



# PROGRAM OF STUDY



Career Cluster: Agriculture, Food & Natural Resources Career Cluster Pathway: Environmental Service Systems

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>  Horticulture <sup>1</sup> Natural Resources Natural Resources II Biotechnology Landscape Design Marketing Work Based Learning CTE Grad Project	<b>Little or No Preparation</b> ⊙ Landfill Gas System Technician ⊙ Landscaping and Grounds keeping Workers* <b>Some Preparation</b> ⊙ First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeepers* ⊙ Hazardous Material Removal Worker • Pest Control Workers ⊙ Refuse and Recyclable Material Collectors* ⊙ Recycling Center Operator ⊙ Wastewater Treatment Maintenance <b>Medium Preparation</b> ⊙ Environmental Engineering Technicians ⊙ Environmental Sampling Technician ⊙ Forest and Conservation Technicians ⊙ Forestry Conservation Worker ⊙ Landfill Gas Collection System Operator • Pesticide Handlers, Sprayers, and Applicators, Vegetation ⊙ Water and Liquid Waste Treatment Plant and System Operators
	10	English 2 or Honors English 2	US History	*Class of 2013 (add't 1.0 credit)  Algebra II	Biology <u>or</u> AP Biology <u>or</u> Biotechnology <u>or</u> Horticulture <u>or</u> Natural Resources I	Credits from Art Courses		Elective courses (6.5)	<b>LEADERSHIP</b>  FFA	
	11	English Electives or Business English	World History <u>or</u> Economics <u>or</u> Economics II	Pre-Calculus  Calculus		or  CTE Equivalent	Credits from Health and Fitness Courses	and  Project Me  and  Other CAA requirements	<b>TECH PREP ARTICULATIONS</b>  Natural Resources 1 – Grays Harbor College (5 cr.)  Horticulture - South Puget Sound Community College (5 cr.)  Landscape Design – South Puget Sound Community College (5 cr.)	
	12	English Electives or Business English	World History <u>or</u> Economics <u>or</u> Economics II <u>and</u> CWP	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	

<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>
<p><b>Occupational Safety &amp; Health Tech</b></p> <ul style="list-style-type: none"> <li>Bates Technical College</li> </ul> <p><b>Quality Control and Safety Technologies/Technicians</b></p> <ul style="list-style-type: none"> <li>Clover Park Technical College</li> </ul>	<p>To learn more about Apprenticeship, visit <a href="#">Labor and Industries</a> website.</p> <p>Follow these steps to learn about the specific apprenticeships available in this pathway:</p> <p><b>STEP 1:</b> Link to <a href="#">Apprenticeship Registration and Tracking System</a></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>Construction &amp; Maintenance Project Specialist (49-9042)</li> <li>Drainage &amp; Wastewater Collection (51-8031)</li> <li>Grounds Maintenance Specialist (37-3011)</li> <li>Maintenance Mechanic (49-9041)</li> <li>Potable Water Supply &amp; Service Worker (51-8031)</li> <li>Tree Trimmer (37-3013)</li> <li>Waste-Water Treatment Plant Operator (51-8031)</li> <li>Water Pollution Control Plant Operator (51-8031)</li> <li>Water/Wastewater Tech (51-8031)</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>Environmental Engineering Tech</b></p> <ul style="list-style-type: none"> <li>Clover Park Technical College</li> </ul> <p><b>Environmental Tech/Sustainable Practices</b></p> <ul style="list-style-type: none"> <li>Cascadia Community College</li> <li>Olympic Community College</li> </ul> <p><b>Greenhouse/Nursery Operations &amp; Mgmt</b></p> <ul style="list-style-type: none"> <li>Clark College</li> <li>Edmonds Community College</li> <li>Spokane Community College</li> </ul> <p><b>Landscaping and Groundskeeping</b></p> <ul style="list-style-type: none"> <li>Clark College</li> <li>Clover Park Technical College</li> <li>Edmonds Community College</li> <li>South Seattle Community College</li> </ul> <p><b>Horticulture</b></p> <ul style="list-style-type: none"> <li>South Puget Sound Community College and various other community colleges</li> </ul> <p><b>Horticulture Therapy Aide</b></p> <ul style="list-style-type: none"> <li>Edmonds Community College</li> </ul> <p><b>Resource/Conservation</b></p> <ul style="list-style-type: none"> <li>Grays Harbor Community College</li> <li>Peninsula Community College</li> <li>Skagit Valley Community College</li> <li>Wenatchee Community College</li> </ul> <p><b>Occupational Safety &amp; Health Tech</b></p> <ul style="list-style-type: none"> <li>Bates Technical College</li> <li>Edmonds Community College</li> <li>Pierce Community College</li> </ul> <p><b>Quality Control and Safety Technologies/Technicians</b></p> <ul style="list-style-type: none"> <li>Clover Park Technical College</li> </ul> <p><b>Greenhouse/Nursery Operations &amp; Mgmt</b></p> <ul style="list-style-type: none"> <li>Clark College</li> <li>Edmonds Community College</li> <li>Spokane Community College</li> </ul> <p><b>Turf &amp; Turfgrass Management</b></p> <ul style="list-style-type: none"> <li>Clover Park Technical College</li> <li>Spokane Community College</li> <li>Walla Walla Community College</li> </ul> <p><b>Turf Equipment Mechanics</b></p> <ul style="list-style-type: none"> <li>Walla Walla Community</li> </ul> <p><b>Water Quality &amp; Wastewater Treatment Mgmt &amp; Recycling Tech</b></p> <ul style="list-style-type: none"> <li>Green River Community College</li> </ul> <p><b>Water Resources</b></p> <ul style="list-style-type: none"> <li>Grays Harbor Community College</li> <li>Green River Community College</li> <li>Skagit Valley Community College</li> <li>Spokane Community College</li> </ul>	<p><b>Conservation and Renewable Natural Resources, Other</b></p> <ul style="list-style-type: none"> <li>University of Washington</li> <li>Washington State University</li> </ul> <p><b>Engineering Related Technologies</b></p> <ul style="list-style-type: none"> <li>Central Washington University</li> <li>City University</li> <li>ITT Technical Institute</li> </ul> <p><b>Environmental Health</b></p> <ul style="list-style-type: none"> <li>University of Washington</li> </ul> <p><b>Environmental Sciences</b></p> <ul style="list-style-type: none"> <li>Washington State University - Vancouver</li> </ul> <p><b>Forest Management</b></p> <ul style="list-style-type: none"> <li>University of Washington-Seattle Campus</li> </ul> <p><b>Forestry and Related Sciences, Other</b></p> <ul style="list-style-type: none"> <li>Heritage University</li> <li>University of Washington-Seattle Campus</li> <li>Washington State University</li> </ul> <p><b>Landscape Architecture</b></p> <ul style="list-style-type: none"> <li>University of Washington-Seattle Campus</li> <li>Washington State University</li> <li>Washington State University - Spokane</li> </ul> <p><b>Occupational Safety &amp; Health Tech</b></p> <ul style="list-style-type: none"> <li>Central Washington University</li> </ul> <p><b>Quality Control and Safety Technologies/Technicians</b></p> <ul style="list-style-type: none"> <li>Central Washington University</li> </ul> <p><b>CTE Secondary Education Teacher</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>

<b>Considerable Preparation</b>
<ul style="list-style-type: none"> <li>Air Pollution Specialist</li> <li>Civil Engineer for Agricultural, Irrigation, and Water Supply</li> <li>Conservation Forestry Consultant</li> <li>CTE Teacher</li> <li>Emissions Accounting &amp; Reporting Consultant</li> <li>Environmental Science and Protection Technician</li> <li>Forestry Supervisor</li> <li>Greenhouse Gas Emissions Report Verifier</li> <li>Hazardous Waste Mgmt Specialist</li> <li>Landfill Gas to Energy Engineering &amp; Management</li> <li>Landscape Architects*</li> <li>Nuclear Waste Management Engineer</li> <li>Occupational Health and Safety Technicians</li> <li>Sales Representatives, Wholesale and Manufacturing, Technical and Scientific*</li> <li>Secondary and Post Secondary Horticulture Instructors</li> <li>Wastewater Treatment Operations &amp; Engineering</li> <li>Water/Wastewater Quality Consultant</li> </ul> <p><b>Extensive Preparation</b></p> <ul style="list-style-type: none"> <li>Environmental Engineers</li> <li>Restoration Planner</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),

