

The Master of Science degree in Mining Engineering and Management (MEM) is a flexible, user friendly, and affordable online master's program that allows participants to maintain employment while advancing their knowledge and skills. Program coursework is designed with industry input and provides students with essential technical and management skills required by professionals in the industry today.

Students can enter the program at any one of the three semesters during the year and choose core classes and electives to match their individual interests and career goals. Students participate in classes face-to-face, streamed live, or watch recorded classes at their convenience.

Program Overview

Designed to meet the growing need for mining engineers, this program offers advanced study in the Minerals Industry Management, Mining Engineering, or Mining Industry Applications specialization for professionals in mining, mine management or underground construction. The **Minerals Industry Management specialization** is a non-thesis option designed for those employed within the Mining (Minerals) Industry who are currently working in administrative departments, moving into management positions, and those who will move into management positions that desire additional and specific education. The **Mining Engineering specialization** is a thesis or project option that provides advanced level mining and other engineering courses to engineering professionals in the United States and around the world. It is designed for those employed within the Mining (Minerals) Industry who are currently working in a variety of departments on or off a mine site. Entry to this specialization is available to students who have earned a BS or MS in Mining Engineering, and to those from Engineering degrees other than Mining Engineering. Applicants with an Engineering degree must have taken or complete leveling classes in Calculus I, II, and III, Differential Equations, General Chemistry I, Statics and Dynamics, Fluid Mechanics, General Physics I and II, Mechanics of Materials. The **Mining Industry Applications specialization** is a non-thesis option designed for those employed within the Mining (Minerals) Industry who are currently working in a variety of mining departments on or off a mine site, and for those employed in associated industries. This specialization allows a Mining (Minerals) Industry employee who has a BS degree to further their education in the mining industry where they can add to their experience with a degree from a top-rated engineering school.

Admission Requirements

- Completed graduate application form
- \$35 application fee
- Official transcript of prior academic work, sent directly to South Dakota Mines by the issuing institution, showing the undergraduate degree awarded
- 1 page statement of purpose, describing your goals in the program
- 3 letters of recommendation
- Additional requirements exist for international students, including a third-party foreign transcript evaluation and evidence of English proficiency.

The mining engineering coursework is geared primarily toward the working professional in the mining industry who requires distance delivery of the courses, although students can be admitted to the on-campus program. In either case, the student should have completed an appropriate undergraduate engineering degree, and for those holding a non-mining engineering undergraduate degree the applicant should have significant experience in the mining or underground construction industry. Additionally, an undergraduate course in probability and statistics is highly recommended.

**Based on 2020/21 costs. See online price table for details.*



Program Requirements

The student selects one of the specializations. Each specialization requires completion of 33 credit hours.

Minerals Industry Management specialization

There is no research option.

The following courses are core requirements for this specialization.

MEM 501 Fundamentals of the Mineral Industry Credits: (3-0) 3*

*If a student has a BS or MS in Mining Engineering, they may exchange MEM 501 for a Topics elective course.

MEM 476/576 International Business for Engineers and Scientists Credits: (3-0) 3

MEM 410/510 Advanced Mineral Economics for Managers Credits: (3-0) 3

OR

MEM 610 Topics in Mineral Economics for the Mineral Industry Credits: (3-0) 3

MEM 521 Foundations of Accounting

MEM 630 Mining Law and Environment for the Mineral Industry Credits: (3-0) 3

MEM 635 Minerals Industry Value Chain Credits: (3-0) 3

MEM 640 Advanced Mine Management for the Mineral Industry Credits: (3-0) 3

MEM 645 Advanced Finance for the Mineral Industry Credits: (3-0) 3

MEM 650 Mine Systems Optimization Credits: (3-0) 3

MEM 655 Advanced Human Capital Management for the Mineral Industry Credits: (3-0) 3

Elective requirements are one of the following:

MEM 430/530 Resource Industry Mergers and Acquisitions Credits: (3-0) 3

MEM 470/570 Project Management for Industry Credits: (3-0) 3

MEM 620 Reputation Management for the Mineral Industry Credits: (3-0) 3

MEM 660 Mediation and Negotiation for the Mineral Industry Credits: (3-0) 3

MEM 665 Equipment Maintenance Reliability and Management Credits: (3-0) 3

Tuition

The Mining Engineering and Management MS requires 33 credits. Cost for the distance program is \$643.75* per credit hour, or approximately \$20,000 for your master's degree. Other than the one-time application fee of \$35, there are currently no other costs except for books. South Dakota residents are eligible for a discount to \$465.80* per credit hour.

Contact Us for More Information

Dr. Kelli McCormick,
Graduate Program Coordinator

(605) 394-1971

Kelli.McCormick@sdsmt.edu

Graduate Education Office

501 E Saint Joseph St
Chemistry Building, Room 2201
Rapid City, SD 57701-3995
(605) 355-3468

Graduate.Admissions@sdsmt.edu

Inquire or Apply Online at
sdsmt.edu/DistanceEducation





Program Requirements

The student selects one of the specializations. Each specialization requires completion of 33 credit hours.

Mining Engineering specialization

A thesis or project research option is available

The Following courses are core requirements for this specialization.

MEM 700 Developing and Planning Research Credits: (1-0) 1

MEM 790 Seminar Credits: (2-0) 2

The completion of a master's thesis, approved by the student's graduate advisory committee and the Dean of Graduate Education, is required for this degree.

MEM 798 Thesis Credits: To be arranged*

**At least 6 credits of MEM 798 are required. No more than 12 credits of MEM 798 may be counted toward the degree.

The completion of a master's project is required for this degree.

MEM 788 Master's Research Problems/Projects Credits: Credit to be arranged. *

**At least 3 credits of MEM 788 are required. No more than 3 credits of MEM 788 may be counted toward the degree.

Refer to the [Academic catalog](#) for elective courses.

Mining Industry Applications specialization

There is no research option.

The following course is the core requirement for this specialization.

MEM 501 Fundamentals of the Mineral Industry Credits: (3-0) 3*

*If a student has a BS or MS in Mining Engineering, they may exchange MEM 501 for a Topics elective course.

Thirty credit hours of electives in addition to the core course requirement are required.

Refer to the [Academic catalog](#) for elective courses.

Accreditation

The South Dakota School of Mines and Technology is accredited by the regional Higher Learning Commission (HLC), a commission of the North Central Association of Colleges and Schools (NCA).

For more information, please visit ncahlc.org.

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