HISTORY
The College of Earth and Mineral Sciences (EMS) at Penn State boasts a long and distinguished history, one that started in 1859 with the University’s first Earth sciences courses offered in the agricultural program and stretches today to the borders of the Commonwealth, the nations, and beyond. The college was founded in 1896 as the School of Mines with its single major in mining engineering and was later renamed the School of Mineral Industries by Dean Edward Steidle in 1929, supporting Pennsylvania as the leading mineral-producing state. Today, the college is internationally recognized for research and education in engineering, Earth sciences, energy, and materials science.

www.ems.psu.edu

ACADEMIC DEPARTMENTS
• John and Willie Leone Family Department of Energy and Mineral Engineering
• Department of Geography
• Department of Geosciences
• Department of Materials Science and Engineering
• Department of Meteorology and Atmospheric Science

OUR INSTITUTES
• John A. Dutton e-Education Institute
• Earth and Environmental Systems Institute (EESI)
• EMS Energy Institute

ACADEMIC RANKINGS
Programs in all five academic departments are ranked nationally. In the latest U.S. News & World Report rankings, EMS has six graduate (G) programs and two undergraduate (UG) programs ranked in the top twenty.
• Geology, 1st (G)
• Environmental Sciences, 3rd (G)
• Petroleum and Natural Gas Engineering, 4th (G)
• Geochemistry, 4th (G)
• Petroleum Engineering, 5th (UG)
• Earth Sciences, 5th (G)
• Materials Sciences and Engineering 10th (UG)
• Materials Sciences and Engineering 11th (G)
UNDERGRADUATE PROGRAMS
Resident (B.S./B.A.)
• Earth Science and Policy
• Earth Sciences
• Energy Business and Finance
• Energy Engineering
• Environmental Systems Engineering
• Geobiology
• Geography
• Geosciences
• Materials Science and Engineering
• Meteorology and Atmospheric Science
• Mining Engineering
• Petroleum and Natural Gas Engineering

Online Degree Programs
• Energy and Sustainability Policy

GRADUATE PROGRAMS
Resident (M.S./Ph.D.)
• Energy and Mineral Engineering
• Geography
• Geosciences
• Materials Science and Engineering
• Meteorology and Atmospheric Science

Resident (M.S./Ph.D.) - Dual-title
• Astrobiology
• Biogeochemistry
• Climate Science
• Human Dimensions of Natural Resources and the Environment
• Operations Research
• Women’s Studies

Online Degree Programs
• Additive Manufacturing and Design
• Geographic Information Systems
• Professional Studies in Homeland Security, Geospatial Intelligence Option
• Spatial Data Science
• Renewable Energy and Sustainability Systems

RESEARCH
In the most recent rankings released by the National Science Foundation of total research expenditures for science and engineering, many of the college’s programs are highly ranked:
• Physical Sciences - Materials Science, 1st
• Metallurgical and Materials Engineering, 2nd
• Total Engineering, 5th
• Atmospheric Science and Meteorology, 8th
• Geological and Earth Sciences, 9th
• Physical Sciences (overall), 12th

Faculty
139 TENURED/TENURE-TRACK
78 Full Professors
25 Associate Professors
36 Assistant Professors
167 NON-TENURE-TRACK
71 Researchers/Research Professors
44 Lecturers/Instructors/Teaching Professors
55 Postdoctoral Scholars

Degrees Awarded
778 Total Degrees
557 Bachelor’s Degrees
159 Master’s Degrees
62 Doctoral Degrees

Expenditures
(FY 2019-20)
Total expenditures $132.7M
Research $70.8M
Gifts/Endowments $6M
General $55.9M

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