

Proposed Revision of UNM-LA's Associate of Science in Environmental Science

Overall rationale for change: Reducing credit hours to meet state mandated change to closer to 60 hour minimum for Associate degree.

CURRENT TEXT

About the Program

This program provides students with the first two years of study toward a Bachelor's degree in Environmental Science or Earth and Planetary Science at UNM Albuquerque Campus or other four-year institutions. It can also be applied toward a B.S. in Biology with a Concentration in Conservation Science. As a terminal degree, it is sufficient preparation for certain technician jobs in areas such as environmental testing and remediation.

Specific Requirements

A minimum of 66 credit hours with a minimum grade-point average of 2.0. At least 15 of these 66 hours must be UNM-LA catalog credit courses taken in residence. It is strongly recommended that the student check the specific requirements for the B.S. or B.A. of interest if planning to transfer in order to make the best choices among the optional courses below.

General Education Requirements

Writing and Speaking: (6 Credit hours)

ENGL 110: Accelerated Composition (3)

or

ENGL 112: Composition II (3)

PROPOSED REVISION

About the Program

This program provides students with the first two years of study toward a Bachelor's degree in Environmental Science or Earth and Planetary Science at UNM Albuquerque Campus or other four-year institutions. It can also be applied toward a B.S. in Biology with a Concentration in Conservation Science. As a terminal degree, it is sufficient preparation for certain technician jobs in areas such as environmental testing and remediation.

NO change in this text.

Specific Requirements

A minimum of 61 credit hours with a minimum grade-point average of 2.0. At least 15 of these 61 hours must be UNM catalog credit courses taken in residence. It is strongly recommended that the student check the specific requirements for the B.S. or B.A. of interest if planning to transfer in order to make the best choices among the optional courses below.

Rationale: Minimum credit hours revised to 61. Wording changed from UNM-LA to UNM catalog credit courses taken in residence.

General Education Requirements

Writing and Speaking: (9 credit hours)

ENGL 110: Accelerated Composition (3)

or

ENGL 112: Composition II (3)

<p><i>or</i></p> <p>ENGL 113: Enhanced Composition (3)</p> <p>ENGL 120: Composition III (3)</p>	<p><i>or</i></p> <p>ENGL 113: Enhanced Composition (3)</p> <p>ENGL 120: Composition III (3)</p> <p>ENGL 219: Technical Writing (3)</p> <p><i>Or</i></p> <p>ENGL 220: Expository Writing (3)</p> <p><i>Rationale: Changes made to meet the required number (9) of general education credits in Writing and Speaking. The additional Writing and Speaking requirement that was previously listed under "Other" required credit hours has been moved here to meet the 9-credit requirement.</i></p>
<p>Mathematics and Statistics: (4 credit hours)</p> <p>MATH 162: Calculus I (4)</p>	<p>Mathematics and Statistics (4 credit hours)</p> <p>MATH 162: Calculus I (4)</p> <p><i>NO change in this text.</i></p>
<p>Social And Behavioral Sciences (3 Credit Hours)</p> <p>Select any UNM Core Curriculum course in this area.</p>	<p>Social and Behavioral Sciences (6 Credit Hours)</p> <p>Select any UNM Core Curriculum course in this area.</p> <p><i>Rationale: Changes made to meet the required number (6) of general education credits in Social and Behavioral Sciences.</i></p>
<p>Humanities (3 Credit Hours)</p> <p>Select any UNM Core Curriculum course in this area.</p>	<p>Humanities (6 Credit Hours)</p> <p>Select any UNM Core Curriculum course in this area.</p> <p><i>Rationale: Changes made to meet the required number (6) of general education credits in the Humanities.</i></p>

<p>Foreign Language (3 Credit Hours)</p> <p>Select any UNM Core Curriculum course in this area.</p>	<p>Foreign Language (3 Credit Hours)</p> <p>Select any UNM Core Curriculum course in this area.</p> <p><i>NO change in this text.</i></p>
<p>Fine Arts (3 Credit Hours)</p> <p>Select any UNM Core Curriculum course in this area.</p>	<p>Fine Arts (3 Credit Hours)</p> <p>Select any UNM Core Curriculum course in this area.</p> <p><i>NO change in this text.</i></p>
<p>TOTAL GENERAL EDUCATION REQUIREMENTS (NOT INCLUDING SCIENCE) 21 CREDIT HOURS</p>	<p>TOTAL GENERAL EDUCATION REQUIREMENTS (NOT INCLUDING SCIENCE) 31 CREDIT HOURS</p> <p><i>Rationale: Changes made to meet the required number of general education credits</i></p>
<p>Technical Core Requirements</p>	<p>Technical Core Requirements</p>
<p>Physical and Natural Sciences: (21 Credit hours)</p> <p>Must include:</p> <p>BIOL 123: Biology for Health Related Sciences and Non-Majors (3)</p> <p>BIOL 124L: Biology for Health Related Sciences and Non-Majors Lab (1)</p> <p>CHEM 121/123L: General Chemistry I(3)/General Chemistry I Lab (1)</p> <p>ENVS 101: The Blue Planet (3)</p> <p>and</p> <p>ENVS 102L: The Blue Planet Laboratory (1)</p> <p>or</p> <p>EPS 101: How the Earth Works–An Introduction to Geology (3)</p> <p>and</p>	<p>Physical and Natural Sciences: (15 Credit hours)</p> <p><i>Must include:</i></p> <p>BIOL 123: Biology for Health Related Sciences and Non-Majors (3)</p> <p>BIOL 124L: Biology for Health Related Sciences and Non-Majors Lab (1)</p> <p>CHEM 121/123L: General Chemistry I(3)/General Chemistry I Lab (1)</p> <p>ENVS 101: The Blue Planet (3)</p> <p><i>and</i></p> <p>ENVS 102L: The Blue Planet Laboratory (1)</p> <p><i>or</i></p> <p>EPS 101: How the Earth Works–An Introduction to Geology (3)</p>

EPS 105L: Physical Geology Laboratory (1)

PHYC 160: General Physics (3)

And an additional 6 credit hours selected from:

BIOL 202: Genetics (4)

BIOL 203L: Ecology and Evolution (4)

BIOL 204L: Plant and Animal Form and Function (4)

CHEM 122/124L: General Chemistry II(3)/General Chemistry II Lab (1)

CHEM 212: Integrated Organic Chemistry and Biochemistry (4)

EPS 201L: Earth History (4)

PHYC 161: General Physics (3)

Note: BIOL 201 may be substituted for BIOL 123/124L. BIOL 201 is generally a prerequisite for BIOL 202, 203L, or 204L, but an environmental science major has permission from UNM-Albuquerque to go directly from BIOL 123/124L to BIOL 203L. Biology majors must eventually complete BIOL 201, 202, 203L, and 204L. CHEM 131L and 132L could be substituted for CHEM 121/123L and 122/124L although it is not usually offered at UNM-Los Alamos. PHYC 151 could be substituted for PHYC 160, but it will only be acceptable for some of the baccalaureate degrees (e.g. biology B.A. or B.S., earth and planetary science B.A.).

and

EPS 105L: Physical Geology Laboratory (1)

- PHYC 160: General Physics (3)

And an additional 15 credit hours selected from (15 credits):

Math:

MATH 163: Calculus II (4)

Physical and Natural Sciences:

BIOL 202: Genetics (4)

BIOL 203L: Ecology and Evolution (4)

BIOL 204L: Plant and Animal Form and Function (4)

CHEM 122/124L: General Chemistry II(3)/General Chemistry II Lab (1)

CHEM 212: Integrated Organic Chemistry and Biochemistry (4)

EPS 201L: Earth History (4)

EPS 203: Energy and the Environment (3)

EPS 251: Meteorology (3)

PHYC160L: General Physics Laboratory (1)

PHYC 161: General Physics (3)

PHYC 161L: General Physics Laboratory (1)

PHYC 167: Problems in General Physics (1)

PHYC 168: Problems in General Physics

Note: BIOL 201 may be substituted for BIOL 123/124L. BIOL 201 is generally a prerequisite for BIOL 202, 203L, or 204L, but an environmental science major has permission from UNM-Albuquerque to go directly from BIOL 123/124L to BIOL 203L. Biology majors must eventually complete BIOL 201, 202, 203L, and 204L. CHEM 131L and 132L could be substituted for CHEM 121/123L and 122/124L although it is not usually offered at UNM-Los Alamos. PHYC 151 could be substituted for PHYC 160, but it will only be acceptable for some of the baccalaureate degrees (e.g. biology B.A. or B.S., earth and planetary science B.A.).

Rationale: Changes made to meet the required number of credits (60). The Writing and Speaking Technical Core Requirements were moved to the General Education Writing and Speaking requirement. The Humanities Technical Core requirement was moved to fit in with the Humanities general education requirement.

Rather than having two separate lists of additional courses from which students must choose X number of credits, the lists were combined into one since there was a tremendous amount of overlap to begin with. The number of credits was edited to reflect the requirement that the total number of credits add up to 60.

OTHER (24 CREDIT HOURS)

To complete the required number of hours for this degree, other courses (24 credit hours) may be chosen from the following if not already counted in your degree program:

Writing and Speaking (Maximum of 3 credit hours)

- ENGL 219: Technical Writing (3)

- ENGL 220: Expository Writing (3)
- ENGL 290: Introduction to Professional Writing (3)
- CJ 130: Public Speaking (3)
- Mathematics and Statistics

- MATH 163: Calculus II (4)
- *Any math course above MATH 163.*

Physical and Natural Sciences

- ASTR 270: General Astronomy (3)
- BIOL 202: Genetics (4)
- BIOL 203L: Ecology and Evolution (4)
- BIOL 204L: Plant and Animal Form and Function (4)
- CHEM 122/124L : General Chemistry II(3)/General Chemistry II Lab (1)
- CHEM 212: Integrated Organic Chemistry and Biochemistry (4)
- EPS 201L: Earth History (4)
- EPS 203: Energy and the Environment (3)
- EPS 251: Meteorology (3)
- PHYC 160L: General Physics Laboratory (1)
- PHYC 161: General Physics (3)
- PHYC 161L: General Physics Laboratory (1)
- PHYC 167: Problems in General Physics (1)
- PHYC 168: Problems in General Physics (1)

Humanities (Maximum 3 credit hours)

Select any UNM core course in this area.

Note: For UNM students working toward a B.S. in ENVS or a B.S. or B.A. in EPS, selected courses in engineering, computer science, anthropology, or geography may also be used, but only with permission from the main campus departments of ENVS or EPS.

Total Technical Core Requirements
45 Credit Hours

Total Technical Core Requirements
30 Credit Hours

TOTAL CREDIT HOURS 63 CREDIT HOURS

TOTAL CREDIT HOURS 61 CREDIT HOURS

Rationale: Minimum credit hours revised to closer to 60.

Memorandum

To: Kay Willerton, Interim Dean of Instruction

From: Dennis Davies-Wilson, Library Director

Date: October 19, 2015

Re: Library support for revisions of AS Program in Environmental Science Form C

Proposed changes will not impact the library's current level of support for the program.

**UNM-Los Alamos
Degree Program Change Proposal**

Associate of Science in Environmental Science

The UNM-Los Alamos Curriculum Committee has approved the proposed changes associated with the degree program indicated above.

Dennis Davies-Wilson 10-30-15
Dennis Davies-Wilson, Chair Date