Environmental Science-Environmental Biology programs focus on environment-related issues using scientific, social scientific, and humanistic approaches. This includes the application of biological, chemical, and physical principles to the physical environment, and subjects such as pollution control, the interactions of human beings and nature, and natural resources management. You will learn the basic principles of ecology and environmental science and related subjects such as policy, politics, law, economics, social aspects, planning, pollution control, and natural resources. You will also study biology, chemistry, physics, geosciences, climatology, statistics, and mathematical modeling.

The program at Montana State University is intended to train students who are interested in understanding the ecology of organisms in natural environments, and/or in understanding how organisms may be used to clean up environments that have been disturbed by human activities. The curriculum launches from a base in environmental science which includes a broad knowledge of organisms (including plants, animals, and microorganisms) and the physical and chemical characteristics of natural environments. A special feature of this option is that it emphasizes cross-training between the traditional disciplines of Biology and Microbiology. Students trained in Biology or Microbiology normally focus on either large or small organisms or on human biology and disease. But, even biologists trained as ecologists have a poor understanding of microorganisms, despite the fact that they appreciate the great importance of microorganisms in most natural environments. Similarly, most microbiologists do not understand the diversity of large organisms and are never exposed to natural principles of ecology and evolution. In the LRES Environmental Biology curriculum, students will develop a knowledge of the diversity of organisms and their interrelated functions in complex environments. In later stages of the curriculum, students may select from a wide array of upper division courses in environmental microbiology, natural ecosystems, applied ecology, and policy and planning that enable them to specialize in areas best-suited to their own career vision.

Characteristics associated with success in this major include an interest in our environment and a desire to improve it so that others can live better lives.

You should be:
- interested in improving the balance of natural resources between humankind and the environment
- a logical thinker who can collect, organize, analyze, and interpret scientific data
- able to use computers and the Internet
- creative and enjoy experimenting to see how your ideas can be turned into practical use

Occupations in this field require ability to: work independently or as part of a team, an ability to communicate clearly and concisely, orally and in writing, have a solid background in chemistry, mathematics, and computer science.

Related occupations include:
- Ecologist
- Epidemiologist
- Park Ranger
- Environmental Engineer
- Range Manager
- Soil Conservationist
MSU graduates (Bachelor’s degree) were hired in the following selected fields:

- Associate Technical Professional – Haliburton
- Staff – Campus Crusade for Christ
- Campus Organizer – Ospirg
- Environmental Scientist – Maxim Technologies
- Laborer – Peterson Construction
- Optometric Assistant – Dr. Richard Horard
- Research Associate – Montana State University
- Ski Patrol – Big Sky Montana
- Soil Technician – DeVal Soil and Environmental Consultants Inc.

Salary averages of survey respondents: (# of respondents in parentheses)

<table>
<thead>
<tr>
<th>Year</th>
<th>MT: Insufficient Data</th>
<th>Out-of-State: Insufficient Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td></td>
<td></td>
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<tr>
<td>2011</td>
<td></td>
<td></td>
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<tr>
<td>2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>$21,445 (1)</td>
<td>Out-of-State: Insufficient Data</td>
</tr>
</tbody>
</table>

In the field for “Environmental Scientist” the median wages in the nation in 2012 was estimated at $63,600 annually. In 2012 there were 90,000 positions nationally with an expected growth forecast of +15% through 2022. In 2012 the median salary in the State of Montana was $54,000. In 2012 there were 440 positions in Montana with an expected growth forecast of +19% through 2022. Job openings in Montana and nationally are due to both growth and net replacement.

Please remember when reviewing the salary information that it is the “median,” meaning 50% of reported wages fell below and 50% above the reported wage.

Graduates from this program entered programs of further education at these institutions:

None available at this time

Other Sources of Information:

- American Association of Petroleum Geologists: www.aapg.org
- American Geosciences Institute: www.americangeosciences.org
- National Environmental Health Association: www.neha.org
- Land Resources & Environmental Sciences—Montana State University: http://landresources.montana.edu

Number of graduates/number of respondents: 2012: 3/1; 2011: 5/2; 2010 3/2; 2009: 2/1