

Career Technical Education (CTE) Pathways



Agriculture and
Natural Resources



Arts, Media, and
Entertainment



Building and
Construction Trades



Business and Finance



Education, Child
Development &
Family Services



Energy, Environment,
and Utilities



Engineering and
Architecture



Fashion and Interior
Design



Health Science and
Medical Technology



Hospitality, Tourism,
and Recreation



Information and
Communication
Technologies



Manufacturing and
Product
Development



Marketing Sales and Service



Public Services



Transportation

What is a Career Path?

A carefully selected curricular path will better prepare a student for a more productive work life. We encourage all students to choose the most challenging curriculum.

To assist students in planning their high school educational program, Manteca Unified School District has adopted the following Career Technical Education (CTE) Pathways:

- Agriculture and Natural Resources
- Arts, Media, and Entertainment
- Building and Construction Trades
- Business and Finance
- Education, Child Dev & Family Services
- Energy, Environment, and Utilities
- Engineering and Architecture
- Fashion and Interior Design
- Health Science and Medical Technology
- Hospitality, Tourism, and Recreation
- Information & Communication Technologies
- Manufacturing and Product Development
- Marketing Sales and Service
- Public Services
- Transportation

Many of the courses included in these career pathways have been articulated with San Joaquin Delta College, Modesto Junior College, and FIDM. Students who fulfill the articulation requirements and necessary paperwork can earn college units as well as high school credit for these courses.

The sample career pathways (which follow on the next several pages) have been prepared to assist students in planning their educational programs.

It should be noted that there are two options in each career pathway: **professional** and **skilled**.

- The **professional path** assumes that a student is preparing for university or community college transfer degree and meets all entrance requirements for a California public college or university.
- The **skilled path** assumes that a student is preparing for the community college system, trade/technical schools, certificate programs, as well as entry-level jobs.

It is our hope that the career pathways will assist students and parents as they work with their counselor in preparing for the chosen career path. These career paths may be altered whenever needed with the assistance of the school counselor.

CAREER PATHWAYS



Agriculture and Natural Resources

Occupations

- Agriculture Inspector
- Business Controller
- Agricultural Engineer
- Research Assistant/Associate
- Agriculture Teacher
- Soil Conservationist
- Animal Breeder
- Crop Consultant
- Forestry Technician
- Logging Operation Inspector
- Landscape Design/Architect
- Farm Equipment Mechanic & Service Technician
- Farm and Ranch Manager
- Agricultural Credit Manager
- Welder
- Water Quality Specialist
- Entomologist
- Nursery/Greenhouse Manager
- Plant and Soil Scientist
- Feed Nutritionist
- Park Ranger
- Biological Science Technician
- Hydroponics Grower
- Animal Caretaker/Kennel Operator
- Sales Representative
- Equipment Fabricator
- Plant Scientist
- Veterinarian Technician
- Environmental Analyst
- Ranch Manager
- Pest Control Advisor
- Fish Hatchery Technician
- Florist/Floral Designer
- Botanical Specialist
- Agriculture Equipment Operator

Courses for this pathway may include but are not limited to the following:

Advanced Ag Science, Advanced Floral, Advanced Welding, Ag Earth & Environmental Science, Ag Economics, Ag Entrepreneurship, Ag Equipment Construction, Ag Food Services, Ag Science I, Ag Welding I, Ag Welding II, Agriculture Leadership, Agriculture Soil Chemistry, Agriscience Systems Management, Animal Science, Animal Science Advanced, Art & History of Floriculture, Basic Ag Mechanics, Computers in Agriculture, Introduction to Veterinary Science, Ornamental Horticulture, Power Ag Mechanics, and Sustainable Agriculture Biology.



Arts, Media, and Entertainment

Occupations

- Digital Animator
- Web Designer
- Voiceover Artist, Narrator
- Stage/Production Manager
- Electronic Simulation Consultant
- Theatrical and Broadcast Technician
- Artistic Director
- Museum Curator
- Event Planner
- Talent Management
- Composer, Music Arranger, Conductor
- Computer Game Designer/ Developer
- Commercial Artist
- Singer, Dancer, Musician
- Performing Artist
- 2-D/3-D Animator
- Actor (e.g., Stage, Film, Video, DVD)
- Producers/Directors for Theatre, Television, Concerts, and Motion Picture

Courses for this pathway may include but are not limited to the following:

Advanced Digital Photo, Advanced Graphic Design, Advanced Photography, Advanced Theatre, Broadcast Journalism, Broadcast Journalism II, Color & Design, Computer Animation Production, Computer Graphic and Animation, Digital Media Production, Digital Photography, Intermediate Theatre, Introduction to Theatre, Multimedia Video Production, Photography, Technical Theatre & Design, Three-Dimensional Art, and Video Production & Broadcasting.

Building and Construction Trades



Occupations

- Cabinetmaker
- Heavy Equipment Operator
- Civil Engineer
- Plumber
- Building Inspector
- HVAC Installation and Maintenance Specialist
- Woodworking Machinery Operator
- Cabinet Installer
- Iron Worker
- Plumbing Installer
- Mechanical Engineer/Tech
- Estimator
- Custom Millwork Project Estimator
- Mechanical Construction Field Manager
- Cement Mason
- Welder
- Sheet Metal Fabricator
- Electrician
- Carpenter
- Woodworking Engineer/Drafter (CAD)

Courses for this pathway may include but are not limited to the following:

Advanced Ag Wood, Ag Wood I, Wood I, Wood II, and Wood III.

Business and Finance



Occupations

- Human Resources Specialist
- Office Manager
- Investment Consultant
- Accountant
- International Shipping Specialist
- Education Administrator
- Chief Financial Officer
- Tax Preparer
- Export Sales Representative
- International Market Researcher
- Purchasing Agent
- Accounts Payable Clerk
- Auditor
- Customs Broker
- Customs Inspector

Courses for this pathway may include but are not limited to the following:

Accounting (Automated), Accounting I, Accounting II, Business & Personal Finance, Business Applications, Business Communications I, Business Communications II, Business in a Global Economy, Computer Applications I, Computer Applications II, Computer Keyboarding, Computer Science, Digital Literacy, Entrepreneurship, Financial Recordkeeping, Introduction to Business, Principles of Accounting, and Small Business Management.

Education, Child Development, and Family Services



Occupations

- Child Care Worker
- Family Service Advocate
- Accountant
- Educational Administrator
- Community Organizational Director
- Human Services Program Specialist
- Child Development Specialist
- Media Product Demonstrator
- Credit Counselor
- Speech Therapist
- Customer Service Representative
- Before/Afterschool Program Aide
- Child Psychologist
- Personal Financial Advisor
- School Counselor
- Personal Care Assistant
- Primary/Secondary School Teacher
- Social Outreach Director

Courses for this pathway may include but are not limited to the following:

Adult Living, Careers with Children, Life Management, Next Step, and Success 101.



Energy, Environment, and Utilities

Occupations

- Energy Engineer
- Energy Efficiency Evaluation Specialist
- Energy/Building Retrofit Specialist
- Hazardous Waste Operations and Emergency Response Technician
- Energy Generation/Power Distribution, Maintenance, Inspection, and Repair Technicians
- Air Quality Technician
- Environmental Biologist/Technician/Scientist
- Plant/Field Weatherization Installer
- Network Operators, Technicians, Designers, and Managers
- Line Workers
- Climatologist
- Environmental Health and Safety Officer
- Satellite Systems Installation/Engineers
- Cable/Telecommunications Installation and Maintenance Technicians
- Network Security Administrator

Courses for this pathway may include but are not limited to the following:

AP Environmental Science and Environmental Science.



Engineering and Architecture

Occupations

- Drafter
- Operation Engineer
- Manufacturing Design Engineer
- Environmental Specialist
- Air Pollution Control Engineer
- Environmental Safety Technician
- Environmental Scientist
- Architect
- City Planner
- Engineering Technologist
- Mechanical/Electrical Drafter
- Project Architect
- Building Department Plan Examiner
- Structural Designer
- Surveyor
- Field Engineer
- Design Engineer
- Environmental Analyst
- Research and Development Analyst

Courses for this pathway may include but are not limited to the following:

Architectural Design, Architectural Drafting, Civil Engineering, Computer Aided Drafting, Drafting I, Drafting II, and Fundamentals of Engineering.



Fashion and Interior Design

Occupations

- Display or Sales Associate
- Set Decorator
- Barber
- Certified Kitchen and Bath Specialist
- Merchandising Manager
- Interior Designer
- Hair Stylist
- Manicurist
- Fashion Designer
- Esthetician
- Makeup Artist

Courses for this pathway may include but are not limited to the following:

Fashion & Design II, Fashion & Design, Fashion Merchandising, Interior Design, and Interior Design II.

Health Science and Medical Technology



Occupations

- Forensic Pathologist
- Geneticist Lab Assistant
- Respiratory Technician
- Ethicist
- Clinical Simulator Technician
- Materials Manager
- Health Educator
- Mental Health Therapist
- Psychiatric Technician
- Biostatistician
- Kinesiotherapist
- Dental Hygienist
- Medical Illustrator
- Central Service Technician
- Community Health Worker
- Advocate
- Outreach Coordinator
- Radiologic Technician
- Mental Health Researcher
- Nurse Anesthetist
- Clinical Data Specialist
- Health Care Administrator
- Hospital Management Engineer
- Epidemiologist
- Environmentalist
- Psychologist
- Clinical Trials Research Coordinator

Courses for this pathway may include but are not limited to the following:

Advanced Health Careers, Computers in Health Science, Health Careers, Introduction to Health Careers, Medical Billing & Coding, Medical English, Medical Terminology, Pharmacy Technician, and Sports Medicine.

Hospitality, Tourism, and Recreation



Occupations

- Food Demonstrator
- Registered Dietitians
- Banquet and Catering Director
- Guest Services Agent
- Certified Meeting/Event Planner
- Certified Fitness Nutritionist
- Food Expeditor
- Research Chef
- Director of Conference Services
- Nutritionist
- Restaurant Manager
- Executive Chef
- Theme Park Director

Courses for this pathway may include but are not limited to the following:

Culinary Arts I, Culinary Arts II, Culinary Arts/Food Service & Hospitality, Farm to Table, and Food & Nutrition Science.

Information and Communication Technologies



Occupations

- Database Administrator
- Network Technician
- Telecommunication Specialist
- Game/Simulation Designer
- Game Producer
- Computer and Information Systems Manager
- Software Developer/Applications
- Business Intelligence Analyst
- Network Engineer
- Computer Programmer
- Web Developer
- Game Programmer
- Document Management Specialist
- E-Business/E-Commerce Specialist
- Computer Security Specialist
- Network Administrator
- Information Security Analyst
- Game Software Developer
- Multimedia Artist and Animator
- Computer User Support Specialist

Courses for this pathway may include but are not limited to the following:

Computer Applications II, Computer Programming & Game Design I, Computer Programming & Game Design II, Computer Science, Robotics I, and Sports Multimedia Production.



Manufacturing and Product Development

Occupations

- Animator
- Printing Press Operator
- CNC Machinist
- Quality Assurance Technician
- Welders, Cutters, and Fitters
- Commercial/Industrial Designer
- Product Developer
- Commercial Photographer
- Production Assistant
- Manufacturing Engineer
- Metal Fabricator
- Welding Inspector
- CAD Designer
- Materials/Supply Management Specialist
- Digital/Graphic Artist
- CAD/CAM Specialist
- Product Manager
- Welding Engineer
- Model Maker
- Sales

Courses for this pathway may include but are not limited to the following:

Advanced Drafting, CAD, Drafting I, and Drafting II.



Marketing Sales and Service

Occupations

- Advertising Account Rep
- Marketing Manager
- Retail Salesperson
- Fashion Buyer
- Insurance Broker
- Advertising Sales Manager
- Public Relations Specialist
- Sales Manager
- Business Owner
- Meeting/Event Planner
- Market Research Analyst
- Customer Service Rep
- Real Estate Broker
- Consultant
- Travel Agent

Courses for this pathway may include but are not limited to the following:

Entrepreneurship, Entrepreneurship/Sports, Merchandising & Sales Careers, and Student Services-Student Store.



Public Services

Occupations

- Quality Control Worker
- Loss Prevention Specialist
- Fire Management Officer
- Law Librarian
- Firefighter I, Firefighter II, Wildland Firefighter
- Correctional/Probation Officer
- Military Service
- Paralegal
- Legal Researcher
- Emergency Response Dispatcher
- Law Enforcement Officer
- Fire Prevention Technician
- Court Reporter
- Lawyer
- Emergency Medical Technician (EMT)

Courses for this pathway may include but are not limited to the following:

Administration of Justice, Ag Government, Criminal Justice, and Youth & Law.

Transportation



Occupations

- Warehouse Worker/Dispatcher
- Container Crane Operator
- Claims Adjuster
- Storage, Warehouse, and Distribution Manager
- Service Technician/Maintenance Worker/Shop Foreman
- Technical Writer
- Inspectors and Planners
- Technician
- Insurance Company/Manufacturer's Representative
- Engineer
- Dispatcher
- Estimator
- Investigator/Inspector
- Production, Planning, and Expediting Clerk

Courses for this pathway may include but are not limited to the following:

Automotive Technology I, Automotive Technology II, and Introduction to Automotive.
