

# Sustainable Energy Systems



HEARTLAND  
COMMUNITY COLLEGE

## Associate in Applied Science 64-65 Semester Hours

General Education Requirements				hrs
COMM	101	Intro to Oral Communication		3
ENGL	101	Composition I		3
MATH	109	College Algebra for Math & Science		4
Or				
TMAT	103	Technical Math I		4
MATH	128	Trigonometry		3
Or				
TMAT	105	Technical Math II		4
EASC	151	Introduction to Weather		<u>4</u>
TOTAL				17-18

Technical Requirements				hrs
BUSN	145	Employment Success Strategies		1
CNST	103	Building Mechanical & Electrical Systems		3
CSCI	101	Intro to Computer Information Science		4
MAIN	101	Industrial Electricity & Systems		3
MAIN	104	Air Conditioning and Refrigeration		3
MAIN	201	Electrical Wiring and Maintenance		3
MAIN	221	Heating Systems		3
MAIN	222	Industrial Controllers		3
NETW	160	Introduction to Networking		3
REEC	110	Green Building Technology		3
REEC	120	Sustainability and Renewable Energy		3
REEC	210	Building Automation		3
TECH	114	Introduction to Technical Graphics		<u>3</u>
TOTAL				38

### Environmental Control Option

#### Heartland Community College (HCC)

REEC	220	Solar Thermal Systems		3
REEC	223	Geothermal and Heat Pump Systems		3
Technical Electives*				<u>3</u>
TOTAL				9

### Biofuels Option

#### Southeastern Illinois College (SIC)

ENGY	111	Intro to Biofuels		3
ENGY	131	Biodiesel Productions		3
Technical Electives*				<u>3</u>
TOTAL				9

### Hydro and HVAC Option

#### John A. Logan College (JALC)\*\*

ELT	143	Renewable Energy Principals		3
ELT	260	Hydropower		3
HAC	140	HVAC Performance Systems		<u>3</u>
TOTAL				9

### Program Description

By enrolling in the Sustainable Energy Systems program, you develop a strong background in building systems for sustainable energy. You will learn about building automation, heating, cooling and controllers. You will also learn about green buildings, sustainability, renewable energy, and automation. You choose to focus on an Environmental Control, Biofuels, or Hydro and HVAC option. When you complete this program, you can seek employment in an area where there is rapid growth in employment opportunities as a technician in sustainable energy, energy assessment and management, environmental controls, and automation and controls.

\*Technical electives may be taken as approved by advisor or STEM & Business Division; consider choosing these electives in order to earn additional Skills Certificates.

\*\*John A. Logan College participants may substitute ELT 143 for HCC's REEC 120