



**Report – Third-Year Report Template  
Higher Education Institution  
Bachelor of Science in Environmental Science and Management  
04/21/2014**

**Program Description**

The Bachelor of Science in Environmental Science and Management is designed to prepare graduates who will be involved in preventing disease, controlling pollution, and protecting the environment. The program includes courses in environmental technology, environmental law, geology, hydrology, chemistry, and microbiology. The courses teach students about the physics and chemistry of water, air, and soil resources; introduce the laws and regulations that relate to the protection of those resources; explore the ethical issues that motivate people to either exploit or protect the environment; and introduce the technologies that are used to prevent disease and protect the environment. Students are taught through classroom instruction, hands-on experience, and field trips. To help students be more effective in their future careers, they are required to practice their written and oral communication skills as well as learn the basic skills of managing an organization. Internships are strongly recommended. The Bachelor of Science in Environmental Science and Management program is designed to prepare graduates for careers helping private industries comply with environmental regulations, working for companies that conduct environmental surveys and cleanups, working for government agencies that enforce environmental regulations, and for graduate school programs that deal with environmental science and/or environmental policy.

**Enrollment and Revenue Data**

		Prior to Program Implementation		Year 1 (2011-12)		Year 2 (2012-13)		Year 3 (2013-14)	
		Est.	Actual	Est.	Actual	Est.	Actual	Est.	Actual
<b>Departmental/Unit Enrollment and Staffing Data</b>									
Total Department Student FTE (Based on Fall Third Week Data)	123	0	119	0	128	0	148		
Total Department Faculty FTE (A-1/S-11/Cost Study Definition)	15.1	0	15.9	0	15.7	0	15.9		
Student FTE per Faculty FTE (from Faculty FTE and Student FTE above)	8.15	0	7.48	0	8.15	0	9.31		
<b>Program Level Data</b>									

Total Number of Declared Majors in Program	X	58	14	60	34	60	53
Total Number of Program Graduates	X	0	0	0	5	0	1*
<b>Departmental Revenue</b>		<b>Est.</b>	<b>Actual</b>	<b>Est.</b>	<b>Actual</b>	<b>Est.</b>	<b>Actual</b>
Total Revenue to Department (Total of Funding Categories from R401 Budget Projection Table)	\$307,296		\$296,174		\$286,472		n/a
<b>Departmental Instructional Cost per Student Credit Hour (per Institutional Cost Study Definition)</b>	<b>237.67</b>	<b>X</b>	<b>176.17</b>	<b>X</b>	<b>225.20</b>	<b>X</b>	<b>n/a</b>

\*During the period of this review, the 2011-12 school year to the 2013-14 school year, twenty five students graduated with a BS in Earth Science with an emphasis in Environmental Management. That program was the predecessor to the current program and the students were grandfathered under that previous program. The analysis for those twenty five students is not part of this document.

The steady increase in declared majors in the first row of the Program Level Data shows a strong demand for the new program as students switched from the previous program to the current one.

### Institutional Analysis of Program to Date

Strengths of the Environmental Science and Management Program:

- The only program in the state that focuses on pollution prevention at the operational level. The engineering programs focus on design and build whereas UVU's graduates operate the facilities designed by the engineers.
- The job market for graduates is less affected by recessions than most other careers. Even during economic downturns, cities still have a commitment to provide safe drinking water and to improving public health. UVU graduates have a reasonable expectation of finding a good job regardless of the current state of the economy.
- UVU has a diverse and experienced faculty. Students are exposed to a variety of viewpoints during their coursework.
- Morale is good among students and graduates. They feel good about the work they are doing.
- Each time a new environmental law is passed, the job market for graduates improves.
- The program is well networked with health departments, water treatment facilities, and state agencies.
- As Utah's population grows and the demand for clean water and the concern over public health increases, the need for graduates will increase.

Weaknesses of the Environmental Science and Management Program:

- The building provided to the program by the Environmental Protection Agency in the early 1980s for the purpose of environmental training has been largely taken over by two other programs. The loss of space has impaired the ability to provide realistic lab work for students.
- In spite of efforts to reach out to high school students, few high school seniors are aware of the program.
- Because there is only one GE course in the curriculum, average class size tends to be small, which raises the cost of instruction.
- There is a struggle with students getting jobs and leaving before they have completed their degrees.
- Environmental education in Utah is, to some degree, a victim of its own success. It has been long enough since there was a major waterborne disease outbreak in Utah that many people have become complacent about the need for water-related education.

### Employment Information

Term Graduated	Graduate School	Employed in Field	Employed Other	Unknown
Spring 2011	0	0	0	0
Spring 2012	1	3	1	0
Spring 2013	0	0	0	1

The employment information listed above does not include information for the twenty five students who graduated during the same time with a BS in Earth Science with an emphasis in Environmental Management. The Environmental Management emphasis was the predecessor to the current program.