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

ENROLLMENT

Undergraduate
1,249 at UP
155 World Campus and Other Campuses
1,404 EMS Total (Fall 2021)

Graduate
325 World Campus
78 Resident Master’s
805 EMS Total (fall 2021)
402 Ph.D.

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 our academic departments are ranked nationally in the latest U.S. News & World Report rankings.

Undergraduate program rankings:
- Petroleum Engineering, 5th
- Materials Engineering 10th

Graduate program rankings:
- Environmental Sciences, 2nd
- Geochemistry, 3rd
- Geology, 3rd
- Earth Sciences, 6th
- Petroleum Engineering, 7th
- Paleontology, 7th
- Geophysics and Sedimentology, 9th
- Materials Engineering, 11th
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, Intelligence and Geospatial Analysis Option
• Spatial Data Science
• Renewable Energy and Sustainability Systems

Faculty
136 TENURED/TENURE-TRACK
78 Full Professors
21 Associate Professors
37 Assistant Professors
165 NON-TENURE-TRACK
69 Researchers/Research Professors
45 Lecturers/Instructors/Teaching Professors
51 Postdoctoral Scholars

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:
• Materials Science, 1st
• Metallurgical and Materials Engineering, 2nd
• Total Engineering, 4th
• Atmospheric Science and Meteorology, 10th
• Geological and Earth Sciences, 12th
• Physical Sciences (overall), 14th

Office of the Dean
510 Eric J. Barron Innovation Hub
123 S. Burrowes Street
State College, PA 16801
www.ems.psu.edu

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Degrees Awarded
524 Total Degrees (2021-22)
349 Bachelor’s Degrees
184 Master’s Degrees
78 Doctoral Degrees

Expenditures (FY 2020-21)
Total expenditures: $125.4M
General $55.5M
Research $64.1M
Gifts/Endowments $5.6M

Penn State
College of Earth and Mineral Sciences