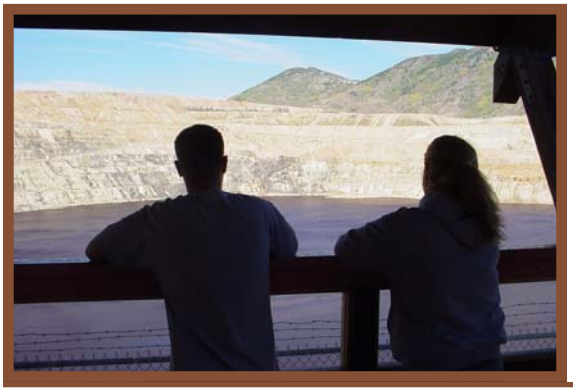

Montana Tech
THE UNIVERSITY OF MONTANA

School of Mines and Engineering

ENVIRONMENTAL ENGINEERING

PROGRAM DESCRIPTION

Environmental Engineering graduates work to resolve and prevent problems in air, water, toxic wastes, and land and stream. Performing this challenging work requires a broad-based science and engineering education. The science background includes mathematics, physics, chemistry, biology, and geology and the engineering fundamentals include statics, fluid mechanics, thermodynamics, and mechanics of materials. Classes in economics, humanities and social sciences round out the educational experience. The Environmental Engineering curriculum meets this requirement through a strong science and engineering core that is supplemented with specialized environmental courses. Advanced courses include air and water pollution control, hazardous wastes, soil and subsurface remediation, pollution prevention, health risk analysis, sustainable environmental quality management, and land and stream restoration. Students use computers extensively and engineering design is emphasized.

PLACEMENT

Job placement in the Environmental Engineering program has consistently been 100% with the exception of students going on to graduate school. Employment opportunities include a wide array of positions in mining, petroleum, chemical, consulting, and manufacturing industries, as well as governmental entities. Salaries averaged $51,096 with a high of $61,000 per year for 2007 graduates. The U.S. Bureau of Labor Statistics projects the number of environmental engineering jobs in the United States to grow from 54,000 in 2006 to 68,000 in 2016, an incredible 25% growth in ten years. This is reported to be the largest growth of all the engineering disciplines. Even currently there are not enough graduates to meet the market's need.

DEGREE OPTIONS

Montana Tech offers a Bachelor's degree and a Master's degree in Environmental Engineering. The Bachelor's degree is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (EAC/ABET).

FINANCIAL INFORMATION

The cost of attending Montana Tech varies with each individual based on residency and cumulative credits. Contact the Business Office for current tuition and fees. Books and supplies average about $800 per year. Thousands of dollars are awarded in scholarships to Environmental Engineering students annually. The priority deadline for new student scholarships is February 1. Montana Tech offers WUE scholarships based on eligibility and the Department offers Advantage scholarships. Co-op education assignments and scholarships are available to majors on a competitive basis. Internships and summer jobs are excellent mechanisms to receive additional practical experience and income.

CONTACTS

Enrollment Services
(406) 496-4256
Fax: (406) 496-4710
admissions@mtech.edu

Environmental Engineering
(406) 496-4115
Fax: (406) 496-4650
sreed@mtech.edu

Graduate Office
(406) 496-4128
Fax: (406) 496-4710
cdunstan@mtech.edu

Business Office
(406) 496-4250
Fax: (406) 496-4710
jmcnabb@mtech.edu

Montana Tech of The University of Montana ▪ 1300 West Park Street ▪ Butte, MT 59701
(406) 496-4101 ▪ 1-800-445-TECH ▪ Fax (406) 496-4650 ▪ www.mtech.edu

Field Air Sampling

Mercury Research

Field Trips

Stream Sampling

Environmental Engineers are the Future of Engineering

MEET THE FACULTY

Richard A. Appleman, PE, Professor, Ph.D. Univ. of CA-Irvine 1978, Surface Water Hydrology, Water Quality and Land and Stream Restoration
Contact: rappleman@mtech.edu

William J. Drury, PE, Professor, Ph.D. Montana State University 1992, Water and Waste Water Treatment
Contact: bdrury@mtech.edu

Kumar Ganesan, PE, Professor and Department Head, Ph.D. Washington State University 1981, Air Quality Engineering and Control and Pollution Prevention
Contact: kganesan@mtech.edu

Rodney A. James, PE, Professor, Ph.D. Montana State University 1973, General Environmental Engineering
Contact: rjames@mtech.edu

Jeanne Larson, Laboratory Director, M.S. Montana Tech of the University of Montana 2004
Contact: jlarson@mtech.edu

Holly G. Peterson, Professor, Ph.D. Washington State University 1989, Air Diffusion Modeling and Biosampling
Contact: hpeterson@mtech.edu

Tom Waring, Emeritus Professor, Ph.D. University of Pittsburgh 1970, Environmental Law
Contact: twaring@mtech.edu

Get Into It

MONTANA TECH
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THE UNIVERSITY OF MONTANA

Environmental Engineering Curriculum

Freshman Year

BIOL 1086 Intro to Ecology
BIOL 1096 Intro to Biodiversity
CHEM 1056 Gen Chemistry I
CHEM 1136 Gen Chem Lab I
COMM 1046 English Composition
ENVE 1940 Env Seminar I
MATH 1520 Calculus I
MIN 1010 Intro to Engr Calculations and Problem Solving

BIOL 1116 Cell Biology
CHEM 1066 Gen Chemistry II
CHEM 1166 Gen Chem Lab II
ENVE 1060 Env Software
ENVE 1180 Env Sampling I
MATH 1530 Calculus II
PHYS 1046 Gen Physics-Mechanics

Sophomore Year

ENGR 2050 Engr Mechanics-Statics
ENVE 2040 Env Process Engineering
ENVE 2170 Env Sampling II
MATH 2510 Calculus III
PHYS 2076 Gen Physics – HS&O
PHYS 2096 Physics Lab – HS&O
XXX Humanities/Social Science Elective

CHEM 2216 Survey of Org Chem
ENVE 3130 Air Diffusion Modeling
GEOE 1010 Physical Geology
MATH 2236 Differential Equations
PHYS 2086 General Physics–EM&WM
PHYS 2106 Physics Lab – EM&WM

Junior Year

ECON 2606 Principles of Econ
ENGR 3210W Scientific and Technical Writing
ENGR 3260 Fluid Mechanics
ENVE 4150 Env Laws and Reg
GEOE 3080 Hydrogeology
MATH 3316 Intro to Statistics

ENGR 3350 Mech of Materials
ENVE 4020 Surface Water Hydrology
ENVE 4180 Air Pollution Engr I
ENVE 4290 Haz Waste Engr
M.EC 3630 Engr Economy
XXX Humanities/Social Science Elective

Senior Year

ENGR 3340 Thermodynamics
ENVE 4040 Surface Water Quality
ENVE 4140 Land/Stream Restoration
ENVE 4190 Air Pollution Engr II
ENVE 4210 Risk Analysis
ENVE 4400W Pollution Prevention
ENVE 4810W Environmental Design I

ENVE 4030 Water & Waste Water Treatment
ENVE 4160 Env Permitting
ENVE 4300 Soil and Subsurface Remediation
ENVE 4500W Sustainable Env Quality Management
ENVE 4820W Environmental Design II
ENVE 4940 Env Seminar II
XXX Humanities/Social Science Elective

Total Credits for Environmental Engineering 136