



Associate of Applied Science RENEWABLE ENERGY 2012-2014

This program will provide you with the skills necessary to enter environmental fields – the renewable energy, alternative technology, and construction industries. You will be capable of entering at supervisory or management internship levels or have the skills to establish a small, related business.

GENERAL EDUCATION (33 CR)

Area I. Communications (9 cr)

ENG 111 English Composition I (3)

Prerequisite: ENG 109N (3) or adequate score on the Course Placement Evaluation

ENG 116 Technical Writing (3)

Prerequisite: ENG 111 (3)

SPCH 130 Public Speaking (3)

Prerequisite: Eng 109N (3) or adequate score on the Course Placement Evaluation

Areas II and III. Mathematics/Computers/Laboratory Science (15 cr)

ENGR 120L Introduction to Mathematics for Engineering Applications (4)

Prerequisite: MATH 130 (4)

MATH 132 Applied Trades Math II or a higher-level mathematics course (3)

Prerequisite: MATH 102N (4), MATH 103N (4), or MATH 104N (3)

or adequate score on the Course Placement Evaluation

CHEM 121/L General Chemistry I with lab (4)

Prerequisites: ENG 111 (3) and MATH 130 (4), or high school chemistry within 2 years, or ACT score of 19 or higher in natural sciences

PHYS 121/L Applied Physics I with lab (4)

Prerequisite: MATH 130 (4)

OR

PHYS 215L Engineering Physics I with lab (4)

Prerequisite: MATH 162 (4) or ENGR 120L (3)

Area IV. Humanities and Fine Arts (3 cr)

HUM 100 FYE: History and Culture of Northern New Mexico (3)

Prerequisite: ENG 108N (3) or adequate score on the Course Placement Evaluation

Area V. Social/Behavioral Sciences (3 cr)

GEOG 111 World Geography (3)

Prerequisite: ENG 109N (3) or adequate score on the Course Placement Evaluation

OR

Elective (3) Choose from Anthropology, Economics, Geography, Political Science, Psychology, or Sociology.

Prerequisite: ENG 109N (3) or adequate score on the Course Placement Evaluation

Area VI. Library Technology (1 cr)

LT 101 Library Research Skills (1)

HPER (2 cr)

Elective(s) (2)

PROGRAM REQUIREMENTS (42-45 CR)

General (10 cr)

- ES 112/L Introduction to Environmental Science and lab (4)
- RE 103 Renewable Energy Introduction and Overview (3)
Prerequisite: ENG 108N (3) and MATH 100N (4)
- RE 104A Architecture 2030 and the 2010 Imperative (3)
Prerequisite: ENG 108N (3) and MATH 100N (4)

Solar Heating (7 cr)

- ADOB 107 Passive Solar Heating (2)
- RE 108 Active Solar Heating (3)
Co-requisite RE 108L (2)
- RE 108L Active Solar Heating Lab (2)
Co-requisite RE 108 (3)

Renewable Electric and Electronics (25-28 cr)

- ELEC 100/L Introduction to Solar Electricity and lab (1)
- ELEC 140 Electrical Theory I (3)
- ELEC 141 Introduction to Electrical Code I (3)
- ELEC 190 Solar and Wind Systems in the Electric Code (2)
Co-requisite: RE 207 (4) or RE 208 (4)
- RE 111 Beginning Photovoltaic Installation (3)
- RE 212 Advanced Photovoltaic Installation (3)
- RE 112 Roof Mounting for Solar Installations (4)
- RE 105 Sustainability in Construction Installation (1)

Renewable Electric and Electronics Electives (Choose 5-8 cr)

- RE 127 Geothermal Systems for Heat and Power (4)
Prerequisite: RE 103 (3)
- RE 128 Biomass Systems for Heat, Power, and Cogeneration (4)
Prerequisite: RE 103 (3)
- RE 129 Trends and Emerging Energy Sources (2)
Prerequisite: RE 103 (3)
- RE 160 Renewable Electric Power Systems (3)
Prerequisite: MATH 130 (4) or permission
- RE 207 Wind Electric System Design and Installation (4)

*Prerequisites: ENG 108N (3), MATH 100N (4), RE 103 (3);
Co-requisite: ELEC 190 (2)*

- RE 208 Photovoltaic System Design and Installation (4)

*Prerequisites: ENG 108N (3), MATH 100N (4), RE 103 (3);
Co-requisite: ELEC 190 (2)*

TOTAL CREDITS: 75-78

Note: Completion of 100-level courses is highly recommended prior to enrolling in 200-level courses.