

ASSOCIATE OF SCIENCE - ENVIRONMENTAL SCIENCE EMPHASIS

Environmental science focuses on issues that are of relevance to all citizens of the United States and all countries. With growth and development comes the need for people trained in environmental sciences that can deal with environmental issues. Sustainable development is a local and regional concern, especially as Nevada's growth continues to lead the nation. The Associate of Science emphasis in environmental science is specifically designed to transfer seamlessly into the environmental science curriculum at the University of Nevada, Reno. It will also prepare students for transfer into similar programs at other four-year institutions.

Degree Outcomes

Students completing the degree will:

- Perform both laboratory and field experiments using the scientific method, which requires observation, hypothesis testing, data collection, and the application of basic biological and chemical principles to explain results.
- Demonstrate effective oral and written communication, teamwork and collaboration in scientific, mathematical and other settings.
- Utilize primary and secondary sources in the scientific literature to obtain information pertaining to environmental science.
- Explain the impacts of different environmental pollutants and critically evaluate various pollution mitigation efforts in the context of regional and global policies, economics, and politics.
- Analyze the impact of human activities on biodiversity, and how patterns of biodiversity have shaped human activities, employing the ecological, evolutionary, and geological factors that control patterns of biodiversity and extinction.

AA/AS degrees are designed for students who plan to transfer to a four-year college or university.

To earn an AA/AS degree, students must:

1. Maintain a minimum cumulative GPA of 2.0 (see requirements for graduation.)
2. Complete a minimum of 15 units within the college.
3. Satisfy General Education requirements for the AA/AS (<http://catalog.tmcc.edu/degrees-certificates/general-education/aa-as>).
4. Have no financial or library obligation to the college.

General Education Requirements

<i>English</i>	3-6
Must include ENG 102 or ENG 114 ¹	
<i>Fine Arts</i>	3
<i>Humanities</i>	3
Recommended:	
CH 201	Ancient and Medieval Cultures
<i>Mathematics</i>	3
Required:	
MATH 127	Pre-Calculus II (or higher)

Recommended:

MATH 181 or MATH 176	Calculus I (if transferring to UNR) Introductory Calculus for Business and Social Sciences	
<i>Science</i>		[6]
Required:		
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
<i>Social Science</i>		3
Recommended:		
CH 203	American Experiences and Constitutional Change	
Additional College Requirements		
<i>Diversity</i> ²		[3]
Recommended:		
NRES 211	Conservation, Humans and Biodiversity ³	
<i>Science</i> ²		[6]
<i>U.S. and Nevada Constitutions</i> ²		[3]
Recommended:		
CH 203	American Experiences and Constitutional Change	
Degree Requirements		
BIOL 190	Introduction to Cell and Molecular Biology	3
BIOL 191 & 191L	Introduction to Organismal Biology and Intro to Organismal Biology Lab	4
CHEM 122	General Chemistry II (additional 2 units from General Education)	[2]
GEOG 210	Introduction to Geotechnology	3
GEOL 100	Earthquakes, Volcanoes and Natural Disasters	3
ECON 102	Principles of Microeconomics	3
NRES 100	Prin of Natural Resources & Environmental Sciences	3
NRES 210	Environmental Pollution	3
NRES 211	Conservation, Humans and Biodiversity	3
STAT 152	Introduction to Statistics	3
Elective Requirements		
Select 6-9 units from the following: ⁴		6-9
BIOL 251	General Microbiology	
CHEM 241	Organic Chemistry I	
GEOG 121	Climate Change: the Science Basis	
PHYS 151	General Physics I	
PHYS 180 & 180L	Physics for Scientists and Engineers I and Physics for Scientists/Engineers Lab I	
Total Units		60

¹ If you place into ENG 102 or ENG 114, the additional 3 required units will become elective credit.

² Course may also count toward degree requirements. Please consult with Academic Advisement.

³ NRES 211 will also satisfy 3 units in the Degree Requirements

⁴ For students transferring into a specific program at a university, choose electives appropriate for that program.

Course	Title	Units
1st semester		
STAT 152	Introduction to Statistics	3

ECON 102	Principles of Microeconomics	3
Fine Arts ⁵		3
ENG 101 or ENG 113	Composition I or Composition I for International Students	3
NRES 100	Prin of Natural Resources & Environmental Sciences	3
Semester Total		15
2nd semester		
BIOL 190	Introduction to Cell and Molecular Biology	3
CHEM 121	General Chemistry I	4
ENG 102 or ENG 114	Composition II or Composition II For International Students	3
MATH 176	Introductory Calculus for Business and Social Sciences	3
Elective ⁶		3
Semester Total		16
3rd semester		
Elective ⁶		3
CHEM 122	General Chemistry II	4
GEOL 100	Earthquakes, Volcanoes and Natural Disasters	3
NRES 210	Environmental Pollution	3
Semester Total		13
4th semester		
BIOL 191 & 191L	Introduction to Organismal Biology and Intro to Organismal Biology Lab	4
Social Science/U.S. and Nevada Constitutions ⁶		3
GEOG 210	Introduction to Geotechnology	3
NRES 211	Conservation, Humans and Biodiversity	3
Humanities ⁶		3
Semester Total		16
Total Units		60

⁵ See approved General Education list for the AA/AS Degree. (<http://catalog.tmcc.edu/degrees-certificates/general-education/aa-as>)

⁶ See program recommendations or requirements.