

LAMESA ISD

CAREER & TECHNICAL EDUCATION



Lamesa High School CTE program will provide students with the necessary, marketable, skills that lead to direct workforce placement, industry certification, continuation in a trade school, or assists in completion of a bachelor's degree by providing early degree specific exposure and potential employment while pursuing higher education.

Lamesa Independent School District Career & Technical Education

Welcome to Lamesa ISD's Career and Technical Education (CTE) Programs. Lamesa High School's CTE programs are aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in current or emerging professions. Our goal is to connect high school to career and college readiness in order for all of our students to become successful by using our time, energy, skills, knowledge, and resources to unleash postsecondary opportunities.

Students at Lamesa ISD complete focused, supported career exploration to determine college and career goals where hands on learning experiences take place including work based learning programs that combine instruction with business and industry employment. There are so many opportunities through CTE and we hope that all of our students will not only benefit from the programs we have to offer, but enjoy their experiences in their chosen career path. Lamesa ISD strives for all students to be successful and encourages you to use this information as a tool in preparing for your future at Lamesa High School



Amy Baker
Counselor
CTE/Dual Credit Coordinator
Lamesa High School
abaker@lamesaisd.net

CTE NON-DISCRIMINATION NOTICE

IT IS THE POLICY OF LAMESA ISD NOT TO DISCRIMINATE ON THE BASIS OF RACE, COLOR, NATIONAL ORIGIN, SEX, AGE, OR HANDICAP IN THE CAREER AND TECHNICAL EDUCATION PROGRAM, SERVICES OR ACTIVITIES AS REQUIRED BY TITLE VI OF THE CIVIL RIGHTS ACT OF 1964, AS AMENDED; TITLE IX OF THE EDUCATION AMENDMENTS OF 1972; THE AGE DISCRIMINATION ACT OF 1975, AS AMENDED; AND SECTION 504 OF THE REHABILITATION ACT OF 1973, AS AMENDED.

Welcome to a very exciting time in School Career & Technology Education (CTE) at Lamesa High School! Our future CTE Center will offer our students an advantage in their preparation for a successful career through our state of the art facilities & programs with highly qualified, caring instructors.

Lamesa High School strives to impact the lives of every student we serve every day. Research into our current global job market and business world has identified “5 C’s” that are needed for success in modern careers that most schools are not preparing their students well for. Our Career and Technology Education (CTE) programs at Lamesa High School are striving to meet these needs through robust CTE course offerings. The “5 C’s for Success” in the modern workplace are:

Collaboration – Successful workers need the ability to work with others productively & harmoniously in teams

Communication - Successful workers need to be able to communicate ideas successfully with strong presentation skills

Context – Successful employees must understand how to use the knowledge they have solving problems in the real world

Curiosity – The world is constantly changing so employers need workers who are always curious about making things better

Character – Skills & abilities mean nothing if an employee has poor ethics & can’t be trusted so character is critical to success

Our CTE programs focus on preparing our students for success in the modern working world by focusing on these 5 C’s in a program of study of rigorous CTE courses. Students gain marketable skills & industry certifications that often lead to direct workforce placement and consistently result in our students being well prepared for their next level of training in higher education or trade school.

This catalogue provides you a logical and sequential overview and reference tool for our LHS CTE program options and will change and grow as we are able to increase/improve the CTE courses offered at LHS. Please contact our LHS Counselor for additional guidance in CTE requirements & opportunities at (806) 872-8385.



**David Ritchey
Superintendent
Lamesa ISD
(806) 872-5461
david.ritchey@lamesaisd.net**

AGRICULTURE

Agriculture, Food, and Natural Resources focuses on the production, processing, marketing, distribution, financing, and development of agricultural commodities and resources, including food, fiber, wood products, natural resources, horticulture, and other plant and animal products and resources.

Credits

9th: Principles of Agriculture
(1 credit)

10th: Equine Science/Small
Animal Management
(1 credit)

11th: Range Ecology &
Management
(1 credit)

12th: Livestock Production
(1 credit)

Career Opportunities

Agricultural Inspector *
Veterinarian * Ag Science
Teacher

Gas Plant Operator * Ag
Equipment Operator

Salary Range

\$21,950 - \$84,090



WELDING

The Welding Career Pathway focuses on planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance, and manufacturing/process engineering.

Credits

9th: Intro to Welding (1 credit)

10th: Welding I (2 credits)

11th: Welding II/Lab * (3 credits)

12th: Career Prep (2-3 credits)

*Must have 4 credits including at least one advanced course.

Career Opportunities

Aerospace Welder *

Construction * Oil & Gas
Industry

Manufacturing *

Shipbuilding

Salary Range

\$37,590 - \$185,000



ARCHITECTURE & CONSTRUCTION

The Architecture & Construction career pathway focuses on designing, planning, managing, building, and maintaining the build environment.

Credits

9th: Principles of Construction
(1 credit)

10th: Construction Technology I
(2 credits)

11th: Construction Technology II
(2 credits)

12th: Career Prep (1-3 credits)

Career Opportunities

Civil Engineer

* Electrical Engineer

* Architect

* Electrician/Carpenter

Interior Designer

Salary Range

\$28,500 - \$82,090



DESIGN & MULTIMEDIA ARTS

The Design & Multimedia Arts career pathway focuses on the exploration of the occupations and educational opportunities associated with designing or creating graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos.

Credits

9th: Digital Media (1 credit)

10th: Graphic Design & Illustration I/Lab (3 credits)

11th: Graphic Design & Illustration II/Lab (3 credit)

Career Opportunities

Graphic Designer *

Multimedia Artist

* Animator

Salary Range

\$45,00 - \$67,000



COSMETOLOGY

The cosmetology career pathway focuses on preparing individuals for employment in areas that relate to families and human needs such as personal care services.

Credits

9th: Intro to Cosmetology (1 credit)

10th: Business Information

Management I (1 credit)

11th: Cosmetology I (2 credits)

12th: Cosmetology II * (2 credits)

* Must have 4 credits including at least one advanced course.

Career Opportunities

Cosmetologist * Make-Up Artist

Nail Technician * Barber

Salary Range

\$22,100 - \$64,000



EDUCATION

The Education career pathway focuses on planning, managing, and providing education and training services and related learning support services.

Credits

11th: Instructional Practices
(2 credits)

12th: Practicum (2 credits)

***Practicum in Education & Training (2 credits) is available and required.

Career Opportunities

Teacher * Principal * School
Guidance Counselor
Superintendent (School
Administrator) * College
Professor

Salary Range

\$23,220 - \$124,300



HEALTH SCIENCES

The Health Sciences career pathway focuses on planning, managing, and providing therapeutic services, diagnostic services, health informatics, and support services.

Credits

9th: Principles of Health Science
(1 credit)

10th: Medical Terminology (1 credit)

11th or 12th: Anatomy & Physiology
(1 credit-Biology & Chemistry are prerequisites)

12th: CNA * (1 credit) or Phlebotomy *
(1 credit)

* Must have 4 credits including at least one advanced course

Career Opportunities

Physician/Surgeon *

Anesthesiologists * Nurse

Certified Nurses Assistant *

Physical Therapist

Salary Range

\$18,322 - \$135,659



CULINARY ARTS

The Culinary Arts career pathway focuses on the management, marketing, and operations of restaurants and other food and beverage services.

Credits

10th: Culinary Arts I
(2 credits)

11th or 12th: Advanced
Culinary Arts* (2 credits)

*Must have 4 credits
including at least one
advanced course

Career Opportunities

Chef * Food Service Manager
* Food Server
Baker * Restaurant Owner

Salary Range

\$11,000 - \$79,222



SAFETY: LAW ENFORCEMENT

The Law Enforcement career pathway focuses on planning, managing, and providing legal services, public safety, and homeland security.

Credits

9th: Principles of Law & Safety
(1 credit)

10th: Criminal Investigation (1 credit)

11th: Law Enforcement I (1 credit)

12th: Law Enforcement II * (1 credit)

* Must have 4 credits including at least one advanced course

Career Opportunities

Police Officer * State

Trooper *

Investigator * Security
Guard

Salary Range

\$30,000 - \$61,000



STEM-ENGINEERING

The Science, Technology, Engineering, and Mathematics (STEM) career pathway focuses on planning, managing, and providing scientific research and professional and technical services.

Credits

9th: Principles of Applied Engineering (1 credit)

10th: Engineering Design & Presentation I (1 credit)

11th: Scientific Research & Design (1 credit)

12th: Engineering Design & Problem Solving * (1 credit)

* Must have 4 credits including at least one advanced course

Career Opportunities

Engineering Manager *

Electrical Engineer *

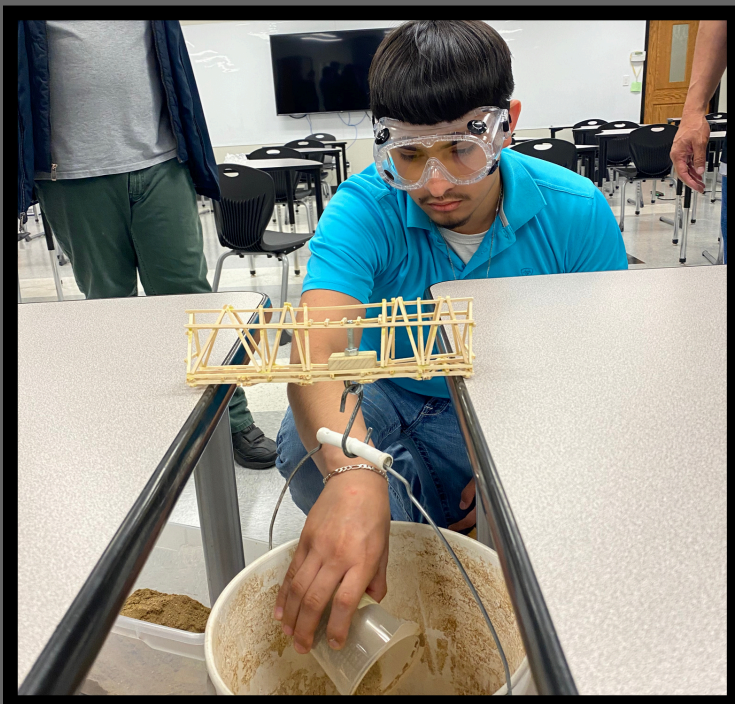
Civil Engineer

Biomedical Engineer *

Mechanical Engineer

Salary Range

\$68,268 - \$110,030



STEM MATH & SCIENCE

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

Credits

9th: Biology, Algebra I

10th-11th: Chemistry, Geometry, & Algebra II, Physics, Forensics (CTE),

Pre-Calculus

12th: Anatomy (CTE), Advanced Animal Science * (CTE)

* Must have 3 credits including at least one advanced course

Career Opportunities

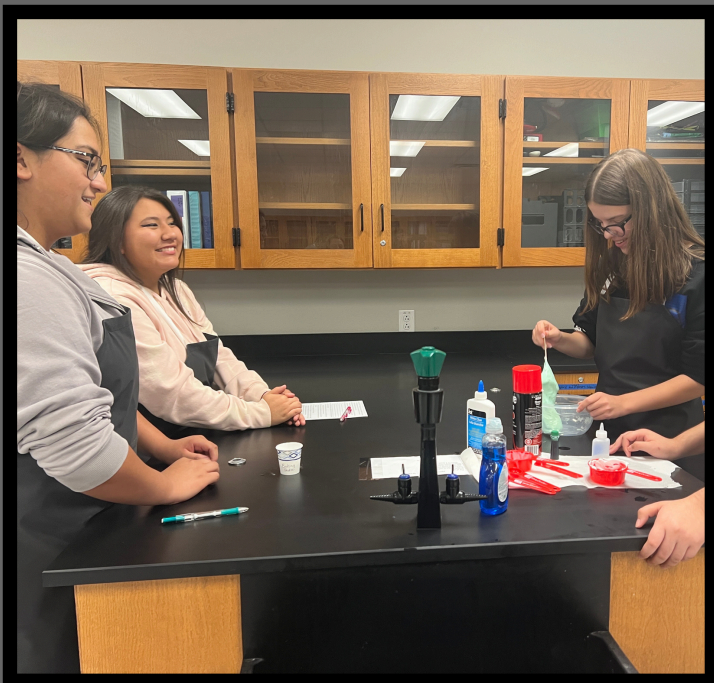
Biologist * Accountant *

Financial Analyst

Bio-Chemist * Biological Scientist

Salary Range

\$37,000 - \$81,700



ARTS & HUMANITIES: MUSIC, ART, THEATER

These programs offer unique experiences and empowers students to explore realities, relationships, and ideas. These disciplines engage and motivate all students through active learning, critical thinking, and innovative problem solving. These programs help develop cognitive functioning and increase student academic achievement, higher-order thinking, communication, and collaboration skills, making the fine arts applicable to college readiness, career opportunities, workplace environments, social skills, and everyday life.

Credits

9th: Band I, Art I, or Theater I

10th: Band II, Art II, or Theater II

11th: Band III, Art III, or Theater III

12th: Band IV, Art IV, or Theater IV

* Must have 4 credits including at least one advanced course

Career Opportunities

Musician * Actor * Artist

Band Director * Choreographer

Salary Range

\$32,000 - \$90,000



COURSE DESCRIPTIONS

Principles of Ag

To be prepared for careers in agriculture, food, and natural resources, students must attain academic skills and knowledge in agriculture. This course allows students to develop knowledge and skills regarding career opportunities, personal development, globalization, industry standards, details, practices, and expectations. To prepare for success, students need to have opportunities to learn, reinforce, experience, apply, and transfer their knowledge and skills in a variety of settings.

Equine Science

Students will acquire knowledge and skills related to equine animal systems and the equine industry. Equine Science may address topics related to horses, donkeys, and mules. To prepare for careers in the field of animal science, students must enhance academic knowledge and skills, acquire knowledge and skills related to animal systems, 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.

Small Animal Management

Students will acquire knowledge and skills related to small animals and the small animal management industry. Small Animal Management may address topics related to small mammals such as dogs and cats, amphibians, reptiles, and birds. To prepare for careers in the field of animal science, students must enhance academic knowledge and skills, acquire knowledge and skills related to animal systems, 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 knowledge and skills in a variety of settings.

Range Ecology and Management

Prepare for careers in environmental and natural resource systems, students must attain academic skills and knowledge, acquire technical knowledge and skills related to environmental and 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.

Livestock Production

To be prepared for careers in the field of animal science, students need to attain academic skills and knowledge, acquire knowledge and skills related to animal systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings. Animal species to be addressed in this course may include, but are not limited to, beef cattle, dairy cattle, swine, sheep, goats, and poultry.

Introduction to Welding

Introduction to Welding will provide an introduction to welding technology with an emphasis on basic welding laboratory principles and operating procedures. Students will be introduced to the three basic welding processes. Topics include: industrial safety and health practices, hand tool and power machine use, measurement, laboratory operating procedures, welding power sources, welding career potentials, and introduction to welding codes and standards.

Welding I

Welding I provides the knowledge, skills, and technologies required for employment in metal technology systems. Students will develop knowledge and skills related to this system and apply them to personal career development. This course supports the integration of academic and technical knowledge and skills. Students will reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for future success.

Welding II/ Lab

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

Principles of Construction

Principles of Construction is intended to provide an introduction and lay a solid foundation for those students entering the construction or craft skilled areas. The course provides a strong knowledge of construction safety, construction mathematics, and common hand and power tools. For safety and liability considerations, limiting course enrollment to 15 students is recommended. This course also provides communication and occupation skills to assist the student in obtaining and maintaining employment.

Construction Technology I

In Construction Technology I, students gain knowledge and skills specific to those needed to enter the workforce as carpenters or building maintenance supervisors or prepare for a postsecondary degree in construction management, architecture, or engineering. Students acquire knowledge and skills in safety, tool usage, building materials, codes, and framing.

Construction Technology II

In Construction Technology II, students gain advanced knowledge and skills specific to those needed to enter the workforce as carpenters, building maintenance technicians, or supervisors or prepare for a postsecondary degree in construction management, architecture, or engineering. Students build on the knowledge base from Construction Technology and are introduced to exterior and interior finish out skills.

Digital Media

Digital Design and Media Production will allow students to demonstrate creative thinking, develop innovative strategies, and use communication tools in order to work effectively with others as well as independently.

Graphic Design & Illustration I / Lab

Students demonstrate an understanding of artistic design. The student is expected to analyze and apply art elements and principles in photographic works, multimedia applications, and digital and print media.

Graphic Design & Illustration II / Lab

Students will design, produce, exhibit, write, and publish multimedia content.

Intro to Cosmetology

In Introduction to Cosmetology, students explore careers in the cosmetology industry. To prepare for success, students must have academic and technical knowledge and skills relative to the industry.

Students may begin to earn hours toward state licensing requirements.

Cosmetology I

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

Cosmetology II

Students review academic knowledge and skills related to cosmetology. This course is designed to provide advanced training for employment in cosmetology careers. Instruction includes advanced training in sterilization and sanitation processes, hair care, nail care, and skin care and meets the Texas Department of Licensing and Regulation requirements for licensure upon passing the state examination. Students apply, combine, and justify knowledge and skills to a variety of settings and problems.

Instructional Practices in Education and Training

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

Practicum in Education and Training

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

Principles of Health Science

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

Medical Terminology

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

Anatomy & Physiology

Anatomy and Physiology, students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Anatomy and Physiology study a variety of topics, including the structure and function of the human body and the interaction of body systems for maintaining homeostasis.

CNA

This course is designed to provide basic nursing skills, emphasizing long-term elderly care facilities. Includes physical and psychological needs, safety, infection control, and resident rights. Students can earn a certificate upon the completion of the course.

Phlebotomy

This course prepares the student for the practice of phlebotomy in clinics, hospitals, commercial laboratories, large medical offices, and blood banks. Medical terminology, safety and legal issues, various related physiological systems, laboratory tests, and specimens handling will be covered. The 196-hour program consists of a 96-hour basic phlebotomy course and a 100-hour clinical. Students can earn a certificate upon completion of this course.

Culinary Arts

Culinary Arts begins with the fundamentals and principles of the art of cooking and the science of baking and includes management and production skills and techniques. Students can pursue a national sanitation certification, a Texas culinary specialist certification, or any other appropriate industry certification. This course may be offered as a laboratory-based or internship course. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.

Advanced Culinary Arts

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

Principles of Law and Public Safety

Principles of Law, Public Safety, Corrections, and Security introduces students to professions in law enforcement, security, corrections, and fire and emergency management services. Students will examine the roles and responsibilities of police, courts, corrections, private security, and protective agencies of fire and emergency services. The course provides students with an overview of the skills necessary for careers in law enforcement, fire service, security, and corrections.

Criminal Investigation

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

Law Enforcement I

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

Law Enforcement II

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

Principles of Applied Engineering

Concepts of Engineering and Technology provides an overview of the various fields of science, technology, engineering, and mathematics and their interrelationships. Students will use a variety of computer hardware and software applications to complete assignments and projects. Upon completing this course, students will have an understanding of the various fields and will be able to make informed decisions regarding a coherent sequence of subsequent courses. Further, students will have worked on a design team to develop a product or system. Students will use multiple software applications to prepare and present course assignment.

Engineering Design and Presentation I

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

Scientific Research & Design

Science, as defined by the National Academy of Sciences, is the "use of evidence to construct testable explanations and predictions of natural phenomena, as well as the knowledge generated through this process." This vast body of changing and increasing knowledge is described by physical, mathematical, and conceptual models. Students should know that some questions are outside the realm of science because they deal with phenomena that are not scientifically testable.

Engineering Design and Problem Solving

Engineering Design and Problem Solving reinforces and integrates skills learned in previous mathematics and science courses. This course emphasizes solving problems, moving from well defined toward more open ended, with real-world application. Students apply critical-thinking skills to justify a solution from multiple design options. Additionally, the course promotes interest in and understanding of career opportunities in engineering.

Student Name: _____ **Grade:** _____

Student Goals: _____

Career Interests: _____

Graduation Plan (Check One of the Following):

HB5 Foundation + Endorsement

HB5 Foundation + Endorsement + Distinguished Achievement

Endorsement Selected: (check at least one of the following)

Business & Industry Arts & Humanities STEM Public Service

Endorsement Option: _____

4 Year Graduation Plan				
	9th Grade	10th Grade	11th Grade	12th Grade
1	English 1	English 2	English 3	English 4
2	Algebra 1	Biology	Algebra 2	College Algebra
3	IPC	Geometry	Chemistry	Advanced Science
4	World Geography	U.S. History	Govt/Eco	Program Elective
5	Spanish I or II	Spanish II or Fine Art	Career Path CTE Endorsement Elective	Career Path CTE Endorsement Elective
6	Career Path CTE Endorsement Elective	Career Path CTE Endorsement Elective	Career Path CTE Endorsement Elective	Career Path CTE Endorsement Elective
7	PE OR Athletics* *Sport(s) _____	Program Elective	Program Elective	Program Elective

Student Signature: _____

Date: _____

Parent Signature: _____

Date: _____

Student Name: _____ **Grade:** _____

Student Goals: _____

Career Interests: _____

Graduation Plan (Check One of the Following):

HB5 Foundation + Endorsement

HB5 Foundation + Endorsement + Distinguished Achievement

Endorsement Selected: (check at least one of the following)

Business & Industry Arts & Humanities STEM Public Service

Endorsement Option: _____

4 Year Graduation Plan				
	9th Grade	10th Grade	11th Grade	12th Grade
1	English 1 Honors	English 2 Honors	English 3 Dual Credit	English 4
2	Algebra 1 Honors	Geometry Honors	Algebra 2 Honors	Pre- Cal Dual Credit
3	Biology Honors	Chemistry Honors	Physics Honors	Advanced Science
4	World Geography	U.S. History Dual Credit	Govt/Eco Dual Credit	Program Elective
5	Spanish I or II	Spanish II or Fine Art	Career Path CTE Endorsement Elective	Career Path CTE Endorsement Elective
6	Career Path CTE Endorsement Elective	Career Path CTE Endorsement Elective	Career Path CTE Endorsement Elective	Career Path CTE Endorsement Elective
7	PE OR Athletics* *Sport(s) _____	Program Elective	Program Elective	Program Elective

Student Signature: _____

Date: _____

Parent Signature: _____

Date: _____

EFFORT TODAY, SUCCESS TOMORROW!

