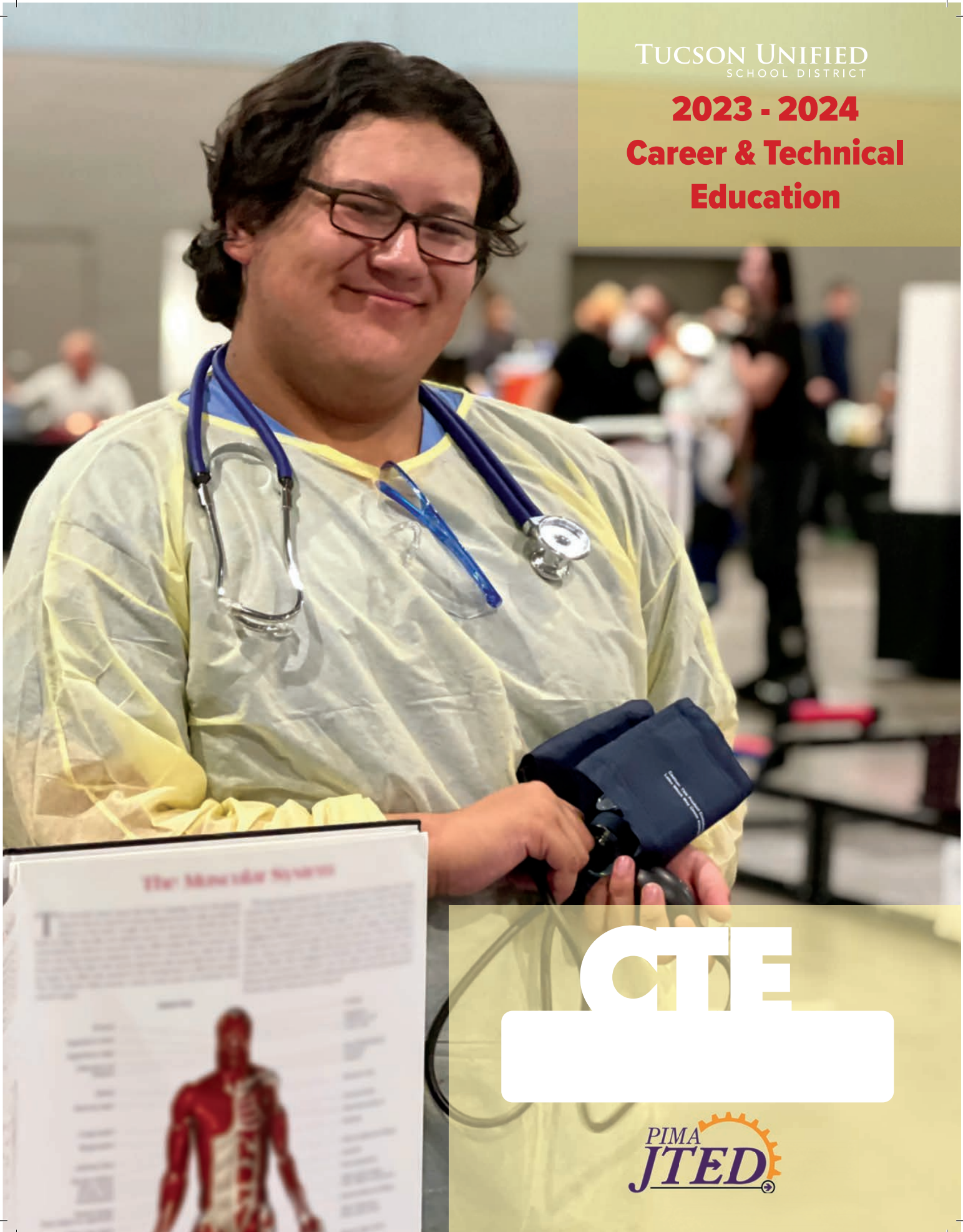


For help or more info, please visit the CTE website at: tusd1.org/cte

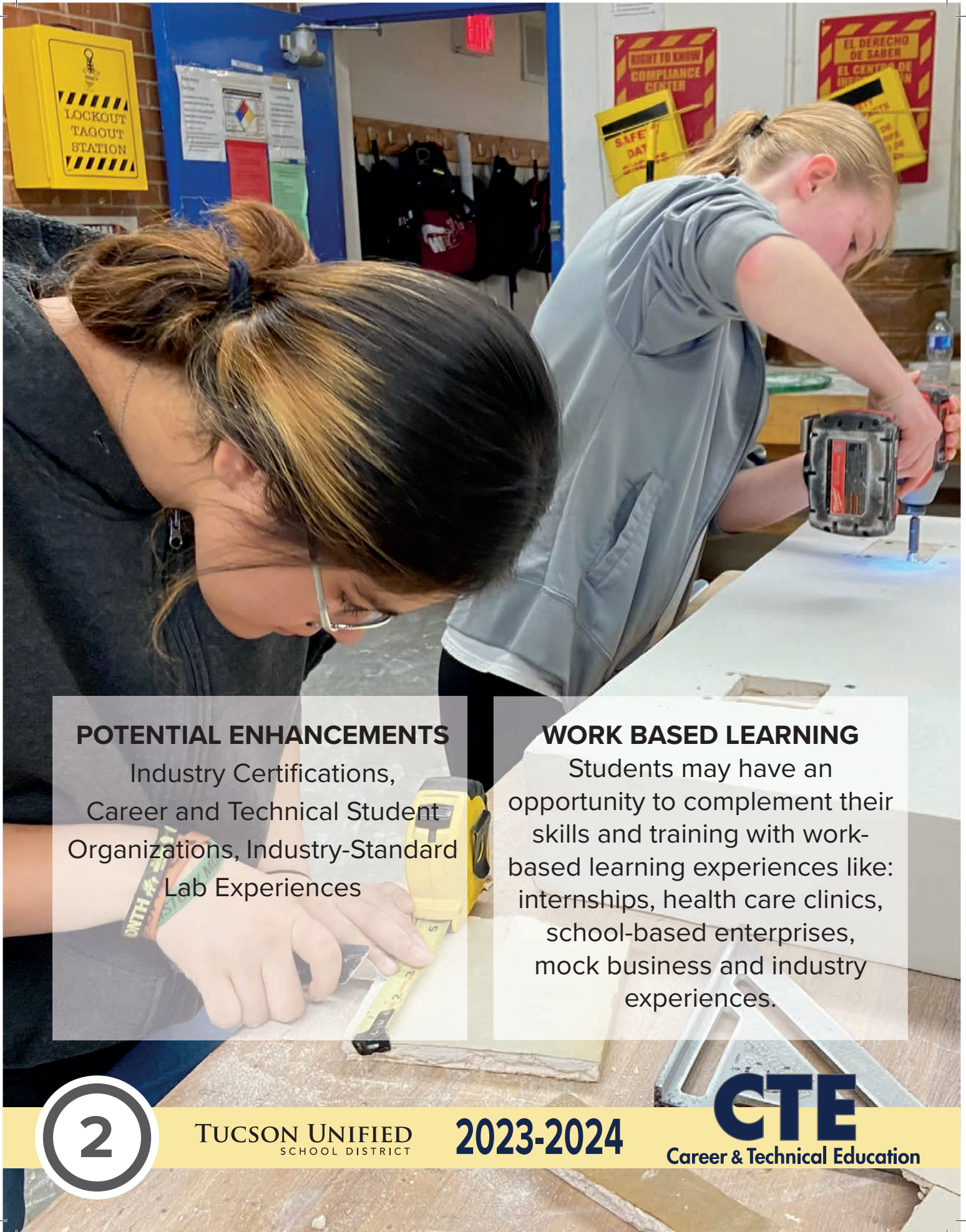
TUCSON UNIFIED
SCHOOL DISTRICT

2023 - 2024
Career & Technical
Education



CTE





POTENTIAL ENHANCEMENTS

Industry Certifications,
Career and Technical Student
Organizations, Industry-Standard
Lab Experiences

WORK BASED LEARNING

Students may have an opportunity to complement their skills and training with work-based learning experiences like: internships, health care clinics, school-based enterprises, mock business and industry experiences.

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2023 - 2024 PROGRAMS

HIGH SCHOOLS THAT OFFER CTE PROGRAMS

AUTOMOTIVE:
AUTO COLLISION REPAIR
AUTOMOTIVE TECHNOLOGIES
DIESEL ENGINE REPAIR



BUSINESS:
BUSINESS MANAGEMENT
BUSINESS OPERATIONS
MARKETING



HEALTH SCIENCES:
BIOSCIENCE
DENTAL ASSISTING
HOME HEALTH AIDE
PHARMACY SUPPORT SERVICES
SPORTS MEDICINE



CONSTRUCTION:
CONSTRUCTION TECHNOLOGIES
HEATING, VENTILATION & AIR
CONDITIONING (HVAC)
STAGE MANAGEMENT



CULINARY ARTS



COMMUNICATIONS MEDIA:
DIGITAL PHOTOGRAPHY
FILM & TV PRODUCTION
GRAPHIC AND WEB DESIGN
DIGITAL COMMUNICATION
MUSIC & AUDIO PRODUCTION



ELECTRONIC TECHNOLOGIES



ENGINEERING:
COMPUTER SCIENCE
ENGINEERING



HUMAN SERVICES:
EARLY CHILDHOOD EDUCATION
JROTC



MANUFACTURING:
PRECISION MACHINING
WELDING TECHNOLOGIES



— CATALINA



— CHOLLA



— PALO VERDE



— PUEBLO



— RINCON



— SABINO



— SAHUARO



— SANTA RITA



— TUCSON



— UNIVERSITY



EXTENDED DAY

Extended day opportunities are options for students to fulfill course offerings after the regular school day.
Classes meet from 3:30 p.m. - 5:30 p.m. Monday, Tuesday and Thursday.

- CULINARY ARTS** SCHOOLS OFFERING THIS PROGRAM: 
- DENTAL ASSISTING** SCHOOLS OFFERING THIS PROGRAM: 
- DIESEL ENGINE REPAIR** SCHOOLS OFFERING THIS PROGRAM: 



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AUTOMOTIVE

AUTO COLLISION **SCHOOLS OFFERING THIS PROGRAM:**



Students are introduced to the auto collision industry using the industry endorsed curriculum I-CAR, manufacturing recommendations and industry standards as guides. There will be an introduction to structural and beginning refinishing. Automotive collision is a field that incorporates both artistic and technical skills. This is a Pima JTED enhanced program.

AUTOMOTIVE TECHNOLOGIES **SCHOOLS OFFERING THIS PROGRAM:**



Students analyze theories and principles of the 4-stroke engine, maintenance and repair of modern automobiles. Classes include safety and hazardous materials handling, mechanical inspection or testing of various automobile operating systems. Learning through written, PC based, and hands-on assignments strengthens the understanding of complexities of the automobile. This is the first step to an exciting career in the automotive transportation career. This is a Pima JTED enhanced program, community college credit may be available and there may be extended day opportunities.

CAREERS

AUTOMOTIVE - Collision

- Auto Body Technician
- Automotive Refinishing
- Collision Shop Management
- Collision Shop Estimator
- Claims Handler
- Claims Adjuster

AUTOMOTIVE - Technologies

- Automotive Technician
- Service Writer/Manager
- Parts Specialist
- Automotive Designer
- Aircraft Mechanic
- Small Engine Technician
- Automotive Sales





DIESEL ENGINE REPAIR SCHOOLS OFFERING THIS PROGRAM: 

Diesel Engine Repair 1,2 - Grades 9-11 prepares the student to apply technical knowledge and skills in the safety, adjustment, maintenance, part replacement and the use of tools, equipment and machines as they relate to basic automotive care.

Diesel Engine Repair 3,4 - Grades 10-11 prepares the student to apply technical knowledge and skills in the safety, adjustment, maintenance, part replacement and the use of tools, equipment and machines as they relate to basic automotive care, electrical functions in automotive applications and the repair, service and maintenance of diesel engines. Must have completed Diesel Engine Repair 1,2

Diesel Engine Repair 5,6- Grades 11-12 prepares the student to apply technical knowledge and skills in the safety, adjustment, maintenance, part replacement and the use of tools, equipment and machines as they relate to basic automotive care. electrical functions in automotive applications and the repair, service and maintenance of diesel engines. In addition, student will be exposed to the beginning principles and concepts of pneumatics and hydraulics. Must have completed Diesel Engine Repair 1,2 & 3,4

CAREERS

AUTOMOTIVE – DIESEL ENGINE REPAIR
Heavy vehicle and mobile equipment service technician
Marine, Fire, Mining and Military equipment technician





BUSINESS

BUSINESS MANAGEMENT SCHOOLS OFFERING THIS PROGRAM:



Business Management Administrative Services students learn the process of business operations and explore starting, owning and managing a business by addressing the Business Management and Administrative Services standards. This is a Pima JTED enhanced program and community college credit may be available.

BUSINESS OPERATIONS SCHOOLS OFFERING THIS PROGRAM:



Business Operations is for students interested in performing the duties of a support professional in a business setting. Training is included in professional communications, business technology operations, forms design, records management, report preparation, intro to business law, decision making, and career preparation. This is a Pima JTED enhanced program, and community college credit may be available.

MARKETING SCHOOLS OFFERING THIS PROGRAM:



Marketing students are introduced to the Marketing, Management, and Entrepreneurship program standards designed to prepare students for employment in various sales, customer service, advertising and promotion, and first-line positions in wholesale, retail, and service establishments. The program enables students to explore, understand, and apply marketing, management, and entrepreneurial principles. This is a Pima JTED enhanced program and community college credit may be available.

CAREERS

BMAS

Business Manager
Operations Manager
Corporate Executive
Entrepreneur
Human Resources Specialist
Financial Planner
Marketing Specialist

BOSAS

Business Manager
Administrative Assistant
Public Relations Specialist

MARKETING

Advertising Manager
Media Coordinator
Product Manager
Sales Director
Public Relations Specialist
Market Analyst



HEALTH SCIENCES

BIOSCIENCE

SCHOOLS OFFERING THIS PROGRAM:



Bioscience students use multiple modern molecular lab techniques such as micro pipetting, DNA extraction, DNA amplification and visualization of DNA on electrophoresis gels to investigate authentic research questions. Classes may collaborate with a research lab to do authentic research-based projects, acquire skills needed to pursue higher education and to enter industry workforce in careers related to Bioscience. This is a Pima JTED enhanced program and college credit may be available.

DENTAL ASSISTING

SCHOOLS OFFERING THIS PROGRAM:



Dental Assisting 1,2 Grades 10-11

This first-year course provides instruction based on the basic skills essential to working successfully with patients and co-workers in dental offices and clinics. These skills include: study skills, vital signs, communication in the dental environment and job entry skills. In addition, students are introduced to the principles and techniques of dental assisting including: anatomy, physiology, microbiology, oral pathology, and nutrition relating to dental health.

Dental Assisting 3,4 Grade 12

This second-year course provides more extensive instruction on the principles and techniques of dental assisting: tooth morphology of human dentition, hand and rotary dental instruments, instruments used in various operative procedures, and chairside procedures. In addition, principles of dental radiography as a diagnostic aid are taught, including radiation protection and biology. Students also learn about clinic experiences in exposing, processing, mounting, and interpreting radiographs on mannequins using a variety of radiographic techniques. Must have completed Dental Assisting 1,2

CAREERS

BIOSCIENCE

- Clinical Cytogeneticist
- Genetics Counselor
- Nanotechnologist
- Biomedical Engineer
- Biochemist
- Genetic Engineer

DENTAL ASSISTANT

- Dental Hygienist
- Radiologist Technologist
- Surgical Technologist
- Neurodiagnostic Technologist
- Endoscopy Technologist



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HEALTH SCIENCES

HOME HEALTH AIDE SCHOOLS OFFERING THIS PROGRAM:

In this course, students explore health related and medical careers. This and is a prerequisite for all JTED Central Healthcare Pathway programs. Upon successful completion, the following pathways are offered: Junior: Certified Caregiver, Health Information Management (JTED Central Campus Hybrid Class) Medical Assisting, EMT, Physical Therapy Tech and LNA. Sophomore: Pathway to Health Information Management (JTED Central Campus Hybrid Class) This is a Pima JTED enhanced course. This course has extended day offerings.

PHARMACY TECHNICIAN SCHOOLS OFFERING THIS PROGRAM:

The course prepares students to apply academic and technical knowledge and skills of the Pharmacy Technician in a clinical, medical or retail setting or to continue into postsecondary education. This is a Pima JTED enhanced course, and community college credit may be available.

SPORTS MEDICINE SCHOOLS OFFERING THIS PROGRAM:

Students apply academic and technical knowledge and skills related to industry standards and practices of Sports Med/Athletic Training. This course introduces students to the field of sports medicine and the professionals working in the Sports Medicine field. Students learn about athletic injuries and anatomy of the human body. In the Advanced lab, experience working in the athletic training room is a requirement. This is a Pima JTED enhanced program.

CAREERS

HOME HEALTH AIDE

Certified Caregiver/EMT
Health Info Mgmt
Medical Assisting
Physical Therapy Tech
Licensed Nursing Assistant
Pharmacy Tech/Dental Assistant

PHARMACY TECH

Pharmacy Technician
Pharmacist

SPORTSMEDICINE

Athletic Trainer, EMT
PT/PA/Physician
Sports Psychologist
Orthopedic Surgeon
Exercise Physiologist



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CONSTRUCTION SCHOOLS OFFERING THIS PROGRAM:



Construction Technology Students are introduced to and apply the Construction Technologies program standards designed to prepare students for careers in the Construction Industries. Standards are aligned with the National Center for Construction Education & Research (NCCER). This is a Pima JTED enhanced program and community college credit may be available.

HEATING, VENTILATION and AIR CONDITIONING SCHOOLS OFFERING THIS PROGRAM:



HVAC students learn to apply technical knowledge and skills to repair, install, service and maintain the operating condition of heating, air conditioning, and refrigeration systems. Standards are aligned with the National Center for Construction Education & Research (NCCER). This is a Pima JTED enhanced program.

STAGE MANAGEMENT SCHOOLS OFFERING THIS PROGRAM:



Stage Management prepares students to apply artistic, technical and dramatic principles and techniques to the communication of dramatic information, ideas, moods, and feelings in set design, sound effects, theatre acoustics, scene painting, property management, costume design and technical direction, production and use of computer applications.

CAREERS

CONSTRUCTION

Construction Laborer, Foreman, Manager
Civil & Electrical Engineer
Architect, Carpenter, Mason, Plumber
Electrician, Cost Estimator
Construction & Building Inspector

HVAC

HVAC Mechanic
HVAC Installer

STAGE MANAGEMENT

Production Support
Set & Exhibit Designer
Technical Theater

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CULINARY

CULINARY SCHOOLS OFFERING THIS PROGRAM:



The Culinary Arts program prepares students to apply technical knowledge and skills required for food production and service occupations in institutional and commercial food establishments. This is a Pima JTED enhanced program and has extended day offerings.

CAREERS

- CULINARY
- Chef/Pastry Chef/ Baker
- Restaurant/Bakery Owner, Manager
- Prep Cook
- Food Engineer
- Food Service Manager
- Dietician





COMMUNICATIONS MEDIA

PHOTOGRAPHY SCHOOLS OFFERING THIS PROGRAM:



Students develop a working knowledge of digital photographic techniques, theory, history, and learn how to use digital cameras to demonstrate their creativity. Students are introduced to digital manipulation techniques and software, including Adobe Photoshop. Students also learn the fundamentals of art, the history of photography and study famous photographers' works and styles. This is a Pima JTED enhanced program and community college credit may be available.



CAREERS

PHOTOGRAPHY
Photojournalist
Videographer, Cinematographer
Camera Operator, Portrait Photographer
Photo Editor
Photo Retouch Specialist
Event, Sports Photographer
Magazine Advertising

Layout Artist
Brand, Identity, Logo Design
Illustrator
Multimedia Designer
Prepress Technician
Art Director/Creative Director



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FILM AND TV SCHOOLS OFFERING THIS PROGRAM:



Film and TV Students analyze the media industry, business practices and the role in the economy, intellectual property laws and rights and verbal, and non-verbal communication skills. Students utilize computer applications, capture and manipulate digital images, and use editing software from concept to completion. Students analyze, evaluate and write for television and film. This is a Pima JTED enhanced program and community college credit may be available.

GRAPHIC DESIGN SCHOOLS OFFERING THIS PROGRAM:

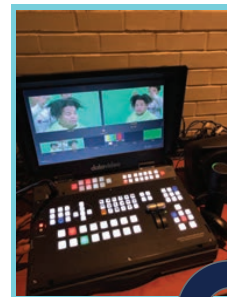


Students create and explore traditional and digital art as a means of visual communication, use Apple iMac computers with Adobe and Apple software to create designs for print and the web . Traditional hand drawing is taught as a means to practice layout and design skills prior to creating the design on the computer. Students participate in critiques to interpret, analyze, and evaluate graphic design pieces from a contemporary, historical and cultural perspective. All students create designs, are critiqued and revise. Designs are included in a professional portfolio. This is a Pima JTED enhanced program and community college credit may be available.

CAREERS

FILM AND TV
 Independent Filmmaker
 Broadcast Journalist
 Public Information Officer
 Reporter/ Correspondent
 Journalist
 Broadcast News Analyst

GRAPHIC DESIGN
 Multimedia Designer
 Animator





COMMUNICATIONS MEDIA

DIGITAL COMMUNICATIONS SCHOOLS OFFERING THIS PROGRAM:



Students learn to utilize computer applications to capture and manipulate digital images. Students analyze, evaluate and write news items including news stories, features, columns, and op-ed pieces. Capstone products are newspapers &/or yearbooks. Students in the third year are highly encouraged to assume a leadership role as a staff editor. This is a Pima JTED enhanced program.

MUSIC AND AUDIO PRODUCTION SCHOOLS OFFERING THIS PROGRAM:



Students are introduced to music theory, instrumental and vocal technique and history. Students perform at school concerts, participate in the technical and management areas of the performing arts and the entertainment industry. Students develop the skills needed for postsecondary studies. This is a Pima JTED enhanced program.

CAREERS

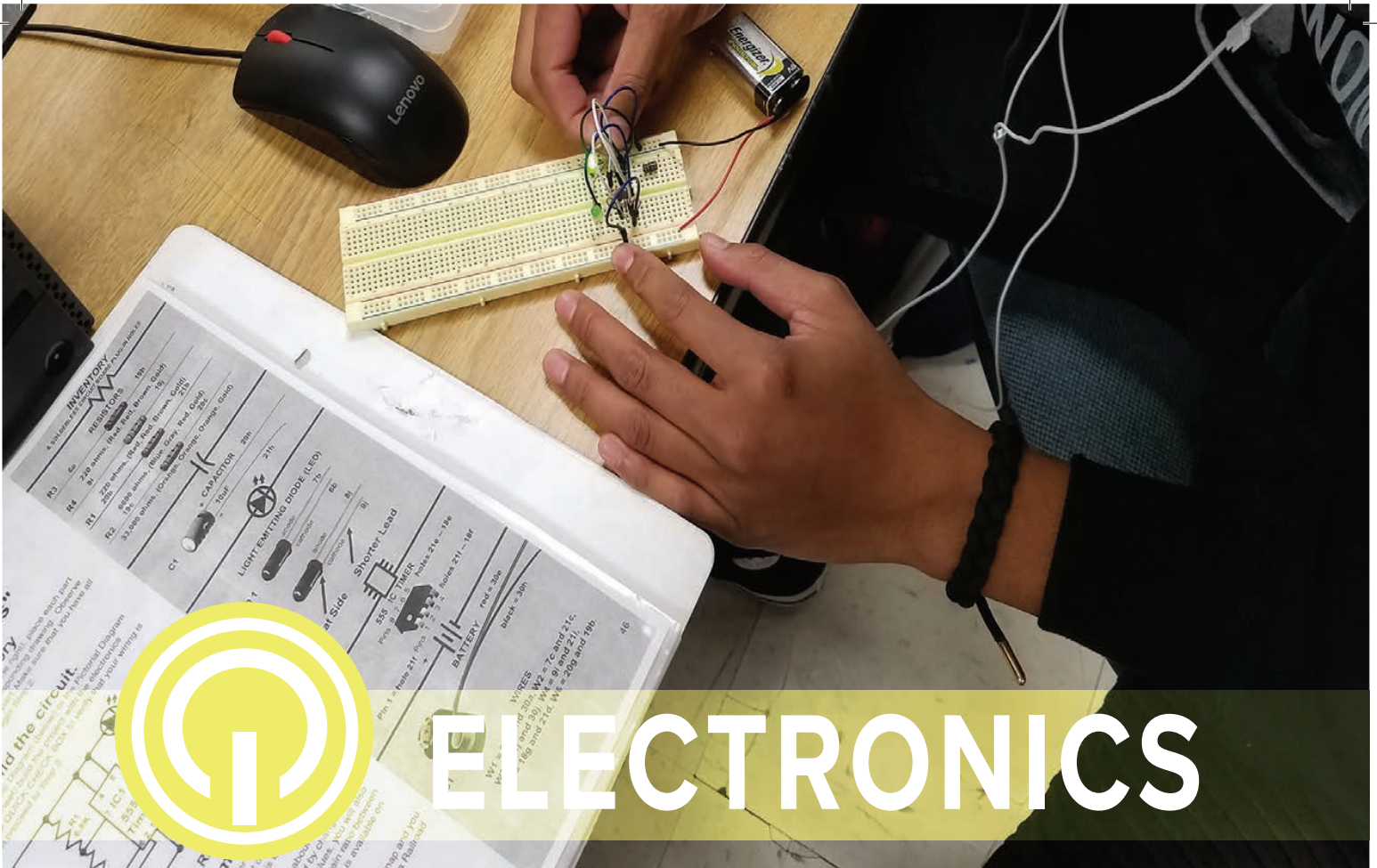
MARIACHI

- Audio Engineer
- Radio/Television Announcer
- Performance Artist
- Musician
- Teacher

DIGITAL COMMUNICATIONS

- Journalists
- Reporter
- News Analysts
- Film/Video Editor
- Technical Writer





ELECTRONICS

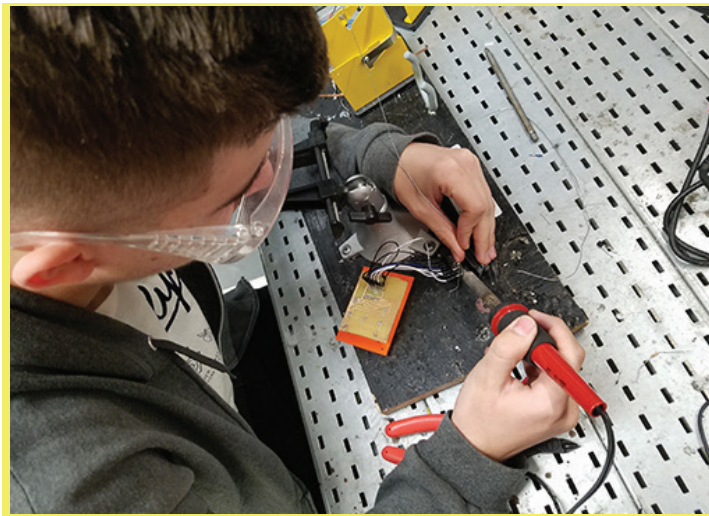
ELECTRONICS SCHOOLS OFFERING THIS PROGRAM:



Students are introduced to and apply the Electronic program standards, including interpreting blueprints, schematics of systems, knowledge of electricity concepts, knowledge of electronic quantity units and circuits. This is a Pima JTED enhanced program and community college credit may be available.

CAREERS

- ELECTRONICS
- Engineering Technician
- Electronic Equipment Installer
- Information Technology Manager
- Electronic Repair Technician
- Electronic Drafter

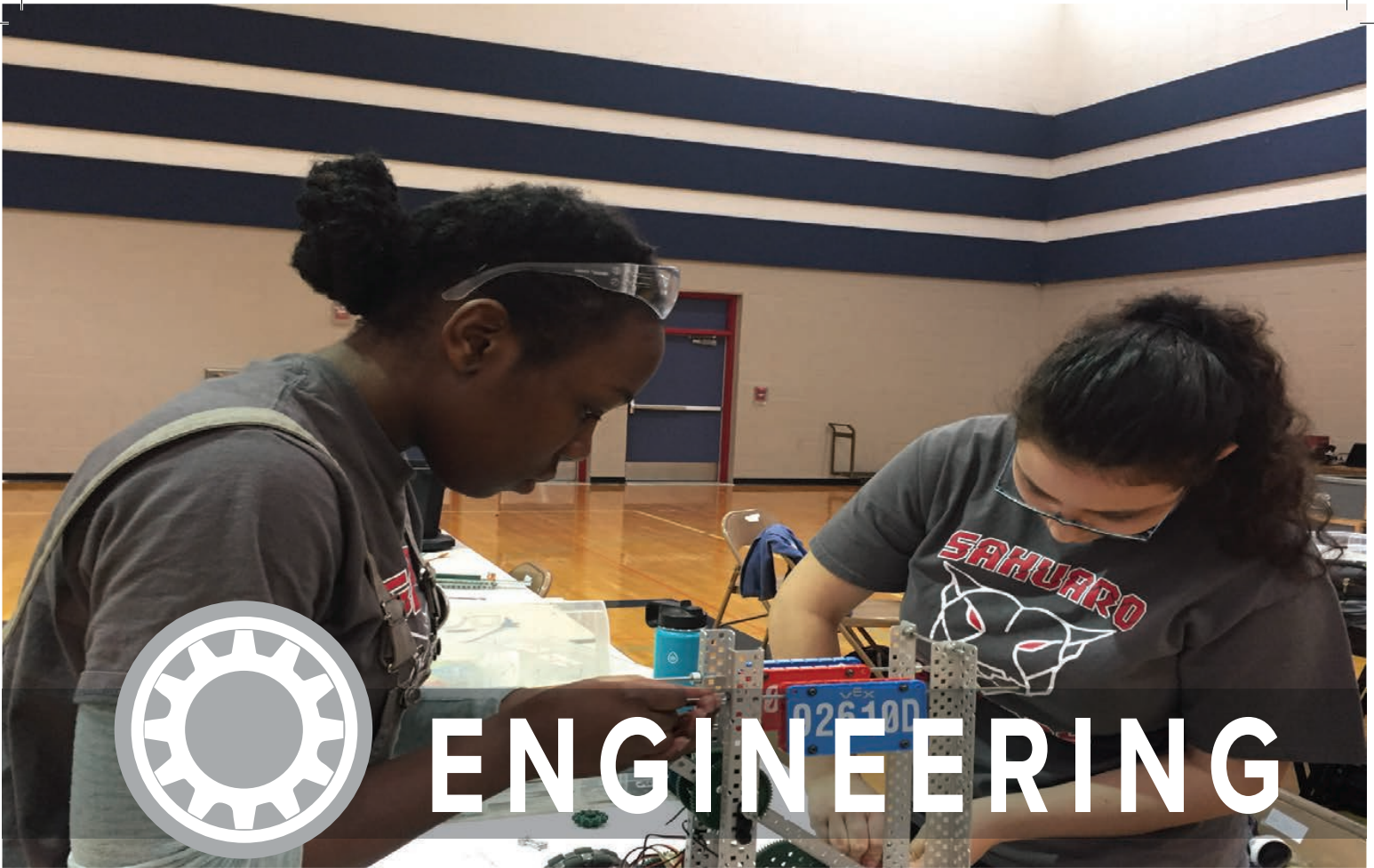


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ENGINEERING

COMPUTER SCIENCE

SCHOOLS OFFERING THIS PROGRAM:



Year 1 Introduction to Computer Science explores computational thinking and programming concepts through project based learning.
Year 2 AP Computer Science Principles focuses on fundamentals of computing, problem solving, working with data, understanding the Internet, cyber security and programming.
Year 3, AP Computer Science, uses industry standard Java programming language and presents topics built around problem solving. This is a JTED enhanced program. This program has extended day offerings and students may earn college credit.

ENGINEERING

SCHOOLS OFFERING THIS PROGRAM:



Students learn to design, develop and validate projects. Prerequisite: in both electrical and embedded software design. Advanced projects focus on a research project with detailed plans and schedules for investigation of engineering concepts. Third year students utilize a robotics theme to manage schedules, design considerations and technical issues. This is a Pima JTED enhanced program.

CAREERS

- COMPUTER SCIENCE**
- Software Applications Developer
 - Computer Systems Analyst
 - Computer Systems Engineer
 - Network Systems Administrator
 - Database Administrator
 - Business Intelligence Analyst
 - Web Developer
 - Computer Programmer
 - Software Systems Developer
 - Software Quality Assurance Tester

- ENGINEERING**
- Civil, Biomedical, Chemical, Electrical, Computer Robotics
 - Environmental, Aerospace, Mechanical, Nuclear
 - Mining



JROTC SCHOOLS OFFERING THIS PROGRAM:



The Army Junior Reserve Officer Training program is designed to teach high school students the value of citizenship, leadership, service to the community, personal responsibility, and a sense of accomplishment, while instilling in them self-esteem, teamwork, and self-discipline.

EARLY CHILDHOOD PROFESSIONS SCHOOLS OFFERING THIS PROGRAM:



This course introduces students to the technical knowledge and skills associated with Early Childhood Education, preparing them to understand the physical, mental and social growth of children for occupations in Early Childhood Education. This is a Pima JTED enhanced course and community college credit may be available.

CAREERS

JROTC

- Military Career
- Law Enforcement
- Public Relations

EARLY CHILDHOOD EDUCATION

- Daycare Provider, Business Owner
- Early Education Teacher
- Child Development Specialist,
- Counselor
- Child Psychologist
- Preschool Teacher





MANUFACTURING

PRECISION MACHINING SCHOOLS OFFERING THIS PROGRAM:

Students are introduced to safety, measurement, careers, and basic machine tool operations. Students operate CNC machines to develop projects. Students work toward obtaining nationally recognized credentials including the NIMS (National Institute of Metalworking Skills) certification. Skills can also be applied towards the engineering area and lead to high paying careers in the aerospace industries.

This is a Pima JTED enhanced program and community college credit may be available.

WELDING TECHNOLOGIES SCHOOLS OFFERING THIS PROGRAM:

Students are introduced to and apply technical knowledge and skills to join or cut metal surfaces. Students learn how to weld and make different projects using various metals. This is a Pima JTED enhanced program and community college credit may be available.

CAREERS

PRECISION MACHINING

- Mechanical Engineer
- Manufacturing Engineer
- Computer Numerical Control Machine Programmer
- Control Machine Operator
- Manual Machinist
- Mechanical Inspector
- Electrical Discharge Machine Operator

WELDING

- Arc Welder, Underwater Welder,
- General Welder, Fabricator, Cutter
- Welder fitter, Maintenance Welder



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TUCSON UNIFIED SCHOOL DISTRICT

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EARN INDUSTRY RECOGNIZED CERTIFICATIONS



CTE

For help or more info, please visit the CTE website at: tusd1.org/cte



FOR MORE INFORMATION ABOUT CTE PROGRAMS
OFFERED AT TUCSON UNIFIED SCHOOLS:

520-225-4652

[HTTP://WWW.TUSD1.ORG/CTE](http://www.tusd1.org/cte)



@TUSD1CTE

Non-Discrimination Policy

Tucson Unified School District does not discriminate on the basis of race, color, religion, national origin, sex, disability, age, sexual orientation, gender identity, gender expression, or immigration status in admission and access to its programs, services, activities, or in any aspect of their operations and provides equal access to the Boy Scouts and other designated youth groups. The lack of English language skills shall not be a barrier to admission or participation in the District's activities and programs.

Tucson Unified School District also does not discriminate in its hiring or employment practices.

For further information on notice of non-discrimination, visit

<https://wdcrobcolp01.ed.gov/cfapps/OCR/contactus.cfm> for the address and phone number of the office that serves Arizona, or call 1-800-421-3481

Aviso Contra la Discriminación

Tucson Unified School District no discrimina en base a la raza, el color, la religión, el origen nacional, el sexo, la discapacidad, la edad, orientación sexual, identidad de género, expresión de género o estatus migratorio para la admisión y acceso a sus programas, servicios, actividades, o en cualquier aspecto administrativo, y proporciona un acceso igualitario a los Boys Scouts y otros grupos de jóvenes designados. La falta del conocimiento del idioma inglés no deberá ser una barrera para la admisión o participación en cualquiera de las actividades o los programas del Distrito. Tucson Unified School District tampoco discrimina en sus prácticas de empleo y contratación.

Los siguientes empleados han sido designados para manejar las preguntas sobre las pólizas contra la discriminación:

Para más información sobre el aviso contra la discriminación,

visite <https://wdcrobcolp01.ed.gov/cfapps/OCR/contactus.cfm> para la dirección y el número de teléfono de la oficina que da servicio a Arizona o llame al 1-800-421-3481.

