The College of Applied Science and Engineering at Colorado School of Mines is a research-intensive college comprised of four academic departments and two interdisciplinary graduate programs. It is home to 87 full-time faculty and nearly 1,500 students.

CASE seeks to capitalize on its cross-disciplinary strengths in science and engineering to develop future leaders capable of addressing significant scientific and technological issues that challenge our world.

DEPARTMENTS

Chemical & Biological Engineering combines biology, chemistry, math, and physics into engineering fundamentals relating to how materials are produced and processed, in the lab and in industrial-scale facilities. CBE offers bachelor’s, master’s, and PhD degrees in chemical engineering, a bachelor’s in chemical and biochemical engineering, and a minor in biomedical engineering.

Chemistry focuses on the behavior and properties of matter, the reactions that dictate chemical processes, and the creation of new substances, with emphasis on materials chemistry, energy sustainability, and environmental stewardship. CH offers BS tracks in chemistry, biochemistry, and environmental chemistry, and master’s and PhD degrees in chemistry, applied chemistry, and geochemistry.

Metallurgical & Materials Engineering provides students with a fundamental knowledge of processing, properties, selection, and application of structural and functional materials. MME offers BS, MS, ME, and PhD degrees.

Physics provides students with an understanding of science fundamentals, combined with the knowledge and skills of engineering practice and design. PH offers a BS in engineering physics and MS and PhD degrees in applied physics.

INTERDISCIPLINARY GRADUATE PROGRAMS

Materials Science addresses the structure and properties of materials and their applications to various areas of science and engineering, and investigates the relationship between structure of materials at atomic or molecular scales and their macroscopic properties. The program involves MME, CH, CHE, PH, and Mechanical Engineering faculty, and offers ME, MS, and PhD degrees.

Nuclear Science & Engineering focuses on all aspects of the nuclear fuel cycle, from fuel exploration and processing, through nuclear power systems production, design, and operation, to fuel recycling, storage, and waste remediation and radiation damage, along with the policy issues surrounding each of these activities. This program offers ME, MS, and PhD degrees.

CASE RESEARCH AREAS

Advanced Ceramics
Applied Optics
Biofuels
Chemical/extractive metallurgy
Condensed matter physics
Critical materials
Environmental geochemistry
Fuel cells and catalysis
Ferrous and non-ferrous alloys
Hydrates
Nuclear engineering
Photovoltaics
Polymers and composites
Subatomic and theoretical physics
COLORADO SCHOOL OF MINES

CASE BY THE NUMBERS

ENROLLMENT (FY2016)
1,159 undergraduates
35% female
317 graduate students
97 master’s
220 PhD

Chemical and Biological Engineering 744
679 ug
65 grad

Chemistry 129
74 ug
55 grad

Metallurgical and Materials Engineering 292
167 ug
125 grad

Physics 311
239 ug
72 grad

$30.25 million in FY2015, about half of Mines’ total

RESEARCH AWARDS
CBE $8.23M
CH $5.23M
MME $8.07M
PH $8.72M

87 full-time academic faculty
13 NSF CAREER Awards
3 Presidential Early Career Awards for Scientists and Engineers

#1 Engineering School*

#2 Best Return on Investment†
#4 Best Value (in-state)‡
#10 Best Value (out-of-state)‡
#20 Best Colleges for Skiing and Snowboarding†
#29 Top Public Schools∞

*USA TODAY †BestColleges.com ‡PayScale ∞U.S. News & World Report

#2 Ryan O’Hayre MME (2009)
#3 Amy Clarke MME (2012)
#1 Moises Carreon CBE (2013)

32 $2K undergrad research fellowships per semester
$360K in PhD fellowships available per year
86% BS grads employed or in grad school within year
97% MS, PhD graduates employed within year
close ties with national labs

NREL NIST

miscellaneous mines facts
selectivity rank 36
average SAT 1340
average ACT 30
average GRE 159
student organizations 180
home to largest student chapter of the Society of Women Engineers

AVERAGE SALARY OFFERS 2012-2015
BS MS PhD
Chemical Engineering $70K $73K $92K
Chemical and Biochemical Engineering $68K n/a† n/a†
Chemistry $50K n/a† $59K
Metallurgical and Materials Engineering $63K $69K $88K
Physics $63K $72K $54K

†Not offered | ‡Insufficient data | Most Physics PhD graduates work as postdoctoral researchers.