



# PROGRAM OF STUDY



Career Cluster: Architecture and Construction

Career Cluster Pathway: Construction

This Career Pathway Program of Study can serve as a guide along with other career planning materials as learners continue on a career path. Courses listed within this program are only recommended coursework and should be individualized to meet each learner's education and career goals. **Note:** Many items have links to external resources with more information.

REQUIRED CREDITS	GRADE	English/ Language Arts (4.0 credits)	Social Studies (2.5 credits)	Math (2.0 credits)*	Science (2.0 credits)	Fine Arts (1.0 credits)	Health/ Fitness (2.5 credits)**	Electives (6.5 credits)	Related Career & Technical/ Occupational (1.0 credits)  Certificate and Tech Prep (notation on HS and TP alignment)	SAMPLE Occupations Relating To This Pathway (*indicates job in high demand) (☉ indicates a "green" job)
SECONDARY SAMPLE COURSE OFFERINGS	9	English 1 or Honors English 1	Pacific Northwest History (.5)	Algebra I  Geometry	Integrated Science or Adv Int Science		Health (.5)		<b>ASD CTE COURSE OPTIONS</b>  Wood Technology I Wood Technology II Industrial Engineering Jewelry & Metal Sculpture I Jewelry & Metal Sculpture II Work Based Learning CTE Grad Project	<b>Little or No Preparation</b> <ul style="list-style-type: none"> <li>• Carpet Installers</li> <li>• Construction Laborers</li> <li>• Helper – Roofers</li> <li>• Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters</li> <li>• Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons*</li> <li>☉ Home Improvement Retrofit Trainee</li> <li>• Septic Tank Servicers and Sewer Pipe Cleaners</li> </ul> <b>Some Preparation</b> <ul style="list-style-type: none"> <li>• Brickmasons and Blockmasons</li> <li>• Excavating and Loading Machine and Dragline Operators</li> <li>• Fence Erectors</li> <li>• Floor Layers, Except Carpet, Wood, and Hard Tiles</li> <li>• Floor Sanders and Finishers</li> <li>• Glaziers</li> <li>• Hazardous Materials Removal Workers</li> <li>• Helpers—Carpenters</li> <li>• Helpers--Electricians</li> <li>• Helpers--Installation, Maintenance, and Repair Workers</li> <li>• Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters</li> <li>• HVAC Installer/Repairer</li> <li>• Manufactured Building and Mobile Home Installers</li> <li>• Painters, Construction and Maintenance</li> <li>• Pipelayers</li> <li>• Plasterers and Stucco Masons</li> <li>• Paperhangers</li> </ul>
	10	English 2 or Honors English 2	US History	<i>*Class of 2013 (add't 1.0 credit)</i>  Algebra II	Biology <u>or</u> AP Biology <u>or</u> Biotechnology <u>or</u> Horticulture <u>or</u> Natural Resources I			Elective courses (6.5)	<b>LEADERSHIP</b>  Skills USA	
	11	English Electives or Business English	World History <u>or</u> Economics <u>or</u> Economics II	Pre-Calculus		Credits from Art Courses  or  CTE Equivalent	Credits from Health and Fitness Courses	and  Project Me  and  Other CAA requirements	<b>TECH PREP ARTICULATIONS</b>  Wood Technology II – Grays Harbor Community College (5cr.)	
	12	English Electives or Business English	World History <u>or</u> Economics <u>or</u> Economics II <u>and</u> CWP	Calculus	CTE Equivalent  (Students must pass a math competency test or have four years of math credits.)	Science Electives	**Successfully completing two years of physical education and one semester of health is required for high school graduation.		<b>CERTIFICATION</b>  Work Readiness Credential	

<b>Technical Certification</b> <i>(instruction provided through certified training and/or testing centers)</i>	<b>Apprenticeship Opportunities</b>	<b>2-yr or ATA Degree</b> <i>(Find specific colleges at <a href="http://www.checkoutcollege.com">www.checkoutcollege.com</a>)</i>	<b>4 –yr Degree or Advanced Training</b>	<b>Some Preparation (continued)</b>
<p>Various branches of the military offer training opportunities. Visit <b>Helmets to Hardhats</b> to learn more about transition programs.</p> <p><b><u>Building/Property Maintenance and Management</u></b></p> <ul style="list-style-type: none"> <li>Bates Technical College</li> <li>Bellingham Technical College</li> <li>Grays Harbor College</li> <li>Walla Walla Community College</li> </ul> <p><b><u>Cabinetmaking and Millwork/Millwright</u></b></p> <ul style="list-style-type: none"> <li>Bates Technical College</li> </ul> <p><b><u>Carpentry</u></b></p> <ul style="list-style-type: none"> <li>Bates Technical College</li> <li>Grays Harbor College</li> <li>Green River Community College</li> <li>Peninsula College</li> <li>Spokane Community College</li> <li>Walla Walla Community College</li> <li>Wenatchee Valley College</li> </ul> <p><b><u>Cranes &amp; Riggers</u></b></p> <ul style="list-style-type: none"> <li>West Coast Training</li> </ul> <p><b><u>Communications Systems Installation and Repair Technology</u></b></p> <ul style="list-style-type: none"> <li>Bates Technical College</li> </ul> <p><b><u>Construction/Building Tech./Technician</u></b></p> <ul style="list-style-type: none"> <li>Edmonds Community College</li> <li>Lower Columbia College</li> </ul> <p><b><u>Construction Trades</u></b></p> <ul style="list-style-type: none"> <li>Renton Technical College</li> <li>Skagit Valley College</li> <li>Seattle Vocational Institute</li> <li>Bates Technical College</li> <li>Northwest Indian College</li> <li>Northwest Indian College</li> <li>Seattle Vocational Institute</li> </ul>	<p>To learn more about Apprenticeship, visit <b>Labor and Industries</b> website or the <b>Washington Building Trades</b>.</p> <p>Follow these steps to learn about the specific apprenticeships available in this pathway:</p> <p><b>STEP 1:</b> Link to <b>Apprenticeship Registration and Tracking System</b></p> <p><b>STEP 2:</b> Search by using key words below or the SOC code listed</p> <ul style="list-style-type: none"> <li>Acoustical Applicator (47-2081)</li> <li>Asbestos Worker(47-2061)</li> <li>Boilermaker (47-2011)</li> <li>Brick Layer/Mason(47-2021; 47-3011)</li> <li>Carpenter (47-2031)</li> <li>Carpet (47-2041)</li> <li>Cement Mason (47-2051)</li> <li>Construction Craft Laborer (47-2111; 47-2073)</li> <li>Dock and Wharf Builder (47-2031)</li> <li>Drywall Systems Installer (47-2081; 47-2082)</li> <li>Electrician (47-2111)</li> <li>Electronic Systems Technician (49-2022)</li> <li>Energy (43-5032; 49-2098; 49-2022)</li> <li>Environmental Systems Control Worker (47-2041)</li> <li>Firestop/Containment Worker (47-2131)</li> <li>Glazier (47-2121)</li> <li>Heating &amp; Air Conditioning Installer Servicer (47-2211)</li> <li>Hoisting Engineer (53-7040)</li> <li>Insulation Applicator (47-2131)</li> <li>Laborer (47-2061)</li> <li>Marble Setter (47-2022)</li> <li>Neon Sign Installer (47-2111)</li> <li>Painter (47-2061; 47-2141)</li> <li>Piledriver (47-2031; 47-2072)</li> <li>Pipefitter (47-2152)</li> <li>Plaster (47-2161)</li> <li>Plumber (47-2152)</li> <li>Pointer/Cleaner/Caulker (47-2061)</li> </ul>	<p><b><u>Building/Property Maintenance and Management</u></b></p> <ul style="list-style-type: none"> <li>Bates Technical College</li> <li>Bellingham Technical College</li> </ul> <p><b><u>Cabinetmaking and Millwork/Millwright</u></b></p> <ul style="list-style-type: none"> <li>Seattle Community College-Central Campus</li> </ul> <p><b><u>Carpentry</u></b></p> <ul style="list-style-type: none"> <li>Bates Technical College</li> <li>Grays Harbor College</li> <li>Green River Community College</li> <li>Seattle Community College-Central Campus</li> <li>Spokane Community College</li> <li>Walla Walla Community College</li> </ul> <p><b><u>Communications Systems Installation and Repair Technology</u></b></p> <ul style="list-style-type: none"> <li>Bates Technical College</li> </ul> <p><b><u>Computer Aided Drafting Technology</u></b></p> <ul style="list-style-type: none"> <li>South Puget Sound CC and various others</li> </ul> <p><b><u>Construction Engineer/Tech</u></b></p> <ul style="list-style-type: none"> <li>Clark College</li> <li>Edmonds Community College</li> <li>Lower Columbia College</li> <li>Spokane Community College</li> </ul> <p><b><u>Construction Mgmt</u></b></p> <ul style="list-style-type: none"> <li>Edmonds Community College</li> </ul> <p><b><u>Electrician</u></b></p> <ul style="list-style-type: none"> <li>Bates Technical College</li> <li>Bellingham Technical College</li> <li>Big Bend Community College</li> </ul>	<p><b><u>Washington 4-yr Private and Public Schools offer a variety of degrees related to Business Management and Administration:</u></b></p> <ul style="list-style-type: none"> <li>Business Administration and Management</li> </ul> <p><b><u>Construction/Building Tech./Technician</u></b></p> <ul style="list-style-type: none"> <li>Central Washington University</li> <li>Washington State University</li> </ul> <p><b><u>CTE Secondary Education Teacher</u></b></p> <ul style="list-style-type: none"> <li>Education Degree in a CTE program area with 2000 hours of related work experience</li> <li>Industry Route Certificate requires 6000 hours of work experience in the field and completion of a state approved CTE Preparation Program along with passage of Basic Skills Math and English</li> </ul>	<ul style="list-style-type: none"> <li>Pile-Driver Operators Residential Air Sealing Technician</li> <li>Tapers</li> <li>Sheet Metal Workers</li> <li>Structural Iron and Steel Worker</li> <li>Telecommunications Line Installers and Repairers</li> <li>Tile and Marble Setters</li> <li>Water Purification Systems Technician</li> </ul> <p><b><u>Medium Preparation</u></b></p> <ul style="list-style-type: none"> <li>Cabinetmakers and Bench Carpenters</li> <li>Cement Masons and Concrete Finishers</li> <li>Construction and Building Inspectors</li> <li>Construction Managers</li> <li>Control and Valve Installers and Repairers, Except Mechanical Door</li> <li>Crane and Tower Operators</li> <li>Drywall and Ceiling Tile Installers</li> <li>Earth Drillers</li> <li>Electrical and Electronics Repairers, Powerhouse, Substation, and Relay</li> <li>Electrical Power-Line Installers and Repairers</li> <li>Electricians</li> <li>First-Line Supervisors/Managers of Construction Trades and Extraction Workers</li> <li>Green Building Construction (Insulation, HVAC, Carpenter, Plumber and Pipefitter, Welder, Machinist, Roofing and Skylight Installer)</li> <li>Insulation Workers, Floor, Ceiling, and Wall</li> <li>Insulation Workers, Mechanical</li> <li>Operating Engineers and Other Construction Equipment Operators</li> <li>Plumbers, Pipefitters, and Steamfitters</li> <li>Power Distributors and Dispatchers</li> <li>Reinforcing Iron and Rebar Workers</li> <li>Riggers</li> <li>Roofers</li> <li>Security and Fire Alarm Systems Installers</li> <li>Stonemasons</li> </ul>

<b>Technical Certification</b> <i>(instruction provided through certified training and/or testing centers)</i>	<b>Apprenticeship Opportunities</b>	<b>2-yr or ATA Degree</b>	<b>4 –yr Degree or Advanced Training</b>	<b>Considerable Preparation</b>
<p><b><u>Electrician</u></b></p> <ul style="list-style-type: none"> <li>• Bates Technical College</li> <li>• Bellingham Technical College</li> <li>• Big Bend Community College</li> <li>• Perry Technical Institute</li> <li>• Spokane Community College</li> </ul> <p><b><u>Heating/AC/Ventilation/Refrig Maint Technology/Technician</u></b></p> <ul style="list-style-type: none"> <li>• Bates Technical College</li> <li>• Hvac Training School</li> <li>• Northwest HVAC/R Training Center</li> <li>• Perry Technical Institute</li> <li>• Renton Technical College</li> <li>• Seattle Community College-North Campus</li> <li>• Walla Walla Community College</li> </ul> <p><b><u>Heavy/Earthmoving Equipment Operation</u></b></p> <ul style="list-style-type: none"> <li>• Bates Technical College</li> <li>• West Coast Training</li> </ul> <p><b><u>Industrial Mechanics and Maintenance Technology</u></b></p> <ul style="list-style-type: none"> <li>• Lake Washington Technical College</li> </ul> <p><b><u>Mechanic and Repair Technologies/Technicians</u></b></p> <ul style="list-style-type: none"> <li>• Shoreline Community College</li> </ul> <p><b><u>Sheet Metal Technology</u></b></p> <ul style="list-style-type: none"> <li>• Bates Technical College</li> </ul>	<ul style="list-style-type: none"> <li>• Public Sector Code Inspector (Official) (47-4011)</li> <li>• Resilient Floorcovering Installer (47-2042)</li> <li>• Roofer (47-2181)</li> <li>• Scaffold Erector (47-2031)</li> <li>• Sheet Metal Worker (47-2211)</li> <li>• Sign Maker (47-4099)</li> <li>• Soft Floor Layer(47-2042)</li> <li>• Sprinkler Fitter (47-2152)</li> <li>• Steamfitter (47-2152)</li> <li>• Terrazzo Worker (47-3011; 47-2053)</li> <li>• Traffic Signal Technician (47-2111; 47-2141)</li> <li>• Neon Sign Tube Bender (47-2111)</li> </ul> <p><b>STEP 3:</b> Click “View” and scroll down to find contact name and program standards for qualifications and how to apply</p> <p><b><u>WASHINGTON BUILDING TRADES</u></b></p> <p><b>Carpenters</b>  <a href="http://www.carpenterspnwrc.org">www.carpenterspnwrc.org</a></p> <p><b>Electricians</b>  <a href="http://www.psejatc.org">www.psejatc.org</a>  <a href="http://www.jatc112.org">www.jatc112.org</a>  <a href="http://www.nwejatc.org">www.nwejatc.org</a></p> <p><b>Elevator constructors</b>  <a href="http://www.iueclocal19.homestead.com">www.iueclocal19.homestead.com</a>  <a href="http://www.iuec.org">www.iuec.org</a></p> <p><b>Iron Workers</b>  <a href="http://www.local86.org">www.local86.org</a>  <a href="http://www.ironworkers.org">www.ironworkers.org</a></p> <p><b>Laborers</b>  <a href="http://www.nwlaborerstraining.org">www.nwlaborerstraining.org</a></p> <p><b>Lineman</b>  <a href="http://www.northwestlinejatc.org">www.northwestlinejatc.org</a></p> <p><b>Marine Electrical</b>  <a href="http://www.ibew46.org">www.ibew46.org</a></p> <p><b>Operating Engineers</b>  <a href="http://www.oetraining.com">www.oetraining.com</a></p> <p><b>Painters, Tapers, Drywall Finishers, Glazers, Floor coverers</b>  <a href="http://www.apprenticeship.net">www.apprenticeship.net</a></p> <p><b>Plumbers and Pipe fitters</b>  <a href="http://www.seattlepipetrades.org">www.seattlepipetrades.org</a></p> <p><b>Sheet Metal</b>  <a href="http://www.smtt.org">www.smtt.org</a>  <a href="http://www.wsmjatc.org">www.wsmjatc.org</a></p>	<p><b><u>Heating/AC/Ventilation/Refrig Maint Technology/Technician</u></b></p> <ul style="list-style-type: none"> <li>• Bates Technical College</li> <li>• Bellingham Technical College</li> <li>• Clover Park Technical College</li> <li>• Seattle Community College-North Campus</li> <li>• Spokane Community College</li> <li>• Walla Walla Community College</li> <li>• Wenatchee Valley College</li> </ul> <p><b><u>Mechanic and Repair Technologies/Technicians</u></b></p> <ul style="list-style-type: none"> <li>• Shoreline Community College</li> </ul> <p><b><u>Welding</u></b></p> <ul style="list-style-type: none"> <li>• South Puget Sound CC and various others</li> </ul>		<p><b><u>Considerable Preparation</u></b></p> <ul style="list-style-type: none"> <li>• Cost Estimator</li> <li>• CTE Teacher</li> <li>• Weatherization Operations Manager</li> </ul>

\*Data acquired from [www.workforceexplorer.com](http://www.workforceexplorer.com), [www.sbctc.edu](http://www.sbctc.edu), [www.careerclusters.org](http://www.careerclusters.org), and [www.edf.org/cagreenjobs](http://www.edf.org/cagreenjobs),  
Adapted from <http://www.nthurston.k12.wa.us/education/components/scrapbook/default.php?sectiondetailid=34988>