



## WHERE CERAMIC ENGINEERING STUDENTS GO



### Possible job titles for graduates:

- Ceramic engineer
- Computer and electronic product manufacturer
- Metal manufacturer
- Metallurgical engineer
- Semiconductor processing engineer
- Product engineer
- Research and development engineer
- Research scientist

## Academic options in Ceramic Engineering

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

- **Minors**
  - [McBride Honors Program](#)
  - [Teaching](#)
- **4+1 Programs**
  - Metallurgical and Materials Engineering
- **Academic Flow Chart**
- **Academic Catalog**

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 Ceramic Engineering

The new Bachelor of Science in Ceramic Engineering program provides students with a fundamental knowledge to prepare them for careers in both technical and traditional ceramics. The ceramic engineering program at Mines builds on the university's long-standing expertise in materials science and engineering, as well as Mines' cutting-edge ceramics research and facilities and strong relationships with industry. Developed in consultation and partnership with industry, this program has a strong focus on the newer technical ceramics and glass.

Students will receive hands-on training in ceramic processing, sintering, glass science, and thermal, mechanical and electrical properties. Four core laboratory classes starting in students' second year will ensure robust hands-on experience with the materials. Students will also have access to innovative undergraduate research opportunities and makerspaces, including Mines' on-campus glass hot shop.

We educate engineers who are on the leading edge of modern technology, constantly developing new materials for numerous applications including in electronics, aerospace, transportation, biomedical, and energy.









"Professors have always been passionate, engaging, and understanding in helping students learn, and I have always been pushed to further develop my knowledge and skills."

-CURRENT STUDENT

## 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.

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

	1st year	2nd year	3rd year	4th or final year
<b>Leadership &amp; innovation</b> 	<ul style="list-style-type: none"> <li>Join the Mines Material Advantage chapter, <a href="#">CSMMAC</a></li> <li>Explore opportunities to get involved with the <a href="#">Undergraduate Student Government</a></li> <li>Explore options to get involved with <a href="#">RHA</a> and Community Councils</li> <li>Apply for the Environmental Leadership Lab trip and Scholars Program. Check the Daily Blast for more information in April.</li> </ul>	<ul style="list-style-type: none"> <li>Explore membership with the <a href="#">American Nuclear Society</a></li> <li>Attend the <a href="#">Leadership Summit</a> and develop your leadership skills right on campus</li> <li>Participate in the <a href="#">Leadership Workshop Series</a></li> <li>Attend the <a href="#">Hennebach Program</a> lectures</li> <li>Sign up to engage in innovative thinking and real-world problem solving with <a href="#">Innov8x Challenge</a></li> </ul>	<ul style="list-style-type: none"> <li>Become an officer in your student organization</li> <li>Apply to be an Undergraduate Writing Fellow, a peer tutor in the Writing Center. Check the Daily Blast for information in early October.</li> </ul>	<ul style="list-style-type: none"> <li>Expand your leadership in your organization</li> <li>Take <a href="#">CSM 350</a>: Special Studies in Leadership &amp; Small Group Dynamics</li> </ul>
<b>Professional development</b> 	<ul style="list-style-type: none"> <li>Attend CSMMAC Meetings</li> <li>Update or create a college resume and <a href="#">get it reviewed</a> with feedback</li> <li>Attend <a href="#">Career Day</a></li> <li>Use <a href="#">DiggerNet</a> for employment opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Attend <b>Career Day for summer internship positions</b></li> <li>Work on a professional profile using the <a href="#">Mines Strategy</a> guide</li> <li>Enroll in <a href="#">CSM 250</a> to plan your career path</li> <li>Explore <a href="#">ethics opportunities</a> across campus</li> <li>Attend <a href="#">VIP events</a> each semester</li> <li>Attend the <a href="#">Chevron Lecture Series</a> luncheon</li> </ul>	<ul style="list-style-type: none"> <li>Participate in Career Day to network</li> <li>Consider opportunities for graduate schools</li> <li>Take Introduction to Research Ethics (<a href="#">SYGN 502</a>) or Professional Oral Communication (<a href="#">LICM 501</a>), both are graduate classes but accessible to Undergraduates.</li> <li>Write an article for SWE's annual <a href="#">newsletter</a></li> <li>Be a tutor or lead core review with CASA</li> </ul>	<ul style="list-style-type: none"> <li>Look for full time employment at Career Day and on DiggerNet.</li> <li>Take advantage of the Career Center's <a href="#">Offer Letter Review</a></li> </ul>
<b>Research, creative &amp; scholarly achievement</b> 	<ul style="list-style-type: none"> <li>Explore the option of a summer with <a href="#">SURF</a></li> <li>Pick up copies of <a href="#">The Oredigger</a> to see what is going on at Mines and maybe contribute a written piece.</li> <li>Explore how to get involved with research through <a href="#">different opportunities</a> on campus</li> </ul>	<ul style="list-style-type: none"> <li>Attend the <a href="#">Emerging Scholars Seminar Series</a> to learn about various research topics</li> <li>Find a faculty member you are interested in working with and apply for <a href="#">MURF</a></li> <li>Explore classes offered through <a href="#">HASS</a></li> </ul>	<ul style="list-style-type: none"> <li>Show your research outcomes in <a href="#">Reuleaux</a></li> <li>Explore options to join a <a href="#">musical group</a> on campus or <a href="#">Mines Little Theater</a></li> <li>Take Research, Values, and Communication (<a href="#">HASS 360</a>)</li> <li>Co-author a paper with a fellow student or faculty member</li> <li>Manage departmental or student organization's web and/or social media presence</li> </ul>	<ul style="list-style-type: none"> <li>Submit a piece of visual art, fiction, poetry or music to <a href="#">High Grade</a></li> <li>Present at a conference</li> <li>Present at Mines <a href="#">Undergraduate Research Symposium</a></li> </ul>
<b>Inclusive &amp; impactful civic engagement</b> 	<ul style="list-style-type: none"> <li>Apply to <a href="#">work</a> at College View Middle School in Denver as a tutor</li> <li>Join Society of Women Engineers as a <a href="#">mentee</a></li> <li>Attend the Study Abroad Fair this Fall to start exploring your options. Additional scholarships may be available.</li> <li>Attend the annual <a href="#">Celebration of DI&amp;A at Mines</a></li> </ul>	<ul style="list-style-type: none"> <li>Participate in outreach at local elementary schools</li> <li>Participate in <a href="#">Girls Lead The Way</a></li> <li>Examine different viewpoints with the <a href="#">movie and book recommendations</a> from MEP</li> <li>See how you can contribute to <a href="#">Mines Without Borders</a> projects</li> <li>Join the Mines DI&amp;A <a href="#">general council meetings</a> or a <a href="#">learning community</a></li> </ul>	<ul style="list-style-type: none"> <li>Assist with Trick-or-Treat so Golden Can Eat, more information in Daily Blast</li> <li>Tutoring at local high schools</li> <li>Explore DI&amp;A <a href="#">workshops</a> along with trainings from <a href="#">SHAPE</a></li> <li>Join the departmental DI&amp;A Council</li> <li>Serve as a panelist at <a href="#">Making The Connection</a> or other recruitment events</li> <li>Coordinate an <a href="#">S2S community service</a> event</li> </ul>	<ul style="list-style-type: none"> <li>Tutor at a local high school</li> <li>Volunteer as a mentor for K-14 student with <a href="#">Rocky Mountain MESA</a></li> <li>Take <a href="#">Art &amp; Environmentalism</a> in Italy</li> <li>Apply for a Mines DI&amp;A <a href="#">community grant</a> to help promote an inclusive campus</li> <li>Facilitate a workshop at Celebration of DI&amp;A at Mines. Keep an eye on the Daily Blast for calls for proposals.</li> </ul>
<b>Health &amp; wellness</b> 	<ul style="list-style-type: none"> <li>Participate in <a href="#">Oredigger Camp</a> to build your Mines community before classes start</li> <li>Balance studying for finals with daily wellness activities during <a href="#">Stress Less Week</a></li> <li>Become familiar with the Counseling Center's <a href="#">services</a></li> <li>Attend a QPR suicide prevention <a href="#">training</a></li> <li>Attend a Bystander Intervention <a href="#">workshop</a></li> <li>Attend <a href="#">Fresh Check Day</a></li> <li>Take a <a href="#">group fitness</a> class</li> </ul>	<ul style="list-style-type: none"> <li>Sign up to be a part of <a href="#">intramural sports</a></li> <li>Get financially savvy with <a href="#">Money Matters</a></li> <li>Participate in a Peer Educator led <a href="#">workshop</a></li> <li>Utilize <a href="#">YOU@Mines</a> to find personalized wellness resources to succeed, thrive &amp; matter at Mines</li> <li><a href="#">Apply</a> to be a Betsy's Friends Peer Educator</li> <li>Check on your own health at the <a href="#">Sexual and Reproductive Wellness Fair</a></li> </ul>	<ul style="list-style-type: none"> <li>Adventure with the <a href="#">Outdoor Recreation Center</a> through an organized trip (domestic or international!) or rent gear to have one of your own</li> <li>Get <a href="#">CPR/First Aid</a> certified</li> <li>Prioritize your sleep by grabbing a Bedside Box</li> <li>Organize a <a href="#">suicide prevention training</a> or a <a href="#">Peer Education workshop</a> for your student organization</li> <li>Destress with some therapy dogs at <a href="#">Pause for Paws</a></li> <li>Do a <a href="#">personal training</a> session with Rec Sports</li> </ul>	<ul style="list-style-type: none"> <li>Show your loved ones everything you love about Mines at <a href="#">Family &amp; Friends weekend</a></li> <li>Participate in the <a href="#">Imposter Syndrome</a> Peer Education workshop before heading out into the workforce or graduate school</li> <li>Help manage your stress with Stress Less Box</li> <li>Take a Self-Check at <a href="#">YOU@Mines</a></li> <li>Do a QPR <a href="#">refresh</a></li> </ul>
<b>Academic Success</b> 	<ul style="list-style-type: none"> <li><b>Participate in Summer Field Session this upcoming summer</b></li> <li>Sign your family up for the <a href="#">CASA First-Year Family Newsletter</a> so they can support your academic success</li> <li>Attend the <a href="#">Major Fair</a> and <a href="#">declare</a> a major in late April at Declaration Day with CASA. Keep an eye out for an announcement in the Daily Blast</li> </ul>	<ul style="list-style-type: none"> <li>Check out CASA for academic <a href="#">advising</a> to go over your schedule and academic opportunities</li> <li>Explore <a href="#">Bounce Back</a> if you are needing to retake a course, on academic probation or returning from academic suspension.</li> </ul>	<ul style="list-style-type: none"> <li>Meet with <a href="#">CASA</a> to go over your schedule and talk about possible graduate opportunities including <a href="#">4+1 programs</a></li> <li>Start to request letters of recommendation from faculty or supervisors for graduate school or jobs</li> </ul>	<ul style="list-style-type: none"> <li>Mandatory senior design research experience</li> <li>Apply to graduate school and/or jobs</li> </ul>