



Water Conservation Technician Degree

Roger Ebbage, M.A. ~ Energy/Water Programs



Need for Water Conservation

- Globally, water is at crisis levels
- Nationally we are scrambling to replace aging infrastructure, maintain quality & habitat while preparing for a wave of retirees
- The doubling population by 2050 along with changing levels of affluence bring increased demands on water
- Climate change & reduced snow pack leave less water available
- **Mandatory water conservation programs are required, but training is not available**

Need for Two-Year Degree

- **College-level training is not available**
- **On-the-job training is not meeting workforce demand**
- Water conservation positions are some of “the hardest to fill” due to lack of trained technicians
- Inconsistent training requires extensive and expensive on-the-job training



Opportunity for Lane: Help secure local water availability

- Water is needed for all systems, processes: human & ecosystem
- Access to sufficient high quality water in perpetuity is a basic human right
- **LCC can help provide Oregon with a steady, safe & secure water supply**
- **LCC will attract new students; add FTE; retain existing students**

Program Overview

- **Two-year Associate of Applied Science degree:**
- **Teaches students how to design, implement & evaluate water conservation programs**
- 93 credit program
- Water conservation practitioners:
 - helped develop program
 - provide ongoing advice to meet workforce needs
 - will be adjunct faculty
- Uses existing classes as well as classes that are used in other programs (e.g. Energy)



First Year

Fall

WATR 101 Intro to Water Resources	3
BT 123 MS Excel for Business	4
WR 121 Composition:	4
Physical Education Activity Requirement Health requirement	
Total Credits	13

Winter

SUST 101 Intro to Sustainability	3
WATR 105 Water Conservation: Residential	4
MTH 095 Intermediate Algebra	5
WR 227 Technical Report Writing	4
WATR 206 Co-op Ed: Water Conservation Seminar	1
Physical Education Activity Requirement Health requirement	
Total Credits	18

Spring

WATR 107 Water Conservation: Outdoor	4
WATR 150 Water Resource Economics or ECON260 Introduction to Environmental and Natural Resource Economics	4
BI 103F General Biology: Wildflowers of Oregon	4
CG 203 Human Relations at Work	3
Total Credits	15



Second Year

Fall

WATR 210 Water Conservation: Industrial, Commercial	4
WATR 208 Water Conservation: Agricultural	4
WATR 261 Regional Water Policy	3
WATR 280 Co-op Ed: Water Conservation	3
Directed electives	3
Total Credits	17

Winter

WATR 215 Integrated Water Resources Management	4
GIS 245 Maps and Spatial Information	4
WATR 202 Fostering Sustainable Practices	3
WATR 280 Co-op Ed: Water Conservation	3
WATR 206 Co-op Ed Water Conservation Seminar	1
Arts/Letters requirement	3
Total Credits	18

Spring

WATR 220 Water Conservation Program Development	4
WATR 221 Water Mechanical Systems	4
WATR 280 Co-op Ed: Water Conservation	3
Directed Elective	3
Total Credits	14

Professional Development & Professional Certification

- **Professional Development:**
- Tailored training programs developed to meet existing practitioners' needs (1 day – 2 week long)
- **First workshop being developed now for PNWS-AWWA**
- **Increases FTE and revenue for college**
- **Optional Professional Certification:**
- Offered by the Pacific Northwest Section of the American Water Works Association (PNWS-AWWA)
- **Lane is the contracted provider of choice for training for the PNWS-AWWA**

Earning Potential for Graduates

Job Title:

- Water Conservation Coordinator
- Water Resources Technician
- Water Management Specialist
- General Conservation Scientist

Annual Wage:

- **\$36,546 - \$53,856**
- **\$43,152 - \$46,124**
- **49,940 – 59,925**
- **\$30,730-\$54,640**

Students earn a living wage while working toward wise use of resources.

Benefits to Lane Community College

- Program is funded through outside funding and grants
- Increases revenue generated
- Brings in additional FTE
- Helps retain existing students
- Builds on Sustainability Core Value
- Improves wise use of water on campus through student projects

Benefits to Lane County

- Program helps strengthens local economy
- Student interns and graduates work for employers in water utilities, private consulting firms, government agencies and irrigation districts
- Some Oregon employers include EWEB, SUB, HDR Engineering, Metro, Dept of Health,
- Government employers include Cities of Tigard, Tualatin, Wilsonville, Portland....
- **Program perfect for women, disadvantaged and retrained workers as well as minority groups**

Summary

- On-the-job training is not meeting workforce demand for trained technicians
- **College-level training is not yet available specifically in water conservation.**
- Addition of program will improve Lane Sustainability



Thank you! Questions?

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