Montana University System

2019 PROGRAM REVIEWS

Institution: **University of Montana - Western**

Program Years: **2012-2018**

List of the programs reviewed:

- Environmental Sciences

SEE INDIVIDUAL REPORTS FOR ACTIONS AND JUSTIFICATION FOLLOWING EACH PROGRAM REVIEW

Montana University System

PROGRAM REVIEW

Institution: **The University of Montana Western**

Program Years: **2011-2018**

List of the programs reviewed:

Environmental Sciences

Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:

The department and its degree programs (BS: Environmental Sciences; BS: Environmental Sustainability) should be maintained.

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

Major	2011	2012	2013	2014	2015	2016	2017	2018
Environmental Science	45	41	38	49	59	46	56	47
Environmental Interpretation	35	44	50	44	29	23	17	13
TOTAL	80	85	88	93	88	69	73	60

Graduates By Major	2011	2012	2013	2014	2015	2016	2017	2018
Environmental Science	3	7	1	4	9	13	6	15
Environmental Interpretation	1	0	1	3	7	7	2	8
TOTAL	4	7	2	7	16	20	8	23

The University of Montana Western currently has the only field-based undergraduate program in environmental sciences in the state. Because of the block-scheduling system, it is one of the only field-and-project-based programs in the nation. As a result, Environmental Science students from UMW are better prepared to handle problem-solving and skills-based tasks than graduates of traditional, lecture/lab programs. Colleagues in environmental fields that have relied on student work are impressed with the skills students are acquiring and the quality of usable data that our students can produce. Many of our students go on to work in environmental or natural resources jobs in Montana and nearby states. Recently, we have had a growing interest in the number of students that are attending graduate school.

Annually the Environmental Science Program offers ~ 5, 100-level environmental science courses that are part of the General Education Program (in addition to those in Environmental Sustainability). We also offer an

online stringer course that primarily supports the Early Childhood Program where most students are remote learners. Over the last seven years the majority of the 100-level courses offered are full to capacity.

The Environmental Science Program plays an important supporting role for the Education Program on campus by working with them to offer numerous secondary education degrees in the natural sciences (e.g., Broadfield Science and Earth Science). Because of our unique field and project approach, these students are well prepared to do more than just talk about science in the classroom. Montana Western science education students excel at experiential teaching because they experienced their own education in our classes.

Since the last 7-year review, the Environmental Sciences Department has completely revamped the BS: Environmental Science degree, transitioned from the BS: Environmental Interpretation to a BS: Environmental Sustainability with new option areas, and added two new minors to compliment both degree areas. These changes were precipitated by input from students and changing job-placement data. As can be seen in the data on the number of majors enrolled in Environmental Interpretation, the number was on a steady decline. The department noted this issue and have adapted to changing employment preparation needs for our students by making Environmental Interpretation an option within the newly designed Environmental Sustainability program. It may take a few years, but we are hoping that the change will bring numbers back up. We currently have no data on the new program. The changes were discussed and made solely by the faculty in the Environmental Sciences Department based on their desire to improve the programs and the outcomes for student placement. With the increasing focus on sustainability in society, businesses and organizations are seeking employees versed in sustainability issues. Our students will be at the forefront of this wave.

Our top priority is to our current students and to that end we have continued to use retention and support methods such as The University Learning Center, TRIO and access to faculty during office hours and at department events. Additional retention and success strategies that we are working on include, a department celebration at the beginning of the year to create comradery, graduate school and internship workshops in the fall and integration of resume building into course work. We are also trying to recruit more students from campus through focusing on the delivery of our 100-level courses and adding minors in both degree programs.

Since the last program review the department has had some retirements. Currently, the department has five faculty members, three of which have been hired since the last program review. The department is now a young, cutting edge group of scientists and educators. The new hires have allowed the programs to focus on land and water management in a changing global climatic environment within the context of environmental science and sustainability. The students in the program are thus being prepared to be proactive land managers, policy managers, environmental educators and environmental leaders.

Going forward, the top priority is to offer students immersive learning opportunities that systematically build professional and academic environmental science skill sets and ways of thinking so students can be successful across professional endeavors in science, education and management. In addition the department is building a strong program with the goal of being the leading academic institution in the region (Idaho, Montana and Wyoming) for training undergraduate students in land and water resources science and management. We want to be known locally (Montana) for graduating exceptional students in the environmental sciences and sustainability. In the educational realm the department seeks to be a nationally recognized and respected model for an immersive approach to environmental science education and training.