Career and Technical Education Course Descriptions
(Listed in order by course number)

Principles of Agriculture, Food, and Natural Resources
PRINAFNR – 13000200
Grade Level:  9
Credit:  1
Course #: 16000
Prerequisite: none

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.

Livestock Production
LIVEPROD – 13000300
Grade Level: 10-12
Credit:  1
Course #: 16001
Prerequisite: Principles of Agriculture, Food, and Natural Resources 16000

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.

Veterinary Medical Applications
VETMEDAP – 13000600
Grade Level: 10-12
Credit:  1
Course #: 16004
Prerequisite: Principles of Agriculture, Food, and Natural Resources 16000

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.

Advanced Animal Science (offered only as a 4th science)
ADVANSCI – 13000700
Grade Level: 12
Credit:  1
Course #: 16005
Prerequisite: none

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

Professional Standards in Agribusiness
PROSAFNR – 1300800
Grade Level: 10-12
Credit:  1
Course #: 16006
Prerequisite: Principles of Agriculture, Food, and Natural Resources 16000

This course primarily focuses on leadership, communication, employer-employee relations, and problem solving as they relate to agribusiness. To be prepared for careers in agribusiness systems, students need to attain academic skills and knowledge, acquire technical knowledge and skills related to leadership development and the workplace, and develop knowledge and skills regarding agricultural career opportunities, entry requirements, and industry expectations.

Wildlife, Fisheries, and Ecology Management
WFECGT – 13001400
Grade Level: 10-12
Credit:  1
Course #: 16013
Prerequisite: none

This course examines the management of game and non-game wildlife species, fish, and aquacrops and their ecological needs as related to current agricultural practices. 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.

**Principles of Horticulture Science**  
HORTISCI – 130002000  
Grade Level: 10-12  
Credit: 1  
Course #: 16018  
Prerequisite: none

This course is designed to develop an understanding of common horticultural management practices as they relate to food and ornamental plant production. To be prepared for careers in horticultural systems, students need to attain academic skills and knowledge, acquire technical knowledge and skills related to horticulture and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations.

**Agricultural Mechanics and Metal Technologies**  
AGMECHMT – 13002200  
Grade Level: 10-12  
Credit: 1  
Course #: 16020  
Prerequisite: Principles of Agriculture, Food, and Natural Resources 16000

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 metal working techniques. To be prepared for careers in agricultural power, structural, and technical systems, students need to attain academic skills and knowledge; acquire technical knowledge and skills related to power, structural, and technical agricultural systems and the industry; and develop knowledge and skills regarding career opportunities, entry requirements, industry certifications, and industry expectations.

**Agricultural Facilities Design and Fabrication**  
AGDFDFAB – 13002300  
Grade Level: 10-12  
Credit: 1  
Course #: 16021  
Prerequisite: Principles of Agriculture, Food, and Natural Resources 16000

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PRINAFNR – 13000200  
Grade Level: 9  
Credit: 1  
Course #: 16000  
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**Veterinary Medical Applications**  
VETMEDAP – 13000600  
Grade Level: 10-12  
Credit: 1  
Course #: 16004  
Prerequisite: Principles of Agriculture, Food, and Natural Resources 16000

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.
Advanced Animal Science (offered only as a 4th science)
ADVANSCI – 13000700
Grade Level: 12
Credit: 1
Course #: 16005
Prerequisite: none

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

Professional Standards in Agribusiness
PROSAFNR – 1300800
Grade Level: 10-12
Credit: 1
Course #: 16006
Prerequisite: Principles of Agriculture, Food, and Natural Resources 16000

This course primarily focuses on leadership, communication, employer-employee relations, and problem solving as they relate to agribusiness. To be prepared for careers in agribusiness systems, students need to attain academic skills and knowledge, acquire technical knowledge and skills related to leadership development and the workplace, and develop knowledge and skills regarding agricultural career opportunities, entry requirements, and industry expectations.

Wildlife, Fisheries, and Ecology Management
WFECGT – 13001400
Grade Level: 10-12
Credit: 1
Course #: 16013
Prerequisite: none

This course examines the management of game and non-game wildlife species, fish, and aquacrops and their ecological needs as related to current agricultural practices. 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.

Principles of Horticulture Science
HORTISCI – 130002000
Grade Level: 10-12
Credit: 1
Course #: 16018
Prerequisite: none

This course is designed to develop an understanding of common horticultural management practices as they relate to food and ornamental plant production. To be prepared for careers in horticultural systems, students need to attain academic skills and knowledge, acquire technical knowledge and skills related to horticulture and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations.

Agricultural Mechanics and Metal Technologies
AGMECHMT – 13002200
Grade Level: 10-12
Credit: 1
Course #: 16020
Prerequisite: Principles of Agriculture, Food, and Natural Resources 16000

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 metal working techniques. To be prepared for careers in agricultural power, structural, and technical systems, students need to attain academic skills and knowledge; acquire technical knowledge and skills related to power, structural, and technical agricultural systems and the industry; and develop knowledge and skills regarding career opportunities, entry requirements, industry certifications, and industry expectations.

Agricultural Facilities Design and Fabrication
AGFDFAB – 13002300
Grade Level: 10-12
Credit: 1
Course #: 16021
Prerequisite: Principles of Agriculture, Food, and Natural Resources 16000

This course is designed to develop an understanding of mechanized agriculture and technical systems. Students attain knowledge and skills related to agricultural facilities design and fabrication. Students explore career opportunities, entry requirements, and industry expectations. To prepare for success, students reinforce, apply, and transfer their academic knowledge and technical skills in a variety of settings.
Practicum in Agriculture, Food and Natural Resources
PRACAFNR – 13002500
Grade Level: 12
Credit: 2
Course #: 16023
Prerequisite: Any course from this career cluster

The Practicum is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience such as internships, mentorships, independent study, or laboratories. **Students must complete the appropriate application and gain approval before being scheduled in this course.**

Greenhouse Management and Landscape Design Practicum
PRACAFNR - 13002500
Grade Level: 11-12
Credit: 2
Course #: 16026
Prerequisite: Principles of Horticulture Science 16018

This cluster laboratory based practicum course is designed to prepare students to produce, process, and market horticulture plants used principally for ornamental, recreational, and aesthetic purposes, and to establish, maintain, and manage horticultural enterprises. The courses include structures, machinery, and equipment necessary for each horticultural enterprise. Experiences will be provided in the fields floriculture, greenhouse operation and propagation, landscape design and maintenance and plant identification.

Principles of Architecture and Construction
PRINARCH – 13004200
Grade Level: 10-12
Credit: 1
Course #: 16030
Prerequisite: none

Principles of Architecture and Construction will provide an overview to the various fields of architecture, interior design, construction science, and construction technology. Achieving proficiency in decision making and problem solving is an essential skill for career planning and lifelong learning. Students use self-knowledge, educational, and career information to set and achieve realistic career and educational goals. Job-specific, skilled training can be provided through the use of training modules to identify career goals in trade and industry areas. Safety and career opportunities are included, in addition to work ethics and job-related study in the classroom such as communications; problem solving and critical thinking; Information Technology Applications; systems; safety, health, and environmental; leadership and teamwork; ethics and legal responsibilities; employability and career development; technical skills; introduction to hand tools; introduction to power tools; basic rigging; and reading technical drawings.

Construction Technology
CONSTECH – 13005100
Grade Level: 11-12
Credit: 2
Course #: 16041
Prerequisite: Principles of Architecture and Construction 16030 - Recommended

In Construction Technology, students gain knowledge and skills specific to those needed to enter the work force 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.

Advanced Construction Technology
ADVCONST – 13005200
Grade Level: 12
Credit: 2
Course #: 16042
Prerequisite: 16041 - Required

In Advanced Construction Technology, students gain advanced knowledge and skills specific to those needed to enter the work force 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.

Practicum in Construction Management
PRACCONS – 13006200
Grade Level: 12
Credit: 2
Course #: 16052
Prerequisite: Any course from this career cluster

Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience such as internships, mentorships, independent study, or laboratories. **Students must complete the appropriate application and gain approval before being scheduled in this course.**
Animation
ANIMAT – 13008300
Grade Level: 10-12
Credit: 1
Course #: 16061
Prerequisite: Principles of Information Technology - Recommended

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

Audio/Video Production
AVPROD – 13008500
Grade Level: 11-12
Credit: 2
Course #: 16063
Prerequisite: Principles of Information Technology - Recommended

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

Advanced Audio/Video Production
ADVAVPRO – 13008600
Grade Level: 12
Credit: 2
Course #: 16064
Prerequisite: 16063 - Required

Careers in audio and video technology and film production span all aspects of the audio/video communications industry. Within this context, in addition to developing advanced knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications career cluster, students will be expected to develop an advanced understanding of the industry with a focus on pre-production, production, and post-production activities. This course may be implemented in an advanced audio format or an advanced format, including both audio and video.

Practicum in Audio/Video Production
PRACAVT – 13008700
Grade Level: 12
Credit: 2
Course #: 16065
Prerequisite: Any course from this career cluster

Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience such as internships, mentorships, independent study, or laboratories. Students must complete the appropriate application and gain approval before being scheduled in this course.

Graphic Design and Illustration
GRAPHDI – 13008800
Grade Level: 10-12
Credit: 1
Course #: 16067
Prerequisite: Principles of Information Technology - Recommended

Careers in graphic design and illustration span all aspects of the advertising and visual communications industries. Within this context, in addition to developing knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications career cluster, students will be expected to develop an understanding of the industry with a focus on fundamental elements and principles of visual art and design.

Fashion Design
FASHDSN – 13009300
Grade Level: 10-12
Credit: 1
Course #: 16073
Prerequisite: Principles of Human Services 16190 - Recommended

Careers in fashion span all aspects of the textile and apparel industries. Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications career cluster, students will be expected to develop an understanding of fashion and the textile and apparel industries.
Professional Communications (only offered as an embedded course in other 9th Grade CTE electives)
PROFCOMM – 13009900
Grade Level: 9th Grade only
Credit: .5-1
Course #: 16081
Prerequisite: must be taken as an embedded course in another WNGA CTE elective

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

Principles of Business, Marketing, and Finance
PRINBMF – 13011200
Grade Level: 10-12
Credit: 1
Course #: 16090
Prerequisite: none

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

Business Management
BUSMGT – 1312100
Grade Level: 11-12
Credit: 1
Course #: 16099
Prerequisite: Principles of Business, Marketing, and Finance 16090 - Recommended

Students recognize, evaluate, and prepare for a rapidly evolving global business environment that requires flexibility and adaptability. Students analyze the primary functions of management and leadership, which are planning, organizing, staffing, directing or leading, and controlling. Topics will incorporate social responsibility of business and industry. Students develop a foundation in the economical, financial, technological, international, social, and ethical aspects of business to become competent managers, employees, and entrepreneurs. Students incorporate a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business to make appropriate management decisions.

Practicum in Business Management
PRACBM - 13012200
Grade Level: 12
Credit: 2
Course #: 16100
Prerequisite: Any course from this career cluster

Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience such as internships, mentorships, independent study, or laboratories. Students must complete the appropriate application and gain approval before being scheduled in this course.

Instructional Practices in Education and Training (Ready Set Teach I)
INPREDTR – 13014400
Grade Level: 11-12
Credit: 2
Course #: 16112
Prerequisite: Principles of Human Services 16190 and/or Child Development 16195 - Recommended

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. Students must complete the appropriate application and gain approval before being scheduled in this course.

Practicum in Education and Training (Ready Set Teach II)
PRACEDTR – 13014500
Grade Level: 12
Credit: 2
Course #: 16113
Prerequisite: 16112 - Required

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

**Accounting I**
ACCOUNT1 – 13016600
Grade Level: 10-12
Credit: 1
Course #: 16124
Prerequisite: Principles of Business, Marketing, and Finance 16090 - Recommended

Students investigate the field of accounting, including how it is impacted by industry standards as well as economic, financial,
technological, international, social, legal, and ethical factors. Students reflect on this knowledge as they engage in the process of
recording, classifying, summarizing, analyzing, and communicating accounting information. Students formulate and interpret
financial information for use in management decision making.

**Statistics and Risk Management**
STATSRM – 13016900
Grade Level: 11-12
GPA Type: Regular
Credit: 1
Course #: 16127
Prerequisite: must have completed or be concurrently enrolled in Algebra II – this course will satisfy students 4th Math requirement.

Students will use a variety of graphical and numerical techniques to analyze patterns and departures from patterns to identify and
manage risk that could impact an organization. Students will use probability as a tool for anticipating and forecasting data within
business models to make decisions. Students will determine the appropriateness of methods used to collect data to ensure
conclusions are valid.

**Practicum in Local, State, and Federal Government**
PRACLSFG – 13018900
Grade Level: 12
Credit: 2
Course #: 16138
Prerequisite: Any course from this career cluster

Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience such as internships,
mentorships, independent study, or laboratories. **Students must complete the appropriate application and gain approval before being scheduled in this course.**

**Principles of Health Science**
PRINHLSC – 13020200
Grade Level: 10-12
Credit: 1
Course #: 16150
Prerequisite: none

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

**Health Science**
HLTHSCI – 13020400
Grade Level: 11-12
Credit: 2
Course #: 16152
Prerequisite: Principles of Health Science 16150 – Recommended

The Health Science course is designed to provide for the development of advanced knowledge and skills related to a wide variety of
health careers. Students will have hands-on experiences for continued knowledge and skill development. The course may be taught
by different methodologies such as clinical rotation and career preparation learning.

**Practicum in Health Science**
PRACHLSC – 13020510
Grade Level: 12
Credit: 2
Course #: 16153
Prerequisite: 16152 - Required

The Lab-based Practicum is designed to give students practical application of previously studied knowledge and skills. **All students in this course will be working towards certification as an Emergency medical or Pharmacy Technician.**
Anatomy and Physiology (may be used as a 4th science)
ANATPHYS – 13020600
Grade Level: 11-12
GPA Type: Honors
Credit: 1
Course #: 16155
Prerequisite: none

In 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.

Dual Credit (DC) Anatomy and Physiology
ANAT&PHY -13020600
Grade Level: 11-12
GPA Type: Honors
Credit: 1 credit
Course #: 0299
Prerequisite: Two science credits from either Biology or Pre-AP Biology and Chemistry or Pre-AP Chemistry with a grade of 85 or higher in each

DC Anatomy and Physiology will earn a high school Science credit and ANATOMY AND PHYSIOLOGY I 2401 and ANATOMY AND PHYSIOLOGY II 2402 earning 8 college hours through Navarro College. Students are responsible for all required fees, tuition and books for both semesters by the deadlines given by Navarro.

BIOL 2401 ANATOMY AND PHYSIOLOGY I – Human anatomy and physiology are studied using a body systems approach, with emphasis on the relationships between form and function. Topics include anatomical and directional terminology, cell and cell chemistry, tissues, skeletal system, articulation, muscular system and nervous system. Laboratory work includes physiological and anatomical studies of mammals.

BIOL 2402 ANATOMY AND PHYSIOLOGY II – Topics include endocrine system, cardiovascular system, respiratory system, lymphatic system, digestive system, urinary system, fluids and electrolytes, reproductive system, development and genetics. Laboratory work includes physiological and anatomical studies of mammals.

Culinary Arts (food tech and preparation)
CULARTS – 13022600
Grade Level: 10-12
Credit: 1
Course #: 16174
Prerequisite: Principles of Human Services 16190 - Recommended

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 is being offered as a laboratory-based course. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.

Practicum in Hospitality Services
PRACHOSP - 13022900
Grade Level: 12
Credit: 2
Course #: 16178
Prerequisite: Any course from this career cluster

Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience such as internships, mentorships, independent study, or laboratories. Students must complete the appropriate application and gain approval before being scheduled in this course.

Principles of Human Services
PRINHUSR - 13024200
Grade Level: 9-12
Credit: 1
Course #: 16190
Prerequisite: none

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

Child Development
CHILDEV - 13024700
Grade Level: 10-12
Credit: 1
Course #: 16195
Prerequisite: Principles of Human Services 16190 - Recommended

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

**Family and Community Services**

FAMCOSRV – 13024900  
Grade Level: 12  
Credit: 1  
Course #: 16197  
Prerequisite: none

This laboratory-based course is designed to involve students in realistic and meaningful community-based activities through direct service experiences. Students are provided opportunities to interact and provide services to individuals, families, and the community through community or volunteer services. Emphasis is placed on developing and enhancing organizational and leadership skills and characteristics.

**Practicum in Human Services**

PRACHUSR – 13024900  
Grade Level: 12  
Credit: 2  
Course #: 16198  
Prerequisite: Any course from this career cluster

Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience such as internships, mentorships, independent study, or laboratories. **Students must complete the appropriate application and gain approval before being scheduled in this course.**

**Introduction to Cosmetology**

INTCOSMO – 13025100  
Grade Level: 10th only  
Credit: 1  
Course #: 16200  
Prerequisite: none

Students explore areas such as bacteriology, sterilization and sanitation, hair styling, manicuring, shampooing and the principles of hair cutting, hair styling, hair coloring, skin care, and facial makeup. The student researches careers in the personal care services industry. To prepare for success, students must have skills relative to this industry, as well as academic knowledge and skills. Students may begin to earn clock hours toward state licensing requirements.

**Cosmetology I**

COSMET1 – 13025200  
Grade Level: 11th only  
Credit: 3  
Course #: 16201  
Prerequisite: Introduction to Cosmetology 16200 – Recommended

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, haircare, 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**

COSMET2 – 13025300  
Grade Level: 12th only  
Credit: 3  
Course #: 16202  
Prerequisite: 16201 - Required

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, haircare, 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.

**Principles of Information Technology**

PRINIT – 13027200  
Grade Level: 9-12  
Credit: 1  
Course #: 16220  
Prerequisite: none

Students develop computer literacy skills to adapt to emerging technologies used in the global marketplace. Students implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. Students enhance reading, writing, computing, communication, and reasoning skills and apply them to the information technology environment.
Computer Programming
(Students will have the opportunity to enroll in AP Computer Science concurrently for an additional credit. AP Computer Science is a Math credit and will carry the weighted AP GPA Type.) AP Computer Science receives Honors GPA.

COMPPROG – 13027600
Grade Level: 10-12
Credit: 1.02
Course #: 16224
Prerequisite: Principles of Information Technology – Highly Recommended

Students acquire knowledge of structured programming techniques and concepts appropriate to developing executable programs and creating appropriate documentation. Students analyze the social responsibility of business and industry regarding the significant issues relating to the environment, ethics, health, safety, and diversity in society and in the workplace as it relates to computer programming. Students apply technical skills to address business applications of emerging technologies.

Advanced Computer Programming
ADVCOMPP – 13027700
Grade Level: 11-12
Credit: 1
Course #: 16225
Prerequisite: 16224 - Required

Students expand their knowledge and skills in structured programming techniques and concepts by addressing more complex problems and developing comprehensive programming solutions. Students analyze the social responsibility of business and industry regarding the significant issues relating to environment, ethics, health, safety, and diversity in society and in the workplace as it relates to computer programming. Students apply technical skills to address business applications of emerging technologies.

Web Technologies
WEBTECH – 13027900
Grade Level: 10-12
Credit: 1
Course #: 16227
Prerequisite: Principles of Information Technology - Recommended

Through the study of web technologies and design, students learn to make informed decisions and apply the decisions to the field of information technology. Students implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. The knowledge and skills acquired and practiced will enable students to successfully perform and interact in a technology-driven society. Students enhance reading, writing, computing, communication, and critical thinking and apply them to the information technology environment.

Research in Information Technology Solutions
RESITSOL – 13028000
Grade Level: 11-12
Credit: 1
Course #: 16228
Prerequisite: Principles of Information Technology - Recommended

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

Forensic Science (offered as 4th Science option)
FORENSCI – 13029500
Grade Level: 11-12
Credit: 1
Course #: 16244
Prerequisite:

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

Practicum in Law, Public Safety, Corrections, and Security
PRACLPCS – 13030100
Grade Level: 12
Credit: 2
Course #: 16250
Prerequisite: Any course from this career cluster

Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience such as internships, mentorships, independent study, or laboratories. Students must complete the appropriate application and gain approval before being scheduled in this course.
**Principles of Manufacturing**
PRINMAN – 13032200
Grade Level: 10-12
Credit: 1
Course #: 16260
Prerequisite: none

In Principles of Manufacturing, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems and how those knowledge and skills are applied to manufacturing. Knowledge and skills in the proper application of principles of manufacturing, the design of technology, the efficient production of technology, and the assessment of the effects of manufacturing production technology prepare students for success in the modern world. The study of manufacturing technology allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in a manufacturing setting. In addition to general academic and technical knowledge and skills, students gain an understanding of career opportunities available in manufacturing and what employers require to gain and maintain employment in these careers.

**Welding**
WELD – 13032300
Grade Level: 11-12
Credit: 2
Course #: 16261
Prerequisite: Principles of Manufacturing 16260 - Recommended

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

**Advanced Welding**
ADVWELD – 13032400
Grade Level: 12
Credit: 2
Course #: 16262
Prerequisite: 16261 - Required

Advanced Welding builds on knowledge and skills developed in Welding. Students will develop advanced welding concepts and skills as they relate to personal and career development. This course integrates academic and technical knowledge and skills. Students will have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems.

**Practicum in Manufacturing**
PRACMANU – 13033000
Grade Level: 12
Credit: 2
Course #: 16268
Prerequisite: Any course from this career cluster

Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience such as internships, mentorships, independent study, or laboratories. Students must complete the appropriate application and gain approval before being scheduled in this course.

**Retailing and E-tailing**
RETAILE – 13034500
Grade Level: 10-12
Credit: 1
Course #: 16283
Prerequisite: Principles of Business, Marketing, and Finance 16090 - Recommended

Students will have the opportunity to develop skills that involve electronic media techniques necessary for a business to compete in a global economy. Students will coordinate online and off-line marketing. Students will demonstrate critical-thinking skills using decision-making models, case studies, various technologies, and business scenarios.

**Sports and Entertainment Marketing**
SPORTSEM – 13034600
Grade Level: 10-12
Credit: 1
Course #: 16284
Prerequisite: Principles of Business, Marketing, and Finance 16090 - Recommended

This course will provide students with a thorough understanding of the marketing concepts and theories that apply to sports and sporting events and entertainment. The areas this course will cover include basic marketing, target marketing and segmentation, sponsorship, event marketing, promotions, sponsorship proposals, and implementation of sports and entertainment marketing plans. This course will also provide students an opportunity to develop promotional plans, sponsorship proposals, endorsement contracts, sports and entertainment marketing plans, and evaluation and management techniques.
Concepts (Principles) of Engineering
CONCENG – 13036200
Grade Level: 10-12
Credit: 1
Course #: 16300
Prerequisite: none

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 assignments.

Principles of Technology (may be used as 4th science on the recommended plan only)
PRINTECH – 13037100
Grade Level: 11-12
GPA Type: Regular
Credit: 1
Course #: 16309
Prerequisite: none

In Principles of Technology, students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Various systems will be described in terms of space, time, energy, and matter. Students will study a variety of topics that include laws of motion, conservation of energy, momentum, electricity, magnetism, thermodynamics, and characteristics and behavior of waves. Students will apply physics concepts and perform laboratory experimentation for at least 40% of instructional time using safe practices.

Scientific Research and Design (may be used as 4th Science requirement)
SCIIRD – 13037200
Grade Level: 12
GPA Type: Regular
Credit: 1
Course #: 16310
Prerequisite: Health Science 16152 – Required (students must be working towards EMT or Pharmacy Tech)

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. Scientific inquiry is the planned and deliberate investigation of the natural world. Scientific methods of investigation are experimental, descriptive, or comparative. The method chosen should be appropriate to the question being asked. Scientific decision making is a way of answering questions about the natural world. Students should be able to distinguish between scientific decision-making methods (scientific methods) and ethical and social decisions that involve science (the application of scientific information).

Practicum in Science, Technology, Engineering and Mathematics (STEM)
PRACSTEM – 13037400
Grade Level: 12
Credit: 2
Course #: 16313
Prerequisite: Any course from this career cluster

Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience such as internships, mentorships, independent study, or laboratories. Students must complete the appropriate application and gain approval before being scheduled in this course.

Principles of Transportation, Distribution, and Logistics
PRINTDL – 13039200
Grade Level: 10-12
Credit: 1
Course #: 16350
Prerequisite: none

In Principles of Transportation, Distribution, and Logistics, students gain knowledge and skills in the safe application, design, production, and assessment of products, services, and systems. This knowledge includes the history, laws and regulations, and common practices used in the logistics of warehousing and transportation systems. Students should apply knowledge and skills in the application, design, and production of technology as it relates to the transportation, distribution, and logistics industries. This course allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings.

Automotive Technology
AUTOTECH – 13039600
Grade Level: 11-12
Credit: 2
Course #: 16354
Prerequisite: Principles of Transportation, Distribution & Logistics 16350 - Recommended
Automotive services include knowledge of the function of the major automotive systems and the principles of diagnosing and servicing these systems. In Automotive Technology, students gain knowledge and skills in the repair, maintenance, and diagnosis of vehicle systems. This study allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. The focus of this course is to teach the theory of operation of automotive vehicle systems and associated repair practices.

**Advanced Automotive Technology**  
ADVAUTOT – 13039700  
Grade Level: 12  
Credit: 2  
Course #: 16355  
Prerequisite: 16354 - Required

Automotive services include knowledge of the function of the major automotive systems and the principles of diagnosing and servicing these systems. In Automotive Technology, students gain knowledge and skills in the repair, maintenance, and diagnosis of vehicle systems. This study allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. The focus of this course is to teach the theory of operation of automotive vehicle systems and associated repair practices.

**Collision Repair and Refinishing**  
COLLILSRR – 13039800  
Grade Level: 11-12  
Credit: 2  
Course #: 16356  
Prerequisite: Principles of Transportation, Distribution & Logistics 16350 - Recommended

Collision repair and refinishing services include knowledge of the processes, technologies, and materials used in the reconstruction and alteration of vehicles. This course is designed to teach the concepts and theory of systems related to automotive collision repair and refinishing.

**Advanced Collision Repair and Refinishing**  
ADVCOLLIS – 13039900  
Grade Level: 12  
Credit: 2  
Course #: 16357  
Prerequisite: 16356 - Required

Collision repair and refinishing services include advanced knowledge of the processes, technologies, and materials used in the reconstruction and alteration of vehicles. This course is designed to teach the application of advanced technical skills and practices related to collision repair and refinishing.

**Practicum in Transportation, Distribution, and Logistics**  
PRACTDL – 13040400  
Grade Level: 12  
Credit: 2  
Course #: 16362  
Prerequisite: Any course from this career cluster

The Practicum is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience such as internships, mentorships, independent study, or laboratories.

**Diversified Career Preparation I**  
CAREERP1 – 12701300  
Grades Level: 11 - 12  
Credit: 3 Credits  
Course #: 16400

**Diversified Career Preparation II**  
CAREERP2 – 12701400  
Grades Level: 12  
Credit: 3 Credits  
Course #: 16401  
Prerequisite: Career Preparation I

This universal CTE course is designed to provide classroom training in how to acquire, keep and advance on-the-job experiences. Local business sponsors provide work-based learning and goals are set through training plans for the students. Students must be employed at an approved training station and have a training plan on file within the allotted time set forth by the Texas education Agency. Failure to follow training plan and Career prep guidelines will result in dismissal from the program.

**CTE Problems and Solutions**  
PROBS1 – 12701500  
Grades Level: 11 - 12  
Credit: 1 Credits  
Course #: 16402
A Problems and Solutions course must be cooperatively planned by the student and teacher, continuously supervised by the teacher, and conducted by the student with the guidance and support of a mentor or interdisciplinary team.

Written project plans must be on file in a student's folder for a student participating in a Problems and Solutions course. Your district may count a student in a Problems and Solutions course for contact hours on the first day of enrollment, provided the student’s project plans are on file in the student’s folder within 15 instructional days of the student’s enrollment date. A student whose project plans are not on file in his or her folder within this time period may be counted for contact hours beginning on the first day the project plans are filed.

The Problems and Solutions course provides a combination of classroom instruction and supervised research equivalent to an average of five class periods per week. The student and teacher must meet for instruction at least once each week for the purpose of project planning, reporting, evaluation, and supervision and coordination. The student must use remaining class time to conduct research, work with the project mentor or interdisciplinary team, analyze and interpret project data, and compile a project presentation and evaluation results. A project progress evaluation for each student grading period is required for the student to earn contact hours for that reporting period.