

JARRELL HIGH SCHOOL

Course Selection Guide 2020-2021



This course catalog will also be available on the JHS website
that can be accessed from: www.jhs.jarrellisd.org

This course selection guide provides a description and the prerequisites for each course offered at Jarrell High School. We use the student pre-registration process as a guide to determine what courses will be offered during the next school year. Courses that are not requested by enough students may not make it into the JHS schedule. Staff hiring is based, in part, on the demands made for courses.

When selecting courses, students should plan their goals beyond the next year to include courses to meet high school graduation requirements and college/career entrance. Teachers and counselors are important sources of information for both students and parents. Please use the personalized graduation check sheet to complete your choice sheet. All highlighted courses MUST be signed up for on the choice sheet.

Dear Parents:

Thank you for taking time to assist your student in the selection of his/her courses at Jarrell High School. It is our sincere desire to place every student in a course of study that meets his/her needs now, and in the future. Our goal is to help your student plan a sequence of courses for each year that he/she has remaining in high school. These plans can be adjusted, but they serve as a guide to ensure that your student has planned for the necessary prerequisites.

We have high expectations for our students and encourage them to accept the challenge of a rigorous course of study. After these preliminary selections, the counselor will review the courses selected to determine any changes that need to be made. After the courses have been entered into the computer, a printout will be given to your student. Any adjustments to these tentative schedules will be considered, but not guaranteed. Changes will be made only for unusual circumstances, such as repeating a course, replacements for courses completed in summer school, or alternatives for courses that could not be offered.

If you have any questions or need any assistance, please contact your student's counselor, teacher, or administrator. We welcome your input and support in providing the most successful program for each student.

Jarrell High School Administrative Staff

Jarrell Independent School District is an equal opportunity institution and as such does not discriminate on the basis of sex, age, handicap, race, color, national origin, and limited English speaking students in its educational program, activities, or employment as required by Title 9, Section 504 and Title 6.

INTRODUCTION

Planning a four-year high school program is a serious undertaking. Although many of your courses will be determined by the graduation plan you select, you will still have many other choices to make during your years of school. The courses you select will be guided largely by your plans for the future. Will you continue your education in college, in a trade or technical school? Do you want to learn a career skill in order to enter the full-time work force immediately after school? Are you interested in a technical field? Are you thinking of entering a profession that requires many years of specialized education?

The answers to these questions are extremely important for making decisions about your course selections for all four years in high school. Your interests and abilities should also guide these answers. Some students are sure of their future plans, while others are still deciding. It is also common for young people to change their minds about their intended career path. **For this reason, it is important for you to plan as challenging a program as possible. If your career plans should change, then it will not be as difficult to move into another program.** While it may sometimes seem tempting to schedule a less demanding combination of courses, choosing courses that meet your needs or interests is the best way to prepare for your future.

JISD offers you many ways to prepare for a productive adult life. Through this process JISD goal is to increase the likelihood that you will realize your future goals. The district's high schools and career centers provide a wide range of programs that prepare students for post-high school experiences: college, business school, technical school, military service, fine arts participation, full-time employment, and other areas. The programs offered allow a student to choose the high school program best for him/her, whether that program is the traditional college preparatory, tech-prep, or career preparatory program. Outlined on the following pages are the graduation requirements for each of the state's possible graduation programs.

Immediately following the presentation of possible graduation plans are descriptions of all courses offered, with accompanying information about prerequisites and grade level placement. We strongly urge you to give the attention to planning for high school that it deserves.

By planning wisely, you can create the future that is most appropriate for you.

GENERAL INFORMATION

- Grade reports are monitored on a three-week basis through progress reports, and report cards are distributed at the end of each nine weeks.
- UIL eligibility follows a separate schedule apart from nine weeks and semester grading cycles. It is not included in this guide but can be found at <http://www.uil texas.org/>
- Course **“Recommendations”** are listed to help ensure a greater measure of success for the student and should therefore be completed. A student may, however, enroll in a class without taking suggested course recommendations with prior teacher approval.
- Course **“Prerequisites”** **MUST** be successfully completed before a student is allowed to enroll in a course.
- Credit for courses may be received through credit by exam. For courses without prior instruction, a mastery level of 80% is required for credit. For courses where the required amount of prior instruction has been certified, a mastery level of 70% is required for credit to be awarded. A schedule for testing dates can be obtained from the campus counselor.
- State law/board policy supersedes information in this book.
- Students may graduate early by completing all graduation requirements. The desire to graduate early will not subject the student to special consideration in scheduling.
- A student’s graduation plan is determined by the year that the student enters the 9th grade unless law mandates a change.
- It is the parent’s responsibility to ensure compliance with the requirements for the NCAA Eligibility <http://www.ncaa.org/student-athletes/future/eligibility-center> and NAIA Eligibility <http://www.playnaia.org/page/login/psaRegister.php> for college athletics.

JISD GRADUATION PLAN OVERVIEW

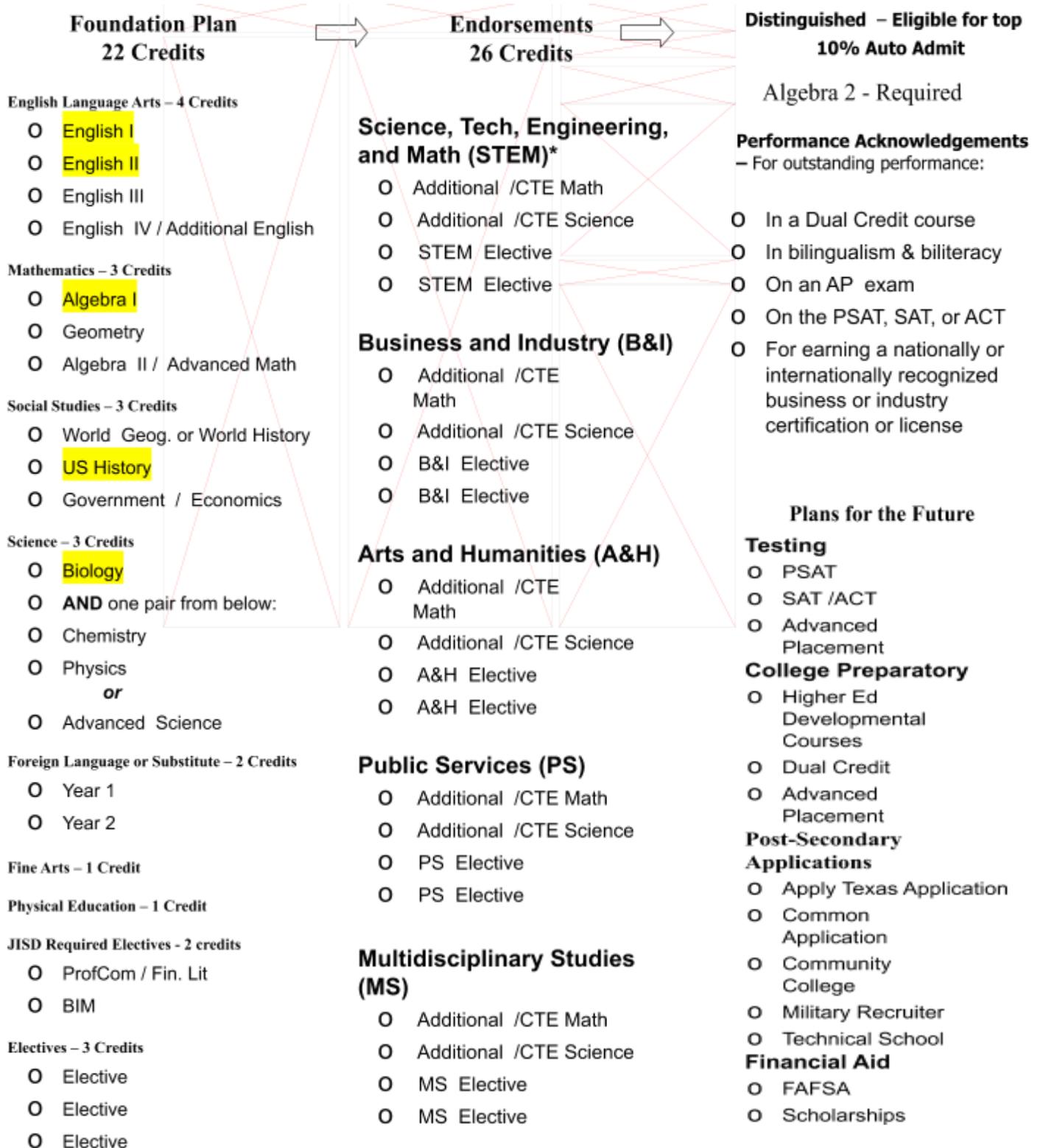
House Bill 5 (HB 5), passed by the 83rd Texas Legislature and signed by the governor, provides for a new set of graduation plans for Texas students. These graduation plans consist of a foundation plan for every Texas student and five endorsements from which students may choose, depending on their interests. When selected, students will complete each of these endorsements with the required Mathematics, Science, English Language Arts, and Social Studies credits. Students are also required to complete two foreign language credits, which may be substituted with two credits in computer programming language.

Students entering 9th Grade must choose from one of the following endorsements:

- **STEM**
 - Includes courses directly related to: science, including environmental science, technology, computer science, engineering, robotics, math, and health sciences.
- **Business and Industry**
 - Includes courses directly related to: database management, information technology, communications, accounting, finance, marketing, graphic design, architecture, construction, welding, logistics, automotive technology, agricultural science, computer programming, and HVAC.
- **Arts and Humanities**
 - Includes courses directly related to: political science, world languages, cultural studies, English literature, history, and fine arts.
- **Public Services**
 - Includes courses directly related to: education and training, law enforcement, culinary arts, and hospitality.
- **Multidisciplinary Studies**
 - Allows a student to select courses from the curriculum of each endorsement area and earn credits in a variety of advanced courses from multiple content areas sufficient to complete the distinguished level of achievement.

Students may change their endorsement plan at any time prior to graduation. However, the later the change, the more challenging it will be to complete required or prerequisite endorsement classes.

To qualify for “automatic admission” to Texas public universities as part of the top ten percent of their graduating class, students must complete the Distinguished component, successfully completing Algebra II.



Testing

Students are now required to pass five State of Texas Assessments of Academic Readiness (STAAR®) end-of-course exams to meet the new graduation requirements: Algebra I, Biology, US History, English I and English II.

EOC Course

A student's score on the STAAR EOC does not impact the final course grade, nor does it impact the grade point average.

*Algebra 2 is required for STEM and Distinguished.

FHSP ENDORSEMENTS

Students may earn an endorsement in the following areas: Arts & Humanities; Business & Industry; Multidisciplinary; Public Service; and Science, Technology, Engineering & Math. Each of the U. S. Department of Education's Career Clusters System is further categorized under these five endorsements (See pages 34). JISD offers courses in 11 of the 16 career clusters. For a complete list of JISD courses in each cluster, please see pages 34-45. Most endorsements offer either a Career and Technical Education (CTE) Pathway and a Non-CTE Pathway.

A student may earn an endorsement by successfully completing:

- Curriculum requirements for the endorsement (To Be Determined by State Board Of Education).
- Four credits in mathematics
- Four credits in science
- Two additional elective credits

Students should select courses leading towards an endorsement based on areas or interest, student strengths, or possible career paths.

BENEFITS OF GRADUATING WITH AN ENDORSEMENT

The Texas Education Agency, in consultation with the Texas Workforce Commission (TWC) and the Texas Higher Education Coordinating Board (THECB), must prepare and make available to each school district in English and Spanish information that explains the advantages of the distinguished level of achievement and each endorsement.

The information must contain an explanation:

- Concerning the benefits of choosing a high school personal graduation plan that includes the distinguished level of achievement under the foundation high school program and includes one or more endorsements to enable the student to achieve a class rank in the top 10 percent for students at the campus; and
- That encourages parents, to the greatest extent practicable, to have the student choose a high school personal graduation plan.

FHSP PERFORMANCE ACKNOWLEDGEMENTS

Students may earn a performance acknowledgement on the student's diploma and transcript by Outstanding Performance in the following areas:

- In a dual credit course - At least 12 dual credit hours as part of Texas core curriculum or advanced technical credit with a grade of 3.0 or higher on 4.0 scale
- In bilingualism and biliteracy
- On an AP test or IB exam Score of 3 or above on AP exam; or Score of 4 or above on IB exam

On the PSAT, the ACT-Plan, the SAT, or the ACT o PSAT commended scholar, National Hispanic Scholar, National Achievement Scholar;

- ACT PLAN college readiness in 2 of 4 subject tests
- SAT combined Critical Reading and Math of at least 1250
- ACT composite of 28
- Earning a nationally or internationally recognized business or industry certification or licensure Examination performance to obtain national or international business or industry certification; or
- Examination performance to obtain a government-required credential to practice a profession.

FHSP DISTINGUISHED LEVEL OF ACHIEVEMENT

The Distinguished Level of Achievement replaces the current Distinguished Achievement Plan as the highest graduation plan in the state of Texas for students entering high school in 2014-2015 and beyond.

In order to be considered for Top Ten Percent Automatic Admission in Texas Public Universities, graduates MUST earn a Distinguished Level of Achievement diploma.

A student may earn a Distinguished Level of Achievement by successfully completing:

- The curriculum requirements for Foundation High School Program
- The curriculum requirements for one or more Endorsements
- Additional coursework to include:
 - Four credits in mathematics, which must include Algebra II
 - Four credits in approved science courses (TBD by SBOE)
 - Two additional elective credits

PARENT'S GUIDE TO A TYPICAL FOUR-YEAR PLAN

<p style="text-align: center;">FRESHMAN YEAR</p> <ol style="list-style-type: none"> 1. English 1 Level or PAP 2. Algebra 1 or PAP Geometry 3. World Geography Level or PAP 4. Biology Level or PAP 5. Business Info Mgmt. / Print IT 6. PE/Athletics/ Band 7. Foreign Language 8. Elective (CTE Principles Course) <p style="text-align: center;">SOPHOMORE YEAR</p> <ol style="list-style-type: none"> 1. English 2 Level or PAP 2. Geometry Level or PAP or PAP Algebra 2 3. World History Level or PAP 4. Chemistry Level or PAP 5. Foreign Language 6. Fine Art 7. Elective/Athletics 8. Prof Comm & Financial Literacy 	<p style="text-align: center;">JUNIOR YEAR</p> <ol style="list-style-type: none"> 1. English 3 Level or Dual Credit 2. Algebra 2 Level or PAP or Pre-Cal PAP or College Algebra DC, or Math Models 3. US History Level Dual Credit 4. Prin Tech, PAP Physics or additional science 5. Foreign Language 6. Elective 7. Elective 8. Elective <p style="text-align: center;">SENIOR YEAR</p> <ol style="list-style-type: none"> 1. English 4 (Level or Dual Credit) 2. Pre-Cal PAP or AP Calculus, or Math Models 3. Government/Economics (Level or DC) 4. 4th year Science Elective 5. Elective 6. Elective 8. Elective
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PAP = Pre-Advanced Placement; AP = Advanced Placement; DC = Dual Credit

4-Year Plan Worksheet

Freshman Year	Junior Year
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.
Sophomore Year	Senior Year
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.

ACADEMIC ACHIEVEMENT CLASS RANKING

CALCULATION

The District shall include in the calculation of class rank semester grades earned in high school credit courses taken in grades 9 – 12 in the following subjects only: English, mathematics, science, social studies, and languages other than English. The District shall use the grades from no more than five courses in each subject area. If a student takes more than five courses in a subject area, the five highest grades shall be used in the calculation of class rank.

The calculation shall include failing grades.

EXCLUSIONS

The calculation of class rank shall exclude grades earned in credit recovery and summer school or distance learning, unless the grade is earned in a course taken through the Texas Virtual School Network (TXVSN); or through credit by examination, with or without prior instruction.

WEIGHTED GRADE SYSTEM

The District shall categorize and weight eligible courses as Tier 1, Tier 2, and Tier 3 in accordance with provision of this policy and as designated in appropriate District publications.

CATEGORIES

TIER 1

Eligible Advanced Placement (AP), Pre-AP, Engineer Your World (when and if UT credit is completed and successfully approved by UT), and Dual Credit courses shall be categorized and weighted as Tier 1 courses.

TIER 2

Eligible courses not designated as Tier 1 or Tier 3 courses, including general education courses, shall be categorized and weighted as Tier 2 courses.

TIER 3

Eligible courses designated as modified TEKS courses shall be categorized and weighted as Tier 3 courses.

WEIGHTED GRADE POINT AVERAGE (GPA)

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

Grade	Tier 1	Tier 2	Tier 3
100	5.0	4.0	3.0
99	4.9	3.9	2.9
98	4.8	3.8	2.8
97	4.7	3.7	2.7
96	4.6	3.6	2.6
95	4.5	3.5	2.5
94	4.4	3.4	2.4
93	4.3	3.3	2.3
92	4.2	3.2	2.2
91	4.1	3.1	2.1
90	4.0	3.0	2.0
89	3.9	2.9	1.9
88	3.8	2.8	1.8
87	3.7	2.7	1.7
86	3.6	2.6	1.6
85	3.5	2.5	1.5
84	3.4	2.4	1.4
83	3.3	2.3	1.3
82	3.2	2.2	1.2
81	3.1	2.1	1.1
80	3.0	2.0	1.0
79	2.9	1.9	0.9
78	2.8	1.8	0.8
77	2.7	1.7	0.7
76	2.6	1.6	0.6
75	2.5	1.5	0.5
74	2.4	1.4	0.4
73	2.3	1.3	0.3
72	2.2	1.2	0.2

71	2.1	1.1	0.1
70	2.0	1.0	0.05

CLASS RANKING

The entire, detailed policy concerning class ranking, valedictorian and salutatorian, breaking ties, and highest ranking graduate can be found on the Jarrell ISD website under Board Policy. [See EIC (LEGAL) ACADEMIC ACHIEVEMENT & ACADEMIC ACHIEVEMENT CLASS RANK].

TRANSFERRED GRADES

When a student transfers semester grades for courses that would receive additional weight under the District’s weighted grade system, the District shall assign additional weight to the grades based on the categories and grade weight system used by the District.

LOCAL-GRADUATION HONORS

For the purpose of determining honors to be conferred during graduation activities, the District shall calculate class rank at the end of the third nine-week grading period of the senior year. The third nine-week grades shall be used as the semester grade for this purpose. Dual Credit grades available at the time of calculation shall also be used.

For the purpose of applications to institutions of higher education, the District shall also calculate class ranking 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 ranking for the purpose of automatic admission under state law [See EIC (LEGAL) ACADEMIC ACHIEVEMENT].

AUTOMATIC COLLEGE ADMISSION

Information can be found at:

https://tea.texas.gov/Academics/Graduation_Information/Automatic_College_Admission/

STUDENT CLASSIFICATION

Freshman (9th grade) below 6 credits

Junior (11th grade) 13.5 credits

Sophomore (10th grade) 6 credits

Senior (12th grade) 20 credits

Students will be reclassified at the end of each term (January & June) if warranted due to graduation status or state testing requirements.

ADVANCED ACADEMICS

Dual Credit Program

JISD offers the opportunity to earn dual credit, i.e., credit toward high school and college simultaneously. Students are responsible for financial requirements for textbooks. With the exception of Technical Preparation Career and Technical Education dual credit courses, students’ applications for dual credit must be submitted prior to the established deadlines set by JHS,

ACC, and UTPB. **At this time there is no fee for ACC Dual Credit Courses, however that is subject to change.** If you are interested in learning more about dual credit, contact your school counselor.

To take a dual credit course, the following criteria must be met.

1. Students are eligible for dual credit who also meet college entrance requirements.
2. Courses will be limited to those that are applicable to high school graduation requirements and/or pre-approved for dual credit.
3. Participants must attend classes at the high school campus for the JHS Block Program.
4. The grade earned at the college level will be recorded on the student high school transcript.
5. Credit will be awarded per semester of any approved college course.
6. Meet all deadlines and requirements established by the college.

STUDENTS MUST EARN A GRADE OF 70 OR HIGHER IN THE DUAL CREDIT COURSES IN ORDER TO EARN HIGH SCHOOL CREDIT.

ADVANCED PLACEMENT PROGRAM

The Texas Education Agency (TEA), in conjunction with The College Board, is encouraging the incorporation of Advanced Placement strategies into high school courses. Jarrell ISD, in order to prepare students for the Advanced Placement testing opportunity, has expanded the Advanced Placement strand throughout the curriculum. These courses will be designated “Pre-Advanced Placement” or “Advanced Placement.”

These courses are designed to enhance learning and level of challenge. Pre-Advanced Placement and Advanced Placement courses provide a rigorous curriculum; furthermore, universities across the country recognize the quality inherent in Advanced Placement designated courses.

Advanced Placement Courses for College Credit. A university based upon Advanced Placement examination scores may grant college credit; therefore, all students enrolled in an Advanced Placement course are encouraged to take the Advanced Placement exam for that course. Consequently, students will have more opportunities to earn college credit. There is a fee for each exam. Information on fee reductions and exam subsidies, based on financial need, are available through the high school testing coordinator.

NOTE: Pre-Advanced Placement courses prepare the student for the challenge of the Advanced Placement or Dual Credit courses. Pre-Advanced Placement courses do not include examinations for college credit.

GIFTED / TALENTED SERVICES

Secondary services for gifted and talented occur via a variety of course offerings. Teachers who serve Gifted/Talented (GT) students participate in professional learning opportunities specifically designed to meet the unique educational needs of the gifted.

Course Description and Information

English 15

Math..... 18

Science..... 21

Social Studies..... 23

Physical Education/Health..... 25

Foreign Language/Language Other than English 26

Fine Arts..... 28

Communication..... 30

Sports Medicine..... 30

Local Credit..... 31

Career & Technical Education..... 31

CORE COURSE LISTING

ENGLISH – LANGUAGE ARTS

<u>COURSE</u>		<u>GRADE</u>	<u>CREDIT</u>	<u>PREREQUISITE</u>
110R	English 1	9	1	None
110P	PAP English 1	9	1	None
120R	English 2	10	1	Eng I
120P	PAP English 2	10	1	Eng I
130R	English 3	11	1	Eng II
13DA/13DB	Dual Credit English 3	11	1	Eng II & DC Approval
140R	English 4	12	1	Eng III
14DA	Dual Credit English 4	12	1	Eng III & DC Approval
1504	College Prep English	12	1	Admin Assigned
1501,1502,1503	Reading 1-3	9-12	1	Admin Assigned
11SR	English 1 SOL	9	1	Admin Assigned
12 SR	English 2 SOL	10	1	Admin Assigned

English I

110R

Level: Regular Tier 2

Unit Credit: 1

Prerequisite: None

Identification and use of proper grammatical mechanics for written communication are emphasized. Students will read and analyze for historical significance.

English 1 Pre-Advanced Placement

110P

Level: PAP Tier 1

Unit Credit: 1

Prerequisite: None

Identification and use of proper grammatical mechanics for written communication are emphasized. Students will read and analyze for literary merit, and for historical significance. PAP students will study grammar and demonstrate composition effectiveness through writing. *There will be a summer assignment for this course.*

English 2

120R

Level: Regular Tier 2

Unit Credit 1

Prerequisite: English 1

Preparation for taking PSAT, improvement in communication skills by increasing vocabulary proficiency and by generating multiple-paragraph compositions. Students will read and critically evaluate for increased understanding and appreciation of various literary genres.

English 2 Pre-Advanced Placement

120P

Level: PAP Tier 1

Unit Credit: 1

Prerequisite: Eng. 1

Preparation for taking PSAT, improvement in communication skills by increasing vocabulary proficiency and by generating multiple-paragraph compositions. Students will read and critically evaluate for increased

understanding and appreciation of various literary genres. PAP students will gain expertise in the critical evaluation. *There will be a summer assignment for this course.*

English 3

130R

Level: Regular Tier 2

Unit Credit: 1

Prerequisite: English 2

Incorporate research information with documentation within various forms of writing. A survey of American Literature will stress works in connection with historical context.

Dual Credit English 3

13DA/13DB

Level: DC Tier 1

Unit Credit: 1

Prerequisite: English 2; DC Approval

Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Students develop research-based expository and persuasive texts. Emphasis on effective rhetorical choices and ethical inquiry, including audience, purpose, arrangement, and style, and utilizing 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. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis. **Students/Parents/Guardians are responsible for textbook costs. This course is equivalent to college level English 1301/ 1302 English Composition I & II.**

English 4

140R

Level: Regular Tier 2

Unit Credit: 1

Prerequisite: English 3

World Literature students generate informative and persuasive compositions, study the origins and development of the English language, and analyze major works in British literature.

English 4 Dual Credit

14DA

Level: DC Tier 1

Unit Credit: 1

Prerequisite: English 3; DC Approval

Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Students develop research-based expository and persuasive texts. Emphasis on effective rhetorical choices and ethical inquiry, including audience, purpose, arrangement, and style, and utilizing 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. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis. **Students/Parents/Guardians are responsible for textbook costs. This course is equivalent to college level English 2322 British Literature. Must be paired with DC Psychology.**

College Prep English

1504

Unit Credit: 1

Prerequisite: Teacher Placement

This is a college preparatory course designed to extend the understanding of English Language Arts concepts. The necessary components of grammar, persuasion, and argumentation needed for success in college are reviewed. Application of abstract and analytical thinking skills, advanced vocabulary, and writing skills are stressed. This is

a new fourth year course focused on those English Language Arts (ELA) skills necessary to pass the ELA placement tests at colleges, technical schools, and area community colleges. Any student scoring below 50 on the PSAT Critical Reading component is eligible for this course.

Reading I-III

1501, 1502,1503

Unit Credit: 1

Prerequisite: Admin Assigned

Reading Improvement is based on best practices for teaching reading to secondary level students, this reading course is modified to complement the learning requirement of students whose difficulty in reading significantly impacts their acquisition of knowledge and skills. Students may read orally and/or silently to develop accuracy, fluency, and adequate reading rate to build comprehension skills. Students receive instruction in word recognition, comprehension strategies, vocabulary, and are given opportunities to read with competence and confidence. Some variation in course content/emphasis may occur on campus depending on the content may occur depending on the individual learning needs of the students.

English I SOL

11SR

Unit Credit: 1

Prerequisite: Admin Assigned

This course develops an understanding of English and provides explicit instruction for developing English Language acquisition skills. Students engage in numerous language and culture activities that build on their prior knowledge and skills in order to strengthen their listening, speaking, reading, and writing skills.

Note: English for Speakers of other Languages (ESOL) I may be substituted for English I.

English II SOL

12 SR

Unit Credit: 1

Prerequisite: Admin Assigned

This course develops an increased understanding of English and provides explicit instruction for developing English Language acquisition skills. Students engage in numerous activities that build on their prior knowledge and skills in order to strengthen their listening, speaking, reading and writing skills.

Note: English for Speakers of other Languages (ESOL) II may be substituted for English II.

MATHEMATICS

COURSE		GRADE	CREDIT	PREREQUISITE
210R	Algebra 1	8-9	1	None

210P	PAP Algebra I	8-9	1	Teacher Approval
220R	Geometry	9-10	1	Algebra I
220P	PAP Geometry	9-10	1	Alg I
2501	Math Models with Applications	10-12	1	Algebra & Geometry
230R	Algebra 2	10-12	1	Geometry
230P	PAP Algebra 2	10-12	1	Geometry
240R	Pre-Calculus	11-12	1	Algebra 2
241P	PAP Pre- Calculus	11 -12	1	Algebra 2
24AP	AP Calculus AB	12	1	Pre-Calculus
5324	Statistics and Business Decision Making	11-12	1	Alg 2
2502	College Prep Math	12	1	Admin Assigned
25CT	EOC Algebra	9-12	1	Admin Assigned

Algebra 1

210R

Level: Regular Tier 2

Unit Credit: 1

Prerequisite: None

Course focuses on the study of functions. Students investigate the relationship between equations and functions. Functions are used to model problems and to analyze and interpret relationships. calculator.

PAP Algebra I

210P

Level: PAP Tier 1

Unit Credit: 1

Prerequisite: Teacher approval

In Algebra I Pre-AP, students use symbols in a variety of ways to study relationships among quantities. Students use functions to represent and model problem situations and to analyze and interpret relationships. Equations arise as a way of asking and answering questions involving functional relationships. Students work in many situations to set up equations and use a variety of methods to solve these equations.. Students use a variety of representations (concrete, numerical, algorithmic, graphical), tools, and technology (including but not limited to handheld calculators with graphing capabilities), and model mathematical situations to solve meaningful problems.

Geometry

220R

Level: Regular Tier 2

Unit Credit: 1

Prerequisite: Algebra 1

Geometry provides experiences that help students develop understanding of shapes and their properties. The topics covered include: lines, segments, and angles; triangles; other polygons; circles; solid geometry; and measurement.

PAP Geometry

220P

Level: PAP Tier 1

Unit Credit: 1

Prerequisite: Algebra 1

Geometry provides experiences that help students develop understanding of shapes and their properties. The topics covered include: lines, segments, and angles; triangles; other polygons; circles; solid geometry; and measurement. This honors course involves extended thinking skills and applications including required projects.

Mathematical Models with Applications

2501

Level: Regular Tier 2

Unit Credit: 1

Prerequisite: Algebra I, Geometry

Students use algebraic, graphical, and geometric reasoning to recognize patterns and structure, to model information, and solve real-life applied problems.

Algebra 2

230R

Level: Regular Tier 2

Unit Credit: 1

Prerequisite: Geometry

This course continues and enhances Algebra I. It is an important transition course for preparation for higher-level mathematics. The course emphasis is on problem solving. This course involves extended thinking skills and applications including projects and/or a research paper.

PAP Algebra 2

230P

Level: PAP Tier 1

Unit Credit: 1

Prerequisite: Geometry

This course continues and enhances Algebra I. It is an important transition course for preparation for higher-level mathematics. The course emphasis is on problem solving. This honors course involves extended thinking skills and applications including projects and/or a research paper.

Pre-Calculus

240R

Level: Regular Tier 2

Unit Credit: 1

Prerequisite: Algebra II

This course is designed to cover topics in Algebra ranging from polynomial, rational, and exponential functions to conic sections. Trigonometry concepts such as Law of Sines and Cosines will be introduced. Students will then begin analytic geometry and calculus concepts such as limits, derivatives, and integrals. This class is important for any student planning to take a college algebra or college pre-calculus class.

PAP Pre-Calculus

241P

Level: PAP Tier 1

Unit Credit: 1

Prerequisite: Algebra II

Recommendation by previous math teacher if in Algebra II. This course continues the study of function models from Algebra II, adding an in-depth study of trigonometric, exponential, logarithmic, rational, and piecewise functions. Students will explore the graphs of these functions graphically, algebraically, and numerically. A study of vectors, conic sections, parametric, and sequences and series are included as well as modeling real life physical situations. **STRONGLY RECOMMENDED:** Ownership of a TI-83 or TI-84 calculator for out of class assignments. There will be a summer assignment for this course.

AP Calculus AB

24AP

Level: AP Tier 1

Unit Credit: 1

Prerequisite: Pre-Calculus

This course is designed to provide the student with a basic knowledge of limits of sequences and functions, derivatives, & integrals. ***A graphic calculator is required.*** The application of calculus to problems in physics and other fields will be explored. There is a summer assignment for this course.

SCIENCE

COURSE		GRADE	CREDIT	PREREQUISITE
310R	Biology	9	1	None
310P	PAP Biology	9	1	None
31AP	AP Biology	11-12	1	Biology, Chemistry & AP Approval
320R	Chemistry	10-12	1	Biology and Alg. 1
320P	PAP Chemistry	10-12	1	Biology and Alg. II
330T	Prin Tech	11-12	1	2 Science Credits & Geometry
330P	PAP Physics	11-12	1	2 Science Credits & Geometry
34CT	Anatomy and Physiology	11-12	1	Chemistry
3401	Aquatic Science	11-12	1	2 Science Courses and Algebra 2 (or concurrent)
3403	Engineer Your World	11-12	1	2 Science Courses and Algebra 2 (or concurrent)

Biology

310R

Level: Regular Tier 2

Unit Credit: 1

Prerequisite: None

The first part of this course concentrates on the structure, organization, and development of cell organelles, cell chemistry, cellular energy requirements, DNA, and the organization of cells into simple organisms. Later in the year a survey is made of the vast variety of plants and animal organisms. A study is made of plant and animal organization, their functions, and how they fit into their niche. There is considerable laboratory work including the dissection of representative organisms as well as reports, lectures, discussions and projects.

PAP Biology

310P

Level: PAP Tier 1

Unit Credit: 1

Prerequisite: None

The first semester will include an in-depth study of cell structure, function, organization, chemistry, energy requirements, growth and reproduction. The second semester study includes the structure and function of microorganisms, and multicellular plants. Reports, lectures, projects, text assignments, discussions, and laboratory work, including dissections, are integral parts of the course. There will be a summer assignment for this course.

AP Biology

31AP

Offered Odd Years (20-21)

Level: AP Tier 1

Unit Credit: 1

Prerequisite: Bio & Chem & AP Approval

AP Biology is the equivalent to a two-semester college introductory biology course. The course covers the diversity and unity of life, cellular process, genetics and information transfer, and biological systems interactions. Focuses on advanced inquiry and reasoning skills, such as designing a plan for collecting data, analyzing data, applying mathematical routines and connecting concepts within the course and across other science disciplines. There will be a summer assignment for this course.

Chemistry

320R

Level: Regular Tier 2

Unit Credit: 1

Prerequisite: Bio & Alg 1

In Chemistry, students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students study a variety of topics that include characteristics of matter, use of the Periodic Table, development of atomic theory and chemical bonding, chemical stoichiometry, gas laws, solution chemistry, thermochemistry, and nuclear chemistry. Students will investigate how chemistry is an integral part of our daily lives.

PAP Chemistry**320P***Level: PAP Tier 1**Unit Credit: 1**Prerequisite: Bio & Alg 2, or concurrent*

This course is highly recommended as a prerequisite for those students who plan on taking Advanced Placement Chemistry and the AP exam as Juniors or Seniors. It includes a more in-depth study of certain selected topics to prepare students for Advanced Placement Chemistry. Examples of topics that are more in-depth include quantum mechanics, predicting products, limiting reagents and reaction mechanisms. Students will be expected to have fundamental knowledge in science that includes scientific method, scientific notation, differences in physical and chemical properties and classification of matter. This course requires a strong mathematical background.

Principles of Tech**330T***Level: Regular Tier 2**Unit Credit: 1**Prerequisite: 2 Science Credits & Geometry*

Students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students will study a variety of topics, apply physics concepts and perform laboratory experiments. **This course is equivalent to Physics credit.**

PAP Physics**330P***Level: Regular Tier 1**Unit Credit: 1**Prerequisite: 2 Science credits & Geometry*

This course includes the study of mechanics, thermodynamics, electricity and magnetism, light, sound, waves, and modern physics. It includes multiple step problems solving and graph analysis. This course concentrates on college-level skills. Students are expected to be highly motivated to work during and after class hours.

Anatomy & Physiology of Human Systems 34CT*Level: Regular Tier 2**Unit Credit: 1**Prerequisite: Chemistry*

This class will emphasize structure and function of human body systems, comparative anatomy of humans, and environmental effects on body systems.

Aquatic Science**3401***Level: Regular Tier 2**Unit Credit: 1**Prerequisite: 2 Science Courses & Algebra 2*

This class studies the interactions of biotic and abiotic components in aquatic environments, including impacts on aquatic systems. Investigations and fieldwork in this course may emphasize freshwater or marine aspects of aquatic science depending primarily upon the natural resources available for study near the school.

Engineer Your World**3403***Level: Regular Tier 1 or 2 (1 only if ALL documentation is submitted and approved by UT for college credit)**Unit Credit: 1**Prerequisite: 2 Science Courses & Algebra 2*

Engineer Your World engages students in authentic engineering practices in a project-based environment. Students complete a series of socially relevant design challenges to develop engineering design skills and habits of mind. Students in Engineer Your World develop and practice the engineering skills and habits of mind that are central to the engineering profession and that distinguish it from other scientific and technical fields.

<http://engineeryourworld.org/>

SOCIAL STUDIES

COURSE	GRADE	CREDIT	PREREQUISITE	
410R	World Geography	9	1	None
410P	Pre-AP World Geography	9-12	1	None
420R	World History	10	1	None
42AP	AP World History	10	1	Teacher Approval
430R	U.S. History	11	1	World History or W. Geo.
43DA/43DB	Dual Credit U.S. History	11	1	World History or W. Geo. & DC Approval
4400	U.S. Government	12	½	U.S. History
44DA/44DB	Dual Credit U.S. Government	12	1	U.S. History & DC Approval
4401	Economics	12	½	U.S. History
45DB	DC Psychology	12	½	DC Approval

World Geography

410R

Level: Regular Tier 2

Unit Credit: 1

Prerequisite: None

Geography is a field of study in which the characteristics of particular places on the earth's surface are examined. It is concerned with the arrangement of things and with the associations that distinguish one area from another. The study is divided into three distinct parts: (1) Earth's topography; (2) Cultural regions of the world; and (3) Man and his habitat. The course will require map study, outside research, and unit tests.

PAP World Geography

410P

Level: PAP Tier 1

Unit Credit: 1

Prerequisite: PAP Qualification

The purpose of the Pre-AP course in World Geography is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students will *analyze* human social organization and environmental consequences. They will also learn about the methods and tools geographers use in their science and practice. A significant outcome of the course is students' awareness of the relevance of geography to everyday life. Emphasis will be placed on the use of research, problem-solving skills, and decision-making skills to ask and answer geographic questions. **Strong** reading and writing skills are essential for success in this course. There will be summer assignments for this course.

World History

420R

Level: Regular Tier 2

Unit Credit: 1

Prerequisite: None

World History Studies focuses on the development of human society from prehistoric to modern times. Emphasis is placed on major events, world leaders, economic and political institutions, technological innovations, and the philosophical and religious beliefs that have shaped the modern world. The course employs an interdisciplinary approach to deepen students' understanding of the world's people, today and in the past.

AP World History

42AP

Level: AP Tier 1

Unit Credit: 1

Prerequisite: Teacher recommendation

World History Advanced Placement requires students to develop mastery over the assigned content while developing the ability to practice the skills of a historian. Students will learn to develop their critical thinking skills by analyzing and interpreting both primary documents and writings by respected historians. The course highlights the nature of changes in international frameworks and their causes and consequences, as well as comparisons among major societies. The focus is on the last 1000 years of the global experience. Upon

completion of the course, students have the opportunity to take the AP exam to receive up to six hours of college credit. This course may be used to substitute for World History.

United States History 430R

Level: Regular Tier 2 Unit Credit: 1 Prerequisite: World History or World Geography

This course focuses on U.S. history from Reconstruction to the present. Students analyze major themes and events in U.S. history, leaders, economic and political institutions, technological innovations, and the philosophies that affect the United States today. The course uses an interdisciplinary approach to deepen students' understanding of the people and issues that have shaped the United States today.

Dual Credit United States History 43DA/43DB

Level: DC Tier 1 Unit Credit: 1 Prerequisite: W. Hist. or W. Geo., DC Approval

A college-level class that covers the history of the United States from discovery until the present.

Students/Parents/Guardians are responsible for textbook costs. This course is equivalent to college level History 1301/ 1302.

United States Government 4400

Level: Regular Tier 2 Unit Credit: ½ Prerequisite: U. S. History

Government focuses on structures of power and authority in American society. Students study the U.S. Constitution; the roles and responsibilities of the state and national governments; the influence of political parties and other participants in the political system; and the rights and responsibilities of citizens. Through discussions of current issues, students examine the impact of government policies on the lives of U.S. citizens.

Dual Credit United States Government 44DA/ 44DB

Level: DC Tier 1 Unit Credit: 1 Prerequisite: U. S. History, DC Approval

This full year honors program allows students to receive 6 semester hours of college level Political Science Credit. **Students/Parents/Guardians are responsible for textbook costs. This course is equivalent to college level Government 2301 and 2302.**

Both semesters must be taken to earn 1 credit in Government.

Economics 4401

Level: Regular Tier 2 Unit Credit: ½ Prerequisite: U.S. History

Economics/Free Enterprise focuses on the production, distribution, and consumption of goods and services in the U.S. The course emphasizes fundamental principles of market economics, and students learn how markets and prices allocate scarce resources. Students study consumer behavior, the roles of business and government in the economy, the banking system, international trade, and other topics. Through discussions of current economic issues, students deepen their understanding of the U.S. economy.

Dual Credit Psychology 45DB

Level: DC Tier 1 Unit Credit: ½ Prerequisite: DC Approval

This course is for seniors taking English 4 dual credit in the fall semester. This college level course taught by an ACC professor will explore introductory topics such as learning, memory, sensation and perception, personality, life-span development, physiological basis of behavior, stress and health, psychological disorders, social psychology, and research methods. Additional topics such as language development, states of consciousness, and psychotherapy may also be included as determined by the instructor. **Students/Parents/Guardians are responsible for textbook costs. This course is equivalent to college level Psychology 2301.**

HEALTH / PHYSICAL EDUCATION

NOTE: The total possible number of PE related credits a student can earn is 4. The maximum number of athletic-related courses that can count for graduation is 4 credits.

COURSE	GRADE	CREDIT	PREREQUISITE	
611B	9th Grade Boys Athletics	9	1	Coach Approval
6111	Boys Athletics 1	9 - 12	1	Coach Approval
611F	Football 9	9	1	Coach Approval
6112	Boys Athletics 2	10 - 12	1	Coach Approval
612F	Football 10	10	1	Coach Approval
6113	Boys Athletics 3	11 - 12	1	Coach Approval
613F	Football 11	11	1	Coach Approval
6114	Boys Athletics 4	12	1	Coach Approval
614F	Football 12	12	1	Coach Approval
612G	9th Grade Girls Athletics	9	1	Coach Approval
6121	Girls Athletics 1	9 - 12	1	Coach Approval
6122	Girls Athletics 2	10 - 12	1	Coach Approval
6123	Girls Athletics 3	11 - 12	1	Coach Approval
6124	Girls Athletics 4	12	1	Coach Approval
6101	PE I	9-12	1	None
6102	PE II	10-12	1	PE I

9th Grade Boys Athletics 611 B

Unit credit: 1

Students may be enrolled in only one section during the regular school day for practice of inter- school competitive athletics. Students enrolled in athletics will be required to have a physical exam for each year they are in athletics. Students who enroll in an athletic class will be subject to removal and placed in a Physical Education class for the remainder of the semester if they do not meet the athletic standard required for participation on a competitive team. *Course designed for 9th graders only.*

**Athletics Boys 6111(1) 6112(2) 6113(3) 6114(4)
6124(4)**

Unit Credit: 1

Students may be enrolled in only one section during the regular school day for practice of inter- school competitive athletics. Students enrolled in athletics will be required to have a physical exam for each year they are in athletics. Students who enroll in an athletic class will be subject to removal and placed in a Physical Education class for the remainder of the semester if they do not meet the athletic standard required for participation on a competitive team. Students that are seniors and are no longer participating in athletics after their fall semester may change schedules at semester. In order to play team sports, students must be enrolled in athletic class.

Girls 612G

Girls 6121 (1) 6122(2) 6123(3)

Individual Sports: Cross Country, Golf, Tennis, Track and Field, and Powerlifting

Team Sports: Boys: Football, Basketball, Soccer, Baseball
Softball

Girls: Volleyball, Basketball, Soccer,

Physical Education 1, 2 – Foundations of Personal Fitness/Team Sports 6101(1) 6102(2)

Unit Credit: 1

Foundations of Personal Fitness represent a new approach in physical education and the concept of personal fitness. The basic purpose of this course is to motivate students to strive for lifetime personal fitness with an emphasis on the health-related components of physical fitness. This course includes teaching students about the process of becoming fit as well as achieving some degree of fitness within the class. The concept of wellness, or striving to reach optimal levels of health, is the cornerstone of this course and is exemplified by one of the course objectives— students designing their own personal fitness program.

LANGUAGE OTHER THAN ENGLISH

	COURSE	GRADE	CREDIT	PREREQUISITE
6201	Spanish 1	7-10	1	None
6202	Spanish 2	8-10	1	Spanish 1
622P	PAP Spanish 2	9-10	1	Spanish 1
620P	PAP Spanish 3	9-11	1	Spanish 2
62AP	AP Spanish 4	10-12	1	Spanish 3 TeacherApproval.
62A5	AP Spanish 5	10-12	1	Spanish 4 TeacherApproval

Spanish 1

6201

Level: Regular Tier 2

Unit Credit: 1

Prerequisite: NONE

This course is for novice students. Vocabulary and grammar structures are presented in thematic contexts. Opportunities to converse enable students to recall and re-incorporate what has been presented previously. Cultural readings in the target language introduce students to the culture of the Hispanic world.

Spanish 2

6202

Level: Regular Tier 2

Unit Credit: 1

Prerequisite: Spanish 1

This course continues to expand language skills and involves more detailed study of grammar presented in thematic contexts. Students will be presented with the past tenses of the preterit and imperfect, the future, conditional, and present progressive tenses. Students continue to gain knowledge and understanding of other Hispanic cultures.

Pre-AP Spanish 2

622P

Level: Regular Tier 1

Unit Credit: 1

Prerequisite: Spanish 1

This course continues to expand language skills and involves more detailed study of grammar presented in thematic contexts. Students will be presented with the past tenses of the preterit and imperfect, the future, conditional, and present progressive tenses. Students continue to gain knowledge and understanding of other Hispanic cultures. This class will be taught at a faster pace and is designed for students who excelled in Spanish I.

PAP Spanish 3**620P***Level: PAP Tier 1**Unit Credit: 1**Prerequisite: Spanish 2*

Spanish III PreAP introduces students to content-based thematic learning. Students in this course will continue to develop speaking, writing, and reading proficiency as they work with real-life issues, topics, and concerns in specific contexts. Use of applicable resources will allow local and global cultural perspectives within each context. The focus of this course is developing Intermediate high proficiency. This course is conducted predominantly in Spanish.

Spanish 4 Advanced Placement**62AP***Level: AP Tier 1**Unit Credit: 1**Prerequisite: Spanish 3*

This course offers an in-depth study of the language, particularly emphasizing the skills of speaking, listening comprehension, reading, and writing. This course covers the equivalent of a third year college course in Spanish writing and conversation. Specific areas of interest include the ability to comprehend formal and informal spoken Spanish. Literary selections will provide a springboard for discussion of modern society, contemporary issues, culture and history, and will prepare students for AP subject tests. Language study at this level emphasizes reading strategies, writing for a variety of formats, vocabulary-building, and narrative oral skills.

Spanish 5 Advanced Placement**62A5***Level: AP Tier 1**Unit Credit: 1**Prerequisite: Ap Spanish 4*

Spanish V AP is a survey of Hispanic Literature. This course stresses oral skills, composition, and grammar while emphasizing the use of Spanish for active communication. The students will develop the following skills: comprehension of formal and informal spoken and written Spanish, acquisition of vocabulary and a deeper grasp of the structure to allow the student to analyze literary works. Spanish V is an introduction of Hispanic literature in all genres and epochs. This course prepares the student for the AP Spanish Literature Exam.

FINE ARTS

COURSE		GRADE	CREDIT	PREREQUISITE
6335/6336/ 6337/6338	Theatre Production	9-12	1	Instructor Approval & Audition
6331/6332/ 6333/6334	Theatre Arts	9-12	1	None
6350/6351/ 6352/6353	Technical Theatre	9-12	1	None
6311	Band 1	9-12	1	Instructor Approval & Audition
6312	Band 2	10-12	1	Instructor Approval & Audition
6313	Band 3	11-12	1	Instructor Approval & Audition
6314	Band 4	12	1	Instructor Approval & Audition
6315/6316	Instrumental Ensemble	9-12	1	Instructor Approval & Audition
6321/6322/ 6323/6324	Choir	9-12	1	NONE
5112	Principles of Floral Design	9-12	1	Principles of Ag or 11 th Grade
6301	Art I	9-12	1	None
6302	Art II:Drawing	10-12	1	Art I

Theatre Production I,II,III,IV

6335(1), 6336(2), 6337(3), 6338(4)

Unit Credit: 1

Prerequisite: Instructor Approval and Audition

Theatre Production includes four basic strands--perception, creative expression/performance, historical and cultural heritage, and critical evaluation—each provide broad, unifying structures for organizing knowledge and skills students are expected to acquire. Students increase their understanding of self and others and develop clear ideas about the world. Through a variety of theatrical experiences, students communicate in a dramatic form, make artistic choices, solve problems, build positive self-concepts, and relate interpersonally. Upper levels expand on the above-mentioned themes and include directing and writing in the creative expression strand.

Theater Arts I, II, III, IV

6331(1), 6332(2), 6333(3),6334(4)

Unit Credit: 1

Prerequisite: None

Theatre Arts includes four basic strands--perception, creative expression/performance, historical and cultural heritage, and critical evaluation—each provide broad, unifying structures for organizing knowledge and skills students are expected to acquire. Students increase their understanding of self and others and develop clear ideas about the world. Through a variety of theatrical experiences, students communicate in a dramatic form, make artistic choices, solve problems, build positive self-concepts, and relate interpersonally. Upper levels expand on the above-mentioned themes and include directing and writing in the creative expression strand.

Technical Theatre I, II, III, IV

6350 (1), 6351 (2), 6352 (3), 6353(4)

Unit credit: 1

Prerequisite:None

Technical Theatre class will introduce the first year technician to the areas of stagecraft and theatrical production. You will climb ladders, lift things, build (no power tools), paint, work online, research , work with makeup, and handle very expensive equipment in this class. The theatre elements to which you will be introduced will include , but are not limited to : stage elements, stage properties (props), crews/assignments, theatre appreciation, costumes/makeups, sound engineering/recording, lights and lighting design, fly system/safety, box office/ticket sales, stage management, scene design, and publicity.

Band**6311(1) 6312(2) 6313(3) 6314(4)***Unit Credit: 1**Prerequisite: Instructor approval &**Audition*

Performing group. Students will further their instrumental technique, and music theory skills through participating in the high school marching band and concert band programs. All students will be required to participate in UIL contest for marching, concert bands, and all other scheduled performances of the high school band program. PE waiver is earned for the fall semester upon successful participation in marching season.

Two Years Required to Meets Fine Arts Elective Requirement.

Instrumental Ensemble**6315/6316***Unit Credit: 1**Prerequisite: Instructor approval &**Audition*

Instrumental ensemble provides the opportunity for students who wish to advance their skills on their current instrument, learn a secondary instrument, or do not currently possess adequate skills to participate in Band, but wish to develop their skill. Students who demonstrate adequacy are required to participate in All Region Auditions, UIL Solo & Ensemble Contest, and various performances.

Choir**6321(1) 6322(2) 6323(3) 6321(4)***Unit Credit: 1**Prerequisite: None*

The student will develop their voices, music reading skills, listening skills, self-discipline, team building, and leadership skills. Students will perform a variety of musical styles in large ensemble, small ensembles, and as a soloist as they learn music for Choir contest.

Principals and Elements of Floral Design 5112*Unit Credit: 1**Prerequisite: Principles of Ag or 11th Grade*

Stop and smell the roses or impress your girlfriend or mom. Students who successfully complete this class will construct cost effective geometric designs, corsages and homecoming mums. Special occasion designs and business management practices are an integral part of the course, which will prepare students for a career in the floral industry. Students will be able to keep their designs at the end of the unit as well as have the opportunity to obtain certification through the Texas State Floral Association. **Meets Fine Arts Elective Requirement.**

Art I**6301***Unit credit: 1**Prerequisite: None*

Students will work with a variety of drawing, painting and sculpting media while developing the elements and principles of art.

Art II:Drawing**6302***Unit credit: 1**Prerequisite: Art I*

Students will interpret and organize multiple solutions between natural and man-made environments. Students will become familiar with different drawing styles and techniques by expanding on personal themes, applying design skills, and studying and analyzing artwork. There may be a cost associated with taking this course.

COMMUNICATIONS

<u>COURSE</u>		<u>GRADE</u>	<u>CREDIT</u>	<u>PREREQUISITE</u>
5205	Professional Communication	10-12	.5	None
5203	Yearbook I	10-12	1	BIM or Print IT
5204/5303	Yearbook II & III	11-12	1	Yearbook 1, Yearbook 2

Professional Communication

5205

Unit Credit: ½

Prerequisite: None

Professional Communications 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. **State Speech Credit - Required to meet JHS graduation requirements.**

Yearbook I,II, III

5203(1) 5204(2) 5303 (3)

Unit Credit: 1

Prerequisite: BIM or PRINIT

The yearbook course has been designed to provide students with the journalism skills and the ability to apply those skills to the actual production of the yearbook. Units of study include teamwork, responsibility, brainstorming, content, coverage, concept, reporting, writing, headlines, captions, editing, photography, typography, design, graphics, finances, campaigns, advertising and distribution. Actual work results in the current volume of the school's yearbook. The publication strives to maintain a tradition of excellence in which the school and the community can take pride. Mastery of the goals and objectives fully verse staff members in all areas of publication production and students should be able to pursue journalism with a strong background either in their advanced studies or in a career.

SPORTS MEDICINE

<u>COURSE</u>		<u>GRADE</u>	<u>CREDIT</u>	<u>PREREQUISITE</u>
6131	Sports Medicine I	11-12	1	Teacher Approval
6132	Sports Medicine II	12	1	Sports Med I and Teacher Approval

Sports Medicine I

6131

Unit Credit: 1

Prerequisite: Teacher Approval

This course provides an opportunity for the study and application of the components of Sports Medicine including but not limited to: Sports Medicine Related Careers, Organizational and Administrative Considerations, Prevention of Athletic Injuries, Recognition, Evaluation, and Immediate Care of Athletic Injuries, Rehabilitation and Management Skills, Taping and Wrapping Techniques, First Aid/CPR/AED, Emergency Procedures, Sports Nutrition, Sports Psychology, Human Anatomy and Physiology, Therapeutic Modalities and Therapeutic Exercises. **Outside school hours participation required. Application Required.**

Sports Medicine II

6132

Unit Credit: 1 Prerequisite: Sports Medicine I and Teacher Approval

This course is designed for athletic training students. Individualized and independent assignments will be included in this course. This course will involve outside-of-class time homework and time required working with athletes and athletic teams. It provides an in-depth study and application of the components of sports medicine including but not limited to : Basic Rehabilitative Techniques, Therapeutic Modalities, Wound Care, Taping and Bandaging Techniques. **Outside school hours participation required. Application Required.**

LOCAL CREDIT ELECTIVES

	<u>COURSE</u>	<u>GRADE</u>	<u>CREDIT</u>	<u>PREREQUISITE</u>
L300	Office Aide	12	1 Local	Admin. Approval

Office Aide L300

Unit Credit: 1 Local

Prerequisite: Admin. Approval

CAREER & TECHNICAL PROGRAMS

Jarrell ISD offers a variety of Career and Technical programs to meet the needs of the students and the workforce. There is a full document that outlines the Endorsements and CTE Programs of Studies offered by JISD that can be accessed online at https://jhs.jarrellisd.org/apps/pages/index.jsp?uREC_ID=86707&type=d&pREC_ID=links. The document is titled JISD CTE Endorsements.

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Business and Industry – Agriculture and Natural Resources

Program of Study	Agribusiness	Animal Systems	Plant Systems	Power, Structural & Technical Systems		Natural Resource Systems
Career Goals	Ag Fin. Farm Mgmt Financial Mgmt Agricultural Tech	Animal Nutrition Animal Prod Veterinarian Vet Tech/Assis	Floral Design Greenhouse Manager Horticulturist	Welder Engineer	Farm Eqt. Mechanic Diesel Mechanic	Wildlife Manager Park Manager Fish and Game Officer
Career Electives	Principles of Agriculture Accounting Career Prep/Pract	Principles of Agriculture Equine Science (.5) Small Animal Mgmt (.5) Vet Med Applications <i>Pract in Ag- Vet Med</i>	Principles of Agriculture Floral Design Adv. Floral Design Career Prep/Pract	Principles of Agriculture Ag Mech. & Metal Tech Ag Facilities Design & Fab. Intro to Welding	Principles of Agriculture Ag Mech. & Metal Tech Ag Eqt Design & Fab Career Prep/Pract	Principles of Agriculture Wildlife Management Aquatic Science Career Prep/Pract

Agriculture and Natural Resources

	<u>COURSE</u>	<u>GRADE</u>	<u>CREDIT</u>	<u>PREREQUISITE</u>
5110	Principles of Ag	9-11	1	None
5112	Floral Design	10-12	1	Principles of Ag or 11 th Grade +
5141	Advanced Floral Design	10 - 12	1	Floral Design
5114	Equine Science	10-12	½	Principles of Ag
5115	Small Animal Management	10-12	½	Principles of Ag
5126	Wildlife Mgmt.	10-12	1	Principles of Ag
5116	Vet Medical Applications	11-12	1	Equine/Small Animal OR Health Science
5118 or 5142	Practicum in Ag - Vet Med	12	2-3	Vet Medical Applications
5120	Ag Mech. & Metal Technology	10-12	1	Principles of Ag
5121	Ag Structure Design & Fabrication	11-12	1	Ag Mechanics
5128	Ag Equipment Design & Fabrication	11-12	1	Ag Mechanics
5130	Intro to Welding	11-12	1	Ag Facilities Des. or Ag Equipment Des.
512 A	Ag Equipment Design & Fab Lab	11-12	2	Ag Facilities Des. or Ag Equipment Des.

Principles of Agriculture, Food & Natural Resources 5110

Unit Credit: 1 Prerequisite: None

Ever wondered where the shoes on your feet come from? How about the food on your table? Take this class to learn about the diversity of agriculture in our world. The class will help students expand their leadership and communication skills while furthering knowledge of the effects of agriculture on our world. The class will focus on the elements of the FFA, and a basic study of soils, plants, and various livestock species. Come learn why agriculture is more than just farming.

Floral Design

5112

Unit Credit: 1 Prerequisite: Principles of Ag or 11th grade

Stop and smell the roses or impress your girlfriend or mom. Students who successfully complete this class will construct cost effective geometric designs, corsages and homecoming mums. Special occasion designs and business management practices are an integral part of the course, which will prepare students for a career in the floral industry. Students will be able to keep their designs at the end of the unit as well as have the opportunity to obtain certification through the Texas State Floral Association. **Will Count as Fine Arts Elective.**

Advanced Floral Design

5141

Unit credit: 1 Prerequisite: Prin. & Elements of Floral Design

Students gain advanced knowledge and skills specific to those needed to enter the workforce as a floral designer or as a floral event designer with an emphasis on specialty designs and occasion-specific designs and planning. Students are also prepared to enter postsecondary certification or degree programs in floral design or special events design.

Equine Science

5114

Unit Credit: ½ Prerequisite: Principles of Ag

A course combined with small animal management to prepare students for courses in the Vet Med program of study.

Small Animal Management

5115

Unit Credit: ½ Prerequisite: Principles of Ag

This course is designed for students preparing for careers in the field of animal science. Small animals, which may be included in the course of study, include, but are not limited to, small mammals, amphibians, reptiles, avian, dogs, and cats.

Wildlife, Fisheries, & Ecology Management 5126

Unit Credit: 1 Prerequisite: Principles of Agriculture

To be prepared for careers in natural resource systems, students need to attain academic skills and knowledge, acquire technical knowledge and skills related to natural resources, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply and transfer their knowledge and skills in a variety of settings. This course examines the management of game and nongame wildlife species, fish and aqua crops and their ecological needs as related to current agricultural practices.

Veterinary Medical Applications 5116

Unit Credit: 1 Prerequisite: Equine/Small Animal OR Health Science

The students will have the opportunity to develop technical skills in practice and patient management, health, nutrition animal handling, examinations, diseases, sanitation, regulatory programs, surgical procedures that will enable them to prepare for the transition from school to world of work.

Practicum in Ag - Vet Med 5118/5142

Unit Credit:2-3 Prerequisite: Vet Med

Students will be applying their skills learned in Vet Med Applications in a practicum setting. Students are required to provide their own transportation to practicum site.

Agricultural Mechanics & Metal Technology 5120

Unit Credit: 1 Prerequisite: Principles of Agriculture

This course is designed to develop an understanding of agricultural mechanics as it relates to safety and skills in tool operation, electrical wiring, plumbing, carpentry, fencing, concrete, and metalworking techniques.

Agricultural Structures Design and Fabrication 5121

Unit Credit: 1 Prerequisite: Ag Mech & Metal Technology

Students will acquire knowledge and skills related to the design and fabrication of agricultural equipment. To prepare for careers in mechanized agriculture and technical systems, students must attain knowledge and skills related to agricultural equipment design and fabrication. To prepare for success, students reinforce, apply and transfer their academic knowledge and technical skills in a variety of settings. This course is project based.

Agricultural Equipment Design and Fabrication 5128

Unit Credit: 1 Prerequisite: Ag Mech & Metal Technology

Students will acquire knowledge and skills related to the design and fabrication of agricultural equipment. Prepares students for careers in mechanized agriculture and technical systems, related to agricultural facilities design and fabrication.

Introduction to Welding 5130

Unit Credit: 1 Prerequisite: Agriculture Structures Design Fabrication or Agriculture Equipment Design and Fabrication

This class will provide an introduction to welding technology with an emphasis on basic welding laboratory principles and operating procedures. Students will be introduced to the three basic welding processes. Students will develop a knowledge and skills related to welding and apply them to personal career development. This course supports integration of academic and technical knowledge and skills. Students will reinforce, apply, and transfer knowledge and skills in a variety of settings and problems.

Agricultural Equipment Design and Fabrication Lab 512A

Unit Credit: 2 Prerequisite: Agriculture Structures Design Fabrication or Agriculture Equipment Design and Fabrication

Students use knowledge and skills related to the design and fabrication of agricultural equipment. This course has a major emphasis on the construction of show projects. It is expected that the student plan, design, fabricate and finish projects that will be shown at county shows, as well as major shows. It is not required that the student pay for show projects, unless the student is building the project for themselves. All projects will be subject to the approval of the instructor prior to construction to ensure it falls within the guidelines of Ag Mechanics Shows.

Business & Industry – A/V Technology & Communications		
Program of Study	Visual Arts	A/V Production and Film
Career Goals	Visual Arts/Graphic Design	Film Production Camera Operator Video Producer
Career Goals	Graphic Design I Graphic Design II Career Prep or Practicum in Graphic Design	A/V Production Advanced A/V Production II Career Prep or Practicum in AV Production

Arts, A/V Technology & Communications

COURSE	GRADE	CREDIT	PREREQUISITE	
5206	Graphic Design & Illustration	10-12	1	BIM or PRINIT
5207	Graphic Design & Illustration II w/ Lab	11-12	2	Graphic Design & Illustration
5211	Practicum in Graphic Design	12	2-3	Graphic Design 2
5209	A/V Production I	10-12	1	Digital Graphics or BIM or Principles of Info Tech
5210	A/V Production II w/ Lab	11-12	2	A/V Production I
5212	Practicum in A/V Production	12	2	A/V Production II

Graphic Design & Illustration I 5206

Unit Credit: 1 Prerequisite: BIM

Design is a communication tool. The goal of the graphic design program is to provide students with experience in analyzing communication problems. Students work to create solutions to these problems, and then implement and evaluate them. This experimenting gives students a taste of real-world issues they may come up against and allows them to work hands-on. The curriculum focuses on conceptual, technical, historical, and visual aspects of graphic design.

Graphic Design & Illustration II **5207 w/ LAB**

Unit Credit: 2 *Prerequisite: Graphic Design & Illustration*

The course expands on Graphic Design & Illustration including advanced skills in image editing and vector graphic software focusing on original creation and design of computer graphics for use as ornamentation, illustration, and advertising. Students are expected to interpret, evaluate and justify design decisions. Instruction is project-based and students will develop advanced technical skills needed for success in visual communication industries. Software focus is Adobe Photoshop and Adobe Illustrator.

Practicum in Graphic Design & Illustration **5211**

Unit Credit: 2 *Prerequisite: Graphic Des II*

Practicum in Graphic Design is an extension and hands on applications of Graphic Design

Audio/Video Production I **5209**

Unit Credit: 1 *Prerequisite: Graphic Design or BIM or Principles of Info Tech*

This course will explore the Audio and Video production industry and its post-secondary educational and career opportunities. Students will gain job-specific training for entry level employment in audio, video, television, and motion picture careers. Professional grade equipment and software will be used in the creation of student lead productions. Students will be involved in every aspect of several class and small group audio, video, and film style production projects with emphasis on live multi-camera video and film style production projects.

Audio/Video Production II **5210 w/ LAB**

Unit Credit: 2 *Prerequisite: A / V Production I*

In this course, students will work on several audio and/or video productions created for television, cable television, education, radio, entertainment, business and/or industry. Students may concentrate on specific areas of interest such as videography, video editing, film editing, audio recording, audio mixing, sound reinforcement, sound design, dialog editing, lighting, directing, producing, still or animated computer graphics, special effects, voice talent, on-camera talent, production management and camera operation. Students will create a portfolio of work.

Practicum in A/V Prod **5212**

Unit credit: 2 *Prerequisite: A/V Production II*

Building upon the concepts taught in Audio/Video Production 2, in addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an increasing understanding of the industry with a focus on applying pre-production, production, and post-production audio and video products in a professional environment. This course may be implemented in an advanced audio/video or audio format. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

Business & Industry – Business Administration & Finance		
Program of Study	Marketing Information & Management	Marketing Communication
Career Goals	Market Research Analyst Marketing Manager Survey Researcher	E-Commerce Marketing Specialist Marketing Manager
Career Electives	Accounting I Digital & Interactive Media Career Prep or Practicum	Web Technologies Digital & Interactive Media Career Prep or Practicum

Business & Industry - Finance				
Program of Study	Insurance	Business Finance		
Career Goals	Actuary Sales Clerk Billing Clerk	Accountant Auditor Sales Clerk	Credit Analyst Financial Manager Real Estate Appraiser	Securities and Commodities Commodities Agent
Career Electives	Accounting I Accounting II Calculus Career Prep or Practicum	Accounting I Accounting II PreCalculus Career Prep or Practicum		

Business, Management & Administration or Finance

	COURSE	GRADE	CREDIT	PREREQUISITE
5300	Business Information Management (BIM)	9-12	1	None
5325	Financial Literacy	9-12	½	None
5321	Accounting 1	10-12	1	BIM
5322	Accounting 2	11-12	1	Accounting 1

Business Information Management 1

5300

Unit Credit: 1

Prerequisite: None

Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society. Students apply technical skills to address business applications of emerging technologies, create word-processing documents, develop spreadsheets, formulate a database, and make an electronic presentation using appropriate software. **JISD Tech Credit**

Financial Literacy

5325

Unit Credit: ½

Prerequisite: None

Students will learn personal finance strategies to better prepare them with life skills necessary to function within the financial and credit world.

Accounting I**5321***Unit Credit: 1**Prerequisite: BIM*

Technical course provides students with a basic understanding of accounting terminology and financial record keeping. Students will learn accounting concepts and methods. Curriculum provides marketable skills for those contemplating establishing their own business or entering private industry. (Must complete 1 unit credit for articulation.)

Accounting II**5322***Unit Credit: 1**Prerequisite: Account I*

Technical course that builds upon knowledge gained in Accounting 1. Curriculum provides marketable skills for those contemplating establishing their own business or entering private industry.

Public Service – Health Science				
Program of Study	Therapeutic Services	Therapeutic Services	Health Informatics	Diagnostic Services
Career Goals	Physician Pharmacist Nurse EMT	Veterinarian Vet Tech	Healthcare Administrator Medical Manager	Radiologist Clinical Scientist
Career Electives	Principles of Health Science Health Science Anatomy & Physiology Pharmacology Practicum in HS - Pharm Tech	Principles of Health Science Health Science Vet Med Applications Pract in Ag - Vet Asst Anatomy & Physiology	Principles of Health Science Health Science Anatomy & Physiology Accounting I Practicum in HS or Career Prep	Principles of Health Science Health Science Anatomy & Physiology Medical Microbiology Pathophysiology

Health Science

COURSE	GRADE	CREDIT	PREREQUISITE	
5500	Principles of Health Science	9-12	1	None
5501	Medical Terminology	10-12	1	Principles of Health Science/Biology
5507	Pharmacology	11-12	1	Principles of Health Science/Biology/Chemistry
5503	Practicum in Health Science – Pharm Tech	12	2	Principles of Health Science/Health Science/Biology/Pharmacology/Chemistry
5502	Health Science Theory w/Lab	11-12	2	Principles of Health Science, Med. Terminology, Biology
5510	Practicum in Health Science - Medical Assistant	12	2	Bio, Prin.of Health Science & Health Science Theory w/Lab

Principles of Health Science**5500***Unit Credit:1**Prerequisite: None*

Principles of Health Science provides an overview of the therapeutic, diagnostic, health informatics, support services, and biotechnology research and development systems of the healthcare industry. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, and communicate effectively. Students should recognize that quality health care depends on the ability to work well with others.

Medical Terminology**5501***Unit credit : 1**Prerequisite: Prin. of HS, Bio, IPC, or concurrent enrollment in Chem.*

Medical Terminology is a course that uses the human body as a guide to familiarize students with vocabulary concerning abbreviations, symbols, medical procedures and pathological conditions. Students will gain knowledge of medical terminology through the course of study by identifying word parts and the meanings of the words parts.

Pharmacology**5507***Unit credit:1**Prerequisite: Prin. of Health Science, Bio, &**Chemistry*

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

Practicum in Health Science – Pharmacy Technician 5503*Unit Credit: 2 Prerequisite: Bio, Chem, Principles of HS & Pharmacology*

The Practicum is designed to give students practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience. Students will earn their certification in the health field. Students must have transportation.

Health Science Theory**5502***Unit credit : 1**Prerequisite: Prin of Health Science, Biology & Chemistry*

Health Science Theory course will provide students the opportunity to develop advanced knowledge and skills related to a wide variety of health careers learned in Principles of Health Science. Students will learn through lab based settings and hands-on experiences. Skills will include taking vital signs, infection control techniques, and demonstrating proper body mechanics. There may be costs associated with taking this course. Safety certification available.

Medical Assistant**5510**

Unit Credit: 2 Prerequisite: Bio, Chem, Prin.of Health Science & HS

Theory

Medical Assistant is a course designed to give students practical application of previously studied knowledge and skills. Practicum provides a unique experience that allows students the opportunity to participate in a learning environment that combines classroom instruction with real business and industry career experiences in a professional medical setting. There is an emphasis on phlebotomy, CPR, vital signs, and nursing skills. This course requires two class periods.

Business & Industry – Culinary Arts	
Program of Study	Culinary Arts
Career Goals	Chef Restaurant Manager Food Service Manager
Career Electives	Principles of Education and Hospitality Intro to Culinary Arts Culinary Arts Advanced Culinary Arts

Public Service-Education and Training	
Program of Study	Education
Career Goals	Elem & Secondary Teacher Administrator Education Counselor
Career Electives	Principles of Education and Hospitality Human Growth & Development Instructional Strategies Ready, Set, Teach 2

Culinary& Education

COURSE		GRADE	CREDIT	PREREQUISITE
5600	Principles of Education and Hospitality	9-10	1	None
5701	Intro to Culinary Arts	10-12	1	Principles of Edu and Hospitality
5702	Culinary Arts	11-12	2	Intro to Culinary Arts
5703	Advanced Culinary Arts	12	2	Culinary Arts
5401	Human Growth & Development	10-12	1	Principles of Edu and Hospitality
5404	Instructional Strategies	11-12	1	Human Growth & Dev
5405	Ready, Set, Teach	12	2	Instructional Strategies

Principles of Education and Hospitality 5600

Unit Credit:1

Prerequisites: None

The course will address the needs of the student to develop successful and meaningful life skills in order to plan their career. The content will provide an introduction to various components of the hospitality and tourism industry. Students will receive an overview of the careers that encompass the management, marketing and operations of restaurants and other food services, lodging, attractions, recreation events and travel related services in hospitality and tourism. This course is also designed to introduce learners to the various careers available within the education and training career cluster. The course is an introductory course for both Culinary and Education programs.

Intro to Culinary Arts 5701

Unit Credit:1

Prerequisites: Principles of Edu & Hospitality

Provides an overview of the culinary industry within the aspects of the entire hospitality industry. It provides students with an introduction to the historical, social, and cultural forces that have affected and shaped the industry of today. Students will identify job qualifications and opportunities, professional standards, communication skills, and attitudes essential for successful workers in the industry.

Culinary Arts 5702

Unit Credit : 2

Prerequisites: Intro to Culinary Arts

This is the introductory course for a career in Culinary Arts. The students will learn to utilize knife skills, basic cooking skills and equipment.

Advanced Culinary Arts 5703

Unit Credit:2

Prerequisites: Culinary Arts

A unique practicum that provides occupationally specific opportunities for students to participate in learning experience that combines classroom instruction with actual business and industry career experiences. Practicum in Culinary Arts integrates academic and career and technical education; provides more interdisciplinary instruction; and supports strong partnerships among schools, businesses, and community institutions with the goal of preparing students with a variety of skills in a fast-changing workplace. Students are taught employability skills, which include job-specific skills applicable to their training plan, job interview techniques, communication skills, financial and budget activities, human relations, and portfolio development. Practicum in Culinary Arts is relevant and rigorous, supports student application of academic standards, and effectively prepares students for college and career success.

Human Growth & Development**5401***Unit Credit:1**Prerequisites: Principles of Edu & Hospitality*

Human Growth and Development is an examination of human development across the life span focusing on common physical, cognitive, emotional, and social developmental milestones from conception through death. The course is generally taught as an introductory course in developmental psychology, human development, or education and training.

Instructional Strategies**5404***Unit Credit:1**Prerequisites:Human Growth & Development*

Ready, Set, Teach 1 covers a variety of topics including learning processes, education theory, classroom management, child development and lesson planning. Students will research careers and topics in education including teacher training, interview processes and ethics in the workplace. Students will experience field-based observations during this course with a highly-qualified cooperating teacher in local elementary schools. A portfolio that will serve as a resource for teaching will be completed throughout the year. There may be costs associated with taking this course.

Ready, Set, Teach**5405***Unit Credit:2**Prerequisites:Instructional Strategies*

Ready, Set, Teach 2 covers a variety of topics including learning processes, education theory, classroom management, child development and lesson planning. Students will research topics in education, including teacher training, interview processes and ethics in the workplace. Students will experience a field-based internship during this course with a highly-qualified cooperating teacher in local elementary or middle schools. A portfolio that will serve as a resource for teaching will be completed throughout the year. An interview and application process may be required for this class.

Business & Industry - Information Technology	
Program of Study	Programming & Software Development
Career Goals	Computer Programmer Software Engineer Software Tester
Career Electives	Computer Programming Computer Programming II Career Prep or Practicum

Information Technology

COURSE		GRADE	CREDIT	PREREQUISITE
5900	Principles of Applied Engineering	9-11	1	none
5802	Computer Programming	10-12	1	PRINIT or BIM, Teacher Approval
5803	Computer Programming II	11-12	1	Computer Programming , Teacher Approval
5805	Practicum in Info Tech	11-12	2-3	Computer Programming II, Teacher Approval

Principles of Applied Engineering 5900

Unit Credit:1 Prerequisite: none

Principles of Applied Engineering provide an overview of the various fields of science, technology, engineering, and mathematics and their interrelationships. Students will develop engineering communication skills, which include computer graphics, modeling, and presentations, by using a variety of computer hardware and software applications to complete assignments and projects. Students will use multiple software applications to prepare and present course assignments.

Computer Programming 5802

Unit Credit:1 Prerequisite: PRINIT or BIM

Students will acquire knowledge of structured programming techniques and concepts through writing applications for mobile devices. Students will acquire understanding of the process of developing software including design, planning, coding, testing, and creating appropriate documentation. Students will examine how computer technology impacts society and the resulting issues relating to security, privacy, and ethics as it relates to computer programming.

Computer Programming II 5803

Unit Credit: Prerequisites: Com. Programming I

This advanced level course will expand students' knowledge and skills in structured programming techniques and concepts by addressing more complex problems and developing comprehensive programming solutions. Students will utilize a programming language commonly used in the workplace to complete projects with advanced programming techniques and algorithms.

STEM	
Program of Study	Science, Technology, Engineering, and Math
Career Goals	Engineering Physicist
Career Electives	Principles of Applied Engineering Robotics I Robotics 2 Practicum in Engineering

STEM

COURSE		GRADE	CREDIT	PREREQUISITE
5900	Principles of Applied Engineering	9-10	1	none
5901	Robotics I	10-12	1	PAE, Algebra 2 (concurrent), Teacher Approval
5902	Robotics II	11-12	1	Robotics I Teacher Approval
5903	Practicum in STEM	12	2	Robotics II, Teacher Approval

Principles of Applied Engineering 5900

Unit Credit:1 Prerequisite: none

Principles of Applied Engineering provides an overview of the various fields of science, technology, engineering, and mathematics and their interrelationships. Students will develop engineering communication skills, which include computer graphics, modeling, and presentations, by using a variety of computer hardware and software applications to complete assignments and projects. Students will use multiple software applications to prepare and present course assignments.

Robotics I

5901

Unit Credit:1 Prerequisite: BIM ,PAE, Alg 2 (concurrent), Teacher Approval

In this hands-on course, students will learn to apply math, science and engineering knowledge to real world applications. Students will work together to design , build, and program robots to perform various tasks. Students will also build robots to compete with other teams in various robot games. Additionally, students will explore career opportunities and educational needs in the robotic and automation industry.

Robotics II

5902

Unit Credit: 1 Prerequisites: Robotics I

This advanced level course will expand students' knowledge and skills in design and programming techniques by addressing more complex problems and developing comprehensive robotic solutions. Students will also have the opportunity to compete against robot teams from other schools in robot games competitions.

Practicum in STEM

5903

Unit Credit: 2-3 Prerequisites: Robotics II

In Robotics II, students will explore artificial intelligence and programming in the robotic and automation industry.

Career Development - Career Prep (Co-Op)

	<u>COURSE</u>	<u>GRADE</u>	<u>CREDIT</u>	<u>PREREQUISITE</u>
5411 or 5412	Career Prep 1	11-12	2-3	See Below
5413 or 5414	Career Prep 2	12	2-3	See Below

Prospective Cooperative Education students:

- Must be 16 years old.
- Classified as a Junior (11th) or Senior (12th) at the beginning of the school year.
- Should have no more than five (5) classes other than their Cooperative Education class.
- Must provide their own transportation to and from their training station.
- Must complete all requirements on Career Preparation application *before enrollment*.

If approved Cooperative Students:

- Must be employed before the first day of school in August.
- Must sign and agree to follow the Training Agreement form and Course Responsibilities form found in the Work-Based Learning Career Preparation Manual.
- May NOT be employed by their parents or an immediate member of their family.
- Must bring a check stub, during the first two weeks of school, showing that the legally required deductions are taken out of their earnings (They may NOT be paid in cash).

Career Preparation 1 (Co-op) 5411/5412

Career Preparation 2 (Co-op) 5413/5414

Unit Credit 2-3

Prerequisite: BIM

The goal of this class is to prepare students with a variety of skills for a fast-changing workplace. Students are taught employability skills, which include job-specific skills applicable to their training station, job interview techniques, communication skills, financial and budget activities, human relations, and portfolio development. Students are required to work a minimum of 15 hours per week, with 10 of the hours worked Monday-Friday. Problem solving skills, higher-level thinking, and work application techniques are enhanced through this class format. Enrichment activities include special projects, guest speakers, and field trips. ***Enrollment requires completion of Career Preparation Application, Training Agreement and Course Responsibilities form.***

Dual Credit

COURSE	GRADE	CREDIT	PREREQUISITE
Great Questions	10	0.5	TSI Met
EDUC 1300	10	0.5	TSI Met
ENGL 1301	11	0.5	TSI Met
ENGL 1302	11	0.5	ENGL 1301 w/ grade of C or better
HIST 1301	11	0.5	TSI Met
HIST 1302	11	1.0	TSI Met
ENGL 2322	12	1.0	ENGL 1301 & 1302 w/ grade of C or better
GOVT 2301	12	0.5	TSI Met
GOVT 2302	12	0.5	TSI Met
PSYC 2301	12	0.5	TSI Met

In order to participate in the Dual Credit program students must meet the TSI college readiness scores or equivalent (SAT/ACT, STARR, PSAT).

Failure to successfully complete a dual credit course or required combination of courses may necessitate completion of the course in another manner.