

HUMANITARIAN ENGINEERING & SCIENCE | MS, Certificate



The Mines humanitarian engineering and science graduate program educates technical professionals to promote sustainable community development by combining expertise in engineering, applied sciences and social sciences. HES students engage in direct interdisciplinary research and outreach within and alongside the communities they seek to serve. Project experiences prepare graduates for careers in international development, corporate responsibility or further study.



DEGREE OPTIONS

- **Master of Science (thesis based):** 30 credit hours, comprised of 24 credit hours of coursework in both humanitarian engineering and an affiliated disciplinary stream, plus a minimum of 6 credit hours of thesis research.
- **Master of Science (non-thesis):** 30 credit hours of coursework spanning humanitarian engineering and an affiliated disciplinary track.
- **Certificate:** 9 credit hours of coursework focused exclusively on humanitarian engineering theoretical foundations and practical applications.

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CORE COURSES

- Advanced Engineering and Sustainable Community Development
- Community-Based Research
- Risks in Humanitarian Engineering and Science
- Humanitarian Engineering and Science Capstone Practicum

DISCIPLINARY TRACKS

- Environmental Engineering
- Geological Engineering
- Geophysics

APPLICATION INFORMATION

- Statement of purpose, updated curriculum vitae or resume, and transcripts for post-secondary degrees are required for all students.
- Three letters of recommendation are required for students pursuing the MS thesis option.
- Non-native English speakers must meet one of the following minimum requirements: TOEFL iBT score of 79; TOEFL paper-based test score of 550; TOEFL computer-based test score of 213; IELTS score of 6.5 or have received a prior degree from an English-speaking university.
- Mines undergraduate students may include up to six credits from their undergraduate program counted toward a combined BS/MS degree. External applicants may substitute approved electives with courses brought from elsewhere with written permission from the HES program director.



ACCEPTING APPLICATIONS

TO LEARN MORE, VISIT:

gradprograms.mines.edu/edns or contact humanitarian@mines.edu