

WEST OSO

INDEPENDENT SCHOOL DISTRICT



CAREER & TECHNOLOGY EDUCATION HANDBOOK 2022-2023

CONRADO GARCIA – SUPERINTENDENT OF SCHOOLS

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WEST OSO INDEPENDENT SCHOOL DISTRICT

5350 Bear Lane
Corpus Christi, Texas 78405
361-806-5900
www.westosisd.net

Board of School Trustees

Cella Boyd	School Board President
Rose Soto	School Board Vice President
Velma Rodriguez	School Board Secretary
Belinda Gonzalez	School Board Trustee
Liz Gutierrez	School Board Trustee
Shirley Jordan	School Board Trustee
Mario Rincon	School Board Trustee

West Oso ISD Administration

Conrado Garcia	Superintendent of School
Kimberly Moore	Executive Director of Academics
RJ Alvarado	Executive Director of SPED & Student Services
Belinda Gamez	Director of Human Resources

West Oso HS Administration

Terry Avery	Principal
Rhonda Garcia	Early College Coordinator
Melissa Mondragon	Assistant Principal
Cheryl Fillmore	Athletic Director
Michelle Powell	Counselor
Sandy Hernandez	Counselor

WEST OSO INDEPENDENT SCHOOL DISTRICT



VISION: Embrace real world education to ensure self-reliant and socially responsible citizens.

MISSION: Enrich and build a progressive school community through relevant and diverse opportunities. Students will explore and identify career interests and pathways.

PUBLIC NOTIFICATION OF NONDISCRIMINATION

It is the policy of West Oso ISD not to discriminate on the basis of race, color, national origin, sex, age or handicap in its vocational programs, 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; and Section 504 of the Rehabilitation Act of 1973, as amended. West Oso ISD will take steps to ensure that lack of English language skills will not be a barrier to admission and participation in all educational and vocational programs.

NOTIFICACIÓN PÚBLICA DE NO DISCRIMINAR

Es póliza de West Oso ISD no discriminar por motivos de raza, color, origen, nacional, sexo, edad, o impedimento, en sus programas, servicios o actividades vocacionales, tal como lo requieren el Título VI de la Ley de Derechos Civiles de 1964, según enmienda; el Título IX de las Enmiendas en la Educación, de 1972, y la sección 504 de la Ley de Rehabilitación de 1973, según enmienda.

West Oso ISD tomará las medidas necesarias para asegurar que la falta de habilidad en el uso de la lengua ingles no sea un obstáculo para la admisión y participación en todos los programas educativos y vocacionales.

CAREER AND TECHNOLOGY PROGRAM

Each public school student shall master the basic skills and knowledge necessary for managing the dual roles of family member and wage earner and for gaining entry-level employment in a high-skill, high-wage job or continuing the student's education at the post-secondary level. *Education Code 29.181.*

The board may conduct and supervise career and technology classes and other educational programs for students and for other persons of all ages and spend local maintenance funds for the cost of those classes and programs. In developing a career and technology program, the board shall consider the state plan for career and technology education. *Education Code 29.183* [See EEL]

DISTINGUISHED ACHIEVEMENT IN CAREER AND TECHNOLOGY EDUCATION

The board may develop and offer a program that provides a rigorous course of study consistent with the required curriculum [see EHAA] and under which a student may:

1. Receive specific education in a career and technology profession that leads to postsecondary education or meets or exceeds business or industry standards;
2. Obtain from a district an award for distinguished achievement in career and technology education and a stamp or other notation on the student's transcript that indicates receipt of the award.

An award granted under this section is not in lieu of a diploma or certificate of coursework completion. [See EI]

In developing the program, the board shall consider the state plan for career and technology education. The board must submit the proposed program to the commissioner of education in accordance with criteria established by the commissioner.

CONTRACTS WITH OTHER ENTITIES

The board may contract with an entity listed in Education Code 29.184(a) [see EEL] for assistance in developing the program or providing instruction to district students participating in the program. The board may also contract with a local business or a local institution of higher education for assistance in developing or operating a career and technology education program. A program may provide education in areas of technology unique to the local area.

Education Code 29.187

Insurance

The board may provide insurance to protect a business that contracts with a district under this provision. [See CRB] *Education Code 29.191*

APPLICABILITY

The following provisions apply only to districts receiving federal career and technical education funds. *19 TAC 75.1021*

PROGRAM EVALUATION

A district shall annually evaluate its career and technical education programs. *19 TAC 75.1025*

SPECIAL POPULATIONS

Members of special populations shall be provided career and technical services in accordance with all applicable federal and state laws, regulations, and rules.

Definition

In this policy, a “member of a special population” includes:

1. An individual with a disability;
2. An individual from an economically disadvantaged family, including a foster child;
3. An individual preparing for nontraditional training and employment;
4. A single parent, including single pregnant women;
5. A displaced homemaker; and
6. An individual with other barriers to educational achievement, including an individual with limited English proficiency.

20 U.S.C. 2302(29)

STUDENTS WITH DISABILITIES

A student with a disability shall be provided career and technical education in accordance with all applicable federal law and regulations including the Individuals with Disabilities Education Act (IDEA) of 2004 and its implementing regulations, state statutes, and rules of the SBOE and the commissioner.

A student with a disability shall be instructed in accordance with the student’s individualized education program (IEP), in the least restrictive environment, as determined by the admission, review, and dismissal (ARD) committee. If a student with a disability is unable to receive a free appropriate public education (educational benefit) in a regular career and technical education program, using supplementary aids and services, the student may be served in separate programs designed to address the student’s occupational/training needs, such as career and technical education for students with disabilities (CTED). [See EHBA]

A student with a disability identified in accordance with IDEA of 2004 is an eligible participant in career and technical education when the following requirements are met:

1. The ARD committee shall include a representative from career and technical education, preferably the teacher, when considering initial or continued placement of a student in career and technical education program;
2. Planning for the student shall be coordinated among career and technical education, special education, and state rehabilitation agencies and should include a coherent sequence of courses;
3. A district shall monitor to determine if the instruction being provided a student with a disability in career and technical education classes is consistent with the student’s IEP;
4. A district shall provide supplementary services that each student with a disability needs to successfully complete a career and technical education program, such as curriculum modification, equipment modification, classroom modification, supportive personnel, and instructional aids and devices;
5. A district shall help fulfill the transitional service requirements of the IDEA of 2004 and implementing regulations, state statutes, and rules of the commissioner for each student with a disability who is completing a coherent sequence of career and technical education courses.

6. When determining placement in a career and technical education classroom, the ARD committee shall consider a student's graduation plan, the content of the individual transition plan, the IEP, and classroom supports. Enrollment numbers should not create a harmful effect on student learning for a student with or without disabilities in accordance with the provisions in the IDEA of 2004 and its implementing regulations.

19 TAC 75.1023

STUDENT ORGANIZATIONS

A district may use federal career and technical education funds to provide opportunities for student participation in approved student leadership organizations and assist career and technical student organizations in accordance with all applicable federal and state laws, rules, and regulations. A student shall not, however, be required to join a career and technical student organization. Student participation in career and technical student organizations shall be governed in accordance with 19 Administrative Code Chapter 76 (relating to extracurricular activities).

The following career and technical student organizations are recognized by the U.S. Department of Education and TEA:

1. Business Professionals of America (BPA);
2. DECA;
3. Future Business Leaders of America (FBLA);
4. FFA;
5. Family, Career, and Community Leaders of America (FCCLA);
6. Health Occupations Students of America (HOSA);
7. Technology Student Association (TSA); and
8. Skills USA.

19 TAC 75.1024 [See FM]

CAREER & TECHNOLOGY ADVISORY BOARD

PURPOSE

The West Oso ISD Local Advisory Board is a representative group of individuals whose experience and abilities represent a cross section of businesses and industries connected with the school district. The board serves:

- To promote the accomplishment of CTE programs
- To connect student learning with occupational practices.
- To exchange feedback regarding the needs of the community, businesses and industries, and CTE programs
- To advise in decision making

CTE ADVISORY BOARD MEMBERS

Alba Silvas	Workforce Solutions
Gillian McCaig	Lyondellbassell
Jennifer Lira	Citgo
Dr. Gilda Ramirez	Chamber of Commerce
Jeffery West	Education to Employment
Korinne Caruso	Del Mar College
Dr. Patricia Spaniol-Matthews	Texas A & M-Corpus Christi
Yvette Fitzgerald	Del Mar College
Faye Bruun	TAMUCC
Nicole Kindzinsky	Del Mar College
Eren Perez	TAMUCC

CTE PROGRAMS & TEACHERS

Department Chair	Drusilla Lomas
Education & Training	Katrina Alejandro
Audio/Video Production	
Business	Chelsie Melton
Finance	Chelsie Melton
Professional Communications	Deborah Ramirez
STEM	Amanda Salinas
Health Science	Randall Bryant

GRADE WEIGHTED COURSES

Note: The following provisions shall apply to students beginning with the graduating class of 2020.

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

Eligible AP and dual credit courses shall be categorized and weighted as Level III courses.

Eligible Pre-AP, craft, and vocational courses shall be categorized and weighted as Level II courses.

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

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

Grade	Level III	Level II	Level I
100	7.0	6.0	5.0
90	6.0	5.0	4.0
80	5.0	4.0	3.0
71	4.1	3.1	2.1
70	4.0	3.0	2.0
60	3.0	2.0	
59	0	0	

GRADE WEIGHTED CTE COURSES

Certified Nursing Assistant

EKG Technician

Phlebotomy Technician

Patient Care Technician

Welding 1323- Introduction to Welding

Welding 1407- Welding I

Welding 1521- Welding II

PTAC 1302- Introduction to Process Technology

PTAC 1308- Safety, Health, & Environment

PTAC 2314- Principles of Quality

PTAC 1410- Process Technology I

PTAC 1332- Process Instrumentation

PTAC 1354- Industrial Process

INDUSTRY BASED CERTIFICATIONS

Career Cluster	Certification Offered
Finance	QuickBooks
Business Management and Administration	MOS Excel and MOS Word
Health Science	Certified Nursing Assistant
Health Science	Patient Care Technician
Health Science	EKG Technician
Health Science	Phlebotomy Technician
STEM	SOLIDWORKS
Audio/Video Production	Adobe Photoshop

West Oso High School Endorsement Pathways

Endorsement Course Sequences

Student endorsements are chosen based on their career interests. These classes help them develop their skills for future use in the workforce or college. Students may change their endorsement at any time; however, they must be able to complete the required courses by their graduation date.

Remember, a student **MUST** complete all course requirements in the order shown below for their chosen endorsement. This **MAY** mean a student will have to take two courses in one academic year in order to meet these requirements.

Arts, A/V Tech & Communications Clusters

Graphic Design Course Sequence

Principles of Art, AV Tech and Communication
Graphic Design and Illustration I
Graphic Design and Illustration II
3-D Modeling and Animation- Level 1

Business and Industry Endorsement

Business Management Clusters

Business and Accounting Course Sequence

Principles of Business
Business Information Management I * <i>Microsoft Office Specialist: Word, Excel, Access, Power Point</i>
Business Information Management II
Accounting 1
Accounting 2

*Pick 4 to complete sequence

Manufacturing Cluster

Welding Course Sequence- Level 1 Certification

Introduction to Welding (WLDG 1407)
Welding Fundamentals (WLDG 1521) <i>*NCCER Lifetime Certifications, American Welding Society</i>
Welding Safety, Tools, and Equipment (WLDG 1323) <i>*OSHA</i>
Intermediate SMAW (WLDG 1557)
Industrial Mathematics (TECM 1301)
Intro to Pipe Welding (WLDG 1435)
Special Topics in Communications (COMG 1391)

**Dual credit through Del Mar---must be a junior

Process Technology- Specialization in Industrial Technology

**Intro to Process Tech (PTAC 1302)
**Safety Health & Env. (PTAC 1408)
**Principles of Quality (PTAC 2314)
**Process Technology 1 (PTAC 1410)
**Instrumentation (PTAC 1332)

**Dual credit through Del Mar---must be a junior

**Students will have 1.5 semesters of a two year associates degree completed

Education and Training Endorsement

Education and Training Cluster

Education and Training Course Sequence

Principles of Education and Training
Human Growth and Development
Instructional Practices
Practicum in Education and Training

Public Service Endorsement

Health Science Cluster

Health Science Course Sequence

Principles of Health Science
Medical Terminology
Health Science Theory Clinical
Anatomy & Physiology (will count as the 4 th science credit) or *EKG/Phlebotomy * <i>EKG Certified and Phlebotomist</i>
**CNA (optional) * <i>Certified Nurse's Assistant</i>

*Dual Credit through Del Mar – Must be a junior

**Dual Credit through Del Mar – Must be a senior

Science, Technology, Engineering, & Mathematics (STEM) Endorsement

STEM Clusters

Engineering Course Sequence

Principles of Applied Engineering
Engineering and Design I
Engineering and Design II
Scientific Research and Design (will count as the 4 th science credit)

**Computer Science course is strongly recommended

Computer Science Course Sequence

Computer Science Essentials- Fundamentals of Computer Science
Computer Science Principles- Computer Science I
AP Computer Science Principles
Cybersecurity

**All STEM endorsements MUST have Algebra 2, Chemistry, and Physics

COURSE DESCRIPTIONS

Professional Communications	13009900	Grade Level: 9 - 12 Credit(s): ½
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Students identify, analyze, develop and evaluate communication skills needed for work-related and social success in group interactions, interpersonal situations, and personal and work-related presentations. Students study the importance of effective communications skills and the components, standards, and characteristics of oral and nonverbal communications.

College Hour(s): N/A
Prerequisite: None

Forensic Science	13029500	Grade Level: 12 Credit(s): 1
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Forensic Science is a course that introduces students to the application of science to connect a violation of law to a specific criminal, criminal act, or behavior and victim. Students will learn terminology and procedures related to the search and examination of physical evidence in criminal cases as they are performed in a typical crime laboratory. Using scientific methods, students will collect and analyze evidence such as fingerprints, bodily fluids, hairs, fibers, paint, glass, and cartridge cases. Students will also learn the history and the legal aspects as they relate to each discipline of forensic science. Scientific methods of investigation can be experimental, descriptive, or comparative. The method chosen should be appropriate to the question being asked. **Note: This course satisfies a science credit requirement for students on the Foundation High School Program.**

College Hour(s): N/A
Prerequisite: Biology & Chemistry

Graphic Design Pathway

Principles of Audio/Video Technology and Communications	13008200	Grade Level: 9 Credit(s): 1
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Through the study of audio/visual technology students learn to make informed decisions about technologies and their applications. By using technology as a tool that supports the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results.

College Hour(s):
Prerequisite: none

Graphic Design and Illustration I	13008800	Grade Level: 10 Credit(s): 1
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Students will be expected to develop an understanding of the industry with a focus on fundamental elements and principles of visual art and design. The course is structured as a series of design projects where students create their own designs in response to specific goals and requirements. The projects will weave together knowledge and skills related to: professional practice graphic design and illustration, tools of design and presentation and the creative and technical process of design.

College Hour(s):
Prerequisite: Recommended Principles of AVTC

Graphic Design and Illustration II	13008900	Grade Level: 11 Credit(s): 1
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Students will be expected to develop an understanding of the industry with a focus on fundamental elements and principles of visual art and design. The course is structured as a series of design projects where students create their own designs in response to specific goals and requirements. The projects will weave together knowledge and skills related to: professional practice graphic design and illustration, tools of design and presentation and the creative and technical process of design.

College Hour(s):
Prerequisite: Graphic Design & Illustration I

3-D Modeling and Animation- Level 1

03580510

Grade Level: 9-12
Credit(s): 1

In this first level course, students will explore the basic principles, concepts and methodologies of 3D animation. Students will create an original character for use with various projects including, but not limited to, drawing, a clay model, digital art, and many more. This character concept will be incorporated into their projects using the various software applications such as Adobe Photoshop and Autodesk Maya a 3D industry standard advanced software. Students will be expected to draw and will learn new drawing techniques. This course is project based, students must be self-motivated to complete projects. Materials fee may be required for this course. This course may qualify as a fine arts credit. This course can be used to satisfy the technology applications credit.

College Hour(s):
Prerequisite: None**GRAPHIC DESIGN ENDORSEMENT**

Possible Careers in Graphic Design:

- Journalism
- Visual Artist
- Project Manager
- Product Designer
- Printing Technology
- Graphic Designer
- Fashion Designer
- Brand Designer

Business Management and Administration Pathway**Principles of Business , Marketing & Finance**

13011200

Grade Level: 9
Credit(s): 1

Students gain knowledge and skills in economics 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.

College Hour(s):

Prerequisite: Counselor
Recommendation**Virtual Business**

13012000

Grade Level: 10
Credit(s): ½

Students incorporate a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business to make appropriate business decisions. Students will be able to identify steps needed to locate customers, set fees, and develop client contracts. Student will be able to provide administrative, creative, and technical services using advanced technological modes of communication and data delivery. The student builds a functional website that incorporates the essentials of a virtual business. **Counselor Placement Only**

College Hour(s):

Prerequisite: Counselor
Recommendation**Human Resources Management**

13011900

Grade Level: 10
Credit(s): ½

Students recognize, evaluate, and prepare for a rapidly evolving global business environment that requires flexibility and adaptability. Students analyze the primary functions of human resources management, which include recruitment, selection, training, development, and compensation. Topics will incorporate social responsibility of business and industry. Students develop a foundation in the economic, financial, technological, international, social, and ethical aspects of human resources in order to become competent managers, employees, and entrepreneurs. Students incorporate a broad base of knowledge that includes the legal, managerial, financial, ethical, and international dimensions of business to make appropriate human resources decisions. **Counselor Placement Only**

College Hour(s):

Prerequisite: Counselor
Recommendation

Business Information Management I	13011400	Grade Level: 10 Credit(s): 1
Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make a successful transition to the workforce and postsecondary education. Students apply technical skills to address business applications of emerging technologies, create word-processing documents, develop a spreadsheet, formulate a database, and make an electronic presentation using appropriate software.		College Hour(s): Prerequisite: Principles of BMF

Business Information Management II	13011500	Grade Level: 11 Credit(s): 1
Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make a successful transition to the workforce or postsecondary education. Students apply technical skills to address business applications of emerging technologies, create complex word-processing documents, develop sophisticated spreadsheets using charts and graphs, and make an electronic presentation using appropriate multimedia software.		College Hour(s): Prerequisite: BIM I

Finance Pathway

Money Matters	13016200	Grade Level: 9-12 Credit(s): 1
This class will help empower students to make sound financial decisions for life. This course will teach you the following: save money and build wealth, negotiate great deals, establish a budget that works, identify and understand different types of investments, set and achieve financial and career goals, describe the many dangers of debt, recognize the advantages of renting and owning a home, become an aware consumer, and understand different types of insurance and what's best for you.		College Hour(s): Prerequisite: None

Banking and Financial Services	13016300	Grade Level: 9-12 Credit(s): .5
This course is designed to teach students the financial, economic, and social aspects of the business world. The students incorporate a broad base of subjects including insurance, investing, business ownership and financing, credit, apartments, mortgages, banking, currency, and operations of the Federal Reserve.		College Hour(s): Prerequisite: Accounting I

Accounting I	13016600	Grade Level: 10-12 Credit(s): 1
In Accounting I, students will 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 will reflect on this knowledge as they engage in the process of recording, classifying, summarizing, analyzing, and communicating accounting information. Students will formulate and interpret financial information for use in management decision making. Accounting includes such activities as bookkeeping, systems design, analysis, and interpretation of accounting information.		College Hour(s): Prerequisite: None

Accounting II	13016700	Grade Level: 11-12 Credit(s): 1
In Accounting II, students will continue the investigation of 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 will reflect on this knowledge as they engage in various managerial, financial, and operational accounting activities. Students will formulate, interpret, and communicate financial information for use in management decision making. Students will use equations, graphical representations, accounting tools, spreadsheet software, and accounting systems in real-world situations to maintain, monitor, control, and plan the use of financial resources. Note: This course satisfies a math credit requirement for students on the Foundation High School Program.		College Hour(s): Prerequisite: Accounting I

BUSINESS & INDUSTRY ENDORSEMENT

Possible Careers in Business Management:

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| <ul style="list-style-type: none"> Office Manager Financial Manager Human Resources Manager Business Executive | <ul style="list-style-type: none"> Small Business Owner Operations Analyst Accountant Credit Manager |
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Manufacturing-Welding Pathway

Introduction to Welding (WLDG 1323) Welding Safety, Tools & Equipment	13032250	Grade Level: 11 Credit(s): 1
An introduction to welding careers, equipment and safety practices, including OSHA standards for industry. <i>Must meet Del Mar College's admission requirements</i> Counselor Placement Only Spring Only		College Hour(s): 3 Prerequisite: Successfully passed Alg. I, Biology, and Eng. I courses and EOC.
Welding I (WLDG 1407) Introduction to Welding Using Multiple Practices	13032300	Grade Level: 12 Credit(s): 2
Basic welding techniques using some of the following processes: Oxy-fuel welding (OFW) and cutting, shielded metal arc welding (SMAW), gas metal arc welding (GMAW), and gas tungsten arc welding (GTAW). <i>Must meet Del Mar College's admission requirements</i> Counselor Placement Only		College Hour(s): 3 Prerequisite: Successfully passed Alg. I, Biology, and Eng. I course and EOC.
Welding II (WLDG 1521) Welding Fundamentals	13032410	Grade Level: 12 Credit(s): 2
An introduction to the fundamentals of equipment used in oxy-fuel and arc welding, including welding and cutting safety, basic oxy-fuel welding and cutting, basic arc welding processes and basic metallurgy. <i>Must meet Del Mar College's admission requirements</i> Counselor Placement Only		College Hour(s): 5 Prerequisite: Successfully passed Alg. I, Biology, and Eng. I courses and EOC.

BUSINESS & INDUSTRY ENDORSEMENT

Possible Careers in Welding:

- | | |
|--|---|
| <ul style="list-style-type: none"> Ironworker Welder | <ul style="list-style-type: none"> Steel Fabricator Pipe Welder |
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Health Science Pathway

Principles of Health Science	13020200	Grade Level: 9 Credit(s): 1
This class will provide classroom instruction to include human anatomy, medical terminology and basic skills. Students will learn work ethics necessary to work in the professional field. Membership and participation in HOSA will be necessary.		College Hour(s): Prerequisite:

Medical Terminology	13020700	Grade Level: 10 Credit(s): 1
This course uses anatomy and physiology of the human body to teach basic medical terminology. This course required with Health Science to receive articulated credit of the college class. This course teaches prefixes, suffixes and combining forms of anatomical terminology as well as basic human anatomy.		College Hour(s): Prerequisite: Principles of Health Science

Health Science Theory	13020400	Grade Level: 11 Credit(s): 1
Provides 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, including CPR and First Aid. Students learn to reason, think critically, make decisions, solve problems, and communicate effectively. Students should identify the employment opportunities, technology, and safety requirements of each system and apply knowledge and skills necessary to pursue a health science career through further Education and employment.		College Hour(s): Prerequisite: Principles of Health Science & Chemistry

Anatomy & Physiology	13020600	Grade Level: 11 - 12 Credit(s): 1
Provides capable and highly motivated students with an in-depth study of the structure and functions of the components of the human body. Includes the investigation of cell specialization, the cooperative functions of cells as tissues and organs, the major body systems, and the interrelationship of those systems in a living organism. Builds a knowledge base for those students who wish to pursue a career in medicine.		College Hour(s): N/A Prerequisite: Biology & Second Science

PUBLIC SERVICE ENDORSEMENT

Possible Careers in Health Science:

- | | |
|---|--|
| <ul style="list-style-type: none"> • Anesthesiologist • Athletic Trainer • Chiropractor • Dental Hygienist • Emergency Medical Technician • Paramedic • Pharmacy Tech • Licensed Vocational Nurse | <ul style="list-style-type: none"> • Forensic Pathologist • Medical Doctor • Physical Therapist • Registered Nurse • Patient Care Technician • Pharmacist • Veterinarian • Education Administrator |
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Education and Training Pathway

Principles of Education & Training	13024200	Grade Level: 9 Credit(s): 1
Principles of Education and Training is designed to introduce learners to the various careers available within the education and training career cluster. Students use self-knowledge and educational and career information to analyze various careers within the education and training career cluster. Students will also gain an understanding of the basic knowledge and skills essential to careers within the education and training career cluster. Students will develop a graduation plan that leads to a specific career choice in the student's interest area.		College Hour(s): Prerequisite:

Child Development	13024700	Grade Level: 9 - 12 Credit(s): 1
<p>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.</p> <p>May be used as a general elective course</p>		
Human Growth & Development	13014300	Grade Level: 10 Credit(s): 1
<p>Human Growth and Development is an examination of human development across the lifespan with emphasis upon research, theoretical perspectives, and common physical, cognitive, emotional, and social developmental milestones. The course covers material that is generally taught in a postsecondary, one-semester introductory course in developmental psychology or human development.</p>		
Instructional Practices	13014400	Grade Level: 11 Credit(s): 1
<p>This 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 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.</p>		

EDUCATION AND TRAINING PATHWAY

Possible Careers in Education and Training:

- | | |
|---|--|
| <ul style="list-style-type: none"> • Teacher • Early Childhood Educator • College Professor • Principal • Superintendent | <ul style="list-style-type: none"> • Guidance Counselor • Education Administrator • College Dean • Teacher's Aide • Training & Development Specialist |
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Engineering Pathway

Principles of Applied Engineering	13036200	Grade Level: 9 Credit(s): 1
<p>Principles of Applied Engineering 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.</p>		
Engineering Design & Presentation I	13036500	Grade Level: 10 Credit(s): 1
<p>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.</p>		

Engineering Design & Presentation II	13036600	Grade Level: 11 Credit(s): 1
<p>Engineering Design & Presentation II is a course in applied science that is designed to prepare students more effectively for the advances in technology. It blends an understanding of basic principles with practice in practical applications. Engineering Design & Presentation II includes 7 units of instruction dealing with each principle as it applies in the four energy systems: mechanical, fluid, thermal, and electrical. The 7 units that will be covered are force, work, rate, resistance, energy, power, and force transformers. Emphasis will also be placed on hands on activities, creative thinking and problem solving, while having fun learning. This class is a necessity for all young men and women who want to be productive in today's technological society.</p>		College Hour(s): Prerequisite: Engineering Design & Presentation I

Engineering, Design & Problem Solving	13037300	Grade Level: 12 Credit(s): 1
<p>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.</p>		College Hour(s): N/A Prerequisite: Geometry, Alg. II, Chemistry & Physics

Scientific Research and Design	13037200	Grade Level: 11 Credit(s): 1
<p>Scientific Research and Design is a broad-based course designed to allow districts and schools considerable flexibility to develop local curriculum to supplement any program of study or coherent sequence. The course has the components of any rigorous scientific or engineering program of study from the problem identification, investigation design, data collection, data analysis, formulation, and presentation of the conclusions. These components are integrated with the career and technical education emphasis of helping students gain entry-level employment in high-skill, high-wage jobs and/or continue their education.</p>		College Hour(s): Prerequisite: Biology, Chemistry, Integrated Physics, and Chemistry (IPC), or Physics

Computer Science Pathway

Computer Science Essentials	13027200	Grade Level:9-12 Credit(s): 1
<p>Students will experience the major topics, big ideas, and computational thinking practices used by computing professionals to solve problems and create value for others. This course will empower students to develop <i>computational thinking skills</i> that prepares them to advance to Computer Science Principles.</p>		College Hour(s):

Computer Science Principles	03580200	Grade Level: 10-12 Credit(s): 1 Prerequisite: Computer Science Essentials.
<p>Using Python® as a primary tool and incorporating multiple platforms and languages for computation, this course aims to develop computational thinking, generate excitement about career paths that utilize computing, and introduce professional tools that foster creativity and collaboration. Computer Science Principles helps students develop programming expertise and explore the workings of the Internet. Projects and problems include app development, visualization of data, cybersecurity, and simulation.</p>		

COMPUTER SCIENCE PATHWAY

Possible Careers in Computer Science:

- Software application developer
- Web developer
- Database administrator
- Computer Systems analyst
- Computer network architect
- Business intelligence analyst
- Network system administrator
- Software quality insurance engineer

Introduction to Culinary Arts

13022400

Grade Level: 10

Credit(s): 1

This course will emphasize the principles of planning, organizing, staffing, directing, and controlling the management of a variety of food service operations. The course will provide insight into the operation of a well-run restaurant. **Counselor Placement Only**

College Hour(s):

Prerequisite: Principles of Hospitality & Tourism

Lifetime Nutrition and Wellness

13024500

Grade Level: 9 - 12

Credit(s): ½

This laboratory course allows students to use principles of lifetime wellness and nutrition to help them make informed choices that promote wellness as well as pursue careers related to hospitality and tourism, education and training, human services, and health sciences.

College Hour(s):

Prerequisite: None

May be used as a general elective course

CAREER AND TECHNOLOGY STUDENT ORGANIZATIONS (CTSO)

West Oso ISD is proud to offer the CTSOs listed below to our students enrolled in a Career and Technology Education course



Since 1984

