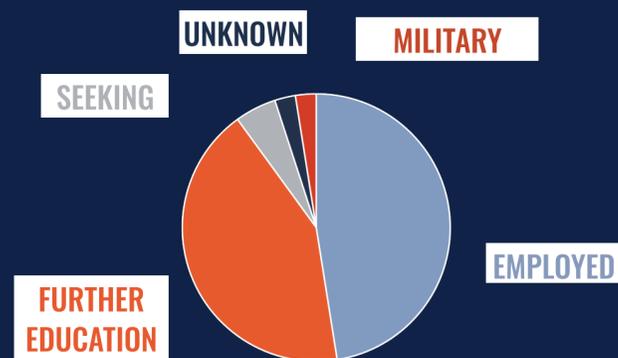




## Experiential Major Menu

**WHERE ENGINEERING PHYSICS STUDENTS GO**

Student pursuits one-year post-graduation:



Industries of employment for students one year out:

- *Electronics/Electrical Components*
- *Energy - Alternative/Renewable*
- *Aerospace/Defense/Aviation*
- *Government/Public Sector*
- *High Tech/ Information Technology*
- *Legal/Law*
- *Teaching*
- *Medicine*

Job titles of our graduates one-year out:

- *Project Engineer*
- *Systems Engineer*
- *Secondary Math Teacher*
- *Test/Product Engineer*
- *Applications Engineer*
- *Patent Engineer*
- *Software Engineer*

This menu is a tool for you to use to explore opportunities at Mines outside of the classroom. These are not requirements, but rather recommendations to help you leverage what Mines has to offer. Just like at a restaurant, choose what looks best to you and start from there! This menu can help you create your own pathway and customize your experience during your time at Mines.

The activities are placed in specific years based off staff and faculty recommendations, but you can participate in most of them at any time. There is never a wrong time to get involved if you're looking, and no pressure to do any of these things!

**Get to know Physics**

The Department of Physics is dedicated to advancing the world's knowledge in the areas of condensed matter physics, solid state physics, applied optics, quantum physics, renewable energy physics, and subatomic physics.

Our Engineering Physics program is the largest in the US, and is the only one that offers students a hands-on Field Session experience with modules in Lasers & Optics, Vacuum & Materials Science, Electronics & Instrumentation, Computing, Machine Shop, and Professional Development, Careers and Wellness.

This degree combines a deep understanding of scientific fundamentals and practical skills of engineering practice and design. As a graduate you can jump right into a career using your professional skills or continue your studies in physics, a related science, or even medicine and law.

**Get Involved**

**Attend Celebration of Mines in August to get to know campus organizations and academic departments, sample food, and play games.** Below are some departments that offer many great opportunities to enhance your experience here at Mines.

- [Every Oredigger](#)
- [Student Activities, Involvement & Leadership](#)
- [University Honors and Scholars Program](#)

**Academic options in Physics**

Explore the options below to see how to expand upon a Physics degree and what to expect from a Physics course load.

- **Minors**

- [Aerospace Engineering](#)
- [Computer Science](#)
- [Math](#)
- [McBride Honors Program](#)
- [Teaching](#)

- **4+1 Programs**

Applied Mathematics and Statistics, Chemical and Biological Engineering, Computer Science, Data Science, Electrical Engineering, [Engineering and Technology Management](#), Materials Science, Mechanical Engineering, Nuclear Engineering, Physics, or Quantum Engineering.

- **[Academic Flow Chart](#)**

- **[Academic Catalog](#)**



**"It's hard to beat Colorado School of Mines if you want to study Engineering Physics."**

*MINES CURRENT STUDENT*

## 1st year

## 2nd year

## 3rd year

## 4th or final year

## Leadership &amp; Innovation



- Join the [Society of Physics Students](#) and/or [Society of Women in Physics](#)
- Explore opportunities to get involved with the [Undergraduate Student Government](#)
- Explore options to get involved with [RHA](#) and Community Councils
- Apply for the Environmental Leadership Lab trip and Scholars Program. Check the Daily Blast for more information in April.

- Look into joining the [American Physical Society](#) (1 year free) or [American Association of Physics Teachers](#) as a student member
- Attend the [Leadership Summit](#) and develop your leadership skills right on campus
- Participate in the [Leadership Workshop Series](#)
- Attend the [Hennebach Program](#) lectures
- Sign up to engage in innovative thinking and real-world problem solving with [Innov8x Challenge](#)

- Join [Sigma Pi Sigma](#) Physics Honor Society
- Get involved with Physics led projects such as [Solar Decathlon](#), [Tiny House](#), [Mines Maker Space](#), or [Blaster Hackers](#).
- Become an officer in your student organization
- Apply to be an Undergraduate Writing Fellow, a peer tutor in the Writing Center. Check the Daily Blast for information in early October.

- Expand your leadership in your society or organization
- Take [CSM 350](#): Special Studies in Leadership & Small Group Dynamics

## Professional Development



- Sit on hosted Industry Panels to broaden your perspective of different careers
- Update or create a college resume and [get it reviewed](#) with feedback
- Attend [Career Day](#)
- Use [DiggerNet](#) for employment opportunities

- Look into UG Teaching Assistantship in the Introductory physics sequence
- Participate in Career Day to network
- Create a [LinkedIn](#) Profile
- Enroll in [CSM 250](#) to plan your career path
- Explore [ethics opportunities](#) across campus
- Attend [VIP events](#) each semester
- Attend the [Chevron Lecture Series](#) luncheon

- Look into UG Teaching Assistantships in the second-year core physics courses or summer field session
- Attend [Physics Congress](#) or the [Conference for Undergraduate Women in Physics](#)
- Participate in a [summer internship](#)
- Consider opportunities for graduate schools.
- Write an article for SWE's annual [newsletter](#)
- Be a tutor or lead core review with CASA

- UG Teaching Assistantship in third-year core physics courses
- Attend [APS meetings](#), both national and regional opportunities, ideally by submitting a paper
- [AAPT](#) Winter & Summer national, CO-WY Section Meeting
- Participate in free Mines sponsored [review sessions](#) for the FE and then [register](#) to take the exam
- Look for full time employment at Career Day and on DiggerNet.

## Research, Creative &amp; Scholarly Achievement



- Explore the option of a summer with [SURF](#)
- Pick up copies of [The Oredigger](#) to see what is going on at Mines and maybe contribute a written piece.
- Explore how to get involved with research through [different opportunities](#) on campus
- Join a [musical group](#) on campus or [Mines Little Theater](#)

- [Research Experiences](#) for Physics Undergraduates
- Attend the [Emerging Scholars Seminar Series](#) to learn about various research topics
- Find a faculty member you are interested in working with and apply for [MURF](#)
- Explore classes offered through [HASS](#)
- Manage departmental or student organization's web and/or social media presence

- [Chipps Lecture Series](#)
- Show your research outcomes in [Reuleaux](#)
- Take Research, Values, and Communication ([HASS 360](#))
- Co-author a paper with a fellow student or faculty member

- Attend Physics [Colloquia](#)
- Attend [APS meetings](#), both national and regional opportunities, ideally by submitting a paper on your undergraduate research
- Submit a piece of visual art, fiction, poetry or music to [High Grade](#)
- Present at a scientific professional conference
- Present at Mines [Undergraduate Research Symposium](#)

## Inclusive &amp; Impactful Civic Engagement



- SPS & SWiP volunteer events for STEM promotion
- Apply to [work](#) at College View Middle School in Denver as a tutor
- Join Society of Women Engineers as a [mentee](#)
- Attend the Study Abroad Fair this Fall to start exploring your options. Additional scholarships may be available.
- Attend the annual [Celebration of DI&A at Mines](#)

- Help with the [Haunted Physics Lab](#) over Halloween
- Participate in outreach at localelementary schools
- Participate in [Girls Lead The Way](#)
- Examine different viewpoints with the [movie and book recommendations](#) from MEP
- See how you can contribute to [Mines Without Borders](#) projects

- Get involved with [Future Faces of Physics](#)
- Join the Mines DI&A [general council meetings](#) or a [learning community](#)
- Assist with Trick-or-Treat so Golden Can Eat, more information in Daily Blast
- Tutoring at local high schools
- Explore DI&A [workshops](#) along with trainings from [SHAPE](#)

- Lead a Future Faces of Physics project
- Physics Study Hall
- Join the departmental DI&A Council
- Volunteer as a mentor for K-14 student with [Rocky Mountain MESA](#)
- Take [Art & Environmentalism](#) in Italy
- Apply for a Mines DI&A [community grant](#) to help promote an inclusive campus

## Health &amp; Wellness



- Participate in [Oredigger Camp](#) to build your Mines community before classes start
- Balance studying for finals with daily wellness activities during [Stress Less Week](#)
- Become familiar with the Counseling Center's [services](#)
- Attend a QPR suicide prevention [training](#)
- Attend a Bystander Intervention [workshop](#)
- Attend [Fresh Check Day](#)
- Take a [group fitness](#) class

- Sign up to be a part of [intramural sports](#)
- Get financially savvy with [Money Matters](#)
- Participate in a Peer Educator led [workshop](#)
- Utilize [YOU@Mines](#) to find personalized wellness resources to succeed, thrive & matter at Mines
- [Apply](#) to be a Betsy's Friends Peer Educator
- Check on your own health at the [Sexual and Reproductive Wellness Fair](#)

- Adventure with the [Outdoor Recreation Center](#) through an organized trip (domestic or international!) or rent gear to have one of your own
- Get [CPR/First Aid](#) certified
- Prioritize your sleep by grabbing a Bedside Box
- Organize a [suicide prevention training](#) or a [Peer Education workshop](#) for your student organization
- Destress with some therapy dogs at [Pause for Paws](#)
- Do a [personal training](#) session with Rec Sports

- Show your loved ones everything you love about Mines at [Family & Friends weekend](#)
- Participate in the [Imposter Syndrome](#) Peer Education workshop before heading out into the workforce or graduate school
- Help manage your stress with Stress Less Box
- Take a Self-Check at [YOU@Mines](#)
- Do a QPR [refresh](#)

## Academic Success



- Sign your family up for the [CASA First-Year Family Newsletter](#) so they can support your academic success
- Attend the [Major Fair](#) and [declare](#) a major in late April at Declaration Day with CASA. Keep an eye out for an announcement in the Daily Blast

- **Mandatory Advising**
- Participate in [Summer Field Session](#) this upcoming summer
- Become familiar with the [4+1 programs](#) offered
- Explore [Bounce Back](#) if you are needing to retake a course, on academic probation or returning from academic suspension.

- **Mandatory Advising**
- Consider opportunities for graduate schools
- Start to request letters of recommendation from faculty or supervisors for graduate school or jobs

- **Mandatory Senior Design Research Experience**
- Apply for graduate school
- Apply for jobs for after graduation