

TRADE & INDUSTRY

Program Description

Trade and Industry Educational Programs are designed to provide career exploration and preparation for students in a wide array of occupations. Programs include theory-based learning and practicum training in apprentice trades, technical, healthcare, and other industrial and service occupations. Trade and Industry Education prepares students for entry into skilled trades and an opportunity to transition smoothly into postsecondary education. Program design will prepare students for the 21st century global economy and rapidly changing workforce needs. Trade and Industry is the broadest of all career and technical education fields that encompass programs within seven Career Clusters.

Cluster: Architecture and Construction Pathway: Construction Program of Study: Construction Technology

Level One	Level Two	Level Three
Skilled Trades Construction (494480)	Carpentry (494460) OR Mechanical, Electrical & Plumbing (MEP) Systems (493840)	Cabinetry (494470) Furniture Manufacturing I (494850) Electrical (494500) HVACR 1 (495100) Plumbing (494510) Construction Lab (490040) Career Practicum: T&I AC (490730)
Additional Courses: (Cannot Substitute for Level One, Two, or Three Courses) Furniture Manufacturing II (494870) HVACR II (495110) MEPS Lab (490070)		
Industry Recognized Credentials (IRC)		

Cluster: Arts, A/V Technology & Communications Pathway: A/V Technology & Film Program of Study: A/V Technology & Film

Level One	Level Two	Level Three
Media Communications (493680)	A/V Productions I (493640)	A/V Productions II (493650) A/V Tech & Film Lab (493670) Career Practicum: T&I AVTC (490740)
Additional Courses: (Cannot Substitute for Level One, Two, or Three Courses) A/V Productions III (493660)		
Industry Recognized Credentials (IRC)		

Cluster: Arts, A/V Technology & Communications
Pathway: Journalism & Broadcasting
Program of Study: Radio Broadcasting Technology

Level One	Level Two	Level Three
Media Communications (493680)	Radio Broadcasting I (493380)	Radio Broadcasting II (493390) Radio Broadcasting Lab (493410) Career Practicum: T&I AVTC (490740)
Additional Courses: (Cannot Substitute for Level One, Two, or Three Courses) Radio Broadcasting III (493400)		
<u>Industry Recognized Credentials (IRC)</u>		

Cluster: Arts, A/V Technology & Communications
Pathway: Journalism & Broadcasting
Program of Study: Digital Cinema Productions

Level One	Level Two	Level Three
Media Communications (493680)	Digital Cinema Productions I (493420)	Digital Cinema Productions II (493430) Digital Cinema Productions Lab (493450) Career Practicum: T&I AVTC (490740)
Additional Courses: (Cannot Substitute for Level One, Two, or Three Courses) Digital Cinema Productions III (493440)		
<u>Industry Recognized Credentials (IRC)</u>		

Cluster: Arts, A/V Technology & Communications
Pathway: Visual Arts
Program of Study: Advertising & Graphic Design Technology

Level One	Level Two	Level Three
Media Communications (493680)	Advertising & Graphic Design I (494150)	Advertising Graphic Design II (494170) Advertising & Graphic Design Lab (494160) Career Practicum: T&I AVTC (490740)
Additional Courses: (Cannot Substitute for Level One, Two, or Three Courses) Advertising & Graphic Design III (494130)		
<u>Industry Recognized Credentials (IRC)</u>		

Cluster: Arts, A/V Technology & Communications
Pathway: Visual Arts
Program of Study: Commercial Photography

Level One	Level Two	Level Three
Media Communications (493680)	Digital Photography I (494350)	Digital Photography II (494370) Digital Photography Lab (494360) Career Practicum: T&I AVTC (490740)
Additional Courses: (Cannot Substitute for Level One, Two, or Three Courses) Digital Photography III (494380)		
Industry Recognized Credentials (IRC)		

Cluster: Government and Public Administration
Pathway: National Security
Program of Study: Air Force JROTC

Level One	Level Two	Level Three
Air Force JROTC I (495760)	Air Force JROTC II (495770)	Air Force JROTC III (495780) Air Force JROTC IV (495880) Air Force Ground School (492210)
	Air Force Leadership Development Lab (492550) Air Force Drill and Ceremonies (492270) (Students can take at level two or three)	
JROTC Health (480950) JROTC Physical Education (485950)		
Students can take JROTC Health and Physical Education at any level		
Industry Recognized Credentials (IRC)		

Cluster: Government and Public Administration
Pathway: National Security
Program of Study: Army JROTC

Level One	Level Two	Level Three
Army JROTC I (495790)	Army JROTC II (495800)	Army JROTC III (495810) Army JROTC IV (495890)
JROTC Health (480950) JROTC Physical Education (485950)		
Students can take JROTC Health and Physical Education at any level		
Industry Recognized Credentials (IRC)		

**Cluster: Government and Public Administration
 Pathway: National Security
 Program of Study: Marine JROTC**

Level One	Level Two	Level Three
Marine JROTC I (495820)	Marine JROTC II (495830)	Marine JROTC III (495840) Marine JROTC IV (495900)
JROTC Health (480950) JROTC Physical Education (485950)		
Students can take JROTC Health and Physical Education at any level		
Industry Recognized Credentials (IRC)		

**Cluster: Government and Public Administration
 Pathway: National Security
 Program of Study: Navy JROTC**

Level One	Level Two	Level Three
Navy JROTC I (495850)	Navy JROTC II (495860)	Navy JROTC III (495870) Navy JROTC IV (495910)
JROTC Health (480950) JROTC Physical Education (485950)		
Students can take JROTC Health and Physical Education at any level		
Industry Recognized Credentials (IRC)		

**Cluster: Health Sciences
 Pathway: Therapeutic Services
 Program of Study: Pharmacy Technician**

Level One	Level Two	Level Three
Foundations of Health Care (495350)	Medical Terminology (495360)	Medical Math (495240) Pharmacy Technology Fundamentals (495280) Career Practicum: T&I HS (490760)
Additional Courses: (Cannot Substitute for Level One, Two, or Three Courses) Anatomy & Physiology (424030) Abnormal Psychology (.5) (495370) Pathology (.5) (495290) Medical Procedures Expanded (.5) (495390) Human Behavior & Disorders (.5) (495320) Medical Professions Expanded (.5) (495380) Medical Lab (1.0) (490520) Medical Lab (.5) (490510)		
Industry Recognized Credentials (IRC)		

Cluster: Health Sciences
Pathway: Therapeutic Services
Program of Study: Nursing Services

Level One	Level Two	Level Three
Foundations of Health Care (495350)	Medical Terminology (495360)	Certified Nursing Assistant (.5) (490030) AND Medical Lab (.5) (490510) ----- Certified Nursing Assistant 1.0 (490500) Career Practicum: T&I HS (490760)
Additional Courses: (Cannot Substitute for Level One, Two, or Three Courses) Anatomy & Physiology (424030) Abnormal Psychology (.5) (495370) Pathology (.5) (495290) Medical Procedures Expanded (.5) (495390) Human Behavior & Disorders (.5) (495320) Medical Professions Expanded (.5) (495380) Medical Math (495240) Medical Lab (1.0) (490520) Medical Lab (.5) (490510)		
Industry Recognized Credentials (IRC)		

Cluster: Health Sciences
Pathway: Therapeutic Services
Program of Study: Medical Skills and Services

Level One	Level Two	Level Three
Foundations of Health Care (495350)	Medical Terminology (495360)	Abnormal Psychology (.5) (495370) Pathology (.5) (495290) Medical Procedures Expanded (.5) (495390) Human Behavior & Disorders (.5) (495320) Medical Professions Expanded (.5) (495380) Medical Math (495240) Medical Lab (1.0) (490520) Medical Lab (.5) (490510) First Responder (494140) Career Practicum: T&I HS (490760)
Additional Courses: (Cannot Substitute for Level One, Two, or Three Courses) Anatomy & Physiology (424030)		
Industry Recognized Credentials (IRC)		

**Cluster: Health Sciences
Pathway: Therapeutic Services
Program of Study: Sports Medicine**

Level One	Level Two	Level Three
Foundations of Health Care (495350)	Principles of Sports Medicine (494050) OR Medical Terminology (495360)	Sports Medicine Injury Assessment (494070) Exercise Science (494080) Medical Lab (1.0) (490520) Medical Lab (.5) (490510) Career Practicum: T&I HS (490760)
Additional Courses: (Cannot Substitute for Level One, Two, or Three Courses) Anatomy & Physiology (424030) Abnormal Psychology (.5) (495370) Pathology (.5) (495290) Medical Procedures Expanded (.5) (495390) Human Behavior & Disorders (.5) (495320) Medical Professions Expanded (.5) (495380) Medical Math (495240)		
Industry Recognized Credentials (IRC)		

**Cluster: Law, Public Safety, Corrections & Security
Pathway: Emergency & Fire Management Services
Program of Study: Emergency Services**

Level One	Level Two	Level Three
Emergency Services I (490050)	Emergency Services II (490420)	Emergency Services III (490540) Emergency and Fire Management Lab (490530) Career Practicum: T&I LPSCS (490770)
Additional Courses: (Cannot Substitute for Level One, Two, or Three Courses) First Responder (494140)		
Industry Recognized Credentials (IRC)		

**Cluster: Law, Public Safety, Corrections & Security
Pathway: Emergency & Fire Management Services
Program of Study: Firefighting**

Level One	Level Two	Level Three
Firefighting I (490470)	Firefighting II (490480)	Community Preparedness & Response (490490) Emergency and Fire Management Lab (490530) Career Practicum: T&I LPSCS (490770)
Additional Courses: (Cannot Substitute for Level One, Two, or Three Courses) First Responder (494140)		
Industry Recognized Credentials (IRC)		

Cluster: Law, Public Safety, Corrections, and Security
Pathway: Law Enforcement Services
Program of Study: Criminal Justice

Level One	Level Two	Level Three
Introduction to Criminal Justice (494620)	Foundations of Law Enforcement (494630)	Crime Scene Investigation (494600) Criminal Law (494610) First Responder (494140) Career Practicum: T&I LPSCS (490770)
Additional Courses: (Cannot Substitute for Level One, Two, or Three Courses) First Responder (494140)		
Industry Recognized Credentials (IRC)		

Cluster: Manufacturing
Pathway: Maintenance, Installation, and Repair or Production
Program of Study: Advanced Manufacturing

Level One	Level Two	Level Three
Skilled Trades Manufacturing (495570)	Design for Manufacturing (494950) Industrial Technologies I (495150) Electronics I (494800) Machine Tool I (495200)	Manufacturing Production Processes (494960) Industrial Technologies II (495170) Electronics II (494820) Machine Tool II (495220) Advanced Manufacturing Lab (495260) Career Practicum: T&I MIRP (490780)
Additional Courses: (Cannot Substitute for Level One, Two, or Three Courses) Machine Power & Equipment Systems (494970) Industrial Technologies Lab (495160) Electronics Lab (494810) Machine Tool Lab (495210) ADE Approved Manufacturing I (Requires ADE Approval) (494030) ADE Approved Manufacturing II (Requires ADE Approval) (494040) ADE Approved Manufacturing III (Requires ADE Approval) (494860) ADE Approved Manufacturing IV (Requires ADE Approval) (494990) ADE Approved Manufacturing V (Requires ADE Approval) (495250) ADE Approved Manufacturing VI (Requires ADE Approval) (495270)		
Industry Recognized Credentials (IRC)		

**Cluster: Manufacturing
Pathway: Manufacturing Production
Program of Study: Welding**

Level One	Level Two	Level Three
Skilled Trades Manufacturing (495570)	Shielded Metal Arc Welding (495580)	Gas Metal Arc Welding (495550) Advanced Shielded Metal Arc Welding (495540) Welding Lab (490190) Career Practicum:T&I MFT (490780)
Additional Courses: (Cannot Substitute for Level One, Two, or Three Courses) Gas Tungsten Arc Welding (495560) ADE Approved Manufacturing I (Requires ADE Approval) (494030) ADE Approved Manufacturing II (Requires ADE Approval) (494040) ADE Approved Manufacturing III (Requires ADE Approval) (494860) ADE Approved Manufacturing IV (Requires ADE Approval) (494990) ADE Approved Manufacturing V (Requires ADE Approval) (495250) ADE Approved Manufacturing VI (Requires ADE Approval) (495270)		
Industry Recognized Credentials (IRC)		

**Cluster: Transportation, Distribution, and Logistics
Pathway: Facility and Mobile Equipment Maintenance and Repair
Program of Study: Aviation Technology**

Level One	Level Two	Level Three
Aviation I (494250)	Aviation II (494260)	Aviation Lab (490020) Career Practicum: T&I TDL (490790)
(Additional Courses: (Cannot Substitute for Level One, Two, or Three Courses) ADE Approved Credit Transportation, Distribution and Logistics I (Requires ADE Approval) (490220) ADE Approved Credit Transportation, Distribution and Logistics II (Requires ADE Approval) (490240) ADE Approved Credit Transportation, Distribution and Logistics III (Requires ADE Approval) (490250) ADE Approved Credit Transportation, Distribution and Logistics IV (Requires ADE Approval) (490260) ADE Approved Credit Transportation, Distribution and Logistics V (Requires ADE Approval) (490270)		
Industry Recognized Credentials (IRC)		

Cluster: Transportation, Distribution, and Logistics
Pathway: Facility and Mobile Equipment Maintenance and Repair
Program of Study: Medium/Heavy Truck Technology

Level One	Level Two	Level Three
Medium/Heavy Brake/Drivetrain (494650)	Medium/Heavy Electrical Systems/HVAC (494660)	Medium/Heavy Steering & Suspension/Hydraulics (494230) Medium/Heavy Diesel Engines/CAB (494240) Medium/Heavy Truck Lab (490090) Career Practicum: T&I TDL (490790)
<p align="center">(Additional Courses: (Cannot Substitute for Level One, Two, or Three Courses)</p> <p>ADE Approved Credit Transportation, Distribution and Logistics I (Requires ADE Approval) (490220)</p> <p>ADE Approved Credit Transportation, Distribution and Logistics II (Requires ADE Approval) (490240)</p> <p>ADE Approved Credit Transportation, Distribution and Logistics III (Requires ADE Approval) (490250)</p> <p>ADE Approved Credit Transportation, Distribution and Logistics IV (Requires ADE Approval) (490260)</p> <p>ADE Approved Credit Transportation, Distribution and Logistics V (Requires ADE Approval) (490270)</p>		
Industry Recognized Credentials (IRC)		

Cluster: Transportation, Distribution, and Logistics
Pathway: Facility and Mobile Equipment Maintenance and Repair
Program of Study: Power Equipment Technology

Level One	Level Two	Level Three
Power Equipment Technology I (495400)	Power Equipment Technology II (495420)	Power Equipment Technology Lab (490100) Career Practicum: T&I TDL (490790)
<p align="center">(Additional Courses: (Cannot Substitute for Level One, Two, or Three Courses)</p> <p>ADE Approved Credit Transportation, Distribution and Logistics I (Requires ADE Approval) (490220)</p> <p>ADE Approved Credit Transportation, Distribution and Logistics II (Requires ADE Approval) (490240)</p> <p>ADE Approved Credit Transportation, Distribution and Logistics III (Requires ADE Approval) (490250)</p> <p>ADE Approved Credit Transportation, Distribution and Logistics IV (Requires ADE Approval) (490260)</p> <p>ADE Approved Credit Transportation, Distribution and Logistics V (Requires ADE Approval) (490270)</p>		
Industry Recognized Credentials (IRC)		

Cluster: Transportation, Distribution, and Logistics
Pathway: Facility and Mobile Equipment Maintenance and Repair
Program of Study: Automotive Collision Repair Technology

Level One	Level Two	Level Three
Non-Structural Analysis/Repair (494300)	Painting & Refinishing (494310)	Damage Analysis, Estimating & Customer Service (494220) Structural Analysis/Repair (494320) Automotive Collision Lab (490000) Career Practicum: T&I TDL (490790)
<p align="center">(Additional Courses: (Cannot Substitute for Level One, Two, or Three Courses)</p> <p>ADE Approved Credit Transportation, Distribution and Logistics I (Requires ADE Approval) (490220)</p> <p>ADE Approved Credit Transportation, Distribution and Logistics II (Requires ADE Approval) (490240)</p> <p>ADE Approved Credit Transportation, Distribution and Logistics III (Requires ADE Approval) (490250)</p> <p>ADE Approved Credit Transportation, Distribution and Logistics IV (Requires ADE Approval) (490260)</p> <p>ADE Approved Credit Transportation, Distribution and Logistics V (Requires ADE Approval) (490270)</p>		
Industry Recognized Credentials (IRC)		

Cluster: Transportation, Distribution, and Logistics
Pathway: Facility and Mobile Equipment Maintenance and Repair
Program of Study: Automotive Service Technology

Level One	Level Two	Level Three
Brakes/Manual Drive Train (494180)	Automotive Electrical Systems/HVAC (494190)	Engine Performance /Engine Repair (494200) Suspension & Steering/Automatic Transmission (494210) Automotive Service Lab (490010) Career Practicum: T&I TDL (490790)
<p align="center">(Additional Courses: (Cannot Substitute for Level One, Two, or Three Courses)</p> <p>ADE Approved Credit Transportation, Distribution and Logistics I (Requires ADE Approval) (490220)</p> <p>ADE Approved Credit Transportation, Distribution and Logistics II (Requires ADE Approval) (490240)</p> <p>ADE Approved Credit Transportation, Distribution and Logistics III (Requires ADE Approval) (490250)</p> <p>ADE Approved Credit Transportation, Distribution and Logistics IV (Requires ADE Approval) (490260)</p> <p>ADE Approved Credit Transportation, Distribution and Logistics V (Requires ADE Approval) (490270)</p>		
Industry Recognized Credentials (IRC)		