2023-24 **BS, Design Engineering**

Experiential Major Menu

WHERE DESIGN ENGINEERING **STUDENTS GO**



Possible job titles for graduates:

- Product Design
- Experience Design
- Sustainable Energy
- International Development
- Entrepreneurship & Innovation
- Robotics



"My favorite part of the Design Engineering program is its creative, unconventional approach to engineering. As someone who has been socially and environmentally

active in my community, the focus on ethics, lifecycle assessment, and community engagement is what drew me into the program."

-ANNIE WELCH

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 Design Engineering

Design Engineering educates the next generation of engineering innovators, design thinkers, and impact makers who will be leaders in responding to the world's most important challenges. This is a program for students who have a passion to make a positive impact on society and the environment – at the local, national, or global scale.

Design Engineering provides the most flexible degree structure of any engineering program at Mines, allowing students to apply their design expertise to areas of personal interest, like energy, robotics, community development, product design or a wide range of other career possibilities. In addition to traditional engineering or design careers in technology and product-based industries, DE graduates are ideal candidates for roles in NGOs, start-ups and government agencies, and they are uniquely suited to contribute technical design expertise to the fields of healthcare, policy, law and finance.

Get Involved

Attend Celebration of Mines in August to get to know campus organizations and academic departments, sample food, and play games.

Here 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



Academic options in Design Engineering

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

Tracks

- ADDRESSING WORLD-WIDE CHALLENGES
 - Energy Studies
 - Water Security
 - Community Development
 - K-12 STEM Teaching

• FINDING INNOVATIVE SOLUTIONS

- Robotics and Automation
- Music and Audio Engineering
- <u>Corporate Sustainability</u>

• INDIVIDUALIZED FOCUS AREA

• Customize a <u>course of study</u> to pursue personal interests and passions

Minors

- Additive Manufacturing
- Humanitarian Engineering (ECD or LSR)
- McBride Honors Program

4+1 Programs

- Humanitarian Engineering
- Engineering and Technology Management
- **Academic Flow Chart**
- **Academic Catalog**

2023-24 EXPERIENTIAL MAJOR MENU BS, Design Engineering

	1st year	2nd year	3rd year
Leadership & Innovation	 Join <u>Design Club</u>, Socially Responsible Scientists and Engineers (SRSE), or the Mines Theme Park Design Engineering Club (TPED). Explore opportunities to get involved with the <u>Undergraduate</u> <u>Student Government</u> Explore options to get involved with <u>RHA</u> and Community Councils Apply for the Environmental Leadership Lab trip and Scholars Program. Check the Daily Blast for more information in April. 	 Explore the <u>Teacher Education Alliance</u> if you're interested in education issues or reach out to <u>E-Volve</u> if you want to learn more about entrepreneurship Attend the <u>Leadership Summit</u> and develop your leadership skills right on campus Participate in the <u>Leadership Workshop Series</u> Attend the <u>Hennebach Program</u> lectures Sign up to engage in innovative thinking and real-world problem solving with <u>Innov8x Challenge</u> 	 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.
Professional Development	 Update or create a college resume and <u>get it reviewed</u> with feedback Attend <u>Career Day</u> Use <u>DiggerNet</u> for employment opportunities 	 Attend Career Day for summer internship positions Create a <u>LinkedIn</u> Profile Enroll in <u>CSM 250</u> to plan your career path Explore <u>ethics opportunities</u> across campus Attend <u>VIP events</u> each semester Attend the <u>Chevron Lecture Series</u> luncheon 	 Participate in Career Day to network Consider opportunities for graduate schools Take Introduction to Research Ethics (SYGN 502)or Professional Oral Communication (LICM 501), both are graduate classes but accessible to Undergraduates. Write an article for SWE's annual <u>newsletter</u> Be a tutor or lead core review with CASA
Research, Creative & Scholarly Achievement	 Explore the option of a summer with <u>SURF</u> Pick up copies of <u>The Oredigger</u> to see what is going on at Mines and maybe contribute a written piece. Explore how to get involved with research through <u>different</u> <u>opportunities</u> on campus 	 Start to develop the framework for your portfolio in Intro to Design Engineering (EDNS 200) 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 	 Update your design portfolio Show your research outcomes in <u>Reuleaux</u> Explore options to join a <u>musical group</u> on campus or <u>Mines Little</u>. <u>Theater</u> Take Research, Values, and Communication (<u>HASS 360</u>) Co-author a paper with a fellow student or faculty member Manage departmental or student organization's web and/or social media presence
Inclusive & Impactful Civic Engagement	 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 <u>Celebration of DI&A at Mines</u> 	 Participate in outreach at local elementary schools Participate in <u>Girls Lead The Way</u> Examine different viewpoints with the <u>movie and book</u> recommendations from MEP See how you can contribute to <u>Mines Without Borders</u> projects Join the Mines DI&A <u>general council meetings</u> or a <u>learning</u> <u>community</u> 	 Assist with Trick-or-Treat so Golden Can Eat, more information in Daily Blast Tutoring at local high schools Explore DI&A <u>workshops</u> along with trainings from <u>SHAPE</u> Join the departmental DI&A Council Serve as a panelist at <u>Making The Connection</u> or other recruitment events Coordinate an <u>S2S community service</u> event
Health & Wellness	 Keep an eye out for DE community events in the DE Digest or on the student page Participate in <u>Oredigger Camp</u> to build community Become familiar with the Counseling Center's <u>services</u> Attend a QPR suicide prevention <u>training</u> Attend a Bystander Intervention <u>workshop</u> Attend <u>Fresh Check Day</u> Take a <u>group fitness</u> class 	 Attend the Engineering, Design & Society Social to meet faculty and other students 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 <u>Outdoor Recreation Center</u> through an organized trip (domestic or international!) or rent gear to have one of your own Get <u>CPR/First Aid</u> certified Prioritize your sleep by grabbing a Bedside Box Organize a <u>suicide prevention training</u> or a <u>Peer Education</u> workshop for your student organization Destress with some therapy dogs at <u>Pause for Paws</u> Do a <u>personal training</u> session with Rec Sports
Academic Success	 Attend the DE Info Session with friends Start to explore focus area options and flowcharts Sign your family up for the <u>CASA First-Year Family Newsletter</u> so they can support your academic success Attend the <u>Major Fair</u> and <u>declare</u> a major in late April at Declaration Day with CASA. Keep an eye out for an announcement in the Daily Blast 	 Check out CASA for academic <u>advising</u> to talk about focus areas and pre-req mapping Explore Group advising sessions through DE Mandatory <u>Advising</u> <u>Bounce Back</u> if you are needing to retake a course, on academic probation or returning from academic suspension. 	 Develop project proposal for Capstone Design Meet with <u>CASA</u> to go over your schedule and talk about possible graduate opportunities including <u>4+1 programs</u> Start to request letters of recommendation from faculty or supervisors for graduate school or jobs



4th or final year

	 Expand your leadership in your organization Take <u>CSM 350</u>: Special Studies in Leadership & Small Group Dynamics
	 Look for full time employment at Career Day and on DiggerNet. Take advantage of the Career Center's <u>Offer Letter Review</u>
<u>e</u>	 Finalize your portfolio Submit a piece of visual art, fiction, poetry or music to <u>High Grade</u> Present at a conference Present at Mines <u>Undergraduate Research Symposium</u>
n	 Tutor at a local high school Volunteer as a mentor for K-14 student with <u>Rocky Mountain MESA</u> Take <u>Art & Environmentalism</u> in Italy Apply for a Mines DI&A <u>community grant</u> to help promote an inclusive campus Facilitate a workshop at Celebration of DI&A at Mines. Keep an eye on the Daily Blast for calls for proposals.
nt	 Volunteer as a mentor for K-14 student with <u>Rocky Mountain MESA</u> Take <u>Art & Environmentalism</u> in Italy Apply for a Mines DI&A <u>community grant</u> to help promote an inclusive campus Facilitate a workshop at Celebration of DI&A at Mines. Keep an eye