

Connecting High School to College and Career

Career and Technical Education (CTE) provides critical learning and hands-on skills in 62 Pathways within eight areas of study. Students who focus on a Pathway acquire the skills necessary for entry into well-paid careers with high potential for rapid financial growth, increased levels of responsibility, and a high degree of personal satisfaction.

CTE Pathways:

- Will jump-start your future career.
- Will give you unlimited opportunities.
- Will help you plan for life after high school—before graduation.
- Will save you time and money.

What is a Pathway?

- A Pathway is a sequence of courses within your area of interest.
- A Pathway connects from high school to college for a specific degree and/or career. A Pathway will save you time and money toward a college degree.

CTE: Keeping it REAL

- Classroom instruction connects to the REAL world of work and future career opportunities.
- Statistics indicate that CTE graduates are worth higher wages because they are more productive than other workers.

Did you know?

Ninety percent of jobs require training beyond high school.

Top 5 reasons to participate in CTE Career Pathways:

1. To acquire technical skills training.
2. To participate in hands-on learning.
3. To jump-start your future career.
4. To earn college credit while in high school through concurrent enrollment classes.
5. To save time and money!

Ask yourself:

- What do I want to be doing in 5 years?
- What do I want to be doing in 10 years?

Ask yourself:

- What classes should I take to get ready for college?
- What does it cost to go to college?

Ask yourself:

- Why should I plan?
- Why should I study?
- Why should I graduate from high school?

Ask yourself:

- How can I make a lot of money?
- How do I find a career?
- How can Pathways help me?

Acquiring critical learning and hands-on skills through education and training will open doors of opportunity for obtaining employment within your area of interest. Stay in school and finish your education. Your future depends on it.

For more information log onto
www.utahcte.org.

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Salt Lake City, UT 84114-4200
Patti Harrington, Ed.D., State Superintendent of Public Instruction
Mary Shumway, State Director of Career and Technical Education



Skilled and Technical Sciences Education
Heavy Duty Diesel

High School to College and Career PATHWAYS



CAREER AND TECHNICAL EDUCATION
Giving Students the Edge



High School to College and Career Pathway: Secondary

Area of Study: Skilled & Technical Sciences Education



Pathway: Mechanics & Repairs Heavy Duty Diesel

| Middle School | | State Requirements | | | High School Suggested Education Plan | | | | College & Careers | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--------------------------------|---|---|---|-------------------------------------|-------------------------------------|---|-------------------------------|--------|---------|--------------------|------|---------|------------------------------|------|--------------------------|--|--|---------|-------------------|-----|---------|-------------------------------|------|---------|--------------------------|------|---------|-------------------------------|------|---------|--------------------------------|------|---------|------------|------|---------|-----------------------------|------|---------|----------------------------|------|---------|------------------------|------|---------|--|-----|--------------|
| 7 th Grade | 8 th Grade | Middle School | Language Arts | High School | 9 th Grade Suggested | 10 th Grade Suggested | 11 th Grade Suggested | 12 th Grade Suggested | Beyond High School | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Language Arts 7 1.00 | Language Arts 8 1.00 | 2.00 | Language Arts | 3.00 | Language Arts 9 1.00 | Language Arts 10 1.00 | Language Arts 11 1.00 | (1 additional credit—class of 2011) | <p>There are a number of options for education and training beyond high school, depending on your career goals.</p> <ul style="list-style-type: none"> > Certificate > Associate degree > Bachelor's degree > Professional degree > On-the-job training > Apprenticeship > Military training <p>Sample Occupations</p> <ul style="list-style-type: none"> > Diesel Engine Specialist > Heavy Duty Diesel Teacher > Mechanics and Repairer Helper <p>For more information on salary projections, labor market demand, and training options, visit www.careers.utah.gov.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pre-Algebra 1.00 | Elem. Algebra or Applied Math 1.00 | 2.00 | Math | 2.00 | Geometry or Applied Math II 1.00 | Intermediate Algebra 1.00 | (1 additional credit—class of 2011) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Science .50 | Science 1.00 | 1.50 | Science | 2.00 | Earth Systems 1.00 | Physics 1.00 or Physics with Technology 1.00 | (1 additional credit—class of 2011) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Utah Studies .50 | U.S. History I 1.00 | 1.50 | Social Studies | 2.50 | Geography for Life .50 | World Civilizations .50 | U.S. History II 1.00 | U.S. Government and Citizenship .50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P.E. 1.00 | Health .50 | 1.50 | P.E./Health | 2.00 | Participation Skills and Techniques .50 | Fitness for Life .50 / Health Education .50 Lifetime Activities or Sport .50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| The Arts .50 | The Arts .50 | 1.00 | Fine Arts | 1.50 | Fine Arts Courses 1.50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | Financial Literacy | .50 | | | Financial Literacy .50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Keyboarding .50 | | | Computer Tech. | .50 | Computer Technology .50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CTE Intro 1.00 | | 1.00 | Career and Technical Education | 1.00 | <p>Career and Technical Education Recommended Pathway Courses</p> <p>(Students may select individual courses for exploration, or a complete Pathway for an in-depth focus.)</p> <p>CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL</p> <table border="1"> <thead> <tr> <th>Course #</th> <th>Foundation Course: (required)</th> <th>Credit</th> </tr> </thead> <tbody> <tr> <td>47.0605</td> <td>Diesel Technician*</td> <td>1.00</td> </tr> <tr> <td>47.0613</td> <td>Medium/Heavy Vehicle Systems</td> <td>1.00</td> </tr> <tr> <td colspan="3">Elective Courses:</td> </tr> <tr> <td>47.0105</td> <td>Basic Electronics</td> <td>.50</td> </tr> <tr> <td>47.0604</td> <td>Automotive Service Technician</td> <td>1.00</td> </tr> <tr> <td>47.0606</td> <td>Small Vehicle Technician</td> <td>1.00</td> </tr> <tr> <td>47.0612</td> <td>Vehicle Inspection Technician</td> <td>1.00</td> </tr> <tr> <td>47.0624</td> <td>ASE General Service Technician</td> <td>1.00</td> </tr> <tr> <td>47.0634</td> <td>ASE Brakes</td> <td>1.00</td> </tr> <tr> <td>47.0644</td> <td>ASE Steering and Suspension</td> <td>1.00</td> </tr> <tr> <td>47.0654</td> <td>ASE Electrical/Electronics</td> <td>1.00</td> </tr> <tr> <td>47.0664</td> <td>ASE Engine Performance</td> <td>1.00</td> </tr> <tr> <td>32.0199</td> <td>Student Internship (Critical Workplace Skills)</td> <td>.50</td> </tr> </tbody> </table> | | | Course # | | Foundation Course: (required) | Credit | 47.0605 | Diesel Technician* | 1.00 | 47.0613 | Medium/Heavy Vehicle Systems | 1.00 | Elective Courses: | | | 47.0105 | Basic Electronics | .50 | 47.0604 | Automotive Service Technician | 1.00 | 47.0606 | Small Vehicle Technician | 1.00 | 47.0612 | Vehicle Inspection Technician | 1.00 | 47.0624 | ASE General Service Technician | 1.00 | 47.0634 | ASE Brakes | 1.00 | 47.0644 | ASE Steering and Suspension | 1.00 | 47.0654 | ASE Electrical/Electronics | 1.00 | 47.0664 | ASE Engine Performance | 1.00 | 32.0199 | Student Internship (Critical Workplace Skills) | .50 | 2.00 credits |
| Course # | Foundation Course: (required) | Credit | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47.0605 | Diesel Technician* | 1.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47.0613 | Medium/Heavy Vehicle Systems | 1.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Elective Courses: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47.0105 | Basic Electronics | .50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47.0604 | Automotive Service Technician | 1.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47.0606 | Small Vehicle Technician | 1.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47.0612 | Vehicle Inspection Technician | 1.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47.0624 | ASE General Service Technician | 1.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47.0634 | ASE Brakes | 1.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47.0644 | ASE Steering and Suspension | 1.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47.0654 | ASE Electrical/Electronics | 1.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47.0664 | ASE Engine Performance | 1.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32.0199 | Student Internship (Critical Workplace Skills) | .50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Workforce Trends Employment growth will result from the increased manufacturing of buses and trucks powered by durable, economical diesel engines. Opportunities are good for those with formal diesel mechanic training and experience with electronic and diagnostic equipment.</p> <p>Get the Facts In 2006, the Environmental Protection Agency (EPA) imposed stricter emissions standards for diesel trucks starting in 2007. This regulation is designed to reduce diesel truck emissions by 90%.</p> | | <p>Core Curriculum and elective requirements may vary district to district. Check with your school counselor.</p> <p>Concurrent enrollment course offerings vary by school and district.</p> | | <p>* Will include advanced Diesel courses.</p> <p>Many Utah post-secondary programs accept high school courses toward a two- or four-year degree through concurrent enrollment. Check regional post-secondary Pathways for details.</p> | | | 1.00 credit | 3.00 credits for completion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Note: For more information, talk to your school counselor.