT/SAT/TSIA – students may choose one to take at no cost.*

# 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 2024 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 **OR**
- Satisfy ACT's College Readiness Benchmarks on the ACT assessment or earn on the SAT assessment a score of at least 480 on Reading and Writing and a 530 on the math.

If you're admitted to college through the Top 10% Rule, you may still be required to provide SAT or ACT scores, but these scores are not used for admissions purposes.

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.

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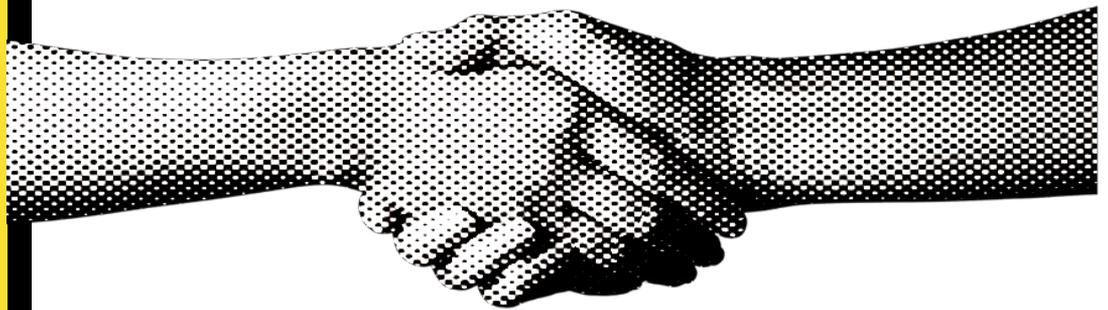
# TOP 10 PERCENT RULE FOR ADMISSIONS

## 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. meet all curriculum requirements for admission established by the college or university to which the student seeks admission; and
3. provide a high school transcript or diploma that indicates whether the student has satisfied or is on schedule to satisfy the requirements of the distinguished level of achievement under the Foundation High School Program or the portion of the distinguished level of achievement under the Foundation High School Program that was available to the student.

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



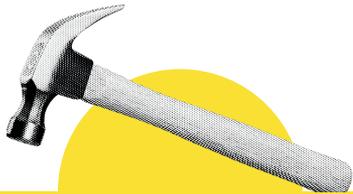
# VOLUNTEER OPPORTUNITIES

## 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



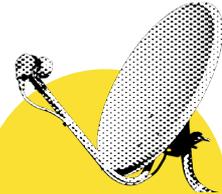
### Gain Valuable Life Experiences and Skills

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

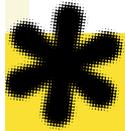
Volunteering brings together a variety of people. Both the recipients of your volunteer efforts and your co-workers can be rich sources of insight. For example, maybe you'll learn about the legal profession from a former lawyer you visit at a convalescent center.



### 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.

# VOLUNTEER OPPORTUNITIES



## 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.

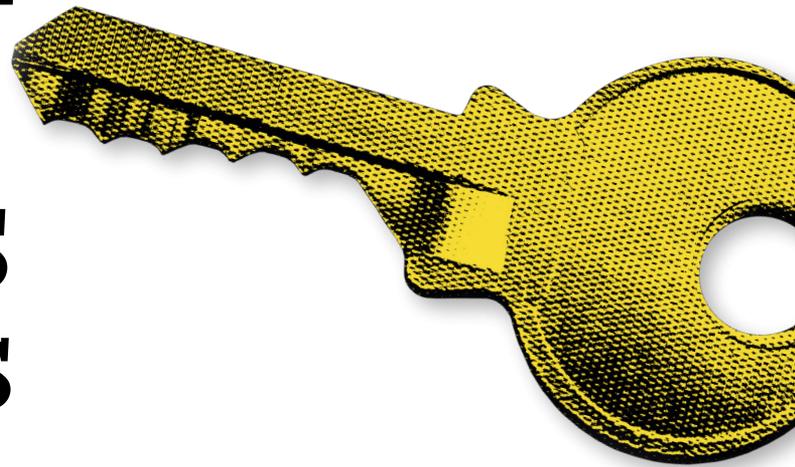
## Questions to Ask Yourself before You Volunteer:

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

Art Club	FCA (Fellowship of Christian Athletes)	Robotics
Athletic Training	FCCLA (Family, Career & Comm. Leaders of America)	Route 91 Vocal Jazz Ensemble
AVID	FFA (Future Farmers of America)	Senior Class Officers
Band - Touch of Gold	Fishing Team	Soccer - Girls / Boys
Baseball	Football	Softball
Basketball - Girls / Boys	Golf	Special Olympics
Cheerleading	Guitar	Student Council
Chorus	The Hive	Swarm of Friends
Color Guard/Gold Guard (JV)	HOSA (Health Occupations Students of America)	Swim Team
Construction - Woodshop	International Thespian Society Troupe 6319 (Theatre)	TAFE (Texas Association of Future Educators)
Cosmetology / Skills USA	Jacket Update	Technology/Engineering
Cross Country	Jazz Ensemble	Tennis
Debate / Speech Club	Junior Class Officers	Track
Den-Teens	Metal Trades - Welding	Tri M Music Honor Society
Denison and Dragons Club	Musical Theatre	UIL Academic Team
Drama Club	National Honor Society	UIL Science Team
Drill Team - Stingerettes	One Act Play - UIL	Volleyball
Encroix - Fellowship of Christian Dancers	Percussion Ensemble	Yellow Jacket TV
Fashion Club	Power Lifting	

# 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).*

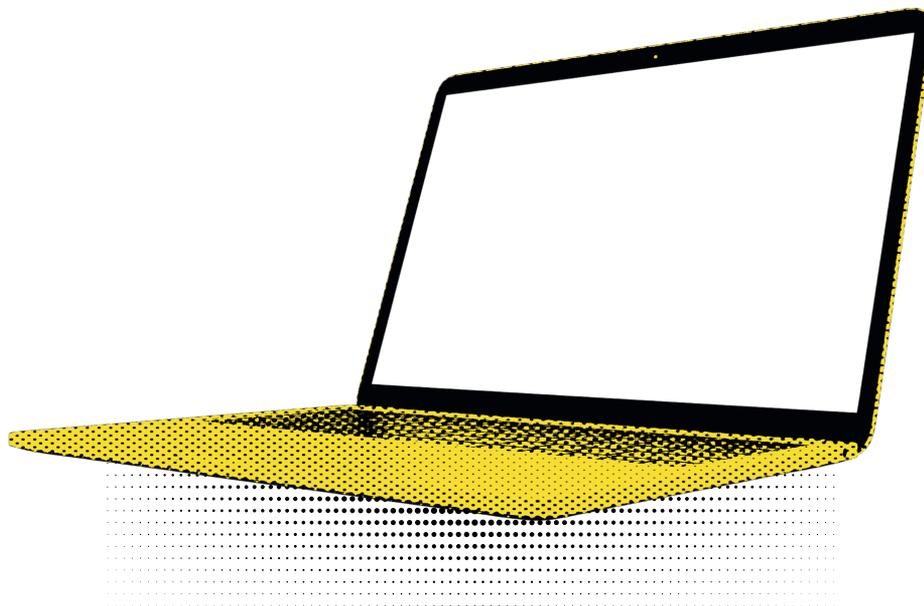
**A student is not required to comply with the above provision if:**

- 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**

Provide grant aid to students with financial need who are attending a Texas public university or health-related institution.

**Note:** Funding is limited. Each year institutions try to award funds to as many eligible students as possible. However, all eligible students may not receive funding.

## **Eligibility Requirements**

To be eligible for a TEXAS Grant award, a student must:

- Be registered with Selective Service, or be exempt
- Be classified by the institution as a Texas resident
- Have financial need, as determined by the institution
- Have not been convicted of a felony or crime involving a controlled substance
- Be enrolled at least three-quarter time
- Not have earned a baccalaureate degree

**To receive an initial award, a student must enroll in a baccalaureate program in an eligible institution via one of the following four ways:**

- **High School Graduation Pathway:** Graduation from an accredited public or private high school in Texas (homeschool graduates are not eligible) and enrollment at an approved institution prior to the end of the 16th month after high school graduation. The student must not have attempted more than 30 semester credit hours (excluding credits for dual enrollment or by examination); OR
- **Associate Degree Pathway:** Enrollment in an eligible institution prior to the end of the 12th month after the calendar month in which the student earned an associate degree from a public or private nonprofit Texas institution of higher education; OR
- **Honorable Military Discharge Pathway:** Enrollment in an eligible institution of higher education within 12 months after being honorably discharged from military service. Enlistment in the military must have occurred within 12 months after graduation from an accredited public or private high school in Texas on May 1, 2013 or later. The student must not have attempted more than 30 semester credit hours (excluding credits for dual enrollment or by examination); OR
- **Transfer Pathway:** Completion of at least 24 semester credit hours with a minimum 2.5 GPA after receiving a Texas Educational Opportunity Grant (TEOG) in fall 2014 or later and transferring to an eligible institution with a minimum 2.5 GPA.

# TEXAS GRANT

## **Award Amount**

**For the 2024-25 academic year:** An eligible student may receive **up to** \$5,394 per semester or \$16,182 /year.

## **Application Process**

- Complete and submit the Free Application for Federal Student Aid (FAFSA). If you are not eligible to complete the FAFSA, you may submit the Texas Application for State Financial Aid (TASFA). These applications are available October 1 each year.
- Priority may be given to students who apply by the January 15 priority deadline. Check with your institution on specific submission requirements.
- The financial aid office at your institution will determine your eligibility for this program and notify you if you are eligible.
- **Note:** Funds may not be immediately available to recipients at the beginning of the semester. Contact your institution's financial aid office if you have questions about eligibility and availability of funds.

## **Additional Information**

Contact your Texas public university or health-related institution if you have questions.

Program statute—[Texas Education Code, Section 56.302](#)

Clarifying rules—19 TAC, Ch. 22, Subchapter L: [§22.225 - §22.241](#)

General questions? Call 888-311-8881



# 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.**

# 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 AP
- Calculus AP
- Statistics AP
- Biology Honors and AP
- Chemistry Honors and AP
- Physics I/II 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

17 AP Courses

## LEVEL 2

- Spanish III
- Pre-Calculus
- Dual Credit College

## LEVEL 1

All other regular courses

## LEVEL 0

- Modified Courses
- Remedial Courses

GRADE	GRADE POINTS ASSIGNED			
	Level 3	Level 2	Level 1	Level 0
100	6	5	4	2
99	5.9	4.9	3.9	1.95
98	5.8	4.8	3.8	1.9
97	5.7	4.7	3.7	1.85
96	5.6	4.6	3.6	1.8
95	5.5	4.5	3.5	1.75
94	5.4	4.4	3.4	1.7
93	5.3	4.3	3.3	1.65
92	5.2	4.2	3.2	1.6
91	5.1	4.1	3.1	1.55
90	5	4	3	1.5
89	4.9	3.9	2.9	1.45
88	4.8	3.8	2.8	1.4
87	4.7	3.7	2.7	1.35
86	4.6	3.6	2.6	1.3
85	4.5	3.5	2.5	1.25
84	4.4	3.4	2.4	1.2
83	4.3	3.3	2.3	1.15
82	4.2	3.2	2.2	1.1
81	4.1	3.1	2.1	1.05
80	4	3	2	1
79	3.9	2.9	1.9	0.95
78	3.8	2.8	1.8	0.9
77	3.7	2.7	1.7	0.85
76	3.6	2.6	1.6	0.8
75	3.5	2.5	1.5	0.75
74	3.4	2.4	1.4	0.7
73	3.3	2.3	1.3	0.65
72	3.2	2.2	1.2	0.6
71	3.1	2.1	1.1	0.55
70	3	2	1	0.5

# Grade Point Scale

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*

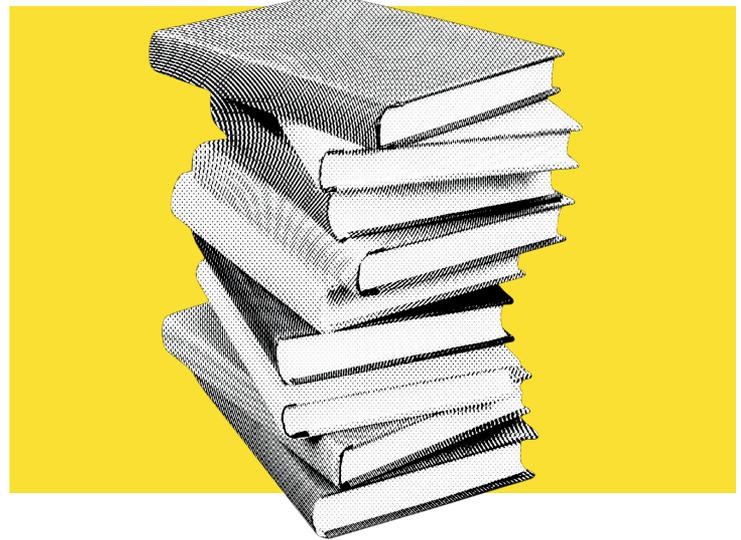
# ADVANCED ACADEMIC OPPORTUNITIES

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.**



# ADVANCED ACADEMIC OPPORTUNITIES

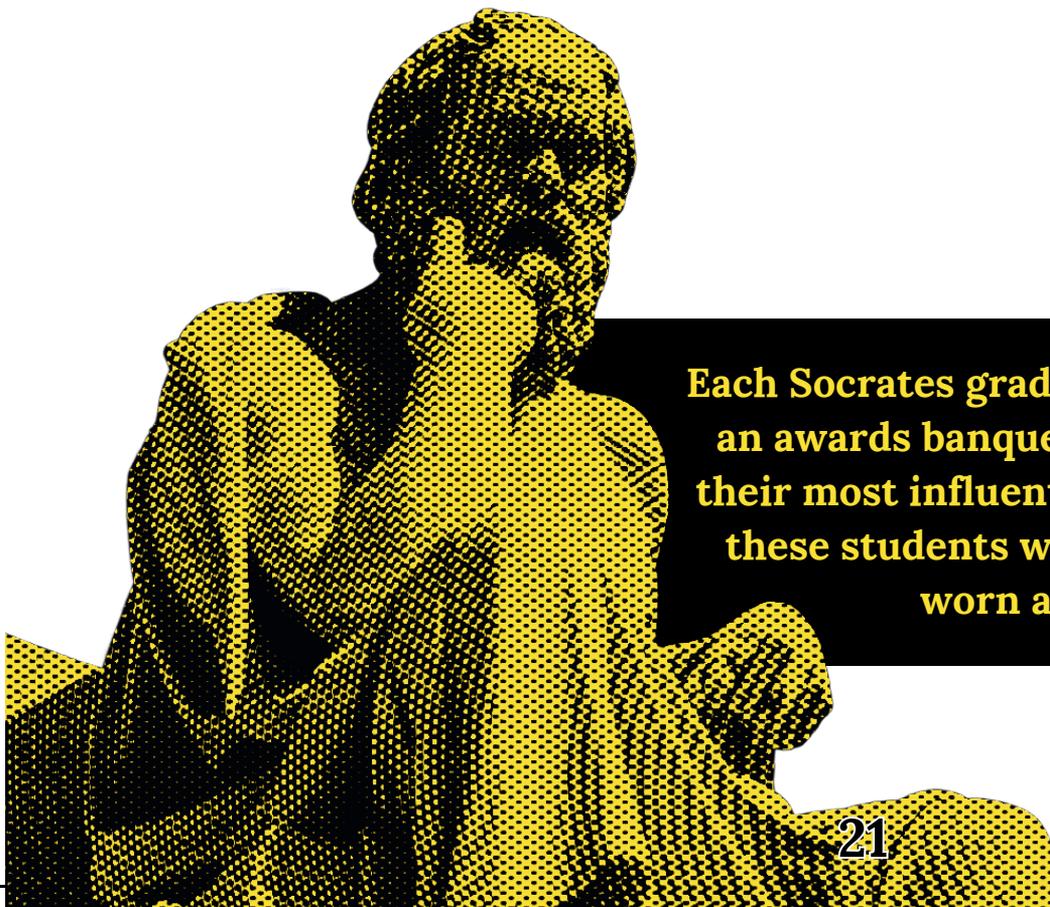
## **Socrates Program**

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
- 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.**

# GRAYSON COLLEGE OPPORTUNITIES

## Sample Early High School Associate of Arts Degree Plan

### 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
Language, Philosophy & Culture Core	GC Campus		3

Winter Minimester			
GC Course		DHS Course	Hours
Social & Behavioral Sciences Core	Online GC	DC Econ	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			3
Science Lab			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			3
Science Lab			1
Academic Elective		DC Alg	3
GOVT 2306		DC Gov	3

# GRAYSON COLLEGE OPPORTUNITIES

## Sample Early High School Associate of Science Degree Plan

### 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			3
Science Lab			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			3
Science Lab			1
Academic Elective		DC Alg	3
Social & Behavioral Sciences Core		DC Econ	3
GOVT 2306		DC Gov	3

# 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
<b>ENGLISH</b>	English I (1)	English I (1)
	English II (1)	English II (1)
	English III (1)	English III (1)
	Advanced English (1)	Advanced English (1)
<b>MATH</b>	Algebra I (1)	Algebra I (1)
	Geometry (1)	Geometry (1)
	Advanced Math (1)	Advanced Math (1)
<b>SCIENCE</b>	IPC or Advanced Science (1)	IPC or Advanced Science (1)
	Advanced Science (1)	Advanced Science (1)
	Biology (1)	Biology (1)
<b>SOCIAL STUDIES</b>	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)
<b>PHYSICAL EDUCATION</b>	1	1
<b>FOREIGN LANGUAGE</b>	2	2
<b>FINE ARTS</b>	1	1
<b>ELECTIVES</b>	5	9
<b>TOTAL</b>	22	26

# ENDORSEMENT PLANS

**Must total 26 credits**

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 a <b>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 courses</b> , or <b>4 postsecondary courses</b> , 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

## English Language Arts

Fourth Credit

After completion of:

- English 1
- English 2
- English 3

English IV

Debate III

Dual Credit English IV

AP English Literature and Composition

## Mathematics

Third Credit

After completion of:

- Algebra 1
- Geometry

Algebraic Reasoning

Math Models with Applications

Statistics

Algebra II

Honors Algebra II

Precalculus

AP Precalculus

AP Statistics

AP Calculus

DC College Algebra + DC Elem Statistics

Integrated Physics and Chemistry (IPC)

Chemistry

Honors Chemistry

AP Chemistry

Principles of Technology - Physics

AP Physics I

AP Physics II

Chemistry

Honors Chemistry

AP Chemistry

Principles of Technology

Physics

AP Physics I

AP Physics II

Environmental Systems

AP Environmental Science

AP Biology

Food Science

Advanced Animal Science

Anatomy and Physiology

## Science

Second Credit

Biology is required

## Science

Third Credit

Biology is required and one course from above.

# ENDORSEMENT ADVANCED COURSES

## **Mathematics** Fourth Credit for Endorsements

Algebraic Reasoning  
Statistics  
Algebra II  
Honors Algebra II  
Precalculus  
AP Precalculus  
Advanced Quantitative Reasoning  
AP Statistics  
AP Calculus  
AP Computer Science  
College Prep Math  
College Level Math

## **Science** Fourth Credit for Endorsements

Chemistry  
Honors Chemistry  
AP Chemistry  
Principles of Technology - Physics  
AP Physics I  
AP Physics II  
Environmental Systems  
AP Environmental Science  
AP Biology  
Advanced Animal Science  
Anatomy and Physiology  
Food 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).

# PERFORMANCE ACKNOWLEDGMENTS

## 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*

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

- A total of 5 social studies courses, or
- 4 levels of the same language in a language other than English, or
- 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
- 4 levels of American sign language, or
- 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
- 4 English elective credits by selecting from the following:
  - English IV
  - AP English Literature and Composition
  - Dual Credit English Composition



# Business & 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:

<p style="text-align: center;"><b>Agriculture, Food, &amp; Natural Resources</b></p> <ul style="list-style-type: none"> <li>• Veterinary Medical Applications</li> <li>• Advanced Animal Science</li> <li>• Ag Structures Design &amp; Fabrication</li> <li>• Ag Equipment Design &amp; Fabrication</li> <li>• Ag Power Systems</li> <li>• Practicum in Ag, Food, &amp; Natural Res</li> </ul>	<p style="text-align: center;"><b>Architecture &amp; Construction</b></p> <ul style="list-style-type: none"> <li>• Veterinary Medical Applications</li> <li>• Advanced Animal Science</li> <li>• Ag Structures Design &amp; Fabrication</li> <li>• Ag Equipment Design &amp; Fabrication</li> <li>• Ag Power Systems</li> <li>• Practicum in Ag, Food, &amp; Natural Res</li> </ul>	<p style="text-align: center;"><b>Arts, A/V Technology, &amp; Communications</b></p> <ul style="list-style-type: none"> <li>• Audio/Video Production II</li> <li>• Graphic Design &amp; Illustration II</li> <li>• Commercial Photography II</li> <li>• Fashion Design II</li> <li>• Animation I</li> </ul>
<p style="text-align: center;"><b>Hospitality &amp; Tourism</b></p> <ul style="list-style-type: none"> <li>• Culinary Arts</li> <li>• Advanced Culinary Arts</li> <li>• Practicum in Culinary Arts</li> </ul>	<p style="text-align: center;"><b>Information Technology</b></p> <ul style="list-style-type: none"> <li>• Computer Programing</li> <li>• AP Computer Science</li> <li>• Practicum in Information Technology Solutions</li> </ul>	<p style="text-align: center;"><b>Manufacturing</b></p> <ul style="list-style-type: none"> <li>• Welding II</li> <li>• Practicum in Manufacturing</li> </ul>
		<p style="text-align: center;"><b>Marketing</b></p> <ul style="list-style-type: none"> <li>• Sports and Entertainment Marketing</li> <li>• Social Media Marketing</li> </ul>

- **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).

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## COHERENT SEQUENCES IN BUSINESS & INDUSTRY ENDORSEMENTS

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

VET MEDICAL APPLICATIONS			ADVANCED ANIMAL SCIENCE		
Prerequisite(s)	Required Prerequisite	Advanced Course	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)	Any CTE courses totaling 4 or more credits in this sequence.	Veterinary Medical Applications (1)	Advanced Animal Science (1)
AG STRUCTURES DESIGN & FABRICATION			AG EQUIPMENT DESIGN & FABRICATION		
Prerequisite(s)	Required Prerequisite	Advanced Course	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)	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			PRACTICUM IN AG, FOOD & NATURAL RESOURCES		
Prerequisite(s)	Required Prerequisite	Advanced Course	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.	Agricultural Power Systems (2)	Any CTE courses totaling 4 or more credits in this sequence.	1 credit in Ag, Food & Natural Recourses cluster.	Practicum in Ag, Food & Natural Resources (2-3)

## COHERENT SEQUENCES IN BUSINESS & INDUSTRY ENDORSEMENTS

### Architecture & Construction Coherent Sequences

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

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)

## COHERENT SEQUENCES IN BUSINESS & INDUSTRY ENDORSEMENTS

<b>DIGITAL ART AND ANIMATION</b>		
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

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

### Information Technology Coherent Sequences

<b>COMPUTER PROGRAMMING</b>			<b>AP COMPUTER SCIENCE</b>		
Prerequisite(s)	Required Prerequisite	Advanced Course	Prerequisite(s)	Required Prerequisite	Advanced Course
Any CTE courses totaling 4 or more credits in this sequence.	Web Technologies (1)	Computer Programming (1)	Web Technologies (1) and 1 other CTE course in this sequence.	Computer Programming (1)	AP Computer Science (1)

## COHERENT SEQUENCES IN BUSINESS & INDUSTRY ENDORSEMENTS

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

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

### Manufacturing Coherent Sequences

<b>WELDING II</b>		
<b>Prerequisite(s)</b>	<b>Required Prerequisite</b>	<b>Advanced Course</b>
Introduction to Welding (1)	Welding I (2)	Welding II (2)

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

### Marketing

<b>BUSINESS INFORMATION MANAGEMENT II</b>		
<b>Prerequisite(s)</b>	<b>Required Prerequisite</b>	<b>Advanced Course</b>
Principles of Business, Marketing, and Finance	Sports and Entertainment Marketing	Social Media Marketing

# Multidisciplinary Endorsement

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

<p style="text-align: center;"><b>Agriculture, Food, &amp; Natural Resources</b></p> <ul style="list-style-type: none"> <li>• Veterinary Medical Applications</li> <li>• Advanced Animal Science</li> <li>• Ag Structures Design &amp; Fabrication</li> <li>• Ag Equipment Design &amp; Fabrication</li> <li>• Ag Power Systems</li> <li>• Practicum in Ag, Food, &amp; Natural Res</li> </ul>	<p style="text-align: center;"><b>Architecture &amp; Construction</b></p> <ul style="list-style-type: none"> <li>• Construction Technology II</li> <li>• Practicum in Construction Technology</li> </ul>	<p style="text-align: center;"><b>Arts, A/V Technology, &amp; Communications</b></p> <ul style="list-style-type: none"> <li>• Audio/Video Production II</li> <li>• Graphic Design &amp; Illustration II</li> <li>• Commercial Photography II</li> <li>• Fashion Design II</li> <li>• Animation I</li> </ul>
<p style="text-align: center;"><b>Hospitality &amp; Tourism</b></p> <ul style="list-style-type: none"> <li>• Culinary Arts</li> <li>• Advanced Culinary Arts</li> </ul>	<p style="text-align: center;"><b>Manufacturing</b></p> <ul style="list-style-type: none"> <li>• Welding II</li> <li>• Practicum in Manufacturing</li> </ul>	<p style="text-align: center;"><b>Science, Technology, Engineering, &amp; Mathematics</b></p> <ul style="list-style-type: none"> <li>• Engineering Design &amp; Presentation I</li> <li>• Engineering Design &amp; Presentation II</li> <li>• Robotics I</li> <li>• Robotics II</li> </ul>
<p style="text-align: center;"><b>Education &amp; Training</b></p> <ul style="list-style-type: none"> <li>• Instructional Practices</li> <li>• Practicum in Education &amp; Training</li> </ul>	<p style="text-align: center;"><b>Marketing</b></p> <ul style="list-style-type: none"> <li>• Sports and Entertainment Marketing</li> <li>• Social Media Marketing</li> </ul>	<p style="text-align: center;"><b>Health Science</b></p> <ul style="list-style-type: none"> <li>• Health Science Theory/Clinical</li> <li>• Practicum in Health Science</li> <li>• Anatomy and Physiology</li> </ul>
<p style="text-align: center;"><b>Human Services</b></p> <ul style="list-style-type: none"> <li>• Cosmetology I</li> <li>• Cosmetology II</li> </ul>		

- **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

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

- 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

Education & Training	Health Science	Human Services
<ul style="list-style-type: none"> <li>• Instructional Practices in Education &amp; Training</li> <li>• Practicum in Education &amp; Training</li> </ul>	<ul style="list-style-type: none"> <li>• Health Science Theory/Clinical</li> <li>• Practicum in Health Science</li> <li>• Anatomy and Physiology</li> </ul>	<ul style="list-style-type: none"> <li>• Cosmetology I</li> <li>• Cosmetology II</li> </ul>

## COHERENT SEQUENCES IN PUBLIC SERVICES ENDORSEMENTS

### Education & Training Coherent Sequences

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

## COHERENT SEQUENCES IN PUBLIC SERVICES ENDORSEMENTS

### Health Science Coherent Sequences

HEALTH SCIENCE THEORY/CLINICAL			PRACTICUM IN HEALTH SCIENCE		
Prerequisite(s)	Required Prerequisite	Advanced Course	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)	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

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

# STEM Endorsement

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.

## Science, Technology, Engineering, & Mathematics

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



# COHERENT SEQUENCES IN STEM (SCIENCE, TECHNOLOGY, ENGINEERING & MATH)

## Agriculture, Food, and Natural Resources Coherent Sequences

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

# COURSE DESCRIPTIONS



# 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**

**Prerequisite: Summer Reading & Dept. Approval**

**Level 3  
Grade Level: 9  
Credit: 1**

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. Students are expected to complete a summer assignment prior to entering the class in the fall.

**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****Prerequisite: English I, Summer Reading & Dept. Approval****Level 3****Grade Level: 10****Credit: 1**

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. Students are expected to complete a summer assignment prior to entering the class in the fall.

**ENGLISH III****013020****Level 1****Grade Level: 11****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****Prerequisite: English I/II, Summer Reading, & Dept. Approval****Level 3****Grade Level: 11****Credit: 1**

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 required to take the AP English Language exam at the end of the course. Students are expected to complete a summer assignment prior to entering the class in the fall.

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

**Level 1**  
**Grade Level: 12**  
**Credit: 1**

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**

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

**Level 3**  
**Grade Level: 12**  
**Credit: 1**

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. Students are expected to complete a summer assignment prior to entering the class in the fall.

**ENGLISH IV - COMPOSITION I (DUAL CREDIT)**  
**ENG4DC1 (Semester 1)**  
**Prerequisite: English I/II/III**

**Level 2**  
**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 I (DUAL CREDIT)**  
**ENG4DC2 (Semester 2)**  
**Prerequisite: DC English Composition I (ENGL 1301) or score of 3+ on English Lang AP Exam**

**Level 2**  
**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 )**  
**(Class meets every day)**

**Level 1**

**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 I (single)**  
**021130**

**Level 1**

**Grade Level: 9**

**Credit: 1 state**

This class is for students who are good math students and don't need Algebra double-blocked.

**ALGEBRA II**  
**022230**

**Level 1**

**Grade Level: 10-12**

**Prerequisite: Algebra I**

**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**  
**Prerequisite: Algebra I**

**Level 3**

**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**

**Grade Level: 10-12**

**Prerequisite: Algebra 1**

**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**  
**Prerequisite: Algebra 1**

**Level 3**  
**Grade Level: 9-12**  
**Credits: 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**  
**Prerequisite: Algebra 1**

**Level 1**  
**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**  
**Prerequisite: Algebra I**

**Level 1**  
**Grade Level: 9-12**  
**Credit: ½**

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**  
**Prerequisite: Algebra I, Algebra II and Geometry**

**Level 2**  
**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 - AP**  
**02401P**  
**Prerequisite: Algebra I, Algebra II and Geometry**

**Level 3**  
**Grade Level: 11-12**  
**Credit: 1**

Students explore everyday situations using mathematical tools and lenses. Through regular practice, students build deep mastery of modeling and functions as they examine scenarios through multiple representations. This course prepares students for other higher-level mathematics and science courses as well as content and skills common to college precalculus. courses. Must take the PRE CALCULUS AP Exam at the end of the course.

**COLLEGE ALGEBRA (DUAL CREDIT)****Level 2****024061 (semester 1)****Grade Level: 11-12****Prerequisite: Algebra I/II, Geometry, Pre-Cal****Credit: ½ (High School)****(Teacher recommendation only if no Pre Cal)****3 (College) MATH 1314**

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)****Level 2****024062 (semester 2)****Grade Level: 11-12****Prerequisite: Algebra I/II & Geometry****Credit: ½ (High School)***Basic algebra skills are needed for this course. Students who have successfully completed Algebra II should have the necessary algebra skills***3 (College) MATH 1342**

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****Level 3****024050****Grade Level: 11-12****Prerequisite: Algebra I/II & Geometry, Teacher Recommendation****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)****Level 3****024020****Grade Level: 12****Prerequisite: Pre-Calculus****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****Level 1****024100 (CPMAT- CP111200)****Grade Level: 12****Prerequisite: Algebra II****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.

# SCIENCE

## **INTEGRATED PHYSICS AND CHEMISTRY (IPC) 031020**

**Level 1  
Grade Level: 9  
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**

**Level 3  
Grade Level: 9  
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. Students are expected to complete a summer assignment prior to entering the class in the fall.

## **CHEMISTRY I 033010 Prerequisite: IPC & Algebra I**

**Level 1  
Grade Level: 10-12  
Credit: 1**

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.

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.

**CHEMISTRY I – Honors****033020****Prerequisite: Biology I Honors & Algebra I****Level 3****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. Students are expected to complete a summer assignment prior to entering the class in the fall.

**BIOLOGY I****032020****Recommended local prerequisites: IPC & Chemistry****Level 1****Grade Level: 11****Credit: 1**

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.

**BIOLOGY (DUAL CREDIT - OnRamps)****03202D****Prerequisite: Biology and Chemistry****MUST PAY TUITION Online books are provided****Level 2****Grade: 11****Credit: 1 (High School)****6 (College) UT BIO 311C,****BIO 206LA**

Dual Credit Biology 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 this course, you will explore three major ideas in the study of life: the structure and function of biomolecules, the flow of energy through living systems, and how genetic information is expressed and transmitted. You will learn through simulations, models, group work, and interesting lab experiences.

**PRINCIPLES OF TECHNOLOGY (PHYSICS I)****121050****Prerequisite: Two courses in Science and Algebra I****Level 1****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.

**ENVIRONMENTAL SYSTEMS****031010****Prerequisites: IPC****Level 1****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****Prerequisite: Biology AND Chemistry or Physics****Level 3****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. Students are expected to complete a summer assignment prior to entering the class in the fall.

**BIOLOGY—AP****032060****Prerequisite: Biology I Honors****Level 3****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. Students are expected to complete a summer assignment prior to entering the class in the fall.

**CHEMISTRY—AP****033030****Prerequisite: Chemistry I Honors****Level 3****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. Students are expected to complete a summer assignment prior to entering the class in the fall.

**PHYSICS 1—AP****03411P****Prerequisite: Honors Chemistry or Physics, Pre-Calculus (concurrent)  
or College Alg/Stat (concurrent)****Level 3****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; and fluid dynamics. This course corresponds to the first semester physics college course 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.

**PHYSICS 2—AP****03412P****Prerequisite: AP Physics 1****Level 3****Grade Level: 11-12****Credit: 1**

AP Physics 2 is an algebra-based college-level physics course. Students cultivate their understanding of physics through inquiry-based investigations as they explore these topics: thermodynamics; electric force, field, and potential; electric circuits; magnetism and electromagnetic induction; geometric and physical optics; and quantum, atomic, and nuclear physics. This course corresponds to the second semester physics college course 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****030420****Prerequisite: Biology, Chemistry, and Physics Science Credit****Level 1****Grade Level: 10-12****Credit: 1**

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.

**ADVANCED ANIMAL SCIENCE***(satisfies 1 credit of Advanced Science)***111030****Level: 1****Prerequisite: Biology, Chemistry, and Physics****Grade Level: 11-12****Recommended prerequisite: two credits of science and a minimum of one credit from the courses in the Agriculture, Food, and Natural Resources cluster****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.

**FOOD SCIENCE (CTE Credit)***(satisfies 1 credit of Advanced Science)***FOODSCI****Level: 1****Grade Level: 11-12****General requirements: The course is recommended for students in Grades 11-12. Recommended prerequisites: three units of science.****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. Students are expected to complete a summer assignment prior to entering the class in the fall.

## **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. Students are expected to complete a summer assignment prior to entering the class in the fall.

**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 - OnRamps)  
04101D**

**Grade: 11-12  
Level 2**

**Prerequisite: World Geography, Government and Economics; English  
II**

**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. Students are expected to complete a summer assignment prior to entering the class in the fall.

**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)  
MUST PAY TUITION Online books are provided**

**Grade: 12  
Level 2  
Credit: ½ (High School)  
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 (springsemester)  
MUST PAY TUITION and BUY BOOKS**

**Level 2  
Grade Level: 12  
Credit: ½ (High School), 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.

**PERSONAL FINANCIAL LITERACY**

**Grade: 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.

# HEALTH AND PHYSICAL EDUCATION

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

**Credit: ½**  
**Grade Level: 9-12**  
**Level 1**

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**  
1PE/2PE/3PE/4PE

**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**

### SPORTS/PE CREDITS AT DENISON HIGH SCHOOL

Athletic Trainer	Cross Country (Sem. 1—before school)	Soccer- Girls
Baseball	Dance/Drill Team	Softball
Basketball-Boys	Football	Swim Team (meets at Waterloo Pool in mornings)
Basketball-Girls	Golf (Responsible for own transportation to/from Tanglewood Golf Course)	Tennis
Cheerleading	Marching Band (Sem. 1)	Track – boys & girls (activity only—no credit)
Color Guard	Soccer- Boys	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****Prerequisite: Tryouts in April****Level 1****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 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**

**Prerequisite: Art I**

**Level 1  
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**

**Prerequisite: Art I and II**

**Level 1  
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**

**Prerequisite: Art I, II, III**

**Level 1  
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**

**Prerequisite: Tryouts in April**

**Level 1  
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**  
**Grade Level: 9-12**  
**Credit: 1**

**Prerequisite: Ability to read and understand music and music symbols**

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**  
**Grade Level: 10-12**  
**Credit: 1**

**Prerequisite: Music Theory I**

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**  
**Grade Level 9-12**  
**Credit: 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.

**ADVANCED CLASSICAL GUITAR II - IV****066120/066130/066150****Prerequisites: Classical Guitar 1 and audition with the instructor.****Students must provide their own 6-string acoustic guitar for the class****Level 1****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****Prerequisite: Director approval and audition required****Level 1****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****Prerequisite: Director approval and audition required****Level 1****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, 060330, 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**  
**Grade Level: 10-12**  
**Credit: 1**

**Prerequisite: Director approval and audition required**

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**  
**Grade Level: 9-12**  
**Credit: 1 local**

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

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

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**  
**Prerequisite: Theatre Arts I**

**Level 1**  
**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**

**Level 1**  
**Grade Level: 9-12**  
**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**  
**Prerequisite: Technical Theatre I**

**Level 1**  
**Grade Level: 10-12**  
**Credit: 1**

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

**Level 1**  
**Grade Level: 9-12**  
**Credit: 1**

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**  
**Prerequisite: Director Approval Required**

**Level 1**  
**Grade Level: 9-12**  
**Credit: 1**

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**  
**Prerequisite: Director Approval Required**

**Level 1**  
**Grade Level: 10-12**  
**Credit: 1 local**

**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 local**

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.

**FLORAL DESIGN**  
**081141**

**Level 1**  
**Grade Level: 9-12**  
**Credit: 1**

Floral design is designed to develop students' ability to identify and demonstrate the principles and techniques related to floral design as well as develop an understanding of the management of floral enterprises. Through the analysis of artistic floral styles and historical periods, students will develop respect for the traditions and contributions of diverse cultures. Students will respond to and analyze floral designs, thus contributing to the development of lifelong skills of making informed judgements and evaluations.

# 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**  
**Prerequisite: Spanish I**

**Level 1**  
**Grade Level: 10-12**  
**Credit: 1**

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**  
**Prerequisite: Spanish I and II**

**Level 2**  
**Grade Level: 11-12**  
**Credit: 1**

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**  
**Prerequisite: Spanish I, II, and III**

**Level 3**  
**Grade Level: 12**  
**Credit: 1**

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**

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

**Grade Level: 12**

**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**

**Prerequisite: Limited English proficiency**

**Grade Level: 9-12**

**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 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****1st, 2nd, 5A, 5B or 6th****Grade Level: 12****Credit: 0**

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****1st or 6th periods****Grade Level: 11****Credit: 0**

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, AVID4081141****APPLICATION REQUIRED****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

**Prerequisite: Sports Medicine I****Level 1****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.

**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

**Prerequisite: Must meet college entrance requirements and have administrator approval.**

**Level 2**

**Grade Level: 11-12**

**Credit: ½ - 1**

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:

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

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

**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.**



# U.S. HISTORY



Learn about the United States' past and discover your own passions about our history in a class that encourages you to explore, discuss, reflect, and evaluate with evidence.



OnRamps U.S. History includes two sequential, semester-long courses that empower you to take on the role of historian and work with primary source evidence to construct historical arguments, analysis, and interpretations of the past. These college-level courses dive into details and events in order to engage in the complexity of cause and consequence and make connections that reveal the dynamic of change over time.

**“This course has a different perspective than any previous history class I have taken. Rather than focusing on dates and what happened, we explored why events happened and what happened as a result of the event.”**

- Former OnRamps U.S. History Student

- ✓ Work independently and collaboratively to set events in historical context.
- ✓ Develop college-level skills in critical thinking, time management, collaboration, and self-advocacy.
- ✓ Learn to draw your own conclusions, rather than relying on secondary sources.
- ✓ Earn transferable college credit and prepare for success in college and a career.

## DID YOU KNOW?

Studying history teaches skills that are valuable in any career, from business to law to technology. Alexis Ohanian graduated college with degrees in both history and commerce. He then went on to create one of the most successful community-driven social media platforms today, Reddit.

## TRANSFERABILITY

TCCNs: HIST 1301 + HIST 1302  
UT Course Codes: HIS 315K + HIS 315L  
6 College Credits (3 per course)

## PRE-REQUISITES

English I  
English II (concurrent or pre-requisite)  
No test or application required to enroll



**QUESTIONS?** Learn more at [onramps.utexas.edu](http://onramps.utexas.edu) or speak to your counselor!

**MUST PAY TUITION**



# COLLEGE BIOLOGY I + LAB



Biology is the study of life; a science that explains the phenomena of our world—from the changing of the leaves in autumn to our bodies' own daily metabolic processes.



OnRamps Biology will teach you to think like a scientist by acquiring knowledge through discovery. In this course, you will explore three major ideas in the study of life: the structure and function of biomolecules, the flow of energy through living systems, and how genetic information is expressed and transmitted. Not only will you learn biology through simulations, models, group work, and interesting lab experiences; you'll gain essential skills for college—whether you are curious or are already planning on a STEM major.

- ✓ Think like a scientist through the use of critical thinking, scientific communication, and graphing skills.
- ✓ Understand real-world processes firsthand through lab experiments and simulations.
- ✓ Develop college-level skills in time management, collaboration, studying strategies, and data literacy.
- ✓ Earn transferable college credit and prepare for success in college and a career.

**\$108.7K**

Average annual salary for a biology major in 2019.\*

## TRANSFERABILITY

TCCNs: BIOL 1306 + BIOL 1106  
UT Course Codes: BIO 311C + BIO 206LA  
4 College Credits (3 for lecture, 1 for lab)

## PRE-REQUISITES

Biology  
Chemistry  
No test or application required to enroll



**QUESTIONS?** Learn more at [onramps.utexas.edu](https://onramps.utexas.edu) or speak to your counselor!

\*Data USA

**MUST PAY TUITION**

# 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.

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).

## Early Technical Credit

Denison High School has entered into an agreement with Grayson College to offer Early Technical Credit (ETC) to high school students within selected Career and Technical (CTE) courses.

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 Grayson College programs have articulation agreements with Denison HS:

Advanced Manufacturing	Agriculture	Welding Technology	Computer Technology
Education and Training	Engineering	Culinary	Health Science



## CAREER CLUSTERS AND PROGRAMS OF STUDY

Denison High School offers courses and/or Programs of Study in the following eleven career clusters.

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.

**See Next Page for Clusters**





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

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.



### **Education & Training**

Planning, managing and providing education and training services, and related learning support services.



### **Human Services**

Preparing individuals for employment in career pathways that relate to families and human needs.



### **Marketing**

The marketing career cluster includes jobs focused on promoting products and services to help businesses reach their marketing goals.



### **Architecture & Constructions**

Careers in designing, planning, managing, building and maintaining the built environment.



### **Health Science**

Planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.



### **Information Technology**

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.



### **Science, Technology, Engineering, & Mathematics**

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.



### **Arts, A/V Technology, & Communications**

Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.



### **Hospitality & Tourism**

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.



### **Manufacturing**

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.

# AGRICULTURE, FOOD & NATURAL RESOURCES

## **Coherent Sequences**

- Vet Medical Applications
- Advanced Animal Science
- AG Structures Design and Fabrication
- AG Equipment Design and Fabrication
- AG Power Systems
- Practicum in AG, Food, and Natural Resources



## Applied Agricultural Engineering

<b>Level 1:</b> Principles of Agriculture, Food, and Natural Resources	<b>Level 2:</b> Agricultural Mechanics and Metal Technologies/ Lab	<b>Level 3:</b> Agricultural Structures Design and Fabrications/ Lab  Agricultural Power Systems/Lab	<b>Level 4:</b> Agricultural Equipment Design and Fabrication/Lab  Practicum in Agriculture, Food, and Natural Resources
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<b>High School/Industry Certification</b> <ul style="list-style-type: none"> <li>• OSHA 30 Hour General Industry</li> <li>• AWS SENSE Welding Level 1</li> </ul>	<b>Associate's Degree</b> <ul style="list-style-type: none"> <li>• Heavy Equipment Maintenance Technology/ Technician</li> <li>• Agricultural Mechanization, General</li> <li>• Small Engine Mechanics and Repair Technology/ Technician</li> <li>• Welding Technology/ Welder</li> </ul>	<b>Bachelor's Degree</b> <ul style="list-style-type: none"> <li>• Agricultural Engineering</li> <li>• Agricultural Mechanization, General</li> </ul>	<b>Master's/Doctoral Professional Degree</b> <ul style="list-style-type: none"> <li>• Agricultural Engineering</li> <li>• Agricultural Mechanization, General</li> </ul>
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Occupations	Median Wage	Annual Openings	% Growth
Outdoor Power Equipment and Other Small Engine Mechanics	\$32,406	366	16%
Welders	\$41,350	6,171	9%
Farm Equipment Mechanics and Service Technicians	\$39,915	304	17%
Mobile Heavy Equipment Mechanics	\$47,299	1,627	16%
Agricultural Engineers	\$64,792	9	13%

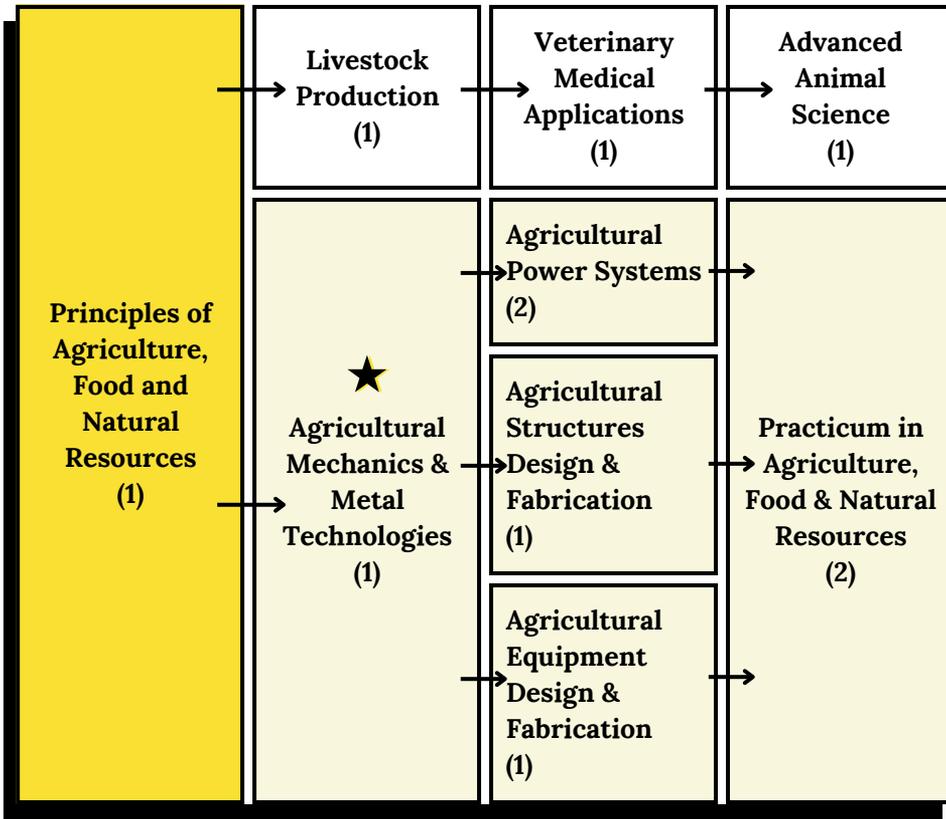
## Animal Science

<b>Level 1:</b> Principles of Agriculture, Food, and Natural Resources	<b>Level 2:</b>	<b>Level 3:</b> Livestock Production/Lab	<b>Level 4:</b> Advanced Animal Science  Veterinary Medical Applications/Lab  Practicum in Agriculture, Food, and Natural Resources
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<b>High School/Industry Certification</b> <ul style="list-style-type: none"> <li>• Licensed Veterinary Technician</li> </ul>	<b>Associate's Degree</b> <ul style="list-style-type: none"> <li>• Food Science and Technology</li> <li>• Veterinary Studies</li> <li>• Biotechnology Laboratory Technician</li> <li>• Biology Technician</li> </ul>	<b>Bachelor's Degree</b> <ul style="list-style-type: none"> <li>• Animal Sciences</li> <li>• Agriculture</li> <li>• Biology</li> <li>• Zoology/ Animal Biology</li> </ul>	<b>Master's/Doctoral Professional Degree</b> <ul style="list-style-type: none"> <li>• Genetics</li> <li>• Veterinary Medicine</li> <li>• Biological and Physical Sciences</li> <li>• Biological and Biomedical Sciences</li> </ul>
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Occupations	Median Wage	Annual Openings	% Growth
Animal Breeders	\$39,135	28	9%
Animal Scientists	\$57,533	22	12%
Medical Scientists	\$63,898	435	27%
Veterinarians	\$93,496	294	24%
Zoologists and Wildlife Biologists	\$67,309	45	32%

# AGRICULTURE, FOOD AND NATURAL RESOURCES COHERENT SEQUENCE



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

- Touch System Data Entry (½ cr)
- Professional Communications (½ cr)
- Money Matters (1 cr)

Wildlife, Fisheries & Ecology Management (1)

Horticulture (1)

Floral Design (1)

	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	
Floral Design	9-12		
Horticulture	10-12		
Wildlife, Fisheries & Ecology Mgmt	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	

# AGRICULTURE, FOOD & NATURAL RESOURCES COURSE DESCRIPTIONS

## **Principles of Agriculture, Food, and Natural Resources** 112350 (PRINAFNR 13000200)

**1 Credit**  
**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** 112150 (LIVEPROD 13000300) **Prerequisite: Principles of Agriculture, Food, and Natural Resources**

**1 Credit**  
**Grades 10-12**

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** 112010 (VETMEDAP 13000600) **Prerequisite: Livestock Production**

**1 Credit**  
**Grades 11-12**

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 (can count as advanced science)**  
**111030 (ADVANSCI 13000700)**  
**Prerequisite: Veterinary Medical Applications**

**1 Credit**  
**Grade 12**

*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.

**Floral Design**  
**081141 (State Course code 13001800)**

**1 Credit**  
**Grade 9-12**

Floral design is designed to develop students' ability to identify and demonstrate the principles and techniques related to floral design as well as develop an understanding of the management of floral enterprises. Through the analysis of artistic floral styles and historical periods, students will develop respect for the traditions and contributions of diverse cultures. Students will respond to and analyze floral designs, thus contributing to the development of lifelong skills of making informed judgements and evaluations.

**Horticulture**  
**112400 (State Course Code 13002000)**

**1 Credit**  
**Grade 10-12**

Horticultural is designed to develop an understanding of common horticultural management practices as they relate to food and ornamental plant production.

**Wildlife, Fisheries, and Ecology Management**  
**112160 (WFECGT 13001500)**

**1 Credit**  
**Grade 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**

112140 (PRACAFNR1 13002500)

**2 Credits****Prerequisite: a minimum of one credit from the courses in the Agriculture, Food, and Natural Resources cluster.****Grade 11-12**

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 ★**

112320 (AGMECHMT 13002200)

**1 Credit****Grades 10-12****Grade 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.

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**

112410 (AGSDF 13002300)

**1 Credit****Prerequisite: Ag Mechanics and Metal Tech****Grade 11-12****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**

**112430 (AGEQDF 13002350)**

**Prerequisite: Ag Mechanics and Metal Tech**

**1 Credit  
Grade 11-12**

**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.

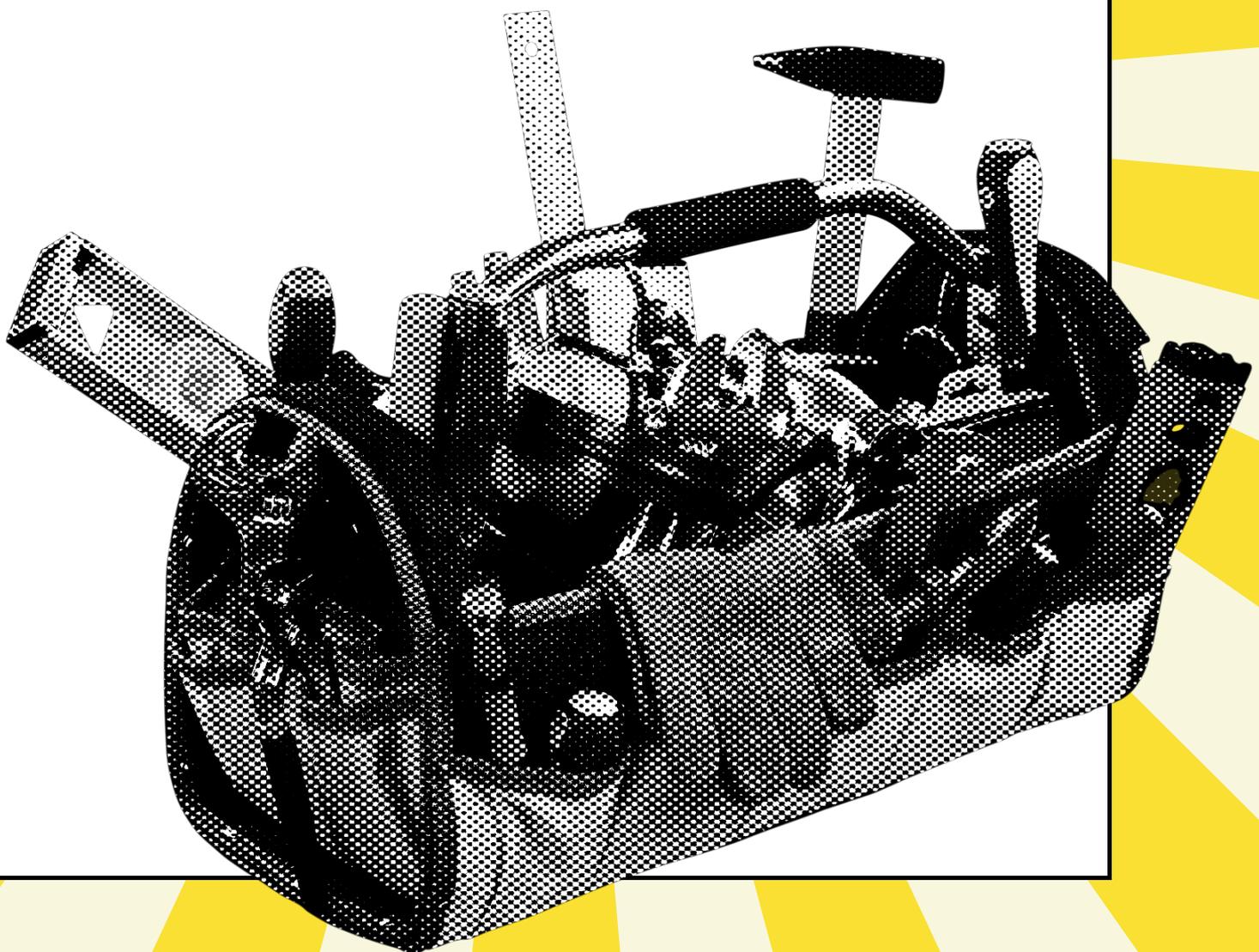
Minimum clothing requirements are: all leather boots, 100% cotton pants, and 100% cotton long sleeve shirt.

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

## **Coherent Sequences**

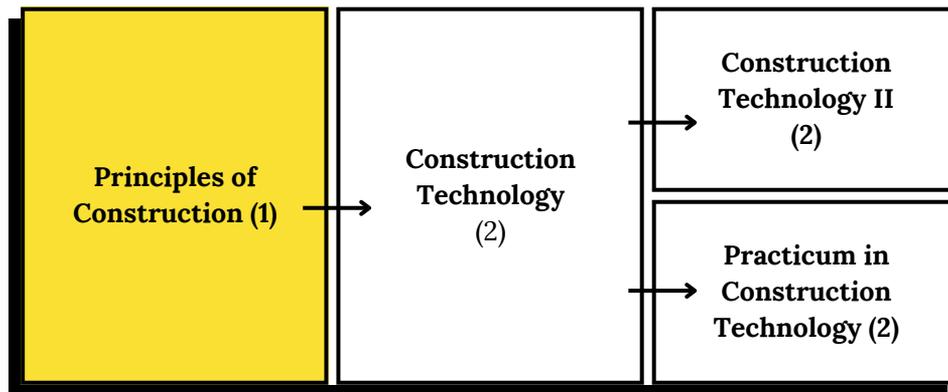
- Construction Technology II
- Practicum in Construction Technology



# Carpentry

Level 1: Principles of Construction	Level 2: Construction Technology I	Level 3: Construction Technology II	Level 4: Practicum in Construction Technology
<b>High School/Industry Certification</b> <ul style="list-style-type: none"> <li>• NCCER Carpentry, Level 1 &amp; 2</li> </ul>	<b>Associate's Degree</b> <ul style="list-style-type: none"> <li>• Carpentry/ Carpenter</li> <li>• Industrial Mechanics and Maintenance Technology</li> </ul>	<b>Bachelor's Degree</b> <ul style="list-style-type: none"> <li>• Construction Science</li> </ul>	<b>Master's/Doctoral Professional Degree</b> <ul style="list-style-type: none"> <li>• Construction Management</li> </ul>
<b>Occupations</b>	<b>Median Wage</b>	<b>Annual Openings</b>	<b>% Growth</b>
Carpenters	\$35,922	5,031	26%
Cost Estimators	\$63,939	2,239	21%

## ARCHITECTURE AND CONSTRUCTION COHERENT SEQUENCE



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

- Touch System Data Entry (½ cr)
- Professional Communications (½ cr)
- Money Matters (1 cr)

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

# ARCHITECTURE & CONSTRUCTION COURSES

**Principles of Construction**  
121011/121012 (PRINCON 13004220)

**1 Credit Over 1 Semester**  
**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**  
122020 (CONTECH1 13005100)  
**Prerequisite: Principles of Construction**

**2 credits/1 period**  
**Grades 10-12**

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**  
122040 (CONTECH2 13005200)  
**Prerequisite: Construction Technology I**

**2 credits/2 periods**  
**Grades 11-12**

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**  
155050 (PRACCT1 13005250)  
**Prerequisite: Construction Technology II**

**2 credits/2 periods**  
**Grade 12**

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, A/V TECHNOLOGY, & COMMUNICATIONS

## Coherent Sequences

- A/V Production II
- Commercial Photography II
- Graphic Design and Illustration II
- Fashion Design II



## Graphic Design and Multimedia Arts

Level 1:	Level 2:	Level 3:	Level 4:
Principles of Arts, A/V Technology, and Communications	Graphic Design and Illustration I/Lab	Graphic Design and Illustration II/Lab	Practicum in Graphic Design and Illustration
Video Game Design	Animation I/Lab	Commercial Photography II/Lab	Practicum in Animation
	Digital Design and Media Productions	Fashion Design II/Lab	Practicum in Commercial Photography
	Commercial Photography I/Lab	Digital Arts and Animation	
	Fashion Design I/Lab		
<b>High School/Industry Certification</b>	<b>Associate's Degree</b>	<b>Bachelor's Degree</b>	<b>Master's/Doctoral Professional Degree</b>
<ul style="list-style-type: none"> <li>• Adobe Certified Associate Certifications</li> </ul>	<ul style="list-style-type: none"> <li>• Animation, Interactive Technology, Video Graphics and Special Effects</li> <li>• Graphic Design</li> <li>• Game and Interactive Media Design</li> </ul>	<ul style="list-style-type: none"> <li>• Animation, Interactive Technology, Video Graphics and Special Effects</li> <li>• Graphic Design</li> <li>• Game and Interactive Media Design</li> </ul>	<ul style="list-style-type: none"> <li>• Animation, Interactive Technology, Video Graphics and Special Effects</li> <li>• Graphic Design</li> <li>• Intermedia/</li> <li>• Multimedia</li> </ul>

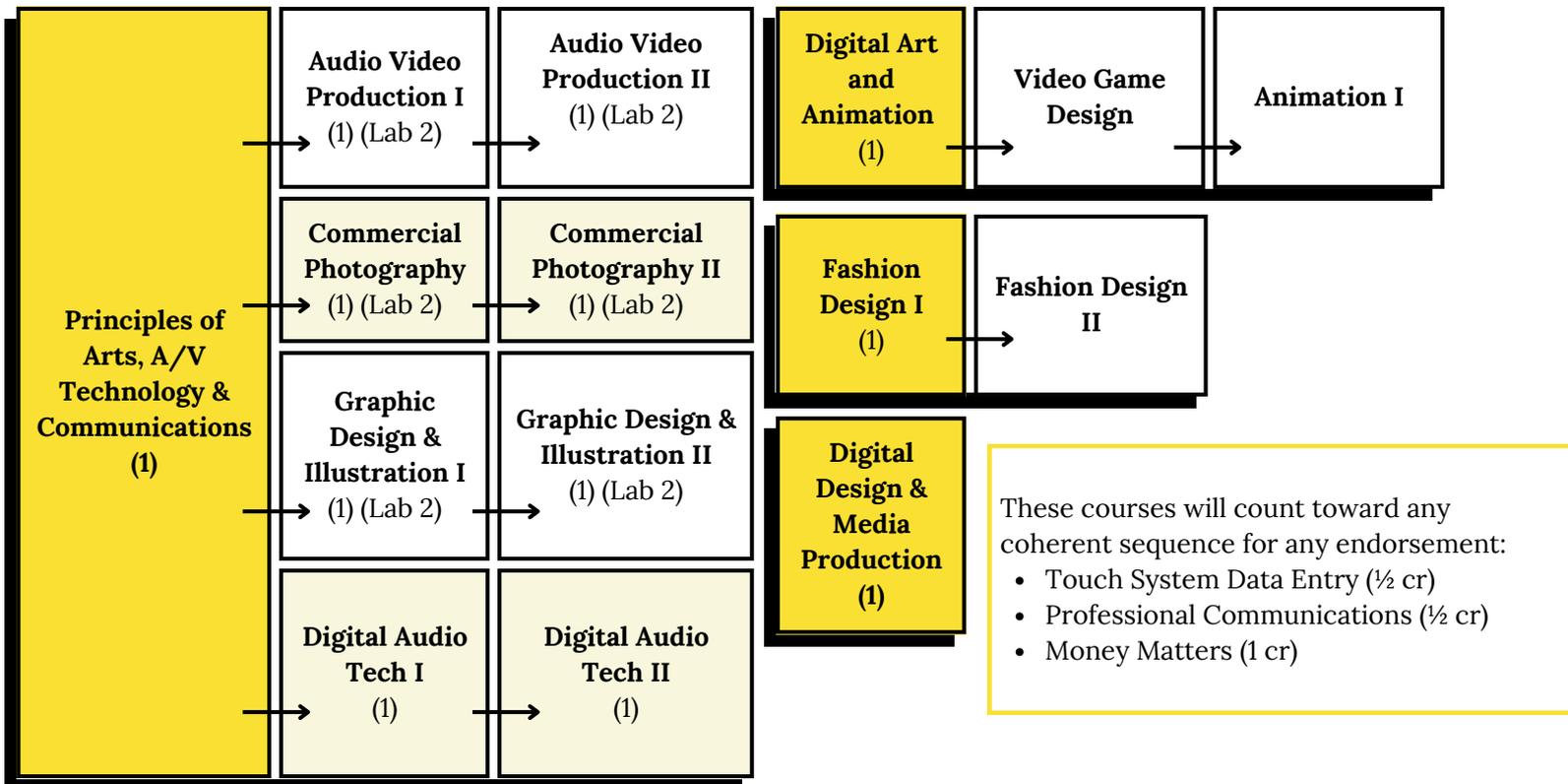
Occupations	Median Wage	Annual Openings	% Growth
Graphic Designers	\$44,824	1,433	15%
Multimedia Artists and Animators	\$67,392	186	21%

## Digital Communications

Level 1:	Level 2:	Level 3:	Level 4:
Principles of Arts, A/V Technology, and Communications	Audio/Video Production I/Lab	Audio Video Production II/Lab	Practicum of Audio/Video Production
Professional Communications	Digital Audio Technology I	Digital Audio Technology II	Practicum in Digital Audio Technology
<b>High School/Industry Certification</b>	<b>Associate's Degree</b>	<b>Bachelor's Degree</b>	<b>Master's/Doctoral Professional Degree</b>
<ul style="list-style-type: none"> <li>• Adobe Certified Associate</li> </ul>	<ul style="list-style-type: none"> <li>• Recording Arts Technology/Technician</li> <li>• Cinematography and Film/Video Production</li> <li>• Radio and Television Broadcasting Technology/Technician</li> <li>• Music Technology</li> </ul>	<ul style="list-style-type: none"> <li>• Recording Arts Technology/Technician</li> <li>• Agricultural Communication/Journalism</li> </ul>	<ul style="list-style-type: none"> <li>• Communications Technology/Technician</li> <li>• Agricultural Communication/Journalism</li> </ul>

Occupations	Median Wage	Annual Openings	% Growth
Sound Engineering Technicians	\$39,562	79	27%
Camera Operators, Television, Video and Motion Picture	\$50,024	129	9%
Audio and Video Equipment Technicians	\$40,581	757	29%
Film and Video Editors	\$47,382	118	23%

# ARTS, A/V TECHNOLOGY AND COMMUNICATION COHERENT SEQUENCE



	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	
Animation I	11-12	Video Game Design	
Digital Audio Tech I & II	10-12	Prin of Arts, AV Tech, and Comm	
Digital Design and Media Production	10-12	Prin of Arts, AV Tech, and Comm	

# ARTS, A/V TECHNOLOGY, & COMMUNICATIONS COURSE DESCRIPTIONS

**Principles of Arts, Audio/Video Technology, and Communications**  
**015010 (PRINAAVTC 13008200)**

**1 credit/1 period**  
**Grades 9-10**

## **Introductory Course**

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**  
**015020 (AVPROD1 13008500)**

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

**1 Credit [Media 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.**

**Application required – Jacket Update Staff. 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****015030 (AVPROD2 13008600)**

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

**Prerequisite: Audio/Video Production****1 Credit [Media Staff]****Grade 10-12**

**Application required – Jacket Update Staff. 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 ★****015050 (GRAPHDI1 13008800)**

Optional Lab 01505L (GRDLAB1 13008910) (2 credits/1 period)

**Recommended prerequisite: Principles of Arts, Audio/Video Technology, and Communicationss.****1 Credit****[Newspaper/Yearbook Staff]****Grade 10-12**

**Application required. 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 ★****015060 (GRAPHDI2 13008900)**

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

**Prerequisite: Graphic Design and Illustration****1 Credit****[Newspaper/Yearbook Staff]****Grade 11-12**

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 ★****015070 (CPHOTO1 13009100)**

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

**Recommended prerequisite: Graphic Design and Illustration or Art I All students must provide their own digital camera****1 Credit****[Photojournalism]****Grade 11-12****Introductory Course. 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****015080 (CPHOTO2 13009200)**

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

**Prerequisite: Commercial Photography****1 Credit****Grades 11-12****Application required. 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.

**Digital Design and Media Production (1 credit)****015110 (03580400)****Recommended Prerequisite: Principles of Arts, AV Tech, and Communication****Grade 10-12**

Digital Design and Media Production will allow students to demonstrate creative thinking, develop innovative strategies, and use communication tools in order to work effectively with others as well as independently. Students will gather information electronically, which will allow for problem solving and making informed decisions regarding media projects. Students will learn digital citizenship by researching current laws and regulations and by practicing integrity and respect. Students will demonstrate a thorough understanding of digital design principles that is transferable to other disciplines. The six strands include creativity and innovation; communication and collaboration; research and information fluency; critical thinking; problem solving, and decision making; digital citizenship; and technology operations and concepts. Up on completion of the course, students will be given the opportunity to test and earn the Adobe Certification Professional in Visual Design Using Adobe Photoshop. This test is the industry-based certification that demonstrates proficiency in Adobe Creative Cloud software and foundational knowledge for digital media careers.

**Fashion Design I**  
**015040 (FASHDSN1 13009300)**

**1 Credit**  
**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**  
**015140 (FASHDSN2 13009400)**  
**Recommended prerequisite: Fashion Design I**

**1 Credit**  
**Grades 11-12**

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.

**Professional Communications**  
**015001/015002 (PROFCOMM 13009900)**

**½ Credit**  
**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**  
**015030 (AVPROD2 13008600)**

**1 Credit [Media Staff]**  
**Grade 10-12**

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

**Prerequisite: Audio/Video Production**

**Application required – Jacket Update Staff. 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 ★**  
**081080 (TADGAA 03580500)**

**1 Credit**  
**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 using digital coding and graphic software.

**Video Game Design**  
**082080 (VIDGD 13009970)**

**1 Credit**  
**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**  
**083080 (ANIMAT1 13008300)**

**1 Credit**  
**Grade 11-12**

**Recommended prerequisite: Principles of Arts, AV and Communications;**

**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.

**Digital Audio Tech I**  
**015120 (DATECH1 13009950)**

**1 Credit**  
**Grade 10-12**

**Digital Audio Tech II**  
**015220 (DATECH2 13009960)**

**1 Credit**  
**Grade 11-12**

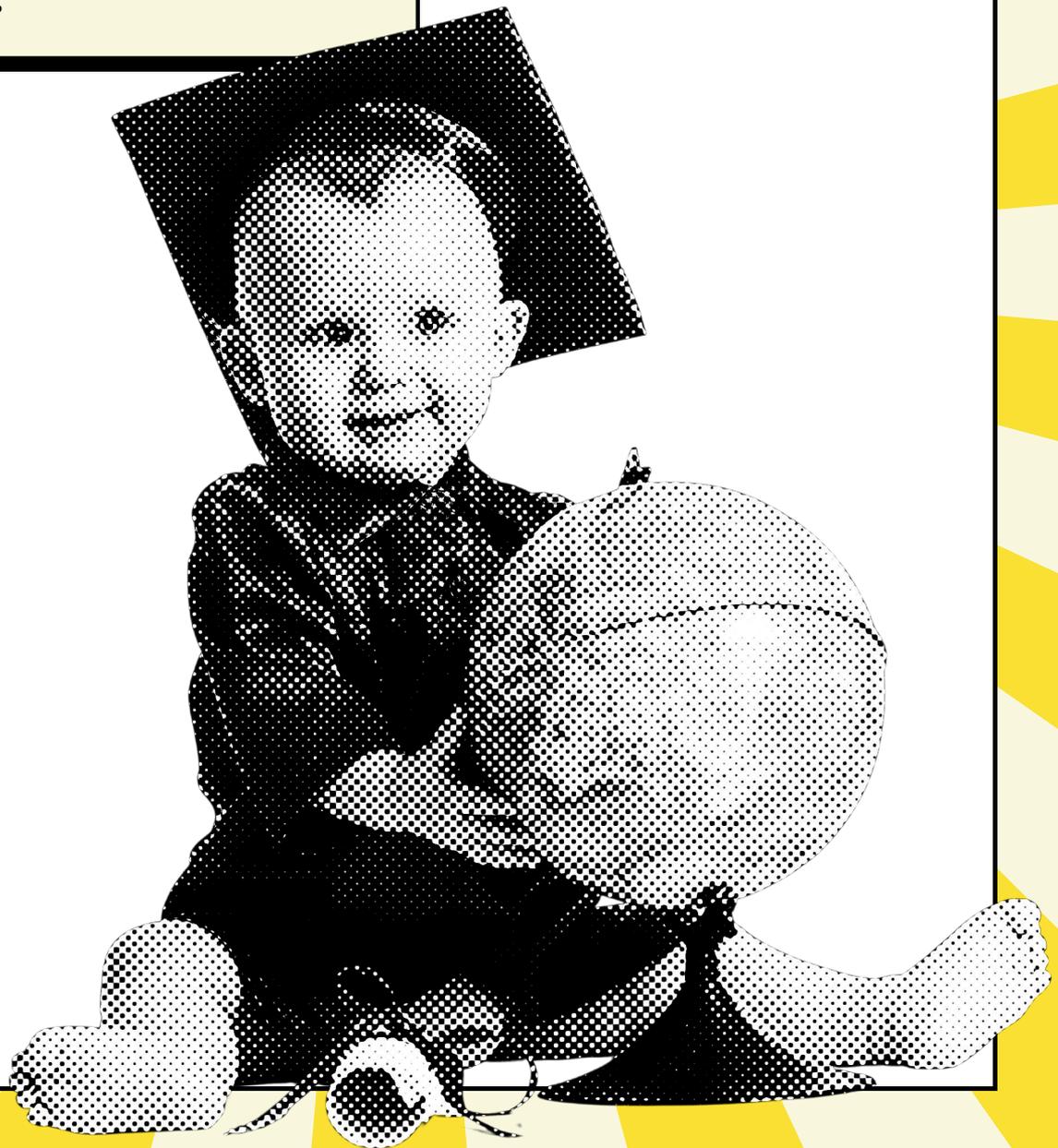
**Recommended prerequisite: Principles of Arts, AV and Communications.**

**VIDEO BOARD TEAM** - Digital Audio Technology is designed to provide students interested in audio production careers such as audio for radio and television broadcasting, audio for video and film, audio for animation and game design, music production and live sound, and additional opportunities and skills sets.

# EDUCATION & TRAINING

## **Coherent Sequences**

- Instructional Practices
- Practicum in Education and Training



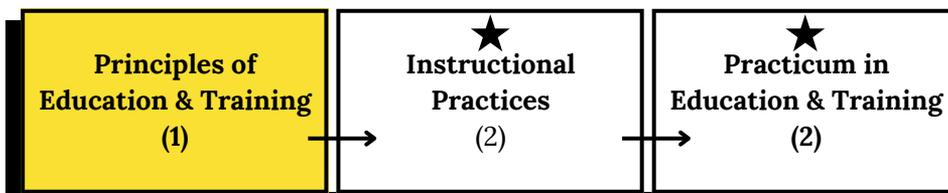
# Teaching and Training

<b>Level 1:</b> Principles of Education and Training	<b>Level 2:</b> Child Development	<b>Level 3:</b> Instructional Practices	<b>Level 4:</b> Practicum in Education and Training
Principles of Human Services			

<b>High School/Industry Certification</b> <ul style="list-style-type: none"> <li>Educational Aide I</li> </ul>	<b>Associate's Degree</b> <ul style="list-style-type: none"> <li>Teacher Education</li> <li>Education, General (or specific subject area)</li> <li>Special Education</li> <li>Health and Physical Education/Fitness</li> </ul>	<b>Bachelor's Degree</b> <ul style="list-style-type: none"> <li>Bilingual and Multilingual Education</li> <li>Education, General (or specific subject area)</li> <li>Special Education</li> <li>Health and Physical Education/Fitness</li> </ul>	<b>Master's/Doctoral Professional Degree</b> <ul style="list-style-type: none"> <li>Instruction and Learning</li> <li>Social and Philosophical Foundations of Education</li> </ul>
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Occupations	Median Wage	Annual Openings	% Growth
Adult Basic and Secondary Education and Literacy Teachers and Instructors	\$48,069	862	17%
Middle School Teachers, Except Special and Career/ Technical Education	\$54,510	6,407	15%
Career and Technical Education Teachers, Secondary School	\$56,360	719	9%
Special Education Teachers, Secondary School	\$56,720	980	18%

## EDUCATION AND TRAINING COHORT SEQUENCE



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

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

- Touch System Data Entry (½ cr)
- Professional Communications (½ cr)
- Money Matters (1 cr)

	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

# EDUCATION & TRAINING COURSE DESCRIPTIONS

## **Principles of Education and Training** **111061/111062 (PRINEDTR 13014200)**

**1 credit Over 1 Semester**  
**Grade 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 ★** **111040 (13014400 INPRAC)**

**2 Credits**  
**Grade 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 ★** **111150 (PRACEDT1 13014500)**

**2 Credits**  
**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

## Coherent Sequences

- Health Care Diagnostics
- Health Care Therapeutic



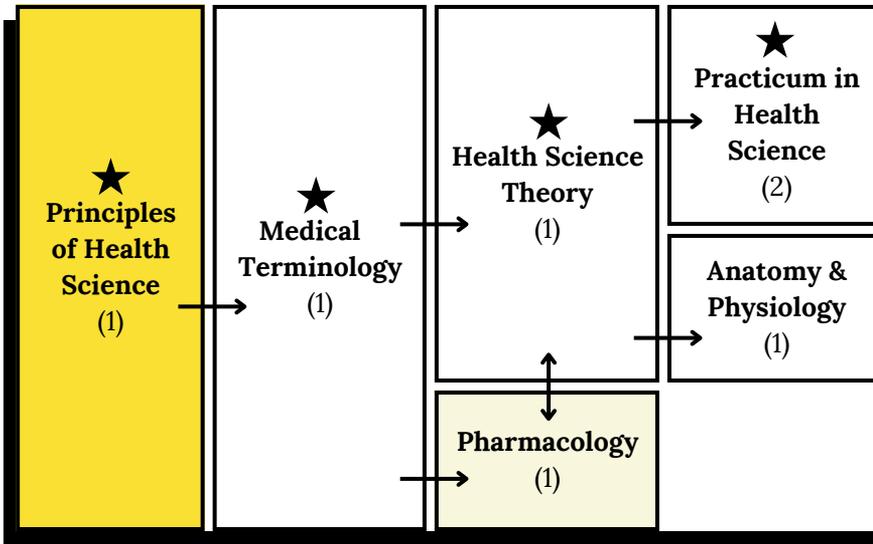
## Healthcare Diagnostics

Healthcare Diagnostics			
Level 1: Principles of Health Science	Level 2: Medical Terminology	Level 3: Anatomy and Physiology  Health Science Theory 1	Level 4: Pharmacology  Practicum in Health Science
<b>High School/Industry Certification</b> <ul style="list-style-type: none"> <li>• Limited Licensed Radiology Technologist</li> <li>• EKG/ECG Technician</li> <li>• Medical Laboratory Technician</li> <li>• Phlebotomy Technician</li> </ul>	<b>Associate's Degree</b> <ul style="list-style-type: none"> <li>• Nuclear Medical Technology/Technologist</li> <li>• Magnetic Resonance Imaging (MRI) Technology/Technician</li> </ul>	<b>Bachelor's Degree</b> <ul style="list-style-type: none"> <li>• Nuclear Medical Technology/Technologist</li> <li>• Medical Radiologic Technology/Science Radiation Therapist</li> </ul>	<b>Master's/Doctoral Professional Degree</b> <ul style="list-style-type: none"> <li>• Radiologist</li> <li>• Radiologic Technology/Science - Radiographer</li> </ul>
Occupations	Median Wage	Annual Openings	% Growth
Diagnostic Medical Sonographers	\$69,909	495	35%
Phlebotomists	\$30,597	1442	36%
Nuclear Medicine Technologists	\$75,962	91	13%
Radiologic Technologists	\$55,494	1196	19%
Magnetic Resonance Imagine Technologists	\$68,661	217	21%

## Healthcare Therapeutic

Healthcare Therapeutic			
Level 1: Principles of Health Science	Level 2: Medical Terminology	Level 3: Anatomy and Physiology  Health Science Theory 1	Level 4: Pharmacology  Practicum in Health Science
<b>High School/Industry Certification</b> <ul style="list-style-type: none"> <li>• Certified Patient Care Technician</li> <li>• Certified Nurse Aide/Assistant</li> <li>• Pharmacy Technician</li> </ul>	<b>Associate's Degree</b> <ul style="list-style-type: none"> <li>• Dental Hygienist</li> <li>• Medical/ Clinical Assistant</li> </ul>	<b>Bachelor's Degree</b> <ul style="list-style-type: none"> <li>• Dental Hygienist</li> </ul>	<b>Master's/Doctoral Professional Degree</b> <ul style="list-style-type: none"> <li>• Dentist</li> <li>• Physician Assistant</li> <li>• Family and General Practitioners</li> <li>• Pharmacist</li> </ul>
Occupations	Median Wage	Annual Openings	% Growth
Medical Assistants	\$29,598	8,862	30%
Surgical Technologists	\$45,032	1,150	20%
Dental Hygienists	\$73,507	1,353	38%
Physicians and Surgeons	\$213,071	1,151	30%
Dental Assistants	\$34,840	4,422	31%

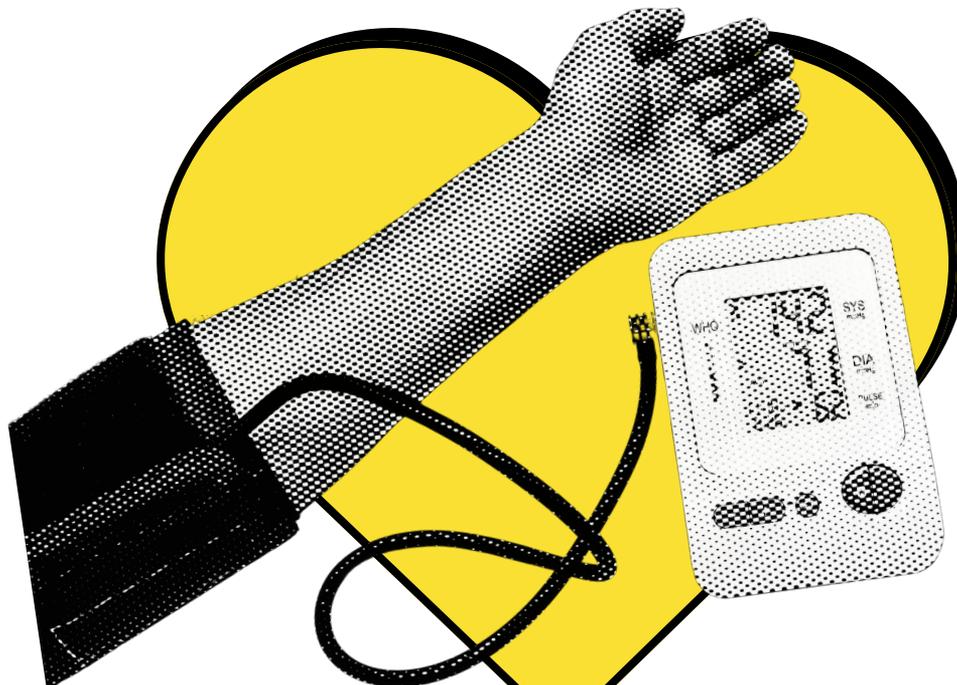
# HEALTHCARE SCIENCE COHERENT SEQUENCE



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

- Touch System Data Entry (½ cr)
- Professional Communications (½ cr)
- Money Matters (1 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	12	Health Science Theory	GC
Anatomy & Physiology	12	Biology and one other credit of Science	



# HEALTH SCIENCE COURSE DESCRIPTIONS

## **Principles of Health Science ★** **130040 (PRINHLSC 13020200)**

**1 credit**  
**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 ★** **131130 (MEDTERM 13020300)** **Prerequisite: Principles of Health Science**

**1 Credit**  
**Grades 10-12**

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** **131140 (PHARMC 13020950)** **Prerequisite: Chemistry and Principles of Health Science**

**1 Credit**  
**Grades 11-12**

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 ★** **130550 (HLSCLIN 13020400)** **Prerequisite: Principles of Health Science and Medical Terminology**

**1 Credit**  
**Grades 10-12**

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 ★**  
**130060 (PRACHLS1 13020500)**  
**Prerequisite: Health Science Theory/Clinical**

**2 Credits**  
**Grades 11-12**

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**  
**030420 (ANATPHYS 13020600)**  
**Recommended prerequisites: Biology and one credit of science.**

**1 Credit (also an  
advanced science)**  
**Grade 12**

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 & TOURISM

## Coherent Sequences

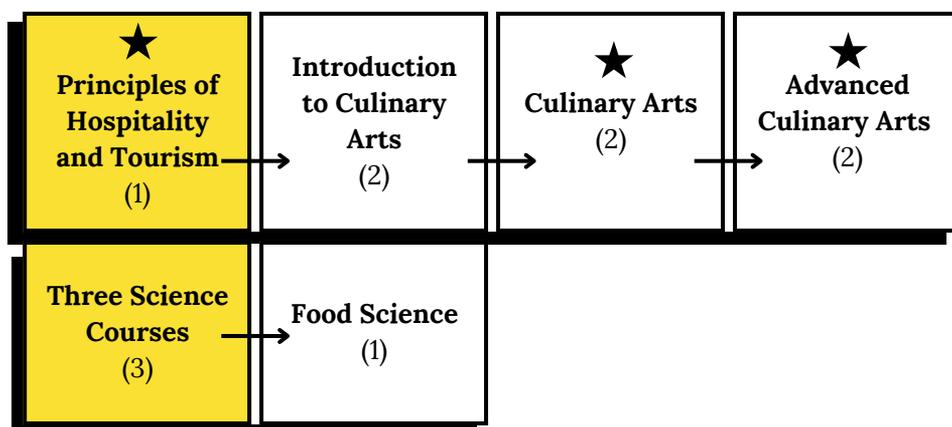
- Culinary Arts



Level 1: Introduction to Culinary Arts	Level 2: Culinary Arts	Level 3: Advanced Culinary Arts	Level 4: Food Science
Principles of Hospitality and Tourism			Practicum in Culinary Arts
<b>High School/Industry Certification</b> • ServSafe Manager	<b>Associate's Degree</b> • Hotel and Restaurant Management • Restaurant Culinary and Catering Management • Hospitality Administration/Management, General • Culinary Arts/ Chef Training	<b>Bachelor's Degree</b> • Hotel and Restaurant Management • Food Service • Systems Administration/Management • Hospitality Administration/Management, General • Culinary Science and Food Service Management	<b>Master's/Doctoral Professional Degree</b> • Hotel and Restaurant Management • Food Service • Systems Administration/Management • Hospitality Administration/Management, General • Business Administration Management, General

Occupations	Median Wage	Annual Openings	% Growth
Food and Beverage Managers	\$55,619	1,561	28%
Chef and Head Cooks	\$43,285	1,366	25%
Food Science Technicians	\$34,382	236	11%

## HOSPITALITY AND TOURISM COHERENT SEQUENCE



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

- Touch System Data Entry (½ cr)
- Professional Communications (½ cr)
- Money Matters (1 cr)

	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	

# HOSPITALITY & TOURISM COURSE DESCRIPTIONS

## **Principles of Hospitality and Tourism★** 110211 (PRINHOSP 13022200)

**1 Credit over 1 semester - fall only**  
**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** 111222 (INCULART 13022550)

**1 Credit over 1 semester - spring only**  
**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★** 110230 (CULARTS 13022600)

**2 Credits over 1 period**  
**Grades 11-12**

**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 ★**  
**110250 (ADCULART 13022650)**

**Prerequisite: Culinary Arts**

**Application APPROVAL ONLY**

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

**2 Credits**  
**Grades 11-12**

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**

**FOODSCI (FOODSCI 13023000)**

**Recommended prerequisites: Three units of science.**

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

**Grades 11-12**

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

## Coherent Sequences

- Cosmetology I
- Cosmetology II
- Family and Consumer Services



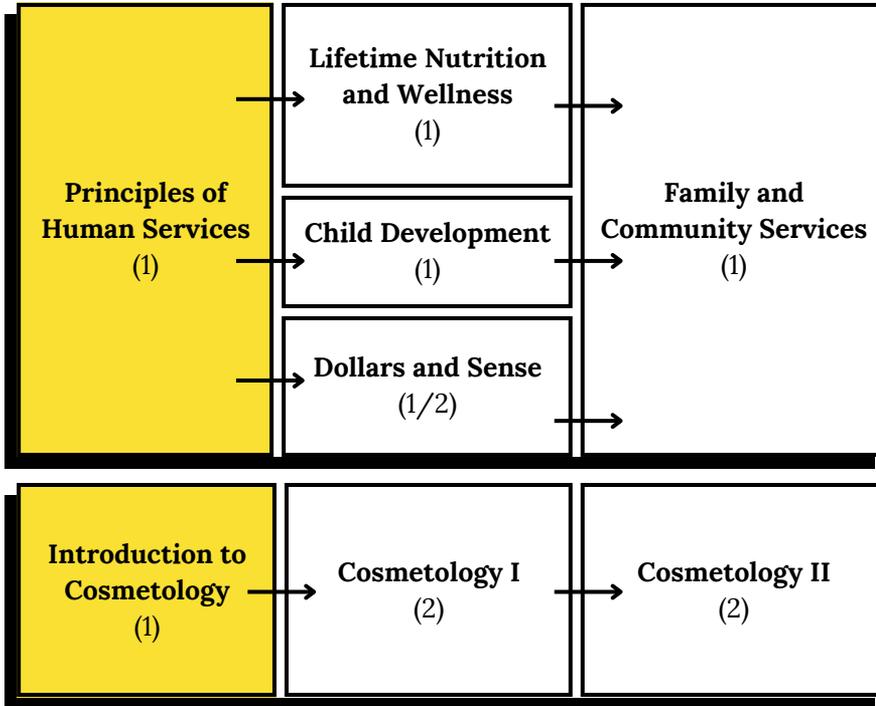
## Cosmetology & Personal Care Services

Level 1: Introduction to Cosmetology	Level 2: Cosmetology I/Lab	Level 3: Cosmetology II/ Lab	Level 4: Cosmetology III/ Lab
<b>High School/Industry Certification</b> • Cosmetology Operator License	<b>Associate's Degree</b> • Cosmetology/Cosmetologist, General • Aesthetician/Esthetician and Skin Care Specialist • Salon/Beauty Salon Management/ Manager	<b>Bachelor's Degree</b>	<b>Master's/Doctoral Professional Degree</b>
Occupations	Median Wage	Annual Openings	% Growth
First-Line Supervisors of Personal Service Workers	\$36,941	1,634	24%
Barbers	\$28,267	348	14%
Hairdressers, Hairstylists, and Cosmetologists	\$21,507	3,489	22%
Manicurists and Pedicurists	\$21,715	418	45%
Shampooers	\$18,720	139	24%
Skincare Specialists	\$26,437	637	22%

## Family and Community Services

Level 1: Principles of Human Services	Level 2: Lifetime Nutrition and Wellness	Level 3: Family and Community Services	Level 4: Practicum in Human Services
Professional Communications	Child Development		
Dollars and Sense			
<b>High School/Industry Certification</b> • Community Health Worker	<b>Associate's Degree</b> • Human Development and Family Studies • Human Services/Sciences, General • Family and Consumer Sciences • Community Health Services	<b>Bachelor's Degree</b> • Human Development and Family Studies • Human Services/Sciences, General • Family and Consumer Sciences • Child and Family Services	<b>Master's/Doctoral Professional Degree</b> • Human Development and Family Studies • Marriage and Family Therapy/ Counseling • Human Services/ Sciences • Family Studies
Occupations	Median Wage	Annual Openings	% Growth
Child, Family, and School Social Workers	\$41,350	2,221	17%
Social and Community Services Managers	\$65,146	608	33%
Marriage and Family Therapists	\$42,266	217	35%
Social and Human Service Assistants	\$32,448	2,822	25%
Mental Health and Substance Abuse and Behavioral Disorder Counselors	\$42,120	576	39%

# HUMAN SERVICES COHERENT SEQUENCE



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

- Touch System Data Entry (½ cr)
- Professional Communications (½ cr)
- Money Matters (1 cr)

	Grade	Prerequisite(s)	★ ETC
Principles of Human Services	9-10		
Lifetime Nutrition and Wellness	10-12	Principles of Human Services	
Child Development	10-12		
Dollars and Sense	10-12		

Introduction to Cosmetology	9-10		
Cosmetology I	10-11	Introduction to Cosmetology	
Cosmetology II	11-12	Cosmetology I	
Family & Community Services	10-12	Principles of Human Services	

# HUMAN SERVICES COURSE DESCRIPTIONS

## **Principles of Human Services 111000 (PRINHUSR 13024200)**

**1 credit  
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 110051/110052 (LNURTWEL 13024500)**

**½ Credit  
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 110060 (CHILDDEV 13024700)**

**1 Credit  
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.

## **Dollars and Sense 0825051/2 (DOLLARSE 13024300)**

**½ Credit  
Grades 10-12**

**Prerequisite: Principles of Human Services**

Dollars and Sense focuses on consumer practices and responsibilities, the money management process, decision-making skills, impact of technology, and preparation for human services careers. Students are encouraged to participate in career and technical student organizations and other leadership organizations.

**Family and Community Services****111060 – (Family and Community Services 13024900)****Prerequisite: Principles of Human Services****1 Credit  
Grades 10-12**

Family and Community Services students will learn to interact with and provide services to individuals, families, and the community. Emphasis is placed on developing and enhancing organizational and leadership skills and characteristics. Students also have the opportunity to earn a Community Health Worker (CHW) certification. This test is an industry-based certification. A CHW is a frontline public health worker who builds individual and community capacity by increasing health knowledge and self-sufficiency through a range of activities such as outreach, education, informal counseling, social support, and advocacy.

**Introduction to Cosmetology****120270 (INTCOSMO 13025100)****1 Credit  
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****COSMO-I (COSMET1 13025200)****COSMO-LAB (13025210)****Prerequisite: Introduction to Cosmetology****2 Credits + optional local Lab Credit  
Grades 10-11****\*\*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.

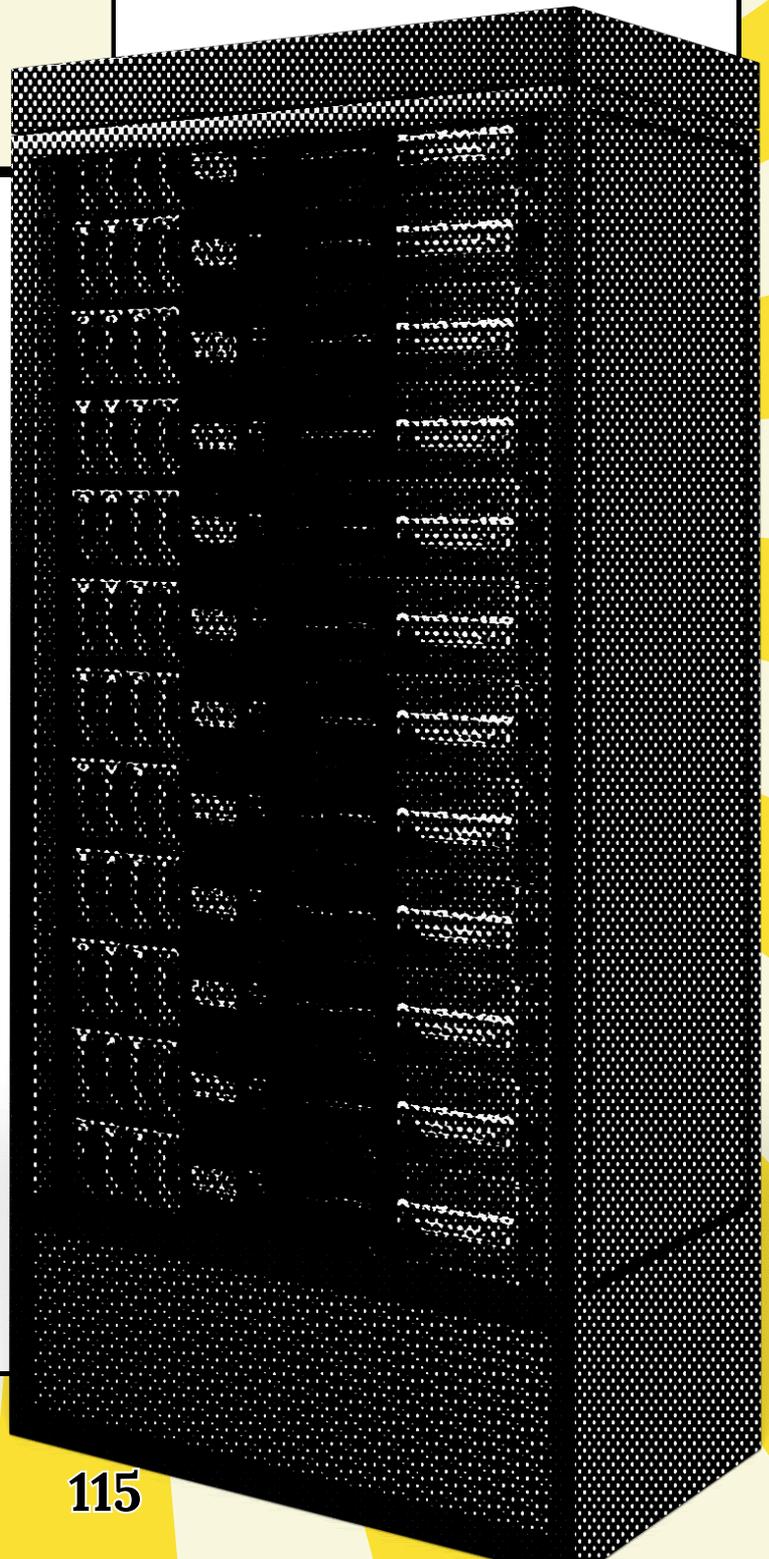
**Cosmetology II****COSMO-II (COSMET2 13025300)****COSMO-LAB (13025310)****Prerequisite: Cosmetology I****2 Credits + optional local Lab Credit  
Grades 11-12**

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

## **Coherent Sequences**

- Web Development



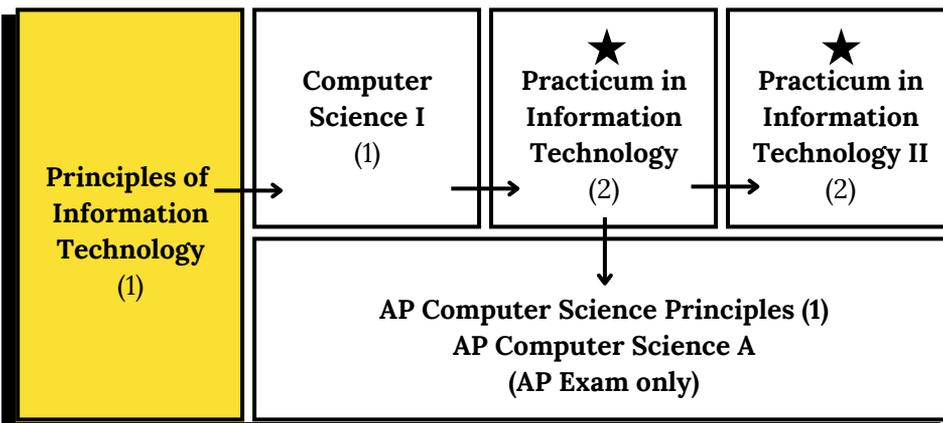
# Web Development

<b>Level 1:</b> Principles of Information Technology	<b>Level 2:</b> Computer Science I	<b>Level 3:</b>	<b>Level 4:</b> Practicum in Information Technology  Independent Study in Technology Applications
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<b>High School/Industry Certification</b> • Microsoft Technology Associate	<b>Associate's Degree</b> • Computer Programming/Programmer, General • Computer Science • Web Page, Digital/Multimedia and Information Resources Design • Computer Systems Networking and Tele-communications	<b>Bachelor's Degree</b> • Web/ Multimedia Management and Webmaster • Computer Science • Web Page, Digital/Multimedia and Information Resources Design • Computer Systems Networking and Tele-communications	<b>Master's/Doctoral Professional Degree</b> • Computational Science • Computer Science • Information Science/Studies • Computer Systems Networking and Tele-communications
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Occupations	Median Wage	Annual Openings	% Growth
Web Developers	\$67,912	1,079	39%
Web Administrators, Computer Occupations	\$85,197	1,616	20%
Software Developers	\$104,499	6,311	30%

## INFORMATION TECHNOLOGY COHERENT SEQUENCE



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

- Touch System Data Entry (½ cr)
- Professional Communications (½ cr)
- Money Matters (1 cr)

	Grade	Prerequisite(s)	★ ETC
Principles of Information Technology	9-10		
Computer Science I	10-12	Principles of Information Tech	
AP Computer Science Principles	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

# INFORMATION TECHNOLOGY COURSE DESCRIPTIONS

## **Principles of Information Technology** **080010 (PRINIT 13027200)**

**1 credit**  
**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 Science I** **03580200**

**1 Credit**  
**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** **09003P (APCSPRIN A3580300)**

**Level 3**  
**1 Credit**  
**Grades 11-12**

**Prerequisites: Computer Science I and Algebra II**

The AP Computer Science Principles course teaches the foundational concepts of computer science as it aims to broaden participation in the study of computer science.

**Practicum in Information Technology I ★**

**090050 (2 credits) (PRACIT1 13028000)**

**090150 (3 credits) (EXPRIT1 13028005)**

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

**2 or 3 Credits\***

**Grades 11-12**

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 ★**

**090250 (2 credits) (PRACIT2 13028010)**

**090350 (3 credits) (EXPRIT2 13028015)**

**Prerequisite: Practicum in Information Technology I**

**2 or 3 Credits\***

**Grade 12**

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.***

# MANUFACTURING

## Coherent Sequences

- Welding II
- Practicum in Manufacturing
- Advanced Manufacturing Certification



## Advanced Manufacturing & Machinery Mechanics

Level 1: Principles of Manufacturing Principles of Applied Engineering	Level 2: Robotics I	Level 3: Engineering Design and Presentation I  Robotics II	Level 4: Practicum in Manufacturing
<b>High School/Industry Certification</b> <ul style="list-style-type: none"> <li>• FAA UAV Pilot Certification</li> <li>• Advanced Manufacturing I (Grayson College)</li> <li>• Advanced Manufacturing II (Grayson College)</li> </ul>	<b>Associate's Degree</b> <ul style="list-style-type: none"> <li>• Electro-mechanical Engineering/ Technology</li> <li>• Certified Quality Technician</li> <li>• Industrial Mechanics and Maintenance Technology</li> </ul>	<b>Bachelor's Degree</b> <ul style="list-style-type: none"> <li>• Electrical Engineering</li> <li>• Industrial Engineering</li> <li>• Mechanical Engineering</li> </ul>	<b>Master's/Doctoral Professional Degree</b> <ul style="list-style-type: none"> <li>• Electrical Engineering</li> <li>• Industrial Engineering</li> <li>• Mechanical Engineering</li> </ul>
Occupations	Median Wage	Annual Openings	% Growth
Electro-Mechanical Assemblers	\$30,160	951	9%
Electro-Mechanical Technicians	\$56,555	127	9%
Industrial Machinery Mechanics	\$49,816	3,788	27%

## Manufacturing

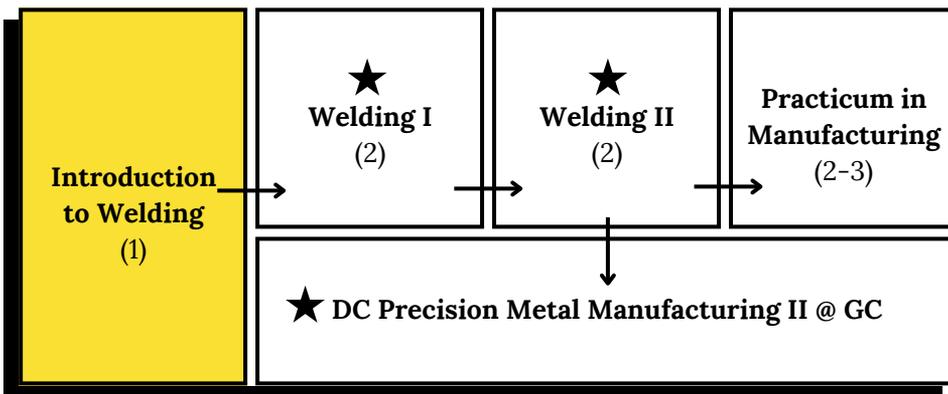
Level 1: Principles of Manufacturing  Principles of Applied Engineering	Level 2:	Level 3: Practicum in Manufacturing I	Level 4: Practicum in Manufacturing II
<b>High School/Industry Certification</b> <ul style="list-style-type: none"> <li>• Advanced Manufacturing Certification I (Grayson College)</li> <li>• Advanced Manufacturing Certification II (Grayson College)</li> </ul>	<b>Associate's Degree</b> <ul style="list-style-type: none"> <li>• Welding Technology/ Welder</li> <li>• Machine Shop Technology/ Assistant</li> <li>• Operations Management and Supervision</li> <li>• Occupational Safety and Health Technology/ Technician</li> </ul>	<b>Bachelor's Degree</b> <ul style="list-style-type: none"> <li>• Welding Engineering Technology/ Technician</li> <li>• Biomedical Technology/ Technician</li> <li>• Operations Management and Supervision</li> <li>• Environmental Health</li> </ul>	<b>Master's/Doctoral Professional Degree</b> <ul style="list-style-type: none"> <li>• Welding Engineering Technology/ Technician</li> <li>• Occupational Health and Industrial Hygiene</li> <li>• Operations Management and Supervision</li> <li>• Environmental Health</li> </ul>
Occupations	Median Wage	Annual Openings	% Growth
Mechanical Engineering Technicians	\$57,117	453	9%
CNC Machine Operators	\$39,250	1,319	12%
Aerospace Engineering and Operations Technicians	\$60,757	114	9%
Electrical and Electronics Engineering Technicians	\$60,382	1,439	9%
Industrial Engineering Technicians	\$61,672	326	9%

# Welding

Level 1: Introduction to Welding	Level 2: Welding I	Level 3: Welding II/Lab	Level 4: Practicum in Manufacturing
<b>High School/Industry Certification</b> <ul style="list-style-type: none"> <li>AWS Certified Welder</li> </ul>	<b>Associate's Degree</b> <ul style="list-style-type: none"> <li>Certified Welder or Welder Inspector</li> <li>Machine Shop Technology/ Assistant</li> <li>Operations Management and Supervision</li> <li>Occupational Safety and Health Technology/ Technician</li> </ul>	<b>Bachelor's Degree</b> <ul style="list-style-type: none"> <li>Welding Engineering Technology/ Technician</li> <li>Biomedical Technology/ Technician</li> <li>Operations Management and Supervision</li> <li>Environmental Health</li> </ul>	<b>Master's/Doctoral Professional Degree</b> <ul style="list-style-type: none"> <li>Welding Engineering Technology/ Technician</li> <li>Occupational Health and Industrial Hygiene</li> <li>Operations Management and Supervision</li> <li>Environmental Health</li> </ul>

Occupations	Median Wage	Annual Openings	% Growth
Welders, Cutters, Solderers, and Brazers	\$41,350	6,171	9%
Welding Soldering and Brazing Machine Setters, Operators and Tenders	\$40,040	280	9%

## MANUFACTURING COHERENT SEQUENCE



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

- Touch System Data Entry (½ cr)
- Professional Communications (½ cr)
- Money Matters (1 cr)

	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
Practicum in Manufacturing	11-12	2 courses related to manufacturing	
Precision Metal Manufacturing II	12	2 courses related to manufacturing	GC dual credit

# MANUFACTURING COURSE DESCRIPTIONS

## **Introduction to Welding**

**120151/120152 (INTRWELD 13032250)**

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

**1 credit Over 1 Semester**

**Grades 9-10**

**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 ★**

**120050 (WELD1 13032300)**

**Prerequisite: Algebra 1 and Introduction to Welding**

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

**2 Credits over 1 period**

**Grades 10-12**

**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 ★

120350 (WELD2 13032400)

Prerequisites: Algebra I or Geometry and Welding

Students must obtain OSHA certification to work in the shop.

2 Credits

Grades 11-12

**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

112800 (2 credits) (PRACMAN1 13033000) (on DHS campus – 3rd year welding)

Prerequisites: Two to three courses related to manufacturing.

2 Credits

Grade 12

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 ★

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

Prerequisite: Welding II

Students must apply to Grayson College to participate in this program.

Tuition will be charged, but fee waivers are available.

3 Credits-Dual Credit

Grades 12

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

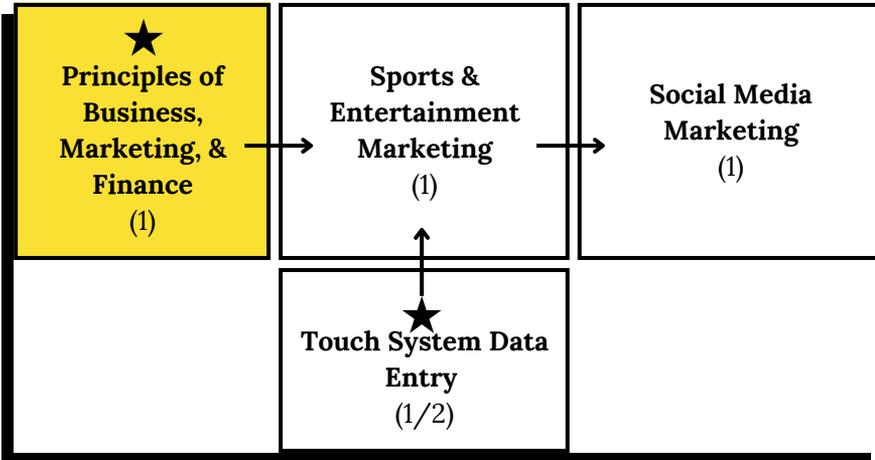
# MARKETING

## Coherent Sequences

- Sports & Entertainment Marketing
- Social Media Marketing



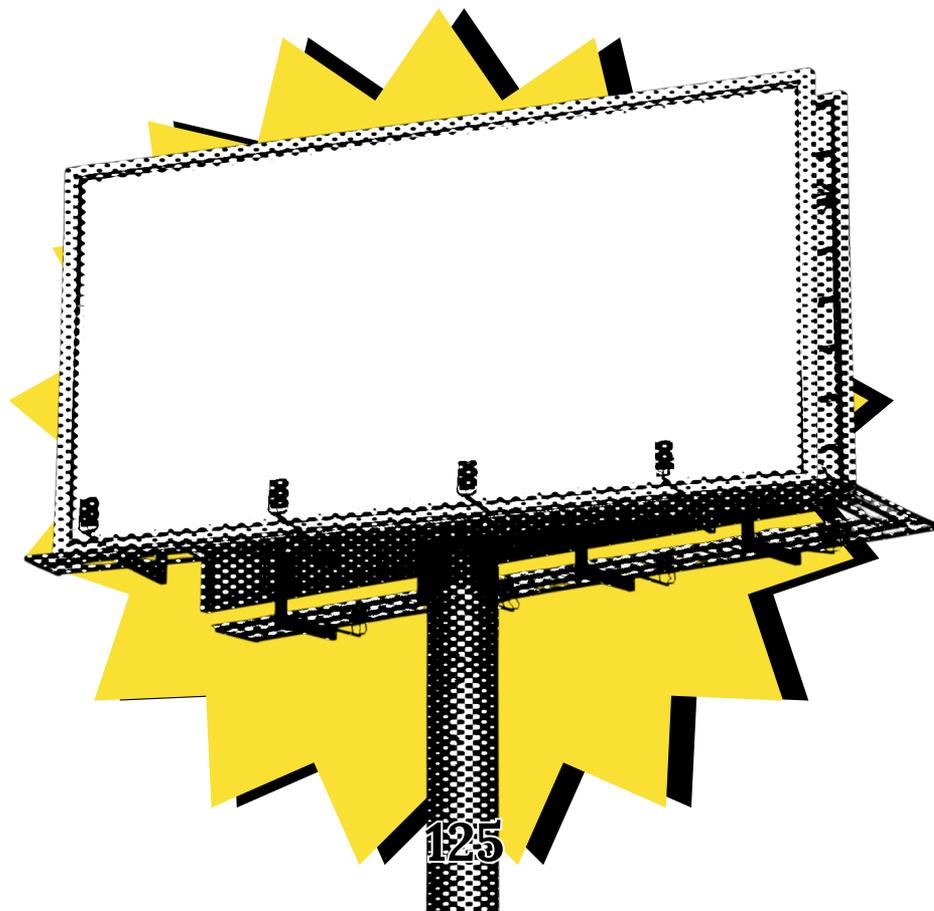
# MARKETING COHERENT SEQUENCE



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
Touch System Data Entry	9-10		GC
Prin of Bus, Marketing & Finance	9-11		GC
Sports & Entertainment Marketing	9-12		
Social Media Marketing	9-12		



# MARKETING COURSE DESCRIPTIONS

**Touch System Data Entry ★**  
**081051/2 (TSDATAE 13011300)**

**½ Credit**  
**Grades 9-12**

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.

**Principles of Business, Marketing, and Finance ★**  
**081040 (PRINBMF 13011200)**

**1 Credit**  
**Grades 9-12**

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

**Sports & Entertainment Marketing**  
**081141- semester 1 only**  
**Prerequisite- Principles of Business, Marketing, and Finance**

**½ Credit**  
**Grades 9-12**

Sports and Entertainment Marketing will provide students with a thorough understanding of the marketing concepts and theories that apply to sports and entertainment. The areas this course will cover include basic marketing concepts, publicity, sponsorship, endorsements, licensing, branding, event marketing, promotions, and sports and entertainment marketing strategies.

**Social Media Marketing**  
**081242 semester 2 only**  
**Prerequisite - Sports & Entertainment Marketing**

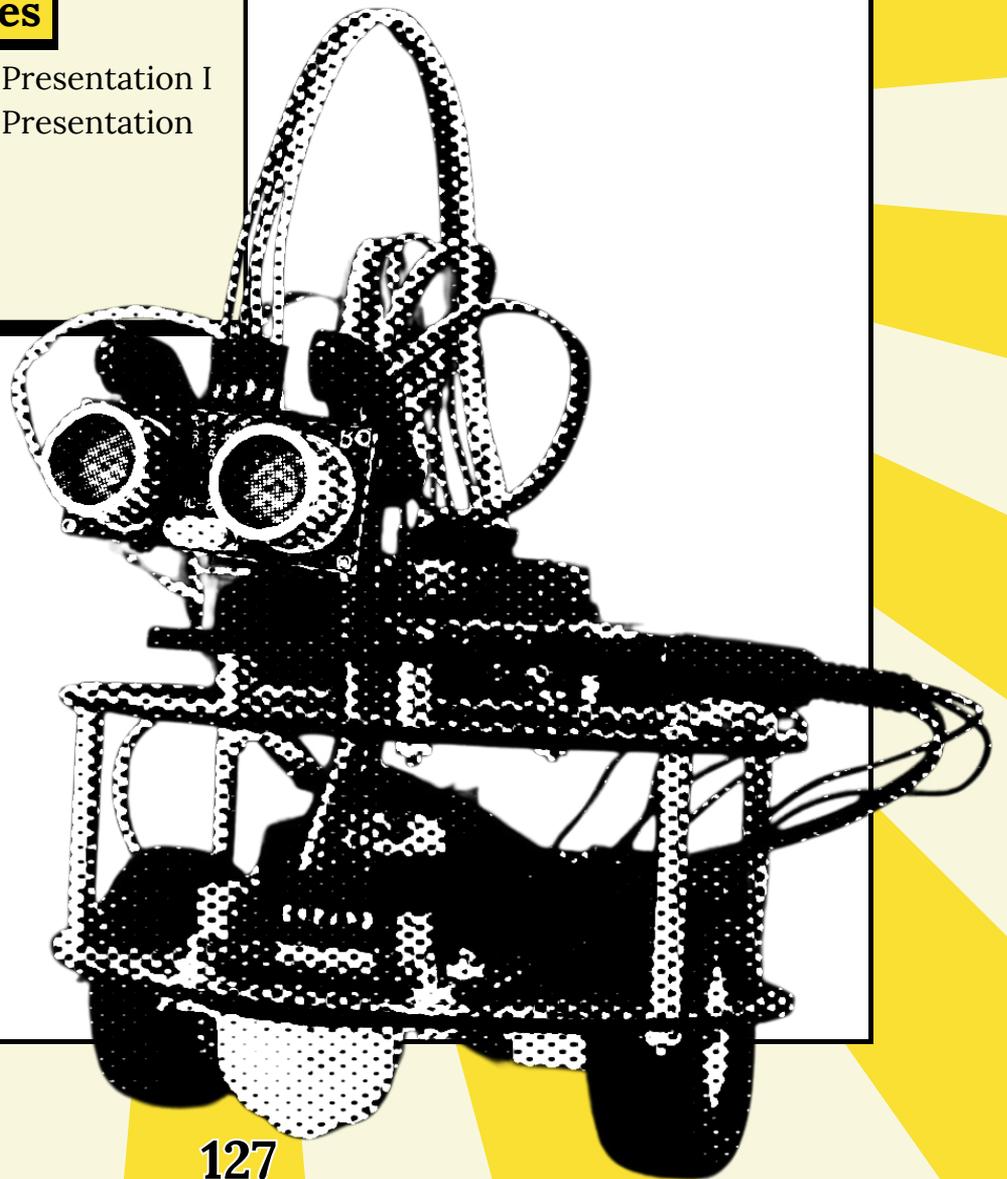
**½ Credit**  
**Grades 9-12**

Social Media Marketing is designed to look at the rise of social media and how marketers are integrating social media tools in their overall marketing strategy. The course will investigate how the marketing community measures success in the new world of social media. Students will manage a successful social media presence for an organization, understand techniques for gaining customer and consumer buy-in to achieve marketing goals, and properly select social media platforms to engage consumers and monitor and measure the results of these efforts.

# SCIENCE, TECHNOLOGY, ENGINEERING, & MATHEMATICS

## Coherent Sequences

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

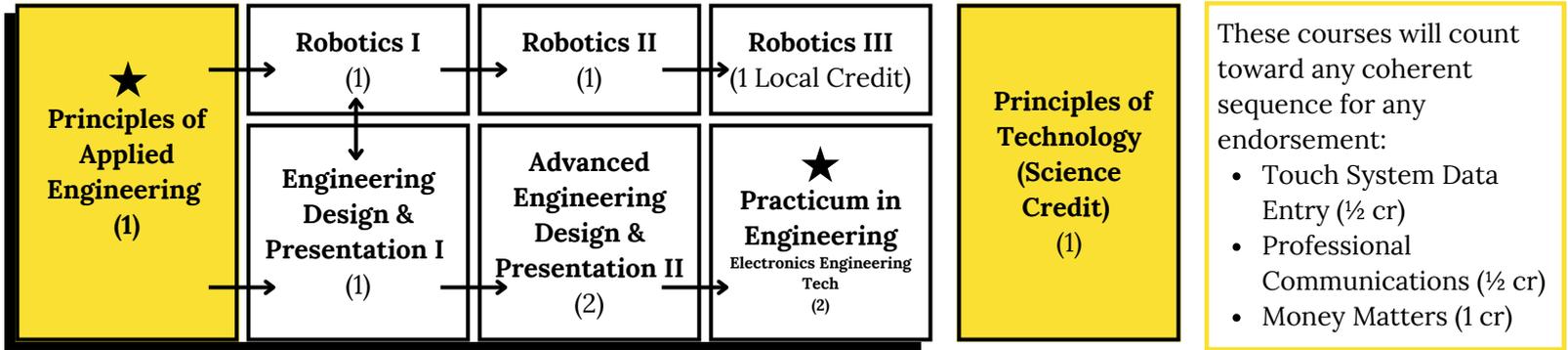


# Engineering

Level 1: Principles of Applied Engineering	Level 2:	Level 3: Engineering Design and Presentation I	Level 4: Engineering Design and Presentation II  Practicum in STEM
<b>High School/Industry Certification</b> <ul style="list-style-type: none"> <li>• Certified SolidWorks Associate (CSWA)</li> <li>• FAA UAV Pilot Certification</li> </ul>	<b>Associate's Degree</b> <ul style="list-style-type: none"> <li>• Electrical and Electronics Engineering</li> <li>• Drafting and Design Technology/Technician, General</li> <li>• Engineering Technology</li> </ul>	<b>Bachelor's Degree</b> <ul style="list-style-type: none"> <li>• Electrical and Electronics Engineering</li> <li>• CAD/CADD Drafting and/or Design Technology/Technician</li> <li>• Bioengineering and Biomedical Engineering</li> <li>• Construction Engineering Technology/Technician</li> </ul>	<b>Master's/Doctoral Professional Degree</b> <ul style="list-style-type: none"> <li>• Electrical and Electronics Engineering</li> <li>• Mechanical Engineering</li> <li>• Bioengineering and Biomedical Engineering</li> </ul>

Occupations	Median Wage	Annual Openings	% Growth
Aerospace Engineers	\$110,843	481	9%
Industrial Engineers	\$97,074	1,263	10%
Mechanical Engineers	\$91,107	1,535	11%
Chemical Engineers	\$112,819	474	9%
Electrical Engineers	\$98,405	1,137	10%

## 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	
Practicum in Engineering (Electronics Engineering Tech)	12	Engineering Des & Presentation II	GC
Principles of Technology	11-12	Two Science courses and Algebra I	

# SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS COURSE DESCRIPTIONS

**Principles of Applied Engineering ★**  
124011/124012 (PRAPPENG 13036200)

**1 Credit over 1 semester**  
**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**  
124100 (ROBOTIC1 13037000)

**1 Credit**  
**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**  
**124200 (ROBOTIC2 13037050)**

**1 Credit**  
**Grades 11-12**

**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**  
**124300 (84900ROB)**  
**Prerequisites: Robotics II**

**1 LOCAL Credit**  
**Grades 11-12**

**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**  
**124010 (ENGDSPR1 13036500)**  
**Recommended prerequisite: Principles of Applied Engineering**

**1 Credit**  
**Grades 10-12**

**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****124020 (ENGDSR2 13036600)****Grades 11-12****2 Credits****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.

**Practicum in Engineering – Electronics Engineering Tech ★****112162 (PRAC ELECTRONICS ENG TECH 13037400)****Grades 12****Prerequisites: Engineering Design and Presentation II or 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.**

Practicum in Engineering is designed to give students supervised practical application of previously studied knowledge and skills.

**Principles of Technology I****121050 (PRINTECH 13037100)****Physics Credit (also an advanced science)****Prerequisites: Two courses in Science and Algebra I****Grades 11-12**

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.

# OTHER CAREER & TECHNICAL EDUCATION COURSES

## PROFESSIONAL COMMUNICATIONS

015001/2

13009900

Level 1

½ Credit

Grades 9-12

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.

## TOUCH DATA SYSTEMS

081051

Level 1

½ Credit

Grades 9-12

In this course, 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 productions of business documents.

## MONEY MATTERS

082040

13016200

Level 1

1 Credit

Grades 9-12

Students will investigate money management from a personal financial perspective. Students will apply critical-thinking skills to analyze financial options based on current and projected economic factors. Students will gain knowledge and skills necessary to establish short-term and long-term financial goals. Students will examine various methods of achieving short-term and long-term financial goals through various methods such as investing, tax planning, asset allocating, risk management, retirement planning, and estate planning.

# 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)
Principles of Technology/Physics (1)	Advanced Science (1 credit/semester)