



Renewable Energy Technology

at Walla Walla Community College

<https://dept.wwcc.edu/energy>

The Program

Graduates of the Renewable Energy Technology concentration will enter the workforce with the knowledge and skills to:

- Assemble and install renewable energy systems (solar, wind, hydro-electric, biofuel/bioproducts)
- Monitor and control/adjust equipment to ensure optimal performance, including: turbines, pumps, valves, gates, fans, controllers, filters, and instruments
- Troubleshoot, diagnose, and repair or replace wiring and electrical, mechanical, and hydraulic equipment safely to NEC standards using a variety of testing devices and hand and power tools
- Read blueprints or technical diagrams

Career Opportunities

Growing demand for energy, retirement of technicians at power generation facilities, and upgrades to aging infrastructure will drive growth of renewable energy/process technician jobs and careers.

Career Path: Median entry-level wages range from \$39,000 to \$54,000 a year.

- Renewable Energy/Process Technician
- System/Site Supervisor
- Systems Specialist

WWCC Degree Options

- AAAS degree in **Energy Systems Technology (EST)** with concentration in Renewable Energy Technology.
- Certificate is available after successful completion of first three quarters of the EST degree.
- Completion of additional EST concentrations is an option.



For More Information

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Energy Systems Technology

Concentration: Renewable Energy Technology

Required Coursework for: Electrical Systems Technology Core

The following courses are required for the concentration in Renewable Energy Technology

Fall Quarter		
Course #	Course Name	Credits
EST 145	Industrial Safety and Rigging	5
EST 131	Principles of Electricity Theory	4
WTM 215*	Fluid Dynamics (Applied Mathematics)	5
EST 260	Introduction to the National Electrical Code	2
AFYE 101	Applied First Year Experience I	1
Total Credits		17

Fall Quarter		
Course #	Course Name	Credits
EST 159	Hydraulics and Pneumatics	3
EST 240	Introduction to Basic Electronics	5
EST 235	Introduction to Solar PV and Applications	3
EST 106	Process Control Instrumentation and Troubleshooting	5
Total Credits		16

Winter Quarter		
Course #	Course Name	Credits
EST 132	Principles of Electricity AC Application	4
AENG 100	Applied Writing (W + J)	5
CS 110	Intro. to Computers & Applications	5
ENT 112	Blueprint Reading	2
AFYE 102	Applied First Year Experience II	1
Total Credits		17

Winter Quarter		
Course #	Course Name	Credits
EST 250	Programmable Logic Controllers	5
CS 121	C Programming	5
EST 115	Industrial Mechanics	5
EST 202	Bio-Chemical Conversion	5
Total Credits		20

Spring Quarter		
Course #	Course Name	Credits
EST 133	Introduction to Controls	4
EST 150	Electric Motors and Motor Maintenance	3
EST 252	Principles of Power Generation and Distribution	5
ACOM 102	Applied Communications (O/R/L)	5
IFA 022	AHA Heartsaver First Aid	0.4
AFYE 103	Applied First Year Experience III	1
Total Credits		18.4
Total Certificate Credits		52.4

Spring Quarter		
Course #	Course Name	Credits
AGPR 254	Robotics and Drone Technologies	5
EST 203	Applied Controls and Operations	5
EST 285	Advanced Instrumentation and PLCs	3
EST 175	Tower Rescue and Climbing Competency	1.2
Total Credits (min.)		14.2
Total Degree Credits (min.)		102.6

Certificate can be earned by completing first 3 quarters of program.

*Placement in WTM 215 requires a C or higher in AMATH 105 (or BUS 112) or placement into AMATH 106 or 107.

The following courses can be substituted for identified related instruction courses.

(W) Written Communication:	ENGL 097 or higher
(M) Computation / Mathematics:	MATH& 141 or higher
(O) Oral Communications:	Any O course
(R) Human Relations:	Any R course

CIP-47.0101 EPC 780A Energy Systems Technology Degree (with Renewable Energy Technology concentration)

Updated 7/2019

**The actual order and specific coursework may vary depending on student placement, start date, and quarter.
Please check with your advisor prior to any substitutions.**

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