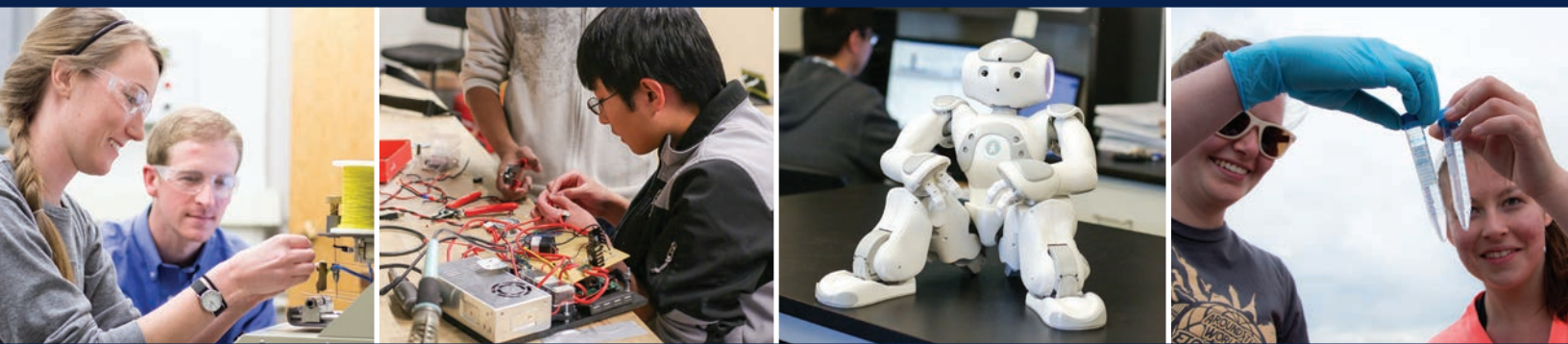


BACHELOR OF SCIENCE IN ENGINEERING



INNOVATE, DESIGN, MAKE AN IMPACT

The Bachelor of Science in Engineering educates the next generation of engineering innovators, design thinkers and impact makers who will be leaders in defining and solving problems.

The BSE is for students who have a passion to **make a positive impact on societal and environmental needs** on a local, national and international scale; want a **flexible degree structure**, allowing them to follow their individual interests; and desire **engineering expertise as a foundation** to pursue further academic studies or careers in law, medicine, engineering innovation, economics or policy.

THE BSE IS NOT JUST AN ENGINEERING DEGREE

Earning a BSE means gaining **hands-on experience** through Integrative Design Studios, working on **real-world problems** related to a specific Focus Area and shaping your degree based on **your interests**.

The BSE integrates...

1. The strength of a Mines technical degree with coursework in the fundamentals of mathematics, science and engineering;
2. Education in design, innovation, humanities and social sciences;
3. A Focus Area that allows students to pursue depth of study in an area of personal and career interest; and
4. A set of unique education experiences built into six Integrative Design Studios, culminating in the Capstone Design@Mines Studio.

BSE FOCUS AREAS

ADDRESSING WORLD-WIDE CHALLENGES:

- Energy Studies
- Water Security
- Community Development

FINDING INNOVATIVE SOLUTIONS:

- Robotics and Automation
- Music, Audio Engineering & Recording Arts
- Corporate Sustainability

INDIVIDUALIZED FOCUS AREA: Customize a course of study to pursue personal interests and passions



INTEGRATIVE DESIGN STUDIOS

Students apply their core studies to multi-year, hands-on project/problem/place-based learning (PBL).

The BSE is organized to drive innovative solutions to world-wide challenges, while teaching how to best apply smart engineering solutions.

A human-centered perspective that incorporates social, political, environmental and economic context in making comprehensive engineering decisions and meaningful designs.

DEGREE QUALITIES

The combination of targeted studies in the Focus Areas, skills taught in the Integrative Design Studios, plus multi-disciplinary engineering core and electives result in a unique undergraduate experience.

Degree Qualities:

- ▶ Course flexibility
- ▶ Career preparation beyond traditional engineering opportunities
- ▶ Design-based projects as a fundamental instructional approach
- ▶ Projects and courses that support specific passions

Competencies:

- ▶ Technical
- ▶ Professional skills
 - Collaboration
 - Leadership
 - Innovation and Entrepreneurial
 - Sustainable Society



LIFE AFTER MINES

Graduating with a BSE means you are technically skilled, able to collaborate, innovate and lead. BSE students are the ideal candidates for*:

- **Technology and Product-Based Industries**
(Apple, Microsoft, 3M, Tesla)
- **Government Agencies**
(FDA, State Department, DOE, CDC)
- **Law and Financial Firms**
(JP Morgan, Kilpatrick Townsend)
- **Medical Careers**
- **Engineering Consulting and Design Companies**

*Referenced companies, agencies and entities do not imply a review or endorsement of this degree program.

