

Renewable energy sources are the cutting edge of America's quest for a diversified and secure energy future. Environmentally friendly and regenerating, renewable energy sources have always been the right choice, but with rising fuel costs, renewable energy sources are no longer a choice but a requirement. Careers in renewable energy will be increasing dramatically nationally as well as locally. There is an increasing demand for skilled workers in the local area for solar installers, home energy auditors and many other areas.

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Degrees: Associate of Applied Science

Renewable Energy Technology

Solar Photovoltaic

Solar PV Business Owner

Solar Thermal

Solar Thermal Business Owner

Certificates:

Grid Tie Entry Level

Advanced PV Installation

Solar PV Designer

Solar Thermal Entry Level

Solar Thermal Installer

Solar Thermal Designer

Energy Efficiency – Energy Auditing

Post EIC Degree Solar Photovoltaic

Post HVA Degree Solar Thermal

Energy Auditing

Energy Efficiency

AAS Degree

Renewable Energy Technology

To earn this degree select a Solar Thermal or Solar Photovoltaic Specialty. Degree seeking students will complete the general education and core requirements listed below.

The AAS degree in Renewable Energy may also be customized to meet the needs of the entrepreneur operating a solar business. A renewable energy advisor will work with you to identify courses within the area which complement your career goals.

Information: Larry Snyder 303 914 6306, larry.snyder@rrcc.edu
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Solar Photovoltaic Specialty AAS

| Required Courses | Credits |
|---|-----------|
| ENY 101 Intro to Energy Technologies | 3 |
| ENY 102 Building Energy Audit Tech | 3 |
| OSH 127 10 hour Construction Industry Standards | 1 |
| HVA 105 Electricity for HVAC/R | 4 |
| CAR 123 Roof Framing | 1 |
| CAR 125 Roofing Materials and Methods | 1 |
| ENY 130 Photovoltaic Grid Tie | 2 |
| EIC 130 National Electrical Code I | 4 |
| CON 105 Construction Tech | 4 |
| ENY 131 Advanced Solar PV | 2 |
| ENY 132 NABCEP Entry Level Prep Class | 1 |
| ENY 230 PV Maintenance and Troubleshooting | 2 |
| ENY 231 Solar Contracting | 4 |
| ENY 240 Estimating for Energy | 4 |
| Internship or elective | 4 |
| General Education Courses | |
| ENG 131 Technical Writing | 3 |
| MAT 107 Career Math | 3 |
| PHY 107 Energy, Science and Technology | 4 |
| PHI 118 Philosophy of the Environment | 3 |
| BUS 118 Business Survival Skills | 3 |
| Total Credits | 56 |

*Seek advisor approval for elective courses in CON, BUS, ACT, CIS, ENY, MAR, MAN, COM, HVA, EIC, PLU

Solar PV Business Owner Specialty AAS

| Required Courses | Credits |
|-----------------------------------|-----------|
| ENY 101 Intro to Energy | 3 |
| ENY 102 Building Energy Audit | 3 |
| OSH 127 10 hour OSHA | 1 |
| HVA 105 Basic Electricity | 4 |
| ENY 130 Solar PV Grid Tie | 2 |
| CON 105 Construction Tech | 4 |
| ENY 231 Contractors Class | 4 |
| ENY 240 Estimating | 4 |
| Advisor approved electives | 16 |
| Internship or elective | 4 |
| General Education Courses | |
| ENG 131 Technical Writing | 3 |
| MAT 107 Career Math | 3 |
| PHY 107 Physics | 4 |

| | | |
|---------|-------------------------------|---|
| PHI 118 | Philosophy of the Environment | 3 |
| BUS 118 | Business Survival Skills | 3 |

Total Credits 62

*Elective list for owner, a mix of advisor approved classes within CON, BUS, MAR, ACT, MAN, COM, CIS, PSY

Solar Thermal Specialty AAS

Required Courses Credits

| | | |
|---------|-----------------------------------|---|
| ENY 101 | Intro to Energy | 3 |
| ENY 102 | Building Energy Audit | 3 |
| OSH 127 | 10 hour OSHA | 1 |
| HVA 105 | Basic Electricity | 4 |
| CAR 123 | Framing | 1 |
| CAR 125 | Roofing materials | 1 |
| ENY 120 | Solar Thermal Install | 4 |
| ENY 175 | SpTp: Thermal Install II Controls | 4 |
| CON 105 | Construction Tech | 4 |
| PLU 101 | Piping skills | 4 |
| ENY 132 | NABCEP Thermal prep | 1 |
| ENY 231 | Solar Contracting | 4 |
| ENY 240 | Estimating for Energy | 4 |

Internship or elective 8

General Education Courses

| | | |
|---------|-------------------------------|---|
| ENG 131 | Technical Writing | 3 |
| MAT 107 | Career Math | 3 |
| PHY 107 | Physics | 4 |
| PHI 118 | Philosophy of the Environment | 3 |
| BUS 118 | Business Survival Skills | 3 |

Total Credits 62

*Seek advisor approval for elective courses in CON, BUS, ACT, CIS, ENY, MAR, MAN, COM, HVA, EIC, PLU

Solar Thermal Business Owner Specialty AAS

Required Courses Credits

| | | |
|---------|---|---|
| ENY 101 | Intro to Energy | 3 |
| ENY 102 | Building Energy Audit | 3 |
| OSH 127 | 10 hour Construction Industry Standards | 1 |
| HVA 105 | Basic Electricity | 4 |
| ENY 120 | Thermal Install | 4 |
| CON 105 | Construction Tech | 4 |
| ENY 231 | Solar Contracting | 4 |
| ENY 240 | Estimating for Energy | 4 |

Advisor approved electives 15

Internship or elective 4

General Education Courses

| | | |
|---------|-------------------------------|---|
| ENG 131 | Technical Writing | 3 |
| MAT 107 | Career Math | 3 |
| PHY 107 | Physics | 4 |
| PHI 118 | Philosophy of the Environment | 3 |
| BUS 118 | Business Survival Skills | 3 |

Total Credits 62

*Elective list for owner, a mix of advisor approved classes within CON, BUS, ACT, MAR, MAN, COM, CIS, PSY

Certificate

Grid Tie Entry level

Required Courses Credits

| | | |
|---------|---|---|
| ENY 101 | Intro to Energy Technologies | 3 |
| OSH 127 | 10 Hour Construction Industry Standards | 1 |
| HVA 105 | Electricity for HVAC/R | 4 |
| EIC 110 | Electrical Installations I | 4 |
| CAR 123 | Roof Framing | 1 |
| CAR 125 | Roofing Materials and Methods | 1 |
| ENY 130 | Solar Photovoltaics Grid Tie | 2 |
| EIC 130 | National Electrical Code I | 4 |

Total credits 20

Certificate

Advanced PV Installation

Required Courses Credits

| | | |
|---------|---|---|
| ENY 101 | Intro to Energy Technologies | 3 |
| OSH 127 | 10 Hour Construction Industry Standards | 1 |
| HVA 105 | Electricity for HVAC/R | 4 |
| EIC 110 | Electrical Installations I | 4 |
| CAR 123 | Roof Framing | 1 |
| CAR 125 | Roofing Materials and Methods | 1 |
| ENY 130 | Solar Photovoltaics Grid Tie | 2 |
| EIC 130 | National Electrical Code I | 4 |
| ENY 131 | Advanced Solar PV | 2 |
| ENY 132 | NABCEP Entry Level Prep Class | 1 |
| ENY 230 | PV Maintenance and Troubleshooting | 2 |
| ENY 231 | Solar Contracting | 4 |

Total credits 29

Certificate

Solar PV Designer

Required Courses Credits

| | | |
|---------|---|---|
| ENY 101 | Intro to Energy Technologies | 3 |
| ENY 102 | Building Energy Audit Tech | 3 |
| OSH 127 | 10 Hour Construction Industry Standards | 1 |
| HVA 105 | Electricity for HVAC/R | 4 |
| ENY 130 | Solar Photovoltaics Grid Tie | 2 |
| CON 105 | Construction Tech | 4 |
| ENY 131 | Advanced Solar PV | 2 |
| ENY 231 | Solar Contracting | 4 |
| ENY 240 | Estimating | 4 |
| ENG 131 | Technical Writing | 3 |

Total credits 30

Certificate

Solar Thermal Entry Level

| Required Courses | | Credits |
|----------------------|---|-----------|
| ENY 101 | Intro to Energy Technologies | 3 |
| OSH 127 | 10 Hour Construction Industry Standards | 1 |
| HVA 105 | Electricity for HVAC/R | 4 |
| CAR 123 | Roof Framing | 1 |
| CAR 125 | Roofing Materials and Methods | 1 |
| ENY 120 | Solar Thermal System Install I | 4 |
| PLU 101 | Piping skills | 4 |
| Total credits | | 18 |

Certificate

Solar Thermal Installer

| Required Courses | | Credits |
|----------------------|---|-----------|
| ENY 101 | Intro to Energy Technologies | 3 |
| OSH 127 | 10 Hour Construction Industry Standards | 1 |
| HVA 105 | Electricity for HVAC/R | 4 |
| CAR 123 | Roof Framing | 1 |
| CAR 125 | Roofing Materials and Methods | 1 |
| ENY 120 | Solar Thermal System Install I | 4 |
| ENY 175 | SP TP: Thermal Install II Controls | 4 |
| PLU 101 | Piping skills | 4 |
| ENY 231 | Contractors Class | 4 |
| Total credits | | 26 |

Certificate

Solar Thermal Designer

| Required Courses | | Credits |
|----------------------|---|-----------|
| ENY 101 | Intro to Energy Technologies | 3 |
| ENY 102 | Building Energy Audit Tech | 3 |
| OSH 127 | 10 Hour Construction Industry Standards | 1 |
| HVA 105 | Electricity for HVAC/R | 4 |
| ENY 120 | Solar Thermal System Install I | 4 |
| CON 105 | Construction Tech | 4 |
| ENY 231 | Solar Contracting | 4 |
| ENY 240 | Estimating | 4 |
| ENG 131 | Technical Writing | 3 |
| Total credits | | 30 |

Certificate

Post EIC Degree Solar Photovoltaic

| Required Courses | | Credits |
|----------------------|--|-----------|
| ENY 101 | Intro to Energy Technologies | 3 |
| OSH 127 | 10 Hour Construction Industry Standards | 1 |
| HVA 105 | Electricity for HVAC/R | 4 |
| CAR 123 | Roof Framing | 1 |
| CAR 125 | Roofing Materials and Methods | 1 |
| ENY 130 | Solar Photovoltaics Grid-tie | 2 |
| ENY 131 | Advanced Solar PV | 2 |
| ENY 230 | PV Maintenance & Troubleshoot | 2 |
| ENY 280 | Internship or Advisor Approved Electives | 4 |
| Total Credits | | 20 |

Certificate

Post HVA Degree Solar Thermal

| Required Courses | | Credits |
|----------------------|--|-----------|
| ENY 101 | Intro to Energy Technologies | 3 |
| OSH 127 | 10 Hour Construction Industry Standards | 1 |
| HVA 105 | Electricity for HVAC/R | 4 |
| CAR 123 | Roof Framing | 1 |
| CAR 125 | Roofing Materials and Methods | 1 |
| ENY 120 | Solar Thermal System Install I | 4 |
| ENY 175 | SP TP: Thermal Install II Controls | 4 |
| ENY 280 | Internship or Advisor Approved Electives | 4 |
| Total Credits | | 22 |

Certificate

Energy Auditing

| | | |
|----------------------|---|-----------|
| ENY 101 | Intro to Energy Technologies | 3 |
| OSH 127 | 10 Hour Construction Industry Standards | 1 |
| ENY 102 | Building Energy Audit Tech | 3 |
| ENY 275 | SP TP: Energy Auditing Field Course | 3 |
| ENY 280 | Internship | 3 |
| Advisor | Approved Electives* | 6 |
| Total Credits | | 19 |

*Seek advisor approval for elective courses in SOC, PSY, PHI, AEC

Certificate

Energy Efficiency Weatherization

| | | |
|----------------------|---|-----------|
| ENY 101 | Intro to Energy Technologies | 3 |
| OSH 127 | 10 Hour Construction Industry Standards | 1 |
| ENY 175 | SP TP: Green Advantage Technologies | 3 |
| CAR 130 | Windows and Exterior Doors | 1 |
| CAR 135 | Thermal/Moisture Methods/Mat | 1 |
| CAR 102 | Hand and Power Tools | 1 |
| Total Credits | | 10 |