Farmersville ISD

ACADEMIC PLANNING GUIDE

2023-2024

FARMERSVILLE INDEPENDENT SCHOOL DISTRICT

TRADITION • PRIDE • UNITY

FARMERSVILLE INDEPENDENT SCHOOL DISTRICT Graduate Profile

College and Career Ready

- Masters academic content and job-ready skills
- A creative thinker who demonstrates persistence in solving complex problems
- Continually seeks, learns, and applies knowledge
- Understands and uses a variety of existing and emerging technologies
- Has a vision and a plan for life after graduation

Character Strong

- Believes character traits such as honesty, integrity, gratitude, generosity, humility, and dependability are foundational to everything else
- Values hard work and its correlation to success
- Confronts challenges as opportunities and demonstrates perseverance and resilience
- Treats other the way they want to be treated.

Leadership Oriented

- Leads positivity regardless of position or title
- Demonstrates initiative and has a propensity to take action
- Is motivated towards continual improvement
- Can turn vision into reality through influence, planning, and perseverance
- Understands good leaders first must learn how to be good followers

Effective Communicator

- Communicates with confidence in a variety of mediums including, speaking, writing, and technology
- Effectively operates within teams
- Digitally fluent and respectful in the use of social media
- Values others ideas and voices through listening and empathizing

Community Minded

- Understands the importance of and participates in the democratic process
- Seeks to be generous with their time and resources.
- Values freedom, democracy, the constitution, and those who willingly protect it
- Committed to making positive contributions in all spheres of influence
- Develops meaningful and lasting relationships

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PURPOSE OF THE ACADEMIC PLANNING GUIDE

This guide has been prepared to allow you to select your courses for each year of high school. Farmersville ISD hopes that you will view your time at FHS as an opportunity to explore future career options and prepare yourself for success.

Your counselor is ready to assist you in developing and routinely evaluating your individual career and academic plan (ICAP). The ICAP will include your four-year high school plan including your choice of an exciting Career and Technical Education (CTE) program of study which will lead to a graduation endorsement. We want to encourage all farmers to begin to think about life after high school and choose a program of study that is related to your interest in a particular career.

A CTE program of study is a high school and post-secondary educational plan developed around a national career cluster that helps learners prepare for a career. A program of study is sequential and based on regional industry expectations and skill standards. Students can take classes in high school that will prepare them for college or job training, and their future career. Farmersville ISD CTE Programs of Study include Animal Science, Applied Agricultural Engineering, Business Management, Design & Multimedia Arts, Digital Communications, Engineering, Healthcare Therapeutic (Medical Assisting), and Plant Science. Furthermore, the Business Management, Engineering, and Healthcare Therapeutic programs of study include dual credit through our partnership with Collin College. All CTE programs of study lead to the completion of one or more graduation endorsements such as Business & Industry, Arts & Humanities, STEM, or Human Services.

In alignment with our mission, FISD students will be prepared to fulfill their potential and dream big. This requires that students are not only prepared but equipped with the knowledge and plan for their next steps after high school. The guidance and counseling department is here for students and families to provide resources in career exploration and college planning. Students will graduate with a vision for life after graduation including a career choice and the steps required to achieve it. For the most up-to-date information and resources, please visit http://www.farmersvilleisd.net/counselors.

FISD Administration retains the authority to modify or adjust all policies in this handbook.

4-YEAR COLLEGE & CAREER READINESS PLAN

9th Grade Checklist Freshman year, you will want to find out all of the things your school has to offer, become involved in activities, create your goals, and get off to the right start. We are here to help.	
Fall	**Get involved** Extracurricular activities (both school and non-school sponsored) are an important part of high school. Make the effort to get involved with groups, clubs, or teams that interest you. These activities are fun, make you a well-rounded student, and help create your resume of experiences for postsecondary applications. A complete list of clubs and organizations can be found on the school websites. **Make the grade** Get off to a good start with your grades because they will impact your grade point average (GPA) and class rank. Although college seems like a long way off right now, grades really do count toward college admissions and scholarships. At this stage in the game, you are laying the foundation for your high school career. Freshman year is a time to establish your academic and extracurricular credentials. You should also begin to explore options for your career or further education.
Winter	**Meet your counselor** Your counselor is ready and willing to help you make sense of your college and career options. As soon as you can, set up a meeting to talk about your plans for high school and the future. **Explore your interests and possible careers** Discuss your skills and interests with your school counselor and take advantage of numerous Career and Technical Education (CTE) opportunities at your school and at Farmersville High School.
Spring/Summer	**Build your credentials** Keep track of academic and extracurricular awards, community service achievements, and anything else you participate in so it will be easier to remember later. It will come in handy when you want to highlight your accomplishments—such as when you are filling out college applications or creating a resume. **Start learning about colleges and careers** Look at the college and career information available in your counselor's office, school, and public libraries. Use the internet to check out college and career websites. You may even want to start a list of colleges that might interest you. **Make summer count** There are plenty of ways to have fun and build your credentials during the summer such as volunteering, getting a job, or signing up for an enrichment program.

10th Grade Checklist

Sophomore year, you will want to stay on track with your high school classes and activities and begin to narrow down the plan for your future.

Fall	**Take a practice PSAT** Taking the PSAT as a sophomore will help prepare you for the real thing next year. Farmersville ISD administers the PSAT to all 10th and 11th graders. **Stay on track with your courses** Work with your school counselor to make sure you are enrolled in the courses you need to prepare you for college or a career. **Begin learning about the college admissions process** Get familiar with general college entrance requirements. The school counselor's office, the library, college websites, and advice articles are all good sources of information. **Continue exploring potential careers** Explore your college options in more detail—research possible careers to learn about the tasks, education, and training necessary for each occupation.
Winter	**Take on new roles** Stay involved with your extracurricular activities and work toward leadership positions in the activities you like best. Become involved in community service and other volunteer activities. Build your postsecondary resume. **Practice your writing** You will need good writing skills no matter what path you pursue, so work on those skills now to be prepared. Find a teacher or another adult who can advise and encourage you to write well. **Get advice from your counselor** Meet with your school counselor to make sure you are staying on track. You can also discuss your PSAT scores and ask about postsecondary enrollment options and Advanced Academics courses.
Spring/Summer	**Keep your grades up** It is so important to remain focused on doing well in your classes. Remember that your grades affect your GPA and class rank—two factors that colleges consider in the admissions process. **Start your college search** Use our college search tools to decide which factors are important to you and see a list of colleges that match your criteria. Attend college fairs and read the material you get from all types of schools—you may see something you like. **Contact colleges that interest you** Write to schools and ask for more information about their academic requirements and any programs or activities that you are interested in. It is especially important to start this process now if you think you want to attend a military academy. **Get a summer job** Finding steady summer work will look good to prospective colleges and employers. Saving the money you earn for college will also help you get a head start on financial planning for postsecondary goals. **Read! Read! Read!** Developing your reading skills will help prepare you for tests and make you a well-rounded individual. Read as many books as you can, including articles on current events.

11th Grade Checklist

Junior year is a key year in the college planning process because you will be taking standardized tests, narrowing down your college list, and learning more about financial aid. In addition, you should stay involved in your high school courses and activities.

Fall	**Take the PSAT** Taking the PSAT qualifies you for the National Merit Scholarship Program, which means you could earn money for college. In addition, it is a good way to practice for the ACT and/or SAT. Farmersville ISD offers the PSAT to all 10th and 11th graders and provides the SAT to all 11th graders in the spring of their junior year. **Evaluate your postsecondary options** Now is the time to follow a more specific path. Decide whether you want to pursue full-time employment, further education or training (such as a vocational-technical school, career college, or two-year or four-year college), or a military career. If you are interested in attending a military academy, talk to your school counselor about starting the application process now. **Make a college list** Your list of colleges should include schools that meet your most important criteria (for example, size, location, cost, academic majors, or special programs). Consider each of these factors according to their importance to you and develop a preliminary ranking of the schools on your list. **Make sure you are meeting any special NCAA requirements** If you want to play Division I or II sports in college, start the certification process and check with your counselor to make sure you are taking a core curriculum that meets NCAA requirements.
Winter	**Begin narrowing down your college choices** Make sure you have all the information you need about the colleges you are interested in (entrance requirements, tuition, room and board costs, course offerings, student activities, financial aid, etc.). Then, begin comparing the schools by the factors that are most important to you and rank your choices. **Take standardized tests** Performance on the SAT or ACT is one of the most important criteria for college admission. Register for and take the ACT or SAT. Be sure you have requested (either by mail or online) that your test scores be sent to the colleges of your choice. Farmersville ISD offers the PSAT to all 10th and 11th graders and provides the SAT to all 11th graders in the spring of their junior year. **Prepare a challenging schedule for senior year** Meet with your counselor to determine which classes you will take next year and to make sure you are on track for graduation. Colleges do consider your senior year courses and grades, so stick with a schedule that challenges you.
Spring	**Apply for a summer job or internship** Summer employment and internships, in fields you are interested in, will look appealing on a college application or resume. The money you earn can also be used to help pay application and testing fees in the fall. **Set up appointments at your top college choices** You will need to plan ahead when visiting colleges. Call the admissions office to set up a personal interview, tour, and a meeting with a professor or coach if you are interested. You can also begin your application. Juniors can have up to two excused absences for college visits.
Summer	**Visit colleges** Visit the campuses of your top five college choices. Take a tour and speak with the admissions and financial aid staff. You may also be able to talk to students if some classes are in session. If you have an interview, be sure to send a thank-you letter to the interviewer once you return home. **Start working on your application essays** Compose rough drafts of the essays you will need for your college applications. Have a teacher read and discuss them with you so you can see what to work on. Make any revisions to your application essays and prepare final drafts. Do not forget to proofread your final essays a few times.

12th Grade Checklist

Senior year is often an extremely busy time with schoolwork, activities, and special events. Be sure to stay on track with your college admissions process. Get organized, be aware of deadlines, and do not procrastinate.

Fall	**Finalize your college list** When applying to college, use the information you have gathered from college visits, interviews, and your own research. It is okay to apply to colleges that you think will be more difficult to get accepted. It is also important to put a few safety schools (where you are sure you will get in) on your list. Talk to counselors, teachers, and parents about your final choices. **Submit financial aid forms** No matter your family's income level, the FAFSA/TASFA is your main priority for financial aid purposes as it will determine how much you are expected to pay toward your college expenses. The FAFSA/TAFSA form is required per House Bill 3 to meet graduation requirements. Students who wish to submit an opt-out form need to see their high school counselor. More information can be found at College for All Texans. **Take standardized tests** Register for and take the ACT and SAT. Be sure you have requested your test scores be sent to the colleges of your choice. **Keep track of deadlines** You will be filling out many forms this year, so it is important to know which form is due when. Make a calendar showing the application deadlines for admission, financial aid, and scholarships. Please refer to the Farmersville ISD Local Scholarship deadline criteria. **Ask for letters of recommendation** Give letter of recommendation forms to the teachers you have chosen, along with stamped, addressed envelopes (if needed) so your teachers can send them directly to the colleges. Be sure to fill out your name and address and the school name on each form. Discuss your goals and ambitions with your teachers so they will be more prepared to write about you. Be sure to write a thank you note to each individual who recommended you. **Complete applications** Finish the application forms for your schools of interest. Proofread your applications and make extra copies before you send them. Make sure you and your school's counseling office have sent all necessary materials, including test scores, recommendations, transcripts, and application essays. You should plan to get all this done before winter break so you will not be rushing to make deadlines. **Transcripts:** To request an official transcript for a college application, please email FHS Counselor, Jill Cooper jcooper@farmersvilleisd.org.
Winter	**Scholarship search** Apply for scholarships that have deadlines approaching and keep searching for more scholarship and grant opportunities. Using online scholarship search tools is a great way to find potential aid. Ask colleges about available scholarships. Please refer to the Farmersville ISD Local Scholarship deadline criteria. **Send mid-year grade reports** Ask your counselor to send your mid-year grade reports to your college of interest. Remember that schools will continue to keep track of your grades, so it is important to keep working hard throughout your senior year.
Spring	**Compare financial aid packages** Make sure to consider each financial aid award carefully. If you have questions, contact the financial aid office of the college to get more information. Financial aid is a key factor in deciding where you will attend. **Make your final college and career decisions** Notify all schools of your intent by May 1. If you are not sure which college offer to accept, make one more campus visit to the schools you are considering. Make sure to send your deposit to your chosen school and ask your school counselor to send your final transcript to the college in June.

GRADUATION REQUIREMENTS, ENDORSEMENTS, & DISTINCTIONS

Students shall graduate under the Foundation with Endorsement Plan and complete at least 26 credits. Students who begin grade 9 in the 2021-2022 school year or later are required to complete 28.0 credits. A student, after their sophomore year, may qualify for the Foundation Plan in which they will need 24 credits to graduate (see counselor for more information). All units for graduation shall be earned in grades 7-12. All graduates are awarded the same type of diploma. The Academic Achievement Record (transcript), rather than the diploma, records individual accomplishments, achievements, and courses completed.

GRADUATION REQUIREMENTS

Discipline	Foundation HSP*	Foundation HSP with Endorsements Class of 2024	Foundation HSP with Endorsement Class of 2025, 2026, 2027
English Language Arts	**Four Credits** ● English I ● English II ● English III ● Approved 4th English Course	**Four Credits** ● English I ● English II ● English III ● Approved 4th English Course	**Four Credits** ● English I ● English II ● English III ● Approved 4th English Course
Mathematics	**Three Credits** ● Algebra 1 ● Geometry ● Approved Advanced Math Course	**Four Credits** ● Algebra 1 ● Geometry ● Algebra 2; and, ● Financial Math or, ● Pre-Calculus or, AP Pre-Calculus or, ● AP Calculus or, ● Approved Advanced Math Course	**Four Credits** ● Algebra 1 ● Geometry ● Algebra 2; and, ● Financial Math or, ● Pre-Calculus or, AP Pre-Calculus or, ● AP Calculus or, ● Approved Advanced Math Course
Science	**Three Credits** ● Biology ● Chemistry ● Advanced Science Course	**Four Credits** ● Biology ● Chemistry ● Physics or AP Physics or Principles of Technology ● Advanced Science Course	**Four Credits** ● Special Topics in Science or Honors Biology ● Biology ● Chemistry ● Physics or AP Physics or Principles of Technology ● Advanced Science Course
Social Studies	**Three Credits** ● World Geography or World History ● US History ● Government/Economics	**Three Credits** ● World Geography or World History ● US History ● Government/Economics	**Three Credits** ● World Geography or AP Human Geography or World History ● US History ● Government/Economics
Languages other than English	**Two Credits** from the same language	**Two Credits** from the same language	**Two Credits** from the same language
Physical Education	**One Credit**	**One Credit**	**One Credit**
Fine Arts	**One Credit**	**One Credit**	**One Credit**
Speech	**One Half Credit ****	**One Half Credit ****	**One Half Credit****
Money Matters	**One Half Credit ****	**One Half Credit ****	**One Half Credit****
BIM I or II	**One Credit****		**One Credit****
Electives	5 Credits	6 Credits	7 credits
Total	**24**	**26**	**28**

*Students cannot change to the Foundation (24 credits) until after their sophomore year, and only with administrator and parent approval. This plan is not recommended and only for extenuating circumstances.

**Local graduation requirement. District may waive local requirements in extenuating circumstances.

ENDORSEMENTS

Students will be able to earn one or more endorsements as part of their graduation requirements. Endorsements consist of a series of courses grouped together by interest or skill set. They provide students with in-depth knowledge of a subject area. Students shall specify in writing an endorsement the student intends to earn upon entering grade 9.

GRADUATION DISTINCTIONS

DISTINGUISHED LEVEL OF ACHIEVEMENT

- Required for a student to be in the top 10% to gain automatic acceptance for Texas public college admissions
- A total of four credits in math, **including Algebra 2**
- A total of four credits in science
- Completion of curriculum requirements for at least one endorsement

PERFORMANCE ACKNOWLEDGEMENTS

- 12 college credits with at least a B average
- Associates Degree while in high school
- Outstanding performance in bilingualism and bi-literacy
- Score of 3 or above on an AP test or 4 or above on an IB exam
- Outstanding performance on the PSAT, the ACT-Plan, the SAT or the ACT
- Earning a nationally or internationally recognized business or industry certification or license.

TOP TEN PERCENT

All students whose grade point averages make up the top ten percent of the graduating class and qualify for automatic admission under Education Code 51.803 shall be recognized. The GPA shall be reported on the student's transcript and made available in accordance with the application deadline for the college or university when requested by the student. [See EIC(LEGAL)]

**** The following provisions shall apply to students beginning with the graduating class of 2024.***

* LOCAL GRADUATION HONORS

For the purpose of determining honors to be conferred during graduation activities, the District shall calculate class rank in accordance with this policy and administrative regulations by using grades available at the time of calculation at the end of the fifth six-week grading period of the senior year.

For the purpose of applications to institutions of higher education, the District shall also calculate class rank as required by state law. The District's eligibility criteria for local graduation honors shall apply only for local recognitions and shall not restrict class rank for the purpose of automatic admission under state law. [See EIC(LEGAL)]

*VALEDICTORIAN AND SALUTATORIAN

The valedictorian and salutatorian at each District high school shall be the eligible students with the highest and second-highest rank, respectively. To be eligible for this local graduation honor, a student must:

1. Have been continuously enrolled in the same District high school for the four semesters immediately preceding graduation, with enrollment by the first day of school of the last two school years;
2. Be graduating after exactly eight semesters of enrollment in high school; and
3. Have completed the foundation program with the distinguished level of achievement.

*BREAKING TIES

In case of a tie in weighted GPAs after calculation to the sixth decimal place, the District shall recognize all students involved in the tie as sharing the honor and title.

*HIGHEST-RANKING GRADUATE

The student meeting the local eligibility criteria for recognition as the valedictorian shall also be considered the highest-ranking graduate for purposes of receiving the honor graduate certificate from the state of Texas.

*RANKING FOR EARLY GRADUATES

Although not eligible for local honors or the Highest-Ranking Graduate Certificate, a student who completes the high school program requirement in fewer than four years shall be ranked in the class with which they actually graduate.

++The following provisions shall apply to students in the graduating classes of 2024, 2025, and 2026.

The District shall include in the calculation of class rank semester grades earned in high school credit courses taken in grades 9-12, unless excluded below.

The calculation shall include failing grades.

++EXCLUSIONS

The calculation of class rank shall exclude grades earned in any local credit course; credit by examination, with or without prior instruction; distance learning; or college courses that are not approved dual credit courses. Remote instruction taught by FISD instructors and approved dual credit courses taught online are factored into the calculation of class rank.

++WEIGHTED GRADE SYSTEM

Prior to weighting GPA, the District shall provide an additional five points to the final six-week grade in weighted courses. Weighted courses include AP courses, honors courses, and approved dual credit courses.

++WEIGHTED GRADE POINT AVERAGE

The District shall convert semester grades earned in eligible courses to grade points in accordance with the following chart and shall calculate a weighted GPA:

Numerical Grade	Weighted GPA	Non-Weighted GPA
105	5.00	
104	4.95	
103	4.90	
102	4.85	
101	4.80	
100	4.75	4.00
99	4.70	3.96
98	4.65	3.92
97	4.60	3.88
96	4.55	3.84
95	4.50	3.80

Numerical Grade	Weighted GPA	Non-Weighted GPA
94	4.45	3.76
93	4.40	3.72
92	4.35	3.68
91	4.30	3.64
90	4.25	3.60
89	4.20	3.56
88	4.15	3.52
87	4.10	3.48
86	4.05	3.44
85	4.00	3.40
84	3.95	3.36
83	3.90	3.32
82	3.85	3.28
81	3.80	3.24
80	3.75	3.20
79	3.70	3.16
78	3.65	3.12
77	3.60	3.08
76	3.55	3.04
75	3.50	3.00
74	3.45	2.96
73	3.40	2.92
72	3.35	2.88
71	3.30	2.84
70	3.25	2.80
Below 70	0	0

++TRANSFERRED GRADES

A student who transfers into the District high school with higher-level course credits shall receive similar credits counted toward the GPA according to the list of higher-level courses offered in the District and the grade point scale used for credit earned in the District.

Students transferring into the District shall receive the numerical grade that was earned in courses at another school. Letter grades shall be recorded as follows:

A = 95, B = 85; C = 75; D = 70; F = 60

#The following provisions shall apply to students beginning with the graduating class of 2027.

The District shall include in the calculation of class rank semester grades earned in high school credit courses taken at grades 9-12, unless excluded below.

The calculation shall include failing grades.

#EXCLUSIONS

The calculation of class rank shall exclude grades earned in any local credit course; any course for which a pass/fail grade is assigned; or through credit by examination, with or without prior instruction. Remote instruction taught by FISD instructors and approved dual credit courses taught online are factored into the calculation of class rank.

A student shall have the option to exclude from his or her class rank calculation grades earned in grade 11 or grade 12 in an eligible athletics or fine arts course.

#WEIGHTED GRADE SYSTEM

The District shall categorize and weight eligible courses as Tier III, Tier II, and Tier I in accordance with provisions of this policy and as designated in appropriate District publications.

Tier III — Eligible AP courses, dual credit courses, and other courses designated in the academic guide shall be categorized and weighted as Tier III courses.

Tier II — Eligible dual credit courses, honors courses, and locally designated advanced courses shall be categorized and weighted as Tier II courses.

Tier I — All other eligible courses shall be categorized and weighted as Tier I courses.

#WEIGHTED GRADE POINT AVERAGE

The District shall convert semester grades earned in eligible courses to grade points in accordance with the following chart and shall calculate a weighted GPA:

Grade	Tier III	Tier II	Tier I
100	5.00	4.50	4.00
99	4.95	4.45	3.95
98	4.90	4.40	3.90
97	4.85	4.35	3.85
96	4.80	4.30	3.80
95	4.75	4.25	3.75
94	4.70	4.20	3.70
93	4.65	4.15	3.65
92	4.60	4.10	3.60
91	4.55	4.05	3.55
90	4.50	4.00	3.50
89	4.45	3.95	3.45
88	4.40	3.90	3.40
87	4.35	3.85	3.35
86	4.30	3.80	3.30
85	4.25	3.75	3.25
84	4.20	3.70	3.20
83	4.15	3.65	3.15

Grade	Tier III	Tier II	Tier I
82	4.10	3.60	3.10
81	4.05	3.55	3.05
80	4.00	3.50	3.00
79	3.95	3.45	2.95
78	3.90	3.40	2.90
77	3.85	3.35	2.85
76	3.80	3.30	2.80
75	3.75	3.25	2.75
74	3.70	3.20	2.70
73	3.65	3.15	2.65
72	3.60	3.10	2.60
71	3.55	3.05	2.55
70	3.50	3.00	2.50
Below 70	0	0	0

Farmersville ISD's course crosswalk with our partnering Institutes of Higher Education (IHEs) award high school credit for college courses if a student earns a D (60-69). In the event a student earns a D in a dual credit course, the District will utilize the following table to calculate the student's GPA for that course:

Grade	Tier III	Tier II
69	3.45	2.95
68	3.40	2.90
67	3.35	2.85
66	3.30	2.80
65	3.25	2.75
64	3.20	2.70
63	3.15	2.65
62	3.10	2.60
61	3.05	2.55
60	3.00	2.50
Below 60	0.00	0.00

TRANSFERRED GRADES

A student who transfers into the District high school with higher-level course credits shall receive similar credits counted toward the GPA according to the list of higher-level courses offered in the District and the grade point scale used for credit earned in the District.

REPORTING CLASS RANK

After each calculation period, students in the top ten percent shall be told their exact class rank in accordance with administrative procedures. The lowest weighted GPA of students in the top ten percent, the first quartile, the second quartile, and the third quartile shall be communicated to all students in the class after each calculation period.

The District shall include on the official transcript of each student in the top ten percent the student's specific numerical rank out of the specific total class size.

INDIVIDUAL CAREER & ACADEMIC PLAN

Farmersville ISD believes that the curricula of the 21st century should combine rigorous academics with relevant career education. When schools integrate academic and technical education, students can see the "usefulness" of what they are learning. The system also facilitates a seamless transition from secondary to post-secondary opportunities.

The Texas Education Agency Division of College, Career, and Military Preparation previously engaged members of the workforce, secondary education, and higher education to advise on the development of ***Career and Technical Education Programs of Study***, including coherent sequences of courses, industry-based certifications, and work-based learning to ensure students are prepared for in-demand, high-skill, and high-wage careers in Texas.

The ***Individual Career and Academic Plan (***or ICAP) is a multi-year process that intentionally guides students and families in the exploration of career, academic, and post-secondary opportunities. With the support of adults, students develop the awareness, knowledge, attitudes, and skills to create their own meaningful and powerful pathways to be career and college ready.

Farmersville ISD offers a range of programs of study from several different ***Career Clusters.*** Career Cluster is a grouping of occupations and broad industries based on commonalities. These programs of study represent a recommended sequence of coursework based on a student's interest or career goal that will also help them in achieving an endorsement upon graduation. As students begin the courses included in the CTE Program of Study, they can be assured that completion of this program of study will also lead to earning a graduation endorsement.

CAREER & TECHNICAL EDUCATION PROGRAM OF STUDY COMPLETION

For a student to earn a ***CTE Program of Study Completer Indicator***, they must take and earn credit for 3 or more CTE courses for 4 or more credits within a single CTE program of study. At least one of these courses must be a level 3 or level 4 course. Students who complete four credits in math, 4 credits in science, and complete a CTE program of study will earn one or more graduation endorsements. Endorsements may be determined with successful completion of specific advanced academic courses.

CAREER & TECHNICAL EDUCATION PROGRAM OF STUDY & GRADUATION ENDORSEMENT ALIGNMENT

PROGRAM OF STUDY	ENDORSEMENT OPTIONS	ENDORSEMENT REQUIREMENTS
A student may earn an endorsement by successfully completing: • Curriculum requirements for the endorsement • Four credits in math • Four credits in science • Two additional elective credits.		
• **Animal Science** • **Applied Agricultural Engineering** • **Engineering** • **Healthcare Therapeutic**	**STEM**	Successfully complete a sequence of courses in one of the following areas or a combination of courses from no more than two areas • CTE STEM courses or an approved STEM-related Program of Study* • Mathematics must include Algebra II and 4th Math Class must list Algebra II as a prerequisite • Science must include biology, chemistry, & physics • Algebra II, chemistry, and physics
• **Animal Science** • **Business Management** • **Design & Multimedia Arts** • **Digital Communications**	**Business and Industry**	• A coherent sequence of four (4) credits in CTE. At least two courses must come from the same career cluster with at least one advanced CTE course **and** • The final course must be selected from one of the following career clusters: Agriculture, Architecture/Construction, Arts A/V, Business Management, Finance, Hospitality, Information Technology, Manufacturing, Marketing, Transportation, Energy, or Career Prep.
• **Healthcare Therapeutic (Medical Assisting)**	**Public Service**	Successfully complete a sequence of courses in one of the following areas: • CTE public-service-related Programs of Study* ◦ Human services ◦ Law, public safety, corrections, and security ◦ Health science ◦ Education and training ◦ Government and public administration ◦ Junior Reserve Officer Training Corps (JROTC) • A coherent sequence of four (4) courses in CTE. At least two courses must come from the same career cluster with at least one advanced CTE course **and** • The final course must be selected from career cluster Education & Training, Government/Public Admin, Health Science, Human Services, Law/Public Safety, or Career Prep.

Design & Multimedia Arts	**Arts & Humanities**	Successfully complete **one** of the following: ● Two levels each in two languages other than English (LOTE) ● Four levels in the same LOTE Courses from one or two disciplines in: ● Fine Arts (music, theater, art, dance, or film) ● English electives not included in the business and industry endorsement ● Social studies
	Multidisciplinary Studies	Successfully complete **one** of the following: ● Four advanced courses that prepare a student to enter the workforce successfully or postsecondary education without remediation ● Four credits in each foundation subject area, including chemistry and/ or physics and English IV or a comparable Advanced Placement (AP) or International Baccalaureate (IB) English course ● Four credits in AP, IB, or dual credit courses selected from English, mathematics, science, social studies, economics, LOTE or fine arts

GRADE LEVEL CLASSIFICATION

Grade level classification will be based upon the number of credits successfully completed. Grade level classifications require the following earned credits:

10th Grade	7 Credits
11th Grade	14 Credits
12th Grade	21 Credits

Classification is determined at the end of the year or after summer school. Students must conform to the classification to participate in class activities or events.

HIGH SCHOOL COURSES END OF COURSE ASSESSMENTS

STAAR end-of-course (EOC) assessments are administered for the following courses

- Algebra I
- English I
- English II
- Biology
- U.S. History

Satisfactory performance on the applicable assessments is required for graduation, unless waived or substituted as allowed by state law and rules.

There are three testing windows during the year in which a student may take an EOC assessment. The windows occur in the fall, spring, and summer months. If a student does not meet satisfactory performance, the student will have opportunities to retake the assessment.

STAAR Alternate 2 is available for eligible students receiving special education services who meet certain criteria established by the state as determined by the student's ARD committee.

An admission, review, and dismissal (ARD) committee for a student receiving special education services will determine whether successful performance on the EOC assessments will be required for graduation within the parameters identified in state rules and the student's personal graduation plan (PGP).

[See Student Handbook]

COLLEGE AND UNIVERSITY ADMISSIONS

For two school years following graduation, a district student who graduates as valedictorian or in the top ten percent of his or her class is eligible for automatic admission into four-year public universities and colleges in Texas if the student:

- Completes the distinguished level of achievement under the foundation graduation program. A student must graduate with at least one endorsement and must have taken Algebra II as one of the four required math courses; or
- Satisfies the College Readiness Benchmarks on the SAT or ACT.
- The student is ultimately responsible for meeting the admission requirements of the university or college, including timely submission of a completed application.
- Should a college or university adopt an admissions policy that automatically accepts the top 25 percent of a graduating class, the provisions above will also apply to a student ranked in the top 25 percent of his or her class.

The University of Texas at Austin may limit the number of automatically admitted students to 75 percent of the University's enrollment capacity for incoming resident freshmen. During the summer and fall terms and spring term, the University will admit the top **six percent** of a high school's graduating class who meet the above requirements. Additional applicants will be considered by the University through a holistic review process.

[See Student Handbook]

SAT/ACT (SCHOLASTIC APTITUDE TEST AND AMERICAN COLLEGE TEST)

Many colleges require either the American College Test (ACT) or the Scholastic Aptitude Test (SAT) for admission. These assessments are usually taken at the end of the junior year and taken again in the summer or fall of the senior year. Students are encouraged to talk with their high school counselor to learn about these assessments and determine the appropriate examination to take. The Preliminary SAT (PSAT) and ACT-Aspire are the corresponding preparatory and readiness assessments for the SAT and ACT. Information about registration, dates, and cost can be obtained from your high school counselor or www.SAT.org and www.ACT.org. For test registration, the Farmersville High School code is 442-370.

PSAT (NATIONAL MERIT SCHOLARSHIP PROGRAM)

The Preliminary SAT (PSAT)/National Merit Scholarship Qualifying Test (NMSQT) is a multiple-choice standardized test administered by the College Board and National Merit Scholars Corporation (NMSC). This test is administered to all FISD 11th graders free of charge.

Of the nearly 1.6 million student entrants each year, about 50,000 with the highest PSAT/NMSQT selection index scores qualify for recognition by the National Merit Scholarship Corporation's (NMSC) National Merit Scholarship Program. Students who take the PSAT their junior year are automatically entered into the National Merit Scholarship Program. More information is available at the National Merit Scholarship Program website.

SAT/ACT PREP

Students have access to free online practice tests for the SAT at https://sat.collegeboard.org/practice and https://www.khanacademy.org/sat and at http://actstudent.org/onlineprep/ for ACT. For the most up to date information and resources, please visit http://www.farmersvilleisd.net/counselors.

TSIA (TEXAS SUCCESS INITIATIVE ASSESSMENT)

Prior to enrollment in a Texas public college or university, most students must take a standardized test called the Texas Success Initiative Assessment (TSIA). The TSIA assesses the reading, mathematics, and writing skills that freshmen-level students need to perform effectively as undergraduates in Texas public colleges and universities. This assessment may also be required before a student enrolls in a dual credit course offered through the district.

All Farmersville High School students will take the TSIA. Students who do not pass the TSIA by the end of their Junior year will be required to take College Prep English and/or College Prep Math their senior year. For more information on the TSIA or to download a TSIA study app, go to https://accuplacer.collegeboard.org/students/prepare-for-accuplacer/tsia-texas-success-initiative-assessment.

For more test prep resources and college entrance exam information, please visit the FISD guidance and counseling website.

NON-SCHEDULED PERIODS (EARLY RELEASE/LATE ARRIVAL)

Seniors on track to graduate **may** be granted up to two non-scheduled periods if the student is a CTE completer and meets indicators for college, career, and military readiness as defined by TEA. These indicators are subject to change. For the most recent updates, please visit the TEA website or see the high school counselor. These include:

CTE Completer

- Earn four or more credits in three or more courses in the same program of study.

CCMR Readiness

- Complete a CTE program of study; **and,** successfully earn a Texas Education Agency Approved Industry Based Certification related to that program of study
- Earn a score of 3 or Higher on ANY Advanced Placement Test;
- Successfully earn a minimum of 3 Hours of College Credit in an English or Math Course; or
- Successfully earn 9 Hours of College Credit in ANY Discipline.
- Meet TSI criteria (SAT/ACT/TSIA/College Prep course) in reading and mathematics

Non-scheduled periods are not intended to prevent students from finishing their fourth year of extra-curricular activities such as band, athletics, etc. Non-scheduled periods are different from Work-Based Learning (Work Release), please see Work-Based Learning in this document for more details. Administration may waive the above requirements as needed.

FINANCIAL AID FOR COLLEGE (FAFSA)

The first and most important step in getting help to pay for college is completing the Free Application for Federal Student Aid (FAFSA). Students and parents of students in their final year of high school must understand the importance of applying for financial aid as soon as possible after October 1st and every year thereafter as long as they are enrolled in college. There are scholarships, grants, work-study jobs, and loans available to students through the completion of the FAFSA application at https://studentaid.gov/h/apply-for-aid/fafsa.

THE TEXAS GRANT

The state legislature established the TEXAS (Towards Excellence, Access and Success) Grant to make sure that well-prepared high school graduates with financial need could go to college. For more information, go to College For All Texans or call 888-311-8881.

STUDENT ATHLETES

If you are planning to participate in college athletics, it is your responsibility to register and be certified by the National Collegiate Athletic Association Eligibility Center (NCAA) for Division 1, 2, and 3 and the National Association of Intercollegiate Athletics (NAIA) after completion of your junior year in high school.

The linked websites contain the NCAA and NAIA initial eligibility requirements for all prospective student athletes at all member institutions. You and your parents/guardians must know the rules for eligibility as a student athlete and plan your high school courses accordingly. For more information, reference the following websites: NCAA or NAIA.

DUAL CREDIT

Farmersville ISD has partnered with Collin College to offer dual credit courses to our students. Dual credit allows students to earn both high school and college credit for the same course.

Farmersville ISD covers the costs of tuition, books, and fees for approved dual credit courses taken through Collin College. Only courses listed in the academic planning guide or approved by the administration will be covered by FISD.

DUAL CREDIT ADMISSION CRITERIA

The opportunity to take dual credit courses is available to all FISD students that:

1. Meet minimum standards on the Texas Success Initiative Assessment (TSIA) or earn an exemption/waiver through an alternate assessment.
2. Fulfill all Collin College admission criteria including timely submission of required documentation and forms.
3. Have an 85 or better average in core subjects.
4. Have 95 percent or greater attendance.
5. Does not have significant discipline history.

Any FISD local requirement may be waived at the discretion of FISD administration. For more information about dual credit, please see your high school counselor. Qualifying students may begin the program at any grade level.

WITHDRAWAL OR FAILURE OF DUAL CREDIT COURSES

If a student fails a dual credit course (<70%) or withdraws from a dual credit course, the student will be placed on probation.

Students who fail or withdraw from two or more dual credit courses will be removed from the dual credit program. In order to be readmitted to the dual credit program or taken off probation, a student must take and pass the same dual credit course they failed at their own expense.

Students who withdraw without administrative approval will be required to re-enroll in the course at their own expense before re-entering the dual credit program.

Students who are removed from the regular school setting and/or assigned to an alternative educational placement may be required to drop the dual credit courses and incur any penalties associated with dropping. A student no longer allowed to attend school in the regular education setting will not be permitted to continue their face-to-face dual credit courses. In this situation, it is at the discretion of Collin College whether a student may switch from face-to-face to a virtual course.

Articulated credit courses are high school courses, typically taught by high school instructors, that are substantially equal to introductory-level college courses. Students will need to meet the following requirements to claim their credit at Collin College:

FARMERSVILLE HIGH SCHOOL ASSOCIATE OF SCIENCE DEGREE PLAN

COURSE CODE	COLLEGE COURSE	HIGH SCHOOL COURSE	SEM.	YEAR	HS CREDIT	COLLEGE HOURS
EDUC 1300	Learning Framework	Principles of Education	Fall	9th	1	3
MUSI 1310	American Music	Music Studies	Spring	9th	1	3
SPCH 1321	Business & Professional Communication	Professional Communications	Spring	9th	.5	3
BUSI 1301	Business Principles	Principles of Business	Fall	10th	1	3
BCIS 1305	Business Computer Applications	Business Information Management I	Spring	10th	1	3
BUSI 1307	Personal Finance	Money Matters	Fall	10th	.5	3
GOVT 2306	Texas Government	Texas Government (Special Topics)	Spring	10th	.5	3
HIST 1301	US History I	US History Studies Since 1877	Fall	Junior	.5	3
ENGL 1301	Composition I	English III	Fall	Junior	.5	3
GOVT 2305	Federal Government	US States Government	Fall	Junior	.5	3
HIST 1302	US History II	US History Studies Since 1877	Spring	Junior	.5	3
ENGL 1302	Composition II	English III	Spring	Junior	.5	3
ECON 2301	Principles of Macroeconomics	Economics	Spring	Junior	.5	3
MATH 1314	College Algebra +	Ind Study in Math	Fall	Senior	.5	3
ENGL 2327	American Literature I	English IV	Fall	Senior	.5	3
BIOL 1406	Biology for Science Majors I*	Scientific Research & Design	Fall	Senior	.5	4
MATH 1342	Elementary Statistical Methods +	Ind Study in Math	Spring	Senior	.5	3
ENGL 2328	American Literature II	English IV	Spring	Senior	.5	3
BIOL 1407	Biology for Science Majors II*	Sci. Research & Design	Spring	Senior	.5	4

* A score of 3 or higher in AP Biology or AP Physics 1 & 2 or AP Physics 1 & C may substitute for the science requirement.
\+ A score of 3 or higher in AP Precalculus and AP Calculus may substitute for the math requirement.
Other DC science or math courses may be substituted as well. See counselor for more details and approval.

ARTICULATED CREDIT COURSES

Articulated credit courses are high school courses, typically taught by high school instructors, that are substantially equal to introductory-level college courses in which a student may be awarded college credit with Collin College if they meet certain criteria.

- Students must have a declared program and must have completed three semester hours at Collin College before credit is awarded on the student's transcript.
    - *Developmental education courses do not count towards this three-credit hour requirement.*
- Submit the petition for articulated credit within 12 months of high school graduation to a Special Admissions Coordinator.
- Earn a passing grade* on the end-of-course assessment in high school.
- Submit an official final high school transcript along with the petition. Articulated high school credits must be notated on the high school transcript.
- Upon completion of the above steps, the college credit that a student is qualified for will be applied to the college transcript at the end of the college grading cycle.

Consult with a Collin College counselor for the most up to date requirements regarding articulated credit.

HIGH SCHOOL COURSE	COURSE CODE	COLLEGE COURSE	COLLEGE HOURS
Practicum in Graphic Design & Illustration (1st time taken)	ARTC 1305	Basic Graphic Design	3
Practicum in Graphic Design & Illustration (1st time taken)	ARTC 1325	Intro to Computer Graphics	3
Practicum in Audio/Video Production	ARTV 1351	Digital Video	3
Principles of Health Science	HPRS 1201	Introduction to Health Professions	3
Engineering Design and Presentation	RBTC 1405	Robotics Fundamentals	4
Practicum in Agriculture, Food, & Natural Resources (1st time taken)	WLDG 1407	Intro to Welding Using Multiple Processes	4
Practicum in Agriculture, Food, & Natural Resources (1st time taken)	WLDG 1428	Intro to Shielded Metal Arc Welding	4

FARMERSVILLE HIGH SCHOOL CORE CURRICULUM

The General Education Core at Collin College is the collection of 42 credit hours of general education courses selected by Collin faculty in eight areas that have been approved by the Texas Higher Education Coordinating Board to build a basic core of knowledge. The Texas Education Code requires all public colleges and universities to have a core curriculum and every degree has a General Education Core requirement. Core curriculum is defined as "the curriculum in the liberal arts, humanities, sciences, and political, social and cultural history that all undergraduate students from a Texas institution of higher education are required to complete before receiving an associate or bachelor's degree." **The State of Texas guarantees acceptance by a public four-year university of any complete General Education Core transferred from any other Texas public college.**

The table below is Farmersville ISD's recommended courses that will allow a student to graduate core complete from Collin College and satisfy certain FHS graduation requirements.

COURSE CODE	COLLEGE COURSE	HIGH SCHOOL COURSE	SEM.	YEAR	HS CREDIT	COLLEGE HOURS
HIST 1301	US History I	US History Studies Since 1877	Fall	Junior	.5	3
ENGL 1301	Composition I	English III	Fall	Junior	.5	3
SPCH 1321	Business & Professional Communication	Professional Communications	Spring	Junior	.5	3
HIST 1302	US History II	US History Studies Since 1877	Spring	Junior	.5	3
ENGL 1302	Composition II	English III	Spring	Junior	.5	3
GOVT 2306	Texas Government	Texas Government (Special Topics)	Spring	Junior	.5	3
MUSI 1310	American Music	Music Studies	Summer	Junior/Senior	1	3
MATH 1314	College Algebra +	Ind Study in Math	Fall	Senior	1	3
ENGL 2327	American Literature I	English IV	Fall	Senior	.5	3
GOVT 2305	Federal Government	US States Government	Fall	Senior	.5	3
BIOL 1406	Biology for Science Majors I*	Scientific Research & Design	Fall	Senior	.5	4
ENGL 2328	American Literature II	English IV	Spring	Senior	.5	3
ECON 2301	Principles of Macroeconomics	Economics	Spring	Senior	.5	3
BIOL 1407	Biology for Science Majors II*	Sci. Research & Design	Spring	Senior	.5	4

* A score of 3 or higher in AP Biology or AP Physics 1 & 2 or AP Physics 1 & C may substitute for the science requirement.
+ A score of 3 or higher in AP Precalculus and AP Calculus may substitute for the math requirement.
Other DC science or math courses may be substituted as well. See counselor for more details and approval.

ADVANCED PLACEMENT & HONORS CLASSES

Advanced Placement courses provide college-level coursework for high school students who are ready and willing to do college-level work while in high school. AP courses follow the content and curricular objectives established by the College Board. Colleges and universities have the option of accepting AP exam scores for college credit.

Each teacher's AP course syllabus is submitted and approved by the College Board. Furthermore, all AP courses are weighted in the calculation of grade point average. By taking AP exams each May, students may earn AP Scholar Awards, which recognize student success and achievement in AP courses and on AP Exams.

All students enrolled in AP courses are expected to take the College Board AP exam for that course in May of the enrolled school year.

Below is a list of potential AP courses that FISD may offer:

- AP Art III & IV
- AP Pre-Calculus
- AP Calculus
- AP English III (Language & Composition)
- AP Environmental Science
- AP Human Geography
- AP Physics I & II
- AP Spanish IV (Spanish Language)
- AP Spanish V (Spanish Literature)
- AP World History

The AP courses offered are designed to supplement the dual credit associate degree program. Honors courses are the precursor for dual credit and AP courses and are designed to prepare students for the level of rigor required to be successful. Honors courses are offered beginning in upper elementary/junior high through high school until a student takes either the AP or dual credit equivalent.

AP course offerings are subject to meeting minimum enrollment criteria and may not be offered every year.

AP & HONORS ADMISSION CRITERIA

It is recommended that students have an 85 or better average in core subjects in order to take honors or AP courses. Exceptions may be granted for students who demonstrate the initiative and desire to push themselves beyond their current level of achievement. In such cases, parental support is highly encouraged and administrative approval is required.

AP & DUAL CREDIT TRANSFERABILITY

AP and dual credit courses are often transferable, especially between public colleges and universities in Texas. Students and families are encouraged to check with their college/university and degree plan of choice to determine the transferability of each course. The Texas Common Course Number System website also allows students and families to compare the transferability of courses from one Texas school to another.

COURSE DESCRIPTIONS

ENGLISH LANGUAGE ARTS

English I
Recommended Grade Placement: 9

Credit(s): 1
Prerequisite: None
Students in English I continue to increase and refine their communication skills. They are expected to plan, draft, and complete written compositions on a regular basis. Students edit their papers for clarity and the correct use of the conventions and mechanics of written English and revise for organization, coherence, and voice. They practice all forms of writing, with emphasis being placed on organizing and supporting logical arguments. English I students read extensively in multiple genres from world literature. They learn literary forms and terms associated with selections being read.

English I (Honors)
Recommended Grade Placement: 9
Credit(s): 1
Prerequisites: AP & Honors Admission Criteria
This course is designed to cover all of the learning objectives in English I while providing greater depth in language arts skills. Students will read extensively both inside and outside class and literary analysis skills will be emphasized. A greater depth of study of the English language and more extensive and abundant practice in writing a variety of well-formed sentences and paragraphs supplement the study of literature.

Dual Credit Learning Framework (EDUC 1300)
Recommended Grade Placement: 9
Credit(s): 1
Prerequisite: Dual Credit Admission Criteria
A study of the: 1) research and theory in the psychology of learning, cognition, and motivation; 2) factors that impact learning, and 3) application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. Students use assessment instruments (e.g., learning inventories) to help them identify their own strengths and weaknesses as strategic learners. Students are ultimately expected to integrate and apply the learning skills discussed across their own academic programs and become effective and efficient learners.

English II
Recommended Grade Placement: 10

Credit(s): 1
Prerequisite: English I
Students in English II continue to increase and refine their communication skills. They are expected to plan, draft, and complete written compositions on a regular basis. Students edit their papers for clarity and the correct use of the conventions and mechanics of written English and revise for organization, coherence, and voice. They practice all forms of writing, with an emphasis on personal forms of writing, which may include a response to literature, a reflective essay, or an autobiographical narrative. English II students read extensively in multiple genres from world literature. They learn literary forms and terms associated with selections being read.

English II (Honors)
Recommended Grade Placement: 10
Credit(s): 1
Prerequisite: English I, AP & Honors Admission Criteria
Since the student enrolled in this course has already achieved a degree of fluency in writing clearly and effectively, the language and composition study during the year is supplemented with advanced composition study based upon

literary themes. Students will read extensively both inside and outside class and literary analysis skills will be emphasized. The enhanced curriculum will prepare students to be successful in future dual credit courses, as well as post-secondary success.

English III
Recommended Grade Placement: 11
Credit(s): 1
Prerequisite: English II
Students in English III continue to increase and refine their communication skills. They are expected to plan, draft, and complete written compositions on a regular basis. Students edit their papers for clarity and the correct use of the conventions and mechanics of written English and revise for organization, coherence, and voice. They practice all forms of writing, with an emphasis on business forms of writing such as the report, the business memo, the narrative of a procedure, the summary or abstract, and the resume. English III students read extensively in multiple genres from world literature. They learn literary forms and terms associated with selections being read.

Dual Credit English III (ENGL 1301/1302)
Recommended Grade Placement: 11
Credit(s): 1
Prerequisite: English II, Dual Credit Admission Criteria
(ENGL 1301) Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis.
(ENGL 1302) Intensive study of and practice in the strategies and techniques for developing research-based expository and persuasive texts. Emphasis on effective and ethical rhetorical inquiry, including primary and secondary research methods; critical reading of verbal, visual, and multimedia texts; systematic evaluation, synthesis, and documentation of information sources; and critical thinking about evidence and conclusions.

English IV
Recommended Grade Placement: 12
Credit(s): 1
Prerequisite: English III
Students in English IV continue to increase and refine their communication skills. They are expected to plan, draft, and complete written compositions on a regular basis. Students edit their papers for clarity and the correct use of the conventions and mechanics of written English and revise for organization, coherence, and voice. In English IV, students are expected to write in a variety of forms, including business, personal, literary and persuasive texts. English IV students read extensively in multiple genres from British literature and other world literature. Students learn literary forms and terms associated with selections being read, and they interpret the possible influences of the historical context on a literary work.

English IV - CP
Recommended Grade Placement: 12
Credit(s): 1
Prerequisite: English III
Students will learn to investigate academic texts, construct supported interpretations and arguments for an authentic audience, and acquire academic habits of thought. Reading instruction will focus on developing critical reading skills for comprehension, interpretation, and analysis. Students who have been unsuccessful in meeting college ready standards for English/Language Arts, and successfully complete this class, may earn a CCMR indicator for ELAR. Additionally, these students may be eligible for a TSI waiver to enroll in ENGL 1301.

Dual Credit English IV (ENGL 2327/2328)
Recommended Grade Placement: 12
Credit(s): 1
Prerequisite: English III, Dual Credit Admission Criteria
(ENGL 2327)A survey of American literature from the period of exploration and settlement through the Civil War. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character.
(ENGL 2328) A survey of American literature from the Civil War to the present.
Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character.

MATHEMATICS

Algebra I
Recommended Grade Placement: 9
Credit(s): 1
Prerequisite: None
Algebra 1 begins with a review of signed numbers and the properties of real numbers then proceeds to the study of equations, equalities and inequalities in one variable, exponents, polynomials and factoring. The course emphasizes basic algebraic reasoning processes by stressing the solution of practical word problems. At least one-third of the course deals with functions, graphing of linear equations, solutions of systems of equations, radicals, quadratics, and algebraic fractions.

Geometry
Recommended Grade Placement: 9-10
Credit(s): 1
Prerequisite: Algebra I
Geometry is designed to develop an understanding of the basic structure of plane and space geometry, proficiency in demonstrating formal proofs, and the ability to apply problem solving techniques to geometric situations. The goals of this course include the following: to develop deductive thinking, to gain insight into the construction of mathematical models, to prepare a foundation for further study of mathematics, and to acquire a systematically organized body of geometric knowledge of physical space. Topics of triangles, polygons, similarity, congruence, parallels, coordinate geometry, circles, polyhedrons, areas, and volumes are covered.

Geometry (Honors)
Recommended Grade Placement: 9-10
Credit(s): 1
Prerequisite: Algebra I, AP & Honors Admission Criteria
This course is designed to develop an understanding of plane geometry, proficiency in demonstrating formal proofs and the ability to apply problem solving techniques to geometric models. More emphasis is placed on higher level thinking skills and independent thinking. Strong Algebra skills and excellent study habits are required.

Algebra II
Recommended Grade Placement: 10-11
Credit(s): 1
Prerequisite: Geometry
Algebra II provides a third math credit for graduation and is required for the STEM Endorsement. This course continues to build upon Algebra I by extending work in linear, quadratic, and exponential functions and solving square root, cube root, and absolute value equations. Students will also explore square root, rational, cubic, cube root, absolute value and logarithmic functions. A student may not earn the distinguished level of achievement or be eligible for automatic admission to a Texas public college or university as an undergraduate student if the student does not successfully complete high school Algebra II.

Algebra II (Honors)
Recommended Grade Placement: 10-11
Credit(s): 1
Prerequisite: Geometry, AP & Honors Admission Criteria
Honors Algebra II is a rigorous mathematics course that builds on Algebra I by extending the analysis of linear, quadratic, and exponential functions to square root, rational, cubic, cube root, absolute values and logarithmic functions. Students will use advanced symbolic manipulation skills to solve square root, cube root, and absolute value equations. This course will prepare students for Honors Precalculus and AP Calculus.

Precalculus
Recommended Grade Placement: 11-12
Credit(s): 1
Prerequisite: Algebra II
This course will extend topics previously covered in Algebra II and Geometry. The course will take an analytic view of the structures of mathematics through the study of functions and the properties of limits and continuity. Trigonometry topics will be covered in the first semester of this course. Upon completion of BOTH semesters of this course, students will be prepared to enroll in Calculus.

AP Precalculus
Recommended Grade Placement: 11
Credit(s): 1
Prerequisite: Algebra II, AP & Honors Admission Criteria
AP Precalculus covers the same topics as Precalculus, however more emphasis is placed on theoretical demonstrations and broader applications. This course will extend topics previously covered in Algebra II and Geometry. This course will take an analytic view of the structures of mathematics through the study of functions and the properties of limits and continuity. Trigonometry topics will be covered. This course is designed to prepare students for the AP program and may require extra hours of study per week. All students taking an AP course are expected to take the AP exam.

Dual Credit Technical Algebra & Trigonometry (TECM 1343)
Recommended Grade Placement: 11
Credit(s): 1
Prerequisite: Algebra II, Dual Credit Admission Criteria
Algebraic and trigonometric applications used in technical/industrial settings. Lab required. 3 credit hours. (W)

College Prep Math
Recommended Grade Placement: 12
Credit(s): 1
Prerequisite: Algebra II
This course, developed in conjunction with Collin College, combines the elements of the two Developmental Math courses at Collin College. It is intended for students that are not likely to be TSIA eligible for credit bearing courses upon exiting high school so that they can gain the foundational knowledge in math that would allow them to enter into College Algebra upon graduation from high school. Students who have been unsuccessful in meeting college ready standards for Math, and successfully complete this class, may earn a CCMR indicator for Math. Additionally, these students may be eligible for a TSI waiver to enroll in a college level math course.

Financial Math
Recommended Grade Placement: 12
Credit(s): 1
Prerequisite: Algebra II
Financial Mathematics is a course about personal money management. Students will apply critical-thinking skills to analyze personal financial decisions based on current and projected economic factors. This will be a required 4th year math course for students in the class of 2025 and later who are not taking precalculus or calculus as a senior.

AP Calculus
Recommended Grade Placement: 12
Credit(s): 1
Prerequisite: Precalculus, AP & Honors Admission Criteria
AP Calculus is a college level course. It is primarily concerned with developing the students' understanding of the concepts of calculus and providing experience with its methods and applications. The course emphasizes a multi-representational approach to calculus, with concepts, results and problems being expressed graphically, numerically, analytically and verbally. This course is designed to prepare students for the AP program and may require extra hours of study per week. All students taking an AP course are expected to take the AP exam.

Dual Credit College Algebra (MATH 1314)
Recommended Grade Placement: 12
Credit(s): 1
Prerequisite: Precalculus, Dual Credit Admission Criteria
In-depth study and applications of polynomial, rational, radical, exponential and logarithmic functions, and systems of equations using matrices. Additional topics such as sequences, series, probability, and conics may be included. Graphing calculator required.

SCIENCE

Specialized Topics in Science
Recommended Grade Placement: 9
Credit(s): 1
Prerequisite: None
In Specialized Topics in Science, students have the opportunity to develop greater understanding of science content beyond what is taught in other Texas Essential Knowledge and Skills-based science courses while utilizing science and engineering practices. Students understand the value and role of curiosity in any discipline of science. The specialized topic of study may originate from local or global phenomena, student interest, or teacher specialties. The emphasis of study may vary such as theoretical science, citizen science, science investigations, science careers, specialized disciplines of science, designing innovations, the ethics of science, or history of science.

Biology (Honors)
Recommended Grade Placement: 9
Credit(s): 1
Prerequisite: AP & Honors Admission Criteria
Honors biology includes the study of cells, plant and animal processes, genetics and ecology through classroom and laboratory experience. The study develops scientific attitudes, skills in the use of the scientific method and relates the vast store of scientific knowledge to solving problems in today's world.

Biology
Recommended Grade Placement: 10
Credit(s): 1
Prerequisite: None
Biology includes the study of cells, plant and animal processes, genetics and ecology through classroom and laboratory experience. The study develops scientific attitudes, skills in the use of the scientific method and relates the vast store of scientific knowledge to solving problems in today's world.

Chemistry (Honors)
Recommended Grade Placement: 10
Credit(s): 1
Prerequisite: Biology, AP & Honors Admission Criteria
This course includes all the concepts of Chemistry, but increases the challenge for those students with adequate mathematical background by providing additional opportunity for development of abstract reasoning and problem-solving skills. This course is appropriate for motivated students considering further study in a science-related field.

Chemistry
Recommended Grade Placement: 11
Credit(s): 1
Prerequisite: Biology
Chemistry is a study of matter and energy. The course includes the study of atomic structure, phases of matter, chemical periodicity, bonding, chemical reactions, nuclear chemistry and organic chemistry. Many of the concepts in this course require mathematical reasoning.

Principles of Technology
Recommended Grade Placement: 11
Credit(s): 1
Prerequisite: Chemistry
In Principles of Technology, students will conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Various systems will be described in terms of space, time, energy, and matter. Students will study a variety of topics that include laws of motion, conservation of energy, momentum, electricity, magnetism, thermodynamics, and characteristics and behavior of waves.

Advanced Animal Science
Recommended Grade Placement: 11-12
Credit(s): 1
Prerequisite: Biology & Chemistry
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

Anatomy and Physiology
Recommended Grade Placement: 11-12
Credit(s): 1
Prerequisite: Chemistry
Physiology and Anatomy offers students general exploratory and advanced studies in the structure and functions of the components of the human body. Students will practice the methods and techniques used by professional scientists in medical investigations, build a mature understanding of the relationship of the structure and function of human body components, and acquire a realization of the interrelationship of the body systems. This course is particularly recommended for students who desire to pursue a career in the health sciences.

Forensic Science
Recommended Grade Placement: 11-12
Credit(s): 1
Prerequisite: Chemistry
Forensic Science is a course that uses a structured and scientific approach to the investigation of crimes of assault, abuse and neglect, domestic violence, accidental death, homicide, and the psychology of criminal behavior. Students will learn terminology and investigative procedures related to crime scene, questioning, interviewing, criminal behavior characteristics, truth detection, and scientific procedures used to solve crimes. Using scientific methods, students will collect and analyze evidence through case studies and simulated crime scenes such as fingerprint analysis, ballistics, and blood spatter analysis. Students will learn the history, legal aspects, and career options for forensic science.

Physics
Recommended Grade Placement: 11-12
Credit(s): 1
Prerequisite: Chemistry
Physics is a sequential study of physical principles that govern the behavior of matter. It includes mechanics, thermodynamics, waves, sound, optics, electricity, and magnetism. This course emphasizes the understanding of physics concepts with the extensive use of mathematics and the development of problem-solving strategies. A strong math background is required.

AP Physics I
Recommended Grade Placement: 11-12
Credit(s): 1
Prerequisite: Chemistry, AP & Honors Admission Criteria
AP Physics is a more advanced study of physical principles that govern the behavior of matter. It includes mechanics, thermodynamics, waves, sound, optics, electricity and magnetism. In introducing fundamental physical concepts, emphasis will be placed on the use of mathematics and the development of problem-solving strategies. A strong math background is necessary. This course is designed to prepare students for the AP program and may require extra hours of study per week. All students taking an AP course are expected to take the AP exam.

AP Physics II
Recommended Grade Placement: 12
Credit(s): 1
Prerequisite: AP Physics I, AP & Honors Admission Criteria
AP Physics II is a more advanced study of physical principles that govern the behavior of matter. Students learn about the foundational principles of physics as you explore Newtonian mechanics; work, energy, and power; mechanical waves and sound; and introductory, simple circuits. You'll do hands-on laboratory work to investigate phenomena. A strong math background is necessary. This course is designed to prepare students for the AP program and may require extra hours of study per week. All students taking an AP course are expected to take the AP exam.

AP Environmental Science
Recommended Grade Placement: 12
Credit(s): 1
Prerequisite: Chemistry
AP Environmental Science is a college level course. Explore and investigate the interrelationships of the natural world and analyze environmental problems, both natural and human-made. You'll take part in laboratory investigations and field work. This course is designed to prepare students for the AP exam and may require extra hours of study per week. Non-dual credit students will take this course at their 4th year science course. Students meeting satisfactory practice test results are expected to take the AP exam. Administrative exceptions may be allowed.

Dual Credit Biology (BIOL 1406/1407)
Recommended Grade Placement: 11-12
Credit(s): 1
Prerequisite: Chemistry, Dual Credit Admission Criteria
(BIOL 1406) Fundamental principles of living organisms will be studied, including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Concepts of cytology, reproduction, genetics, and scientific reasoning are included. Laboratory activities will reinforce the fundamental principles of living organisms, including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Study and examination of the concepts of cytology, reproduction, genetics, and scientific reasoning are included. (BIOL 1407) The diversity and classification of life will be studied, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals. Laboratory activities will reinforce study of the diversity and classifications of life, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals.

SOCIAL STUDIES

World Geography
Recommended Grade Placement: 09
Credit(s): 1
Prerequisite: None
The student will be introduced to the nature of geography. Analysis of physical characteristics and natural resources of various regions of the earth will be made with respect to the economic, social and cultural impact on the environment and resources. Students will also examine the uses and preservation of natural resources and physical environment.

AP Human Geography
Recommended Grade Placement: 09
Credit(s): 1
Prerequisite: AP & Honors Admission Criteria
This college level 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 human social organization and its environmental consequences. Students also learn about the methods and tools geographers use in their science and practice. The major topics studied in Human Geography include, but are not limited to, Geography: Its Nature and Perspectives, Population, Cultural Patterns and Processes, Political Organization of Space, Agriculture and Rural Land Use, Industrialization and Economic Development, and Cities and Urban Land Use. This course requires outside reading and study regularly to meet the requirements in the curriculum. This course is designed to prepare students for the AP program and may require extra hours of study per week. All students taking an AP course are expected to take the AP exam.

World History
Recommended Grade Placement: 10
Credit(s): 1
Prerequisite: None
This course includes a survey of the history and the development of various cultures and civilizations from ancient times through the 20th century with special emphasis on Western civilization. Students are given the opportunity to examine history as the study of people and how they have reacted to the social, economic, religious, political and geographical aspects of their world. Students are encouraged to compare and contrast various civilizations and time periods in view of these major themes.

AP World History
Recommended Grade Placement: 10
Credit(s): 1
Prerequisite: AP & Honors Admission Criteria
In AP World History, students investigate significant events, individuals, developments, and processes from 1200 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change over time. This course is designed to prepare students for the AP program and may require extra hours of study per week. All students taking an AP course are expected to take the AP exam.

Dual Credit Texas Government (GOVT 2306)
Recommended Grade Placement: 10
Credit(s): 1
Prerequisite: Dual Credit Admission Criteria
Origin and development of the Texas Constitution, structure and powers of the state and local government, federalism and intergovernmental relations, political participation, the election process, public policy and the political culture of Texas.

United States History
Recommended Grade Placement: 11
Credit(s): 1
Prerequisite: World Geography or World History
United States History is a survey course that studies the United States from the post-Civil War period through the present. Students study the social, cultural, political and economic changes that took place in an America progressing from an agricultural nation to a position of world influence. Political policies from the “Square Deal” to the “New Deal” are presented to the students to compare and contrast with current domestic policies.

Dual Credit United States History (HIST 1301/1302)
Recommended Grade Placement: 11
Credit(s): 1
Prerequisite: World History or World Geography and/or AP Human Geography, Dual Credit Admission Criteria
This course is designed to give students the opportunity to study the history and development of the United States in a more in-depth manner than regular United States History. Emphasis is placed on the political, cultural and social-economic history of the United States. This course is taught by a professor from Collin College and students receive both high school and college credit.

Economics
Recommended Grade Placement: 12
Credit(s): 1
Prerequisite: None
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.

U.S. Government
Recommended Grade Placement: 12
Credit(s): .5
Prerequisite: US History
This course is designed to trace the foundations of the United States system of government. Students will analyze the philosophies and individuals that formed our government. Students will develop higher learning skills through the use of computers, cooperative learning simulation, TV and other forms of technology. Basic fundamental principles of American Government will be stressed through study of the following history of political ideas that led to our form of Government, the U.S. Constitution, the three branches of government, political parties and the civic responsibilities of American citizens.

Dual Credit Economics (ECON 2301)
Recommended Grade Placement: 12
Credit(s): .5
Prerequisite: Dual Credit Admission Criteria
An analysis of the economy as a whole including measurement and determination of Aggregate Demand and Aggregate Supply, national income, inflation, and unemployment. Other topics include international trade, economic growth, business cycles, and fiscal policy and monetary policy.

Dual Credit United States Government (GOVT 2305)
Recommended Grade Placement: 12
Credit(s): 1
Prerequisite: US History, Dual Credit Admission Criteria
Origin and development of the U.S. Constitution, structure and powers of the national government including the legislative, executive, and judicial branches, federalism, political participation, the national election process, public policy, civil liberties and civil rights.

FINE ARTS

Art I
Recommended Grade Placement: 9-12
Credit(s): 1
Prerequisite: None
This course serves as a survey course in which students produce a variety of artworks in various two and three-dimensional media. Students explore the historical and cultural contexts in which many artworks are created. Students also analyze and evaluate artwork on the basis of the elements and principles of design.

Art II
Recommended Grade Placement: 10-12
Credit(s): 1
Prerequisite: Art I & Instructor Approval
Students produce media specific designs using basic techniques in relation to historical and cultural contents. Students analyze artwork using the elements and principles of design.

AP Art 2-D Design
Recommended Grade Placement: 11-12
Credit(s): 1
Prerequisite: Art II & Instructor Approval
AP 2-D Design course is designed to address a very broad interpretation of two-dimensional (2-D) design issues. Students are asked to demonstrate a proficiency in 2-D design which includes, but is not limited to, graphic design, typography, digital imaging, photography, collage, fabric design, weaving, illustration, painting, and printmaking. The student's portfolio will include a variety of approaches in abstraction, representation and expression.

AP Art Drawing
Recommended Grade Placement: 11-12
Credit(s): 1
Prerequisite: Art II & Instructor Approval
AP Drawing is a portfolio course that explores numerous forms of two-dimensional art creation. Students generate art that focuses on confident mark making, illusion of depth, implying three dimensionality, and more. Students with a developed ability to draw are encouraged to enroll in the class. AP art are college-level courses, and students should expect to spend 5-10 hours a week outside of class working on art assignments. A portfolio will be submitted to the College Board in May and those students with passing portfolios may earn college credit.

Theater Arts I
Recommended Grade Placement: 9-12
Credit(s): 1
Prerequisite: None
This course of study is designed as an introductory survey in the fundamentals of theater production, including the role of the actor in the interpretation of dramatic literature, the development of the physical theater, theater history, and dramatic literature. The student is also involved in the physical and mental processes of learning to act with emphasis on interpretation, body movement, and characterization.

Theater Arts II-IV
Recommended Grade Placement: 10-12
Credit(s): 1
Prerequisite: Theater Arts I/II/III & Instructor Approval
This course of study is designed to provide the student with knowledge of the actor's craft, the history and development of theater as part of our cultural heritage, fine dramatic literature and the ability to evaluate dramatic experiences. The major emphasis of the course is on the extension of the student's knowledge of the principles of acting, comedic and dramatic theory, stagecraft, advanced movement, and experience in scene work and/or play production.

Dance I
Recommended Grade Placement: 9-12
Credit(s): 1
Prerequisite: None
This course will provide students with the fundamental skills and knowledge of dance as an art form and lifetime activity. The course will develop kinesthetic awareness, create aesthetic appreciation of various dance forms, and provide fitness opportunities for students. This class can also count as a fine arts credit.

Dance II-IV
Recommended Grade Placement: 10-12
Credit(s): 1
Prerequisite: Dance I/II/III & Instructor Approval
Advanced Dance is a full year course where students can earn physical education credit for the fall semester and fine arts or elective credit for the spring semester.

Choir I
Recommended Grade Placement: 9-12
Credit(s): 1
Prerequisite: None
Students of varying vocal and sight-reading skills may join this mixed choir. Students will develop vocal and sight-reading skills through the performance of a variety of styles of music. They will participate in concerts and competitions.

Choir II-IV
Recommended Grade Placement: 10-12
Credit(s): 1
Prerequisite: Choir I/II/III & Instructor Approval
Students of varying vocal and sight-reading skills may join this mixed choir. Students will develop vocal and sight-reading skills through the performance of a variety of styles of music. They will participate in concerts and competitions.

Band I-IV
Recommended Grade Placement: 9-12
Credit(s): 1
Prerequisite: Instructor Approval
This course provides an opportunity for students to continue instrumental development. All students are members of the marching band in the fall semester and indoor drumline in the spring. This band will perform as part of the total band program at all designated football games, pep assemblies, parades, marching contests, concerts, and festivals. All members will also perform at all indoor percussion competitions and percussion concerts. Time will be required outside of the class for rehearsals, trips, and other engagements. Attendance at all outside of school rehearsals and performances is required. Band placement is determined by audition. This is a full year course.

Jazz Band I-IV
Recommended Grade Placement: 9-12
Credit(s): 1
Prerequisite: Instructor Approval
Students will perform in a variety of formal and informal settings and may participate in festivals and competitions. This course must be taken in conjunction with Band I-IV unless otherwise approved by the band director. The study of improvisation will be incorporated into the curriculum of this course. Attendance at all outside of school rehearsals and performances is required. Band placement is determined by audition. This is a full-year course.

Dual Credit American Music (MUSI 1310)
Recommended Grade Placement: 9-10
Credit(s): 1
Prerequisite: Dual Credit Admission Criteria
A general survey of various styles of music of the Americas, including but not limited to jazz, folk, rock, and contemporary music. 3 credit hours. (A) (Student must have a TSI score for ELAR and Math)

FOREIGN LANGUAGE

Spanish I
Recommended Grade Placement: 8-11
Credit(s): 1
Prerequisite: None
The beginning secondary course emphasizes communication, especially listening and speaking skills, in relevant contexts. Students are presented with opportunities to learn cultural customs and practices from the contexts of the activities.

Spanish II
Recommended Grade Placement: 9-12
Credit(s): 1
Prerequisite: Spanish I
The course is the continuation of the basic Spanish program. This course broadens the student's ability to communicate in Spanish in a variety of contexts. Students will increase their knowledge of Hispanic culture, art, and history.

Spanish III (Honors)
Recommended Grade Placement: 10-12
Credit(s): 1
Prerequisite: Spanish II, AP & Honors Admission Criteria
This course continues the development of language skills for communication. It includes conversational situations, vocabulary development for reading and expression, and reasonable fluency both orally and in writing. It is an advanced class and will be conducted primarily in Spanish.

AP Spanish IV
Recommended Grade Placement: 11-12
Credit(s): 1
Prerequisite: Spanish III, AP & Honors Admission Criteria
This course continues the AP program begun in Spanish III, developing and refining listening, comprehension, reading, and writing skills. In addition to textbooks, class materials include recordings, films, videos, newspapers, magazines, and fiction. This course is designed to prepare students for the AP program and may require extra hours of study per week. All students taking an AP course are expected to take the AP exam.

AP Spanish V
Recommended Grade Placement: 12
Credit(s): 1
Prerequisite: Spanish III, AP & Honors Admission Criteria
This course continues the AP program and focuses on Spanish Literature. This course is designed to prepare students for the AP program and may require extra hours of study per week. All students taking an AP course are expected to take the AP exam.

Special Topics in Language and Culture (Spanish)
Recommended Grade Placement: 9-12
Credit(s): 1
Prerequisite: Spanish I, Instructor Approval
This course will explore the culture, geography, and development of the Spanish language.

Foreign Language Substitution		
All of the courses offered below are taught ONLINE.		
COURSE CODE	**COLLEGE COURSE**	**HIGH SCHOOL COURSE**
COSC 1436	Programming Fundamentals I	Computer Science I
COSC 1437	Programming Fundamentals II	
COSC 2325	Computer Organization	Computer Science II
COSC 2336	Programming Fundamentals III	

PLEASE CHECK WITH YOUR POTENTIAL COLLEGE(S) OF CHOICE REGARDING THE FOREIGN LANGUAGE ADMISSION AND GRADUATION REQUIREMENT.

Dual Credit Programming Fundamentals I (COSC 1436)
Recommended Grade Placement: 9-12
Credit(s): 1
Prerequisite: Dual Credit Admission Criteria
This course introduces the fundamental concepts of structured programming, and provides a comprehensive introduction to programming for computer science and technology majors. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This course assumes computer literacy. **This course is only offered in an online format.**

Dual Credit Programming Fundamentals II (COSC 1437)
Recommended Grade Placement: 9-12
Credit(s): 1
Prerequisite: DC Programming Fundamentals I, Dual Credit Admission Criteria
This course focuses on the object-oriented programming paradigm, emphasizing the definition and use of classes along with fundamentals of object-oriented design. The course includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering processes. Students will apply techniques for testing and debugging software. **This course is only offered in an online format.**
Dual Credit Computer Organization (COSC 2325)
Recommended Grade Placement: 10-12
Credit(s): 1
Prerequisite: DC Programming Fundamentals II, Dual Credit Admission Criteria
The organization of computer systems is introduced using assembly language. Topics include basic concepts of computer architecture and organization, memory hierarchy, data types, computer arithmetic, control structures, interrupt handling, instruction sets, performance metrics, and the mechanics of testing and debugging computer systems. **This course is only offered in an online format.**

Dual Credit Programming Fundamentals III (COSC 2336)
Recommended Grade Placement: 10-12
Credit(s): 1
Prerequisite: DC Computer Organization, Dual Credit Admission Criteria
Further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), searching, sorting, recursion, and algorithmic analysis. Programs will be implemented in an appropriate object oriented language.

PHYSICAL EDUCATION

Physical Education
Recommended Grade Placement: 9
Credit(s): 1
Prerequisite: None
The basic purpose of this course is to motivate students to strive for lifetime personal fitness while emphasizing the health-related components of physical fitness. The knowledge and skills taught in this course include the process of becoming fit, achieving some degree of fitness within the class, and the concept of wellness.

SPEECH

Agriculture Leadership, Research, & Communications
Recommended Grade Placement: 9
Credit(s): 1
Prerequisite: None
Agricultural Leadership, Research and Communications will focus on challenging Agriculture, Food, and Natural Resources (AFNR) students to use higher level thinking skills, develop leadership abilities, employ standard research principles, and communicate agricultural positions effectively with all stakeholders.

Professional Communications
Recommended Grade Placement: 9
Credit(s): .5
Prerequisite: None
This course blends written, oral, and graphic communication in a career-based environment. 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.

Dual Credit Business and Professional Communication (SPCH 1321)
Recommended Grade Placement: 9
Credit(s): .5
Prerequisite: Dual Credit Admission Criteria
Study and application of communication within the business and professional context. Special emphasis will be given to communication competencies in presentations, dyads, teams, and technologically mediated formats. Additionally, it includes the relationship of communication to organizational conflict, management and international business; practice in conducting and participating in business interviews and presentations.

CAREER AND TECHNICAL EDUCATION

The mission of Career and Technical Education is to prepare students for high-wage, high-demand occupations within the competitive global economy and to provide students with the academic skills necessary to continue their education in post-secondary schools. Career and Technical Education can help students explore their potential and establish future career goals. Farmersville ISD offers a variety of career and technical pathways in order to engage students in meaningful learning experiences resulting in career exploration, industry certifications, and career & post-secondary readiness.

AGRICULTURE	
	Animal Science
	Plant Science
	Applied Agricultural Engineering
ARTS, AUDIO/VIDEO TECHNOLOGY, & COMMUNICATIONS	
	Digital Communications
	Design & Multimedia Arts
BUSINESS, MARKETING, & FINANCE	
	Business Management
HEALTH SCIENCE	
	Exercise Science and Wellness
	Healthcare Therapeutic
SCIENCE, TECHNOLOGY, ENGINEERING, & MATH	
	Engineering

Agriculture, Food, and Natural Resources Career Cluster

The Agriculture, Food, and Natural Resources (AFNR) Career Cluster focuses on the essential elements of life food, water, land, and air. This career cluster includes a diverse spectrum of occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist. It also includes non-traditional agricultural occupations like wind energy, solar energy, and oil and gas production.

Animal Science
Statewide Program of Study

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

Secondary Courses for High School Credit

Grade 9
- Principles of Agriculture, Food, and Natural Resources

Grade 10
- Livestock Production/Lab (2 credits)

Grade 11
- Advanced Animal Science

Grade 12
- Practicum in Agriculture, Food, and Natural Resources (2 credits)

Postsecondary Opportunities

Associates Degrees
- Food Science and Technology
- Veterinary Studies
- Biotechnology Laboratory Technician
- Biology Technician

Bachelor's Degrees
- Animal Sciences
- Agriculture
- Biology
- Zoology/ Animal Biology

Master's, Doctoral, and Professional Degrees
- Genetics
- Veterinary Medicine
- Biological and Physical Sciences
- Biological and Biomedical Sciences

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Participate in Texas FFA • Participate in Texas FFA Leadership Development Events and Career Development Events	• Compete in an Agri-Science Fair 4H • Volunteer at a local farm or with a veterinarian • Participate in an FFA supervised agriculture experience

Industry-Based Certifications

- Agricultural Biotechnology
- Certified Veterinary Assistant, Level 1
- **Elanco Fundamentals of Animal Science Certification***
- Elanco Veterinary Medical Applications Certification
- Equine Management & Evaluation Certification
- Feedyard Technician in Cattle Care and Handling
- Licensed Veterinary Technician
- Production Agriculture - Job Ready
- Small Animal Science and Technology

*** Offered at Farmersville High School**

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Animal Breeders	$39,139	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%

Successful completion of the Animal Science program of study will fulfill requirements of a Business and Industry endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022

Animal Science
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Principles of Agriculture, Food, and Natural Resources	13000200 (1 credit)	None	None

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
N/A			

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Livestock Production/Lab	13000300 (1 credit) 13000310 (2 credits)	None	None

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Advanced Animal Science	13000700 (1 credit)	Biology and Chemistry or Integrated Physics and Chemistry (IPC); Algebra I and Geometry; and either Small Animal Management, Equine Science, or Livestock Production	None
Practicum in Agriculture, Food, and Natural Resources	13002500 (2 credits) 13002505 (3 credits) 13002510 (2 credits) 13002515 (3 credits)	None	None

FOR ADDITIONAL INFORMATION ON THE AGRICULTURE, FOOD, AND NATURAL RESOURCE CAREER CLUSTER, GO TO https://tea.texas.gov/cte

Farmersville ISD does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs or activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: Wayne Callaway, Executive Director of Human Resources and Student Services, 501A Hwy 78N, Farmersville, TX 75442, 972-782-6601, wcallaway@farmersvilleisd.org.

Farmersville ISD no discrimina por motivos de raza, color, origen nacional, sexo, discapacidad o edad en sus programas o actividades y brinda igualdad de acceso a los Boy Scouts y otros grupos juveniles designados. La siguiente persona ha sido designada para manejar consultas sobre las políticas de no discriminación: Wayne Callaway, Executive Director of Human Resources and Student Services, 501A Hwy 78N, Farmersville, TX 75442, 972-782-6601, wcallaway@farmersvilleisd.org.

Further nondiscrimination information can be found at Notification of Nondiscrimination in Career and Technical Education Programs.

Principles of Agriculture, Food, & and Natural Resources
Recommended Grade Placement: 9
Credit(s): 1
Prerequisite: None
Principles of Agricultural Science is designed to introduce students to global agriculture. The course includes the study of agricultural career development, leadership, communications and personal finance.

Agriculture Leadership, Research, & Communications
Recommended Grade Placement: 9
Credit(s): 1
Prerequisite: None
Agricultural Leadership, Research and Communications will focus on challenging Agriculture, Food, and Natural Resources (AFNR) students to use higher level thinking skills, develop leadership abilities, employ standard research principles, and communicate agricultural positions effectively with all stakeholders.

Livestock Production/Lab
Recommended Grade Placement: 10
Credit(s): 2
Prerequisite: Principles of Agriculture, Food & Natural Resources
This course prepares students to be introduced to the common veterinary skills and procedures used on livestock, anatomy of livestock, genetics and reproduction, and diseases that can affect all livestock animals. Animal species to be addressed in this course may include, but are not limited to, beef cattle, dairy cattle, swine, sheep, goats, and poultry.

Advanced Animal Science
Recommended Grade Placement: 11
Credit(s): 1
Prerequisite: Biology & Chemistry, Algebra I & Geometry, Livestock Production
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

Practicum in Agriculture, Food & Natural Resources
Recommended Grade Placement: 12
Credit(s): 2-3
Prerequisite: Livestock Production
Practicum in Agriculture, Food, and Natural Resources 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 Career Cluster®

Agriculture, Food, and Natural Resources Career Cluster

The Agriculture, Food, and Natural Resources (AFNR) Career Cluster focuses on the essential elements of life - food, water, land, and air. This career cluster includes a diverse spectrum of occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist. It also includes non-traditional agricultural occupations like wind energy, solar energy, and oil and gas production.

Plant Science
Statewide Program of Study

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

Secondary Courses for High School Credit

Grade 9
- Principles of Agriculture, Food, and Natural Resources

Grade 10
- Floral Design and/or
- Horticulture

Grade 11
- Practicum in Agriculture, Food, and Natural Resources (2 credits)

Grade 12
- Practicum in Agriculture, Food, and Natural Resources (2 credits) (2nd time taken)

Postsecondary Opportunities

Certificate Level 1
- Sustainable Agriculture
- Controlled Environment Agriculture

Associates Degrees
- Applied Horticulture/ Horticulture Operations, General
- Ornamental Horticulture
- Agricultural Business and Management, General
- Turf and Turfgrass Management

Bachelor's Degrees
- Applied Horticulture/ Horticulture Operations, General
- Agronomy and Crop Science
- Agricultural Business and Management, General
- Turf and Turfgrass Management

Master's, Doctoral, and Professional Degrees
- Applied Horticulture/ Horticulture Operations, General
- Agronomy and Crop Science
- Agricultural Business and Management, General
- Farm/Farm and Ranch Management

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Participate in Texas FFA • Participate in SkillsUSA	• Work at a florist or landscaper business • Participate in an FFA supervised agriculture experience

Industry-Based Certifications

- Agricultural Biotechnology
- BASF Plant Science Certification
- Commercial/Non-Commercial Pesticide Applicator
- Commercial/Noncommercial Pesticide Applicator "Vegetation Management" License
- Horticulture - Landscaping - Job Ready
- Landscape Irrigator
- Principles of Floral Design Certification
- Production Agriculture - Job Ready
- Texas Certified Landscape Associate (TCLA)
- Texas Certified Nursery Professional
- **Texas State Florist's Association Knowledge Based Floral Certification ***
- **Texas State Florist's Association Level I Floral Certification ***
- **Texas State Florist's Association Level II Floral Certification ***

*** Offered at Farmersville High School**

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Soil and Plant Scientists	$54,662	116	21%
Agriculture Engineers	$64,792	9	13%
Pesticide Handlers, Sprayers, and Applicators	$36.733	196	22%
Landscaping Supervisors	$44,408	807	19%
Biological Technicians	$42,931	452	17%

Successful completion of the Plant Science program of study will fulfill requirements of a Business and Industry endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022

Plant Science
Course information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Principles of Agriculture, Food, and Natural Resources	13000200 (1 credit)	None	None

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
N/A			

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Floral Design/Lab	13001800 (1 credit) 13001810 (2 credits)	None	None
Horticultural Science/Lab	13002000 (1 credit) 13002010 (2 credits)	None	None

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Practicum in Agriculture, Food, and Natural Resources	13002500 (2 credits) 13002505 (3 credits) 13002510 (2 credits) 13002515 (3 credits)	None	None

FOR ADDITIONAL INFORMATION ON THE AGRICULTURE, FOOD, AND NATURAL RESOURCE CAREER CLUSTER, GO TO: https://tea.texas.gov/cte

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Further nondiscrimination information can be found at Notification of Nondiscrimination in Career and Technical Education Programs.

Principles of Agriculture, Food, & and Natural Resources
Recommended Grade Placement: 9
Credit(s): 1
Prerequisite: None
Principles of Agricultural Science is designed to introduce students to global agriculture. The course includes the study of agricultural career development, leadership, communications and personal finance.

Agriculture Leadership, Research, & Communications
Recommended Grade Placement: 9
Credit(s): 1
Prerequisite: None
Agricultural Leadership, Research and Communications will focus on challenging Agriculture, Food, and Natural Resources (AFNR) students to use higher level thinking skills, develop leadership abilities, employ standard research principles, and communicate agricultural positions effectively with all stakeholders.

Floral Design
Recommended Grade Placement: 10
Credit(s): 1
Prerequisite: None
This course is designed to develop students' ability to identify and demonstrate the principles and techniques related to floral design as well as develop an understanding of the management of floral enterprises. Through the analysis of artistic floral styles and historical periods, students develop respect for the traditions and contributions of diverse cultures. Students respond to and analyze floral designs, thus contributing to the development of lifelong skills of making informed judgments and evaluations.

Horticulture
Recommended Grade Placement: 10
Credit(s): 1
Prerequisite: Principles of Agriculture, Food & Natural Resources
Horticultural Science is designed to develop an understanding of common horticultural management practices as they relate to food and ornamental plant production. To prepare for careers in horticultural systems, students must attain academic skills and knowledge, acquire technical knowledge and skills related to horticulture and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations.

Practicum in Agriculture, Food, & Natural Resources
Recommended Grade Placement: 11-12
Credit(s): 2-3
Prerequisite: Floral Design or Horticulture
The practicum course is for students participating in a coherent sequence of career and technical education courses in the Agriculture, Food, and Natural Resources cluster. The practicum is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experiences such as employment, independent study, internships, assistantships, mentorships, or laboratories.

Agriculture, Food, and Natural Resources Career Cluster

The Agriculture, Food, and Natural Resources (AFNR) Career Cluster focuses on the essential elements of life food, water, land, and air. This career cluster includes a diverse spectrum of occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist. It also includes non-traditional agricultural occupations like wind energy, solar energy, and oil and gas production.

Applied Agricultural Engineering
Statewide Program of Study

The Applied Agricultural Engineering program of study explores the occupations and educational opportunities associated with applying knowledge of engineering technology and biological science to agricultural problems concerned with power and machinery, electrification, structures, soil and water conservation, and processing agricultural products. This program of study may also include exploration into diagnosing, repairing, or overhauling farm machinery and vehicles, such as tractors, harvesters, dairy equipment, and irrigation systems.

Secondary Courses for High School Credit

Grade 9
- Principles of Agriculture, Food, and Natural Resources

Grade 10
- Agricultural Structures Design and Fabrications

Grade 11
- Practicum in Agriculture, Food, and Natural Resources (2 Credits)

Grade 12
- Practicum in Agriculture, Food, and Natural Resources (2 credits) (2nd time taken)

Postsecondary Opportunities

Certificate Level 1 or 2
- Entry Welding Certification
- Welding Technology Certification

Associates Degrees
- Heavy Equipment Maintenance Technology/ Technician
- Agricultural Mechanization, General
- Small Engine Mechanics and Repair Technology/ Technician
- Welding Technology/ Welder

Bachelor's Degrees
- Agricultural Engineering
- Agricultural Mechanization, General

Master's, Doctoral, and Professional Degrees
- Agricultural Engineering
- Agricultural Mechanization, Genera

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Tour a farm products or machinery plant • Participate in Texas FFA • Participate in welding competitions • Participate in SkillsUSA	• Earn a welding certification • Intern at a farm products or machinery plant • Participate in an FFA supervised agriculture experience

Industry-Based Certifications

- Agriculture Mechanics
- Agriculture Mechanics
- API 1104 Welding Pipelines and Related Facilities AWS Certified Welder
- **AWS D1.1 Structural Steel ***
- **AWS D9.1 Sheet Metal Welding ***
- **AWS SENSE Level 1: Entry Welder ***
- Feedyard Technician in Machinery Operation, Repair and Maintenance
- Industrial Technology Maintenance (ITM) - Maintenance Welding
- Machining Measurement, Material, and Safety Level I
- NCCER Welding Level I
- General Welding - Job Ready

***Offered at Farmersville High School**

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Outdoor Power Equipment and Other Small Engine Mechanics	$32,406	366	16%
Welders	$41,350	6171	9%
Farm Equipment Mechanics and Service Technicians	$39,915	304	17%
Mobile Heavy Equipment Mechanics	$47,299	1627	16%
Agricultural Engineers	$64,792	9	13%

Successful completion of the Applied Agricultural Engineering program of study will fulfill requirements of a Business and Industry endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022

Applied Agricultural Engineering
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Principles of Agriculture, Food, and Natural Resources	13000200 (1 credit)	None	None

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
N/A			

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Agricultural Structures Design and Fabrications/Lab	13002300 (1 credit) 13002310 (2 credits)	None	None

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Practicum in Agriculture, Food, and Natural Resources	13002500 (2 credits) 13002505 (3 credits) 13002510 (2 credits) 13002515 (3 credits)	None	None

FOR ADDITIONAL INFORMATION ON THE AGRICULTURE, FOOD, AND NATURAL RESOURCE CAREER CLUSTER, GO TO: https://tea.texas.gov/cte

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Principles of Agriculture, Food, & and Natural Resources
Recommended Grade Placement: 9
Credit(s): 1
Prerequisite: None
Principles of Agricultural Science is designed to introduce students to global agriculture. The course includes the study of agricultural career development, leadership, communications and personal finance.

Agriculture Leadership, Research, & Communications
Recommended Grade Placement: 9
Credit(s): 1
Prerequisite: None
Agricultural Leadership, Research and Communications will focus on challenging Agriculture, Food, and Natural Resources (AFNR) students to use higher level thinking skills, develop leadership abilities, employ standard research principles, and communicate agricultural positions effectively with all stakeholders.

Agricultural Structures Design & Fabrication
Recommended Grade Placement: 10
Credit(s): 1
Prerequisite: Principles of Agriculture, Food & Natural Resources
Students should attain academic skills and knowledge; acquire technical knowledge and skills related to equipment, structural, and technical agricultural systems and the workplace; and develop knowledge and skills regarding career opportunities, entry requirements, industry certifications, and industry expectations. Second semester students in the practicum will be enrolled in dual credit courses through Collin College (see below). Students may be responsible for purchasing their personal protective equipment.

Practicum in Agriculture, Food, & Natural Resources
Recommended Grade Placement: 11-12
Credit(s): 2-3
Prerequisite: Agricultural Structures Design & Fabrication
The practicum course is for students participating in a coherent sequence of career and technical education courses in the Agriculture, Food, and Natural Resources cluster. Students in the practicum will be enrolled in dual credit courses through Collin College (see below). Students may be responsible for purchasing their personal protective equipment.

Farmersville ISD and Collin College Welding Course Crosswalk				
COURSE CODE	**COLLEGE COURSE**	**HIGH SCHOOL COURSE**	**SEMESTER**	**YEAR**
WLDG 1407	Introduction to Welding Using Multiple Processes	Practicum in Agriculture (1st time taken) *	Fall	Junior
WLDG 1428	Introduction to Shielded Metal Arc Welding (SMAW)*		Fall	Junior
WLDG 1430	Introduction to Gas Metal Arc Welding (GMAW)	Practicum in Agriculture (2nd time taken)	Spring	Junior
WLDG 1434	Introduction to Gas Tungsten Arc Welding (GTAW)		Spring	Junior

Articulated Credit Introduction to Welding Using Multiple Processes (WLDG 1407) *
Recommended Grade Placement: 11
Credit(s): ½
Prerequisite: Collin College Admission Criteria
Basic welding techniques using some of the following processes: Oxy-fuel welding (OFW) and cutting, shielded metal arc welding (SMAW), gas metal arc welding (GMAW), flux cored arc welding (FCAW), and gas tungsten arc welding (GTAW).

Articulated Credit Introduction to Shielded Metal Arc Welding (SMAW) (WLDG 1428)
Recommended Grade Placement: 11
Credit(s): ½
Prerequisite: Collin College Admission Criteria
An introduction to the shielded metal arc welding process. Emphasis placed on power sources, electrode selection, and various joint designs. Additionally, instruction provided in SMAW fillet welds in various positions.

Dual Credit Introduction to Gas Metal Arc Welding (GMAW) (WLDG 1430)
Recommended Grade Placement: 11
Credit(s): ½
Prerequisite: Collin College Admission Criteria
Principles of gas metal arc welding, set-up and use of Gas Metal Arc Welding (GMAW) equipment, and safe use of tools/equipment. Instruction in various joint designs. Additionally, this is an overview of terminology, safety procedures, and equipment set-up. Practice in performing T-joints, lap joints, and butt joints using Flux Cored Arc Welding (FCAW) equipment.

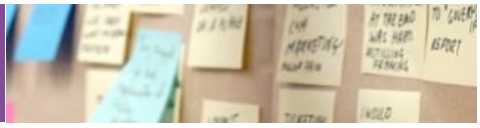
Dual Credit Introduction to Gas Tungsten Arc Welding (GTAW) (WLDG 1434)
Recommended Grade Placement: 11
Credit(s): ½
Prerequisite: Collin College Admission Criteria
Principles of gas tungsten arc welding (GTAW), including set-up, GTAW equipment. Instruction in various positions and joint designs.

* **Articulated Course:** Articulated credit courses are high school courses, typically taught by high school instructors, that are substantially equal to introductory-level college courses in which a student may be awarded college credit with Collin College if they meet certain criteria. See **Articulated Credit Courses** on page 23 for more details.

Business, Marketing, and Finance Career Cluster

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

Business Management
Statewide Program of Study



The Business Management program of study teaches CTE learners how to plan, direct, and coordinate the administrative services and operations of an organization. Through this program of study, students will learn the skills necessary to formulate policies, manage daily operations, and allocate the use of materials and human resources. This program of study will also introduce students to mathematical modeling tools and organizational evaluation methods.

Secondary Courses for High School Credit

Grade 8
- Business Information Management I

Grade 9
- Business Information Management II

Grade 10
- Business Management (Dual Credit)

Grade 11
- Practicum in Business Management (Dual Credit) (2 credits)

Grade 12
- Practicum in Business Management (Dual Credit) (2 credits) (2nd time taken)
- Career Preparation I (2 or 3 credits)

Postsecondary Opportunities

Certificate Level 1
- Business Management

Associates Degrees
- Business Administration
- Business/Commerce
- Public Administration
- Business Management

Bachelor's Degrees
- Business Administration
- Business/Commerce
- Public Administration
- Management Science

Master's, Doctoral, and Professional Degrees
- Business Administration
- Business Management
- Public Administration
- Management Science

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Participate in Business Professional of America, Future Business Leaders of America, or DECA	• Intern with a local business or chamber of commerce • Work a part-time job with early release

Industry-Based Certifications

- Administrative Assisting
- Certified Associate in Project Management (CAPM)
- Entrepreneurship and Small Business
- MB-920: Microsoft Dynamics 365 Fundamentals Finance and Operations Apps
- Microsoft Office Specialist 2016 Master
- Microsoft Office Specialist: Microsoft Access Expert (Access and Access 2019)
- **Microsoft Office Specialist: Microsoft Excel Expert (Excel and Excel 2019) ***
- **Microsoft Office Specialist: Microsoft Word Expert (Word and Word 2019) ***
- Project Management Institute (PMI) Project Management Ready

- **Microsoft Office Specialist-Excel***
- **Microsoft Office Specialist-Word***

*** Offered at Farmersville High School**

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Administrative Service Managers	$96,138	2,277	21%
Management Analysts	$87,651	4,706	32%
General and Operations Managers	$107,640	18,679	20%
Supervisors of Administrative Support Works	$57,616	14,982	20%

Successful completion of the Business Management program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

Business Management
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Business Information Management I/Lab	13011400 (1 credit) 13011410 (2 credits)	None	None

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Business Information Management II/Lab	13011500 (1 credit) 13011510 (2 credits)	Business Information Management I	None

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Business Management	13012100 (1 credit)	None	None

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Practicum in Business Management	13012200 (2 credits) 13012205 (3 credits) 13012210 (2 credits) 13012215 (3 credits)	None	None
Career Preparation I	12701300 (2 credits) 12701305 (3 credits)	None	None

FOR ADDITIONAL INFORMATION ON THE BUSINESS, MARKETING, AND FINANCE CAREER CLUSTER,
GO TO: https://tea.texas.gov/cte

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Business Information Management I
Recommended Grade Placement: 7-9
Credit(s): 1
Prerequisite: None
Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make a successful transition to the workforce and postsecondary education. Students apply technical skills to address business applications of emerging technologies, create word-processing documents, develop a spreadsheet, formulate a database, and make an electronic presentation using appropriate software.

Dual Credit Business Computer Applications (BCIS 1305)
Recommended Grade Placement: 10
Credit(s): 1
Prerequisite: Dual Credit Admission Criteria
Introduces and develops foundational skills in applying essential and emerging business productivity information technology tools. The focus of this course is on business productivity software applications, including word processing, spreadsheets, databases, presentation graphics, data analytics, and business-oriented utilization of the Internet. **This course is part of the associate degree plan.**

Business Information Management II
Recommended Grade Placement: 9-10
Credit(s): 1
Prerequisite: BIM I
In Business Information Management II, students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make a successful transition to the workforce or postsecondary education. Students apply technical skills to address business applications of emerging technologies, create complex word-processing documents, develop sophisticated spreadsheets using charts and graphs, and make an electronic presentation using appropriate multimedia software.

Practicum in Business, Marketing, & Finance I & II
Recommended Grade Placement: 11-12
Credit(s): 2-3
Prerequisite: BIM I and BIM II
This course allows students to apply business, marketing, and finance concepts and principles in the classroom and the workplace. In the classroom portion of the course, students will gain a working knowledge of business functions such as selling, advertising, display, the free enterprise system, inventory control systems, marketing mathematics, and resume writing. Students will also receive industry-recognized training designed to make them more marketable and desirable in the workplace.

COLLIN COLLEGE BUSINESS MANAGEMENT LEVEL I CERTIFICATION

Students enrolled in this program should apply for graduation from Collin College when they are enrolled in the final course in the program.

Farmersville ISD and Collin College Business Management Course Crosswalk				
Most or all of the courses offered below are taught ONLINE.				
COURSE CODE	**COLLEGE COURSE**	**HIGH SCHOOL COURSE**	**SEMESTER**	**YEAR (Recommended)**
BMGT 1307	Team Building	Principles of Business, marketing, and Finance	Fall	Sophomore
BMGT 1327	Principles of Management	Principles of Business, marketing, and Finance	Spring	Sophomore
BMGT 1341	Business Ethics	Practicum in Business, Marketing & Finance I	Fall	Junior
BMGT 2303	Problem Solving & Decision Making	Practicum in Business, Marketing & Finance I	Spring	Junior
HRPO 2307	Organizational Behavior	Practicum in Business, Marketing & Finance I	Fall	Senior
BMGT 2309	Leadership	Practicum in Business, Marketing & Finance I	Spring	Senior

Courses in the BMGT Program are only offered in an online format.

Dual Credit Team Building (BMGT 1307)
Recommended Grade Placement: 10
Credit(s): ½
Prerequisite: Dual Credit Admission Criteria
Principles of building and sustaining teams in organizations. Includes team dynamics, process improvement, trust and collaboration, conflict resolution, and the role of the individual in the team.

Dual Credit Principles of Management (BMGT 1327)
Recommended Grade Placement: 10
Credit(s): ½
Prerequisite: Dual Credit Admission Criteria
Concepts, terminology, principles, theories, and issues in the field of management. **This course is only offered in an online format.**

Dual Credit Business Ethics (BMGT 1341)
Recommended Grade Placement: 11
Credit(s): ½
Prerequisite: Dual Credit Admission Criteria
Discussion of ethical issues, the development of a moral frame of reference, and the need for an awareness of social responsibility in management practices and business activities. Includes ethical corporate responsibility. **This course is only offered in an online format.**

Dual Credit Problem Solving & Decision Making (BMGT 2303)
Recommended Grade Placement: 11
Credit(s): ½
Prerequisite: Dual Credit Admission Criteria
Decision-making and problem-solving processes in organizations utilizing logical and creative problem-solving techniques. Application of theory is provided by experiential activities using managerial decision tools. **This course is only offered in an online format.**

Dual Credit Organizational Behavior (HRPO 2307)
Recommended Grade Placement: 12
Credit(s): ½
Prerequisite: Dual Credit Admission Criteria
The analysis and application of organizational theory, group dynamics, motivation theory, leadership concepts, and the integration of interdisciplinary concepts from the behavioral sciences. **This course is only offered in an online format.**

Dual Credit Leadership (BMGT 2309)
Recommended Grade Placement: 12
Credit(s): ½
Prerequisite: Dual Credit Admission Criteria
Leadership and its relationship to management. Prepares the student with leadership and communication skills needed to motivate and identify leadership styles. **This course is only offered in an online format.**

Arts, Audio/Video Technology, and Communications Career Cluster

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

Graphic Design & Multimedia Arts
Statewide Program of Study

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

Secondary Courses for High School Credit

Grade 9
- Graphic Design and Illustration I

Grade 10
- Graphic Design and Illustration II

Grade 11
- Practicum in Graphic Design and Illustration (2 credits)

Grade 12
- Practicum in Graphic Design and Illustration (2 credits) (2nd time taken)

Postsecondary Opportunities

Level 1 Certificate
- Video Production

Associates Degrees
- Animation, Interactive Technology, Video Graphics and Special Effects
- Graphic Design
- Game and Interactive Media Design

Bachelor's Degrees
- Animation, Interactive Technology, Video Graphics and Special Effects
- Graphic Design
- Game and Interactive Media Design

Master's, Doctoral, and Professional Degrees
- Animation, Interactive Technology, Video Graphics and Special Effects
- Graphic Design
- Intermedia/Multimedia

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Design the school yearbook • Join a website development or coding club • Participate in SkillsUSA or TSA	• Intern with a multimedia or animation studio • Obtain a certificate or certification in graphic design

Industry-Based Certifications

- **Adobe Certified Professional in Graphic Design and Illustration Using Adobe Illustrator ***
- Adobe Certified Professional in Print and Digital Media Publication Using Adobe InDesign
- Adobe Certified Professional in Visual Design
- Adobe Certified Professional in Visual Design Using Adobe Photoshop
- Adobe Certified Professional In Visual Effects and Motion Graphics Using Adobe After Effects
- Audio-Visual Communications - Job Ready
- Autodesk Associate (Certified User) 3ds MAX
- Certified Professional Photographer
- Graphic Production Technology - Job Ready

*** Offered at Farmersville High School**

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Graphic Designers	$44,824	1,433	15%
Marketing Managers	$128,033	2,052	22%
Multimedia Artists and Animators	$67,392	186	21%

Successful completion of the Graphic Design & Multimedia Arts program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

Graphic Design & Multimedia Arts
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
N/A			

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Graphic Design and Illustration I /Lab	13008800 (1 credit) 13008810 (2 credits)	None	None

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Graphic Design and Illustration II/Lab	13008900 (1 credit) 13008910 (2 credits)	Graphic Design and Illustration I	None

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES (PREQ)	COREQUISITES (CREQ)
Practicum in Graphic Design and Illustration	13009000 (2 credits) 13009005 (3 credits) 13009010 (2 credits) 13009015 (3 credits)	Graphic Design and Illustration II and Graphic Design and Illustration II Lab	None
Career Preparation I	12701300 (2 credits) 12701305 (3 credits)	None	None

FOR ADDITIONAL INFORMATION ON THE ARTS, AUDIO/VIDEO TECHNOLOGY, AND COMMUNICATIONS CAREER CLUSTER, GO TO: https://tea.texas.gov/cte

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Graphic Design I
Recommended Grade Placement: 9-10
Credit(s): 1
Prerequisite: Instructor Approval
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. **Students in this course will produce the yearbook, and will receive 1 credit that meets the graduation requirement for fine arts.**

Graphic Design II/Lab
Recommended Grade Placement: 10-11
Credit(s): 1
Prerequisite: Digital Art & Animation; Instructor Approval
Students will apply advanced knowledge and skill needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, and will be expected to develop an understanding of the industry with a focus on fundamental elements and principles of visual art and design. **Students in this course will produce the yearbook, and will receive 1 credit that meets the graduation requirement for fine arts.**

Practicum in Graphic Design *
Recommended Grade Placement: 11-12
Credit(s): 2-3
Prerequisite: Instructor Approval; Training Plan
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 a technical understanding of the industry with a focus on skill proficiency. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

* **Articulated Course:** Articulated credit courses are high school courses, typically taught by high school instructors, that are substantially equal to introductory-level college courses in which a student may be awarded college credit with Collin College if they meet certain criteria. See **Articulated Credit Courses** on page 23 for more details.

Arts, Audio/Video Technology, and Communications Career Cluster

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

Digital Communications
Statewide Program of Study

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

Secondary Courses for High School Credit

Grade 9
- Audio/Video Production I

Grade 10
- Audio/Video Production II

Grade 11
- Practicum of Audio/Video Production (2 credits)

Grade 12
- Practicum of Audio/Video Production (2 credits) (2nd time taken)

Postsecondary Opportunities

Associates Degrees
- Recording Arts Technology/Technician
- Cinematography and Film/Video Production
- Radio and Television Broadcasting Technology/Technician
- Music Technology

Bachelor's Degrees
- Recording Arts Technology/Technician
- Cinematography and Film/Video Production
- Radio and Television
- Agricultural Communication/Journalism

Master's, Doctoral, and Professional Degrees
- Communications Technology/Technician
- Cinematography and Film/Video Production
- Radio and Television
- Agricultural Communication/Journalism

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Shadow a production team • Participate in SkillsUSA or TSA • Serve on the AV Broadcasting Team	• Intern at a local television station or video production company • Work with a local company on a project

Industry-Based Certifications

- **Adobe Certified Professional in Digital Video Using Adobe Premiere Pro ***
- Adobe Certified Professional in Print and Digital Media Publication Using Adobe InDesign
- Adobe Certified Professional in Print and Digital Media Publication Using Adobe InDesign
- Adobe Certified Professional in Visual Design
- Adobe Certified Professional in Visual Design Using Adobe Photoshop
- Audio-Visual Communications - Job Ready
- Broadcasting and Journalism
- Digital Video Production Foundations

*** Offered at Farmersville High School**

Aligned Occupations

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%

Successful completion of the Digital Communications program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

Digital Communications
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
N/A			

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Audio/Video Production I/Lab	13008500 (1 credit) 13008510 (2 credits)	None	None

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES (CREQ)
Audio/Video Production II/Lab	13008600 (1 credit) 13008610 (2 credits)	Audio/Video Production I	None

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Practicum in Audio/Video Production	13008700 (2 credits) 13008705 (3 credits) 13008710 (2 credits) 13008715 (3 credits)	Audio/Video Production II/Lab	None
Career Preparation I	12701300 (2 credits) 12701305 (3 credits)	None	None

FOR ADDITIONAL INFORMATION ON THE ARTS, AUDIO/VIDEO TECHNOLOGY, AND COMMUNICATIONS CAREER CLUSTER, GO TO: https://tea.texas.gov/cte

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Audio Video Production I
Recommended Grade Placement: 9-10
Credit(s): 1
Prerequisite: Principles of Arts, Audio Video Technology & Communication
This is a hands-on introductory course where students will explore both studio and field television production techniques. The course will include techniques in videography, lighting, producing, directing and editing. Students will be expected to develop an understanding of the industry with a focus on pre-production, production, and post-production audio and video activities.

Audio Video Production II/Lab
Recommended Grade Placement: 10-11
Credit(s): 2
Prerequisite: Audio Visual Production I
Develops an advanced understanding of the industry with a focus on pre-production, production, and post-production activities. Through diverse forms of storytelling and productions, students will exercise and develop creativity, intellectual curiosity, and critical-thinking, problem-solving, communication, and collaborative skills. Students are expected to participate in extended learning experiences such as CTE student organizations and other leadership or extracurricular organizations.

Practicum in Audio/Video Production I & II *
Recommended Grade Placement: 11-12
Credit(s): 2-3
Prerequisite: Audio Video Production II, Instructor Approval
Building upon the concepts taught in Audio/Video Production II, in addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an increasing understanding of the industry with a focus on applying pre-production, production, and post-production audio and video products in a professional environment.

* **Articulated Course:** Articulated credit courses are high school courses, typically taught by high school instructors, that are substantially equal to introductory-level college courses in which a student may be awarded college credit with Collin College if they meet certain criteria. See **Articulated Credit Courses** on page 23 for more details.

Science, Technology, Engineering, and Mathematics Career Cluster

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

Engineering
Statewide Program of Study

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

Secondary Courses for High School Credit

Grade 9
- Engineering Design and Presentation I

Grade 10
- Engineering Design and Problem Solving

Grade 11
- Practicum in STEM (2 or 3 credits)
- Applied Math for Technical Professionals (not included in POS)

Grade 12
- Practicum in STEM (2 or 3 credits) (2nd time taken)

Postsecondary Opportunities

Level 1 Certificate
- Electronic Engineering Technology
- Robotics and Automation
- Computer-Aided Drafting and Design

Level 2 Certificate
- Robotics and Automation

Associates Degrees
- Electrical and Electronics Engineering
- Drafting and Design Technology/ Technician, General
- Engineering Technology

Bachelor's Degrees
- Electrical and Electronics Engineering
- CAD/CADD Drafting and/or Design Technology/ Technician
- Bioengineering and Biomedical Engineering
- Construction Engineering Technology/ Technician

Master's, Doctoral, and Professional Degrees
- Electrical and Electronics Engineering
- Mechanical Engineering
- Bioengineering and Biomedical Engineering

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Participate in Skills USA competitions • Compete in VEX and FIRST Robotics • Participate in Team America Rocketry Challenge (TARC)	• Intern at an engineering firm • Work part-time at local industry in CAD • Shadow a machinist

Industry-Based Certifications

- Autodesk Associate (Certified User) AutoCAD
- **Autodesk Associate (Certified User) Fusion 360***
- Autodesk Associate (Certified User) Inventor for Mechanical Design
- Autodesk Associate (Certified User) Revit Architecture
- Autodesk Associate (Certified User) Revit for Electrical
- Autodesk Associate (Certified User) Revit for Structural Design
- **Autodesk Certified Professional Fusion 360***
- Autodesk Certified Professional in AutoCAD for Design and Drafting
- Autodesk Certified Professional in Civil 3D for Infrastructure Design
- Autodesk Certified Professional in Inventor for Mechanical Design
- Autodesk Certified Professional in Revit for Architectural Design
- Autodesk Certified Professional in Revit for Electrical Design
- Autodesk Certified Professional in Revit for Structural Design
- C-103 Certified Industry 4.0 Associate - Robot System Operations
- Engineering Technology Foundations
- Lean Six Sigma Green Belt Certification
- Pre-Engineering/Engineering Technology - Job Ready

*** Offered at Farmersville High School**

Aligned Occupations

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	105

Successful completion of the Engineering program of study will fulfill requirements of the Business and Industry or STEM endorsement if the math and science requirements are met. Revised – August 2022

Engineering
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
N/A			

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
N/A			

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Engineering Design and Presentation I	13036500 (1 credit)	Algebra I	None

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Engineering Design & Problem Solving	13037300 (1 credit)	Algebra I and Geometry	None
Practicum in Science, Technology, Engineering, and Mathematics	13037400 (2 credits) 13037405 (3 credits) 13037410 (2 credits) 13037415 (2 credits)	Algebra I and Geometry	None

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Engineering Design & Presentation *
Recommended Grade Placement: 9
Credit(s): 1
Prerequisite: None
Students enrolled in Engineering Design and Presentation 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 & Problem Solving
Recommended Grade Placement: 10
Credit(s): 1
Prerequisite: Engineering Design & Presentation
The Engineering Design and Problem-Solving course is the creative process of solving problems by identifying needs and then devising solutions. The solution may be a product, technique, structure, or process depending on the problem. Science aims to understand the natural world, while engineering seeks to shape this world to meet human needs and wants. Engineering design takes into consideration limiting factors or "design under constraint." Various engineering disciplines address a broad spectrum of design problems using specific concepts from the sciences and mathematics to derive a solution. **Meets a Science Graduation Requirement.**

Scientific Research & Design
Recommended Grade Placement: 11 (Summer)
Credit(s): .5
Prerequisite: Engineering Design & Presentation
Scientific Research and Design is a broad-based course designed to allow districts and schools considerable flexibility to develop local curriculum to supplement any program of study or coherent sequence. The course has the components of any rigorous scientific or engineering program of study from the problem identification, investigation design, data collection, data analysis, formulation, and presentation of the conclusions. These components are integrated with the career and technical education emphasis of helping students gain entry-level employment in high-skill, high-wage jobs and/or continue their education.

Practicum in STEM
Recommended Grade Placement: 11-12
Credit(s): 3
Prerequisite: Engineering Design & Problem Solving
Practicum in STEM is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.

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Farmersville ISD and Collin College Engineering Course Crosswalk				
COURSE CODE	**COLLEGE COURSE**	**HIGH SCHOOL COURSE**	**SEMESTER**	**YEAR**
RBTC 1405	Robotic Fundamentals (Articulated Credit)	Engineering Design and Presentation I *	Fall/Spring	Freshman
CETT 1307	Fundamentals of Electronics	Engineering Design and Problem Solving	Fall	Sophomore
TECM 1343	Technical Algebra and Trigonometry +	Applied Math for Technical Professionals	Spring	Sophomore
ENTC 1171	Introduction to Engineering Technology	Scientific Research & Design	Summer	Before Junior Year
INTC 1307	Instrumentation Test Equipment	Practicum in STEM	Fall	Junior
CETT 1425	Digital Fundamentals		Spring	Junior
CETT 1409	DC-AC Circuits	Practicum in STEM I (2^{nd} time taken)	Fall	Senior
CETT 1445	Microprocessors		Spring	Senior
CETT 2471	Emerging Topics in Engineering Technology	N/A	Summer or Post-Graduation	
CETT 1457	Linear Integrated Circuits	N/A	Summer or Post-Graduation	
EECT 2439	Communication Circuits	N/A	Summer or Post-Graduation	

+ A score of 3 or higher in AP Precalculus and AP Calculus may substitute for the math requirement.

Dual Credit Robotic Fundamentals (RBTC 1405)
Recommended Grade Placement: 9
Credit(s): see Engineering Design and Presentation
Prerequisite: None
An introduction to flexible automation. Topics include installation, repair, maintenance, and development of flexible robotic manufacturing systems.

Dual Credit Fundamentals of Electronics (CETT 1307)
Recommended Grade Placement: 10
Credit(s): see Engineering Design and Problem Solving
Prerequisite: Collin College Admission Criteria
Applies concepts of electricity, electronics, and digital fundamentals; supports programs requiring a general knowledge of electronics.

Dual Credit Technical Algebra and Trigonometry (TECM 1343)
Recommended Grade Placement: 10
Credit(s): see Applied Math for Technical Professionals
Prerequisite: Collin College Admission Criteria
Algebraic and trigonometric applications used in technical/industrial settings.

Dual Credit Introduction to Engineering Technology (ENTC 1171)
Recommended Grade Placement: 11
Credit(s): see Scientific Research and Design
Prerequisite: Collin College Admission Criteria
Topics address introduction to Electronic Engineering Technology, Robotics, Automation and Biomedical Equipment Technology industries and career pathways.

Dual Credit Instrumentation Test Equipment (INTC 1307)
Recommended Grade Placement: 11
Credit(s): see Practicum in STEM (1st time taken)
Prerequisite: Collin College Admission Criteria
Theory and application of instrumentation test equipment. Emphasizes accuracy, limitations of instruments, and calibration techniques.

Dual Credit Digital Fundamentals (CETT 1425)
Recommended Grade Placement: 11
Credit(s): see Practicum in STEM (1st time taken)
Prerequisite: Collin College Admission Criteria
An entry-level course in digital electronics to include numbering systems, logic gates, Boolean algebra, and combinational logic.

Dual Credit DC-AC Circuits (CETT 1409)
Recommended Grade Placement: 12
Credit(s): see Practicum in STEM (2nd time taken)
Prerequisite: Collin College Admission Criteria
Fundamentals of DC circuits and AC circuits operation including Ohm's law, Kirchhoff's laws, networks, transformers, resonance, phasors, capacitive and inductive circuit analysis techniques.

Dual Credit Microprocessors (CETT 1445)
Recommended Grade Placement: 12
Credit(s): see Practicum in STEM (2nd time taken)
Prerequisite: Collin College Admission Criteria
An intro course in microprocessor software and hardware: architecture, timing sequence, operation, & programming.

Health Science Career Cluster

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

Exercise Science and Wellness
Statewide Program of Study

The Exercise Science and Wellness program of study introduces CTE learners to the fields that assist patients with maintaining physical, mental, and emotional health. Students will research diet and exercise needed to maintain a healthy, balanced lifestyle and learn about and practice techniques to help patients recover from injury, illness, or disease.

Secondary Courses for High School Credit

Grade 9

- Kinesiology I

Grade 10

- Kinesiology II

Grade 11

- Anatomy and Physiology
- Career Preparation I

Grade 12

- Project Based Research

Postsecondary Opportunities

Associates Degrees
- Physical Therapist Assistant
- Physical Therapy Aides
- Dietetic Technician

Bachelor's Degrees
- Kinesiology and Exercise Science
- Therapeutic Recreation/Recreational Therapy
- Athletic Training/Trainer

Master's, Doctoral, and Professional Degrees
- Exercise Physiology
- Therapeutic Recreation/Recreation Therapy
- Athletic Training/Trainer
- Physical Therapist

Work-Based Learning and Expanded-Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Participate in Health Occupations Students of America	• Serve as a student trainer for the athletic department • Volunteer at a hospital or rehabilitation center • Manage a school sports team

Industry-Based Certifications

- Certified Personal Trainer
- Pre-Professional Certification in Nutrition, Food, and Wellness

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Athletic Trainers	$53,450	215	22%
Exercise Physiologists	$41,662	33	33%
Coaches and Scouts	$40,010	2,133	23%
Dieticians and Nutritionists	$57,762	428	24%
Recreational Therapists	$45,906	74	24%

Successful completion of the Exercise Science program of study will fulfill requirements of a Public Service endorsement or STEM endorsement if the math and science requirements are met. Revised – October 2022

Exercise Science and Wellness
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
N/A			

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Kinesiology I	N1302104 (1 credit)	None	None

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Anatomy and Physiology	13020600 (1 credit)	Biology and a second science credit	None
Kinesiology II	N1302124 (1 credit)	None	None

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Career Preparation I	12701300 (2 credits) 12701305 (3 credits)	None	None
Project Based Research	12701500 (1 credit)	None	None

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Kinesiology I
Recommended Grade Placement: 9
Credit(s): 1
Prerequisite: Instructor Approval
This course is designed to introduce students to the basic concepts of kinesiology. Students will gain an understanding of body mechanics, physiological functions of muscles and movements, the history of kinesiology, and the psychological impact of sports and athletic performance. Students will also explore careers within the kinesiology field and be able to explain the societal demand for kinesiology-related jobs. Students will develop a foundation in Kinesiology I that will prepare them for upper-level courses that will dive deeper into the anatomical and physiological functions of the body and provide opportunities for an industry-certified exam such as a certified personal trainer.

Kinesiology II
Recommended Grade Placement: 10
Credit(s): 1
Prerequisite: Instructor Approval & Kinesiology I
The Kinesiology II course is designed to provide students an advanced level of knowledge, skills, and understanding of body composition and its effect on health, nutritional needs of physically active individuals, qualitative biomechanics, application of therapeutic modalities, appropriate rehabilitation services, and aerobic training intensity programs. The course is designed to allow students to advance their understanding of professional standards, employability skills, and ethical and legal standards. Kinesiology II prepares students for an industry certification exam such as Certified Personal Trainer.

Dual Credit Anatomy and Physiology for Medical Assistants (MDCA 1309)
Recommended Grade Placement: 11
Credit(s): 1
Prerequisite: Collin College & Dual Credit Admission Criteria
Emphasis on structure and function of human cells, tissues, organs, and systems with overview of common pathophysiology.

Career Preparation I (Athletic Trainer)
Recommended Grade Placement: 11
Credit(s): 2
Prerequisite: Instructor Approval & Kinesiology II
The practicum is designed to give students supervised practical application and work-based learning of previously studied knowledge and skills in athletic training.

Project Based Research (Athletic Trainer)
Recommended Grade Placement: 12
Credit(s): 1
Prerequisite: Instructor Approval & Career Preparation I
In addition to continuing their work-based learning in athletic training, the Project Based Research is a course for students to research a real-world problem in a related athletic training, exercise science, or health science field. This research may be satisfied by earning related college credit in a related field of study.

Health Science Career Cluster

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

Healthcare Therapeutic
Statewide Program of Study

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

Secondary Courses for High School Credit

Grade 9
- Principles of Health Science

Grade 10
- Medical Terminology (Dual Credit)
- Pathophysiology (Dual Credit)

Grade 11
- Anatomy and Physiology (Dual Credit)
- Health Science Theory/Clinical (Dual Credit) (2 Credits)

Grade 12
- Practicum in Health Science (Dual Credit) (3 Credits)

Postsecondary Opportunities

Licensure Program
- Vocational Nursing

Associates Degrees
- Dental Hygienist
- Medical/Clinical Assistant
- Nursing

Bachelor's Degrees
- Dental Hygienist

Master's, Doctoral, and Professional Degrees
- Dentist
- Physician Assistant
- Family and General Practitioners
- Pharmacist

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Participate in SkillsUSA or Health Occupation Students of America	• Volunteer at a community wellness center, hospital, assisted living, or nursing home

Industry-Based Certifications

- **Certified Clinical Medical Assistant ***
- Certified Dental Assistant
- **Certified EKG Technician ***
- Certified Nurse Aide (CNA)
- Certified Occupational Therapy Assistant
- Certified Patient Care Technician (CPCT)
- **Medical Scribe * (not part of TEA's IBC list)**
- Medical Assistant
- Medical Laboratory Assistant
- Nationally Registered Certified EKG Technician
- Patient Care Technician
- Pharmacy Technician
- **Phlebotomy Technician ***
- Registered Dental Assistant X-Ray Certification

*** Offered at Farmersville High School in partnership with Collin College**

Aligned Occupations

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%
Licensed Vocational Nurses	$45,178	7,186	21%
Registered Nurses	$68,682	17,493	26%
Nurse Practitioners	$107,827	977	50%
Physicians and Surgeons	$213,071	1,151	30%

Successful completion of the Healthcare Therapeutic program of study will fulfill requirements of a Public Service endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022

Healthcare Therapeutic Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Principles of Health Science	13020200 (1 credit)	None	None

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Medical Terminology	13020300 (1 credit)	None	None

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Anatomy and Physiology	13020600 (1 credit)	One credit in Biology, one credit in Chemistry, Integrated Physics and Chemistry, or Physics.	None
Health Science Theory/ Health Science Clinical	13020400 (1 credit) 13020410 (2 credits)	Biology	None

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Pathophysiology	13020800 (1 credit)	Biology and Chemistry	None
Practicum in Health Science	13020500 (2 credits) 13020505 (3 credits) 13020510 (2 credits) 13020515 (3 credits)	Health Science Theory and Biology	None

FOR ADDITIONAL INFORMATION ON THE HEALTH SCIENCE CAREER CLUSTER,
GO TO: https://tea.texas.gov/cte

Farmersville ISD does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs or activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: Wayne Callaway, Executive Director of Human Resources and Student Services, 501A Hwy 78N, Farmersville, TX 75442, 972-782-6601, wcallaway@farmersvilleisd.org.

Farmersville ISD no discrimina por motivos de raza, color, origen nacional, sexo, discapacidad o edad en sus programas o actividades y brinda igualdad de acceso a los Boy Scouts y otros grupos juveniles designados. La siguiente persona ha sido designada para manejar consultas sobre las políticas de no discriminación: Wayne Callaway, Executive Director of Human Resources and Student Services, 501A Hwy 78N, Farmersville, TX 75442, 972-782-6601, wcallaway@farmersvilleisd.org.

Further nondiscrimination information can be found at Notification of Nondiscrimination in Career and Technical Education Programs.

Farmersville ISD and Collin College Medical Assistant Course Crosswalk				
COURSE CODE	**COLLEGE COURSE**	**HIGH SCHOOL COURSE**	**SEMESTER**	**YEAR**
HPRS 1201	Introductions to Health Professions	Principles of Health Science *	Fall/Spring	Freshman
HITT 1305	Medical Terminology	Medical Terminology	Fall	Sophomore
HPRS 2301	Pathophysiology	Pathophysiology	Spring	Sophomore
MDCA 1309	Anatomy and Physiology for Medical Assistants	Anatomy and Physiology	Fall	Junior
MDCA 1417	Procedures in a Clinical Setting	Health Science Theory/Clinical	Fall	Junior
MDCA 1321	Administrative Procedures		Spring	Junior
MDCA 1448	Pharmacology & Administration of Meds.		Spring	Junior
MDCA 1452	Medical Assistant Laboratory Procedures	Practicum in Health Science I	Fall	Senior
HPRS 2321	Medical Law and Ethics for Health Professionals		Fall	Senior
MDCA 1154	Medical Assisting Credentialing Exam Review		Spring	Senior
MDCA 1360	Clinical-Medical/Clinical Assistant		Spring	Senior

Principles of Health Science *
Recommended Grade Placement: 9
Credit(s): 1
Prerequisite: None
This course is an overview of roles of various members of the healthcare system and their educational requirements and issues affecting the delivery of healthcare. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, and communicate effectively.

Dual Credit Medical Terminology (HITT 1305)
Recommended Grade Placement: 10
Credit(s): 1
Prerequisite: Collin College & Dual Credit Admission Criteria
Study of medical terms through word origin and structure. Introduction to abbreviations and symbols, surgical and diagnostic procedures, and medical specialties.

Dual Credit Pathophysiology (HPRS 2301)
Recommended Grade Placement: 10
Credit(s): 1
Prerequisite: Collin College & Dual Credit Admission Criteria
Study of the pathology and general health management of diseases and injuries across the life span. Topics include etiology, symptoms, and the physical and psychological reactions to diseases and injuries.

Dual Credit Anatomy and Physiology for Medical Assistants (MDCA 1309)
Recommended Grade Placement: 11
Credit(s): 1
Prerequisite: Collin College & Dual Credit Admission Criteria
Emphasis on structure and function of human cells, tissues, organs, and systems with overview of common pathophysiology.

Dual Credit Procedures in a Clinical Setting (MDCA 1417)
Recommended Grade Placement: 11
Credit(s): see Health Science Theory/Clinical
Prerequisite: Collin College & Dual Credit Admission Criteria
Emphasis on patient assessment, examination, and treatment as directed by physician. Includes vital signs, collection and documentation of patient information, asepsis, office clinical procedures, and other treatments as appropriate for ambulatory care settings.

Dual Credit Administrative Procedures (MDCA 1321)
Recommended Grade Placement: 11
Credit(s): see Health Science Theory/Clinical
Prerequisite: Collin College & Dual Credit Admission Criteria
Medical office procedures including appointment scheduling, medical records creation and maintenance, interpersonal communications, bookkeeping tasks, coding, billing, collecting, third party reimbursement, credit arrangements, and computer use in the medical office.

Dual Credit Pharmacology & Administration of Medications (MDCA 1448)
Recommended Grade Placement: 11
Credit(s): see Health Science Theory/Clinical
Prerequisite: Collin College & Dual Credit Admission Criteria
Instruction in concepts and application of pharmacological principles. Focuses on drug classifications, principles and procedures of medication administration, mathematical systems and conversions, calculation of drug problems, and medico-legal responsibilities of the medical assistant.

Dual Credit Medical Assistant Laboratory Procedures (MDCA 1452)
Recommended Grade Placement: 12
Credit(s): see Practicum in Health Science
Prerequisite: Collin College & Dual Credit Admission Criteria
Application of governmental health care guidelines. Includes specimen collection and handling, quality assurance and quality control in performance of Clinical Laboratory Improvement Amendments (CLIA)-waived laboratory testing.

Dual Credit Medical Law and Ethics for Health Professionals (HPRS 2321)
Recommended Grade Placement: 12
Credit(s): see Practicum in Health Science
Prerequisite: Collin College & Dual Credit Admission Criteria
Principles, procedures, and regulations governing the legal and ethical relationships among physicians, patients, and health care professionals. Includes current ethical issues related to the various healthcare professions and patient confidentiality.

Dual Credit Medical Assisting Credentialing Exam Review (MDCA 1154)
Recommended Grade Placement: 12
Credit(s): see Practicum in Health Science
Prerequisite: Collin College & Dual Credit Admission Criteria
A preparation for one of the National Commission for Certifying Agencies (NCCA) recognized credentialing exams.

Dual Credit Clinical-Medical/Clinical Assistant (MDCA 1360)
Recommended Grade Placement: 12
Credit(s): see Practicum in Health Science
Prerequisite: Collin College & Dual Credit Admission Criteria
A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

* **Articulated Course**: Articulated credit courses are high school courses, typically taught by high school instructors, that are substantially equal to introductory-level college courses in which a student may be awarded college credit with Collin College if they meet certain criteria. See **Articulated Credit Courses** on page 23 for more details.

WORK-BASED LEARNING & PRACTICUM EXPERIENCES

A paid work-based learning instructional arrangement in Career-Technical Education for students who, through written training agreements between the school and the employer (training sponsor), receive instruction by study in school with on-the-job training in an approved program area for paid employment. Paid work experiences build upon the academic and occupational competencies previously developed through a student's general education courses and other components of a program of study in Career-Technical Education.

Farmersville High School offers a practicum experience in each career and technical education program of study. Additionally, students may choose to enroll in Career Preparation during the 11th and/or 12th grade if they meet prerequisite and enrollment requirements.

Career Preparation I, II
Recommended Grade Placement: 11-12
Credit(s): 3
Prerequisite: Instructor Approval and verified employment averaging no less than 15 hours weekly
The Career Preparation course provides opportunities for students to participate in a work-based learning experience that combines classroom instruction with business and industry employment experiences. The goal is to prepare students with a variety of skills for a changing workplace. Career preparation is relevant and rigorous, supports student attainment of academic standards, and effectively prepares students for college and career success.