

**College of Mines and Earth Sciences**  
**Department of Mining Engineering**  
Combined B.S./M.S. Program In Mining Engineering

**Section 1: Basis**

The Department of Mining Engineering at the University of Utah has established a combined B.S./M.S. degree program in Mining Engineering.

**Section II: Need**

The University of Utah offers unique educational research opportunities for undergraduate students because it is a strong research institution and a technological leader in the mountain west. Many students participate in research at many levels, including undergraduate research and honors projects, participation in graduate student and faculty research projects, in guest lectures, and in discussing forefront research by leaders in their fields.

Current degree requirements for a B.S. degree in Mining Engineering mandated by ABET are exacting. In recent years, the M.S. degree has become highly desirable for practicing engineers. The combined B.S./M.S. degree program is designed to foster undergraduate research and to accelerate progress toward the M.S. degree. It is designed for undergraduate students interested in pursuing employment in the field, or in pursuing research and/or an advanced degree.

**Program Description**

The combined degree program described below is designed to be completed by students in five years and to culminate with simultaneous conferral of the Bachelor of Science and Master of Science degrees. The program is adapted from an existing program in the College of Engineering in order to build upon the solid foundation established by that program. Students in the combined program begin their research early and complete advanced level courses during the senior year. These activities can accelerate completion of the combined program by a full year relative to enrollment in sequential B.S. – M.S. programs. Students are encouraged to begin research in the summer following their junior year. All students completing the combined B.S./M.S. degree in Mining Engineering will still meet the existing ABET standards for the undergraduate B.S. degree. The following minimum requirements must be met universally:

- 1) Students must complete a minimum of 152 semester credit hours of qualified studies. A minimum of 30 semester credit hours must meet the M.S. requirements of the University of Utah's Graduate School, the College of Mines and Earth Sciences, and the Department of Mining Engineering. A minimum of 122 semester credit hours must meet the B.S. requirements of the Mining Engineering program.
- 2) Each interested undergraduate student must apply to the program through the Department of Mining Engineering by April 1<sup>st</sup> of his or her junior year. Recommendations for admission are made by the Department of Mining Engineering to the Graduate School by June 1<sup>st</sup> each year. Entrance criteria for the combined B.S./M.S. program are consistent with criteria for the traditional M.S. program.
- 3) Admitted students must submit a B.S./M.S. program of study to the department within one semester after admission.

- 4) Transfer from undergraduate to graduate status will occur after completion of 122 semester credit hours of qualified studies.
- 5) The B.S. and M.S. degrees will be conferred simultaneously following completion of the program.
- 6) Every M.S. candidate must carry out an original research project under the guidance of his or her supervisory committee, and the results of this research must be presented to the University as a formal thesis.
- 7) Students wishing to exit the combined program can apply qualified coursework toward the traditional B.S. and M.S. degree requirements without penalty.
- 8) No student will be awarded a separate M.S. degree in Mining Engineering without satisfying all requirements for the B.S. degree.

#### Procedures

1. Application for admission to B.S./M.S. program will be submitted at the end of a student's junior year. This application is processed and decisions made at the department level. Consistent with University policy, entering students must have at least a 3.0 cumulative GPA.
2. Students must be enrolled in the Mining Engineering program at the time of applying for the B.S./M.S. degree option.
3. The student will apply for graduate status during the semester in which 122 credit hours are completed. Students will follow the regular University of Utah Graduate School application process. All university requirements for graduate admissions must be met except posting of undergraduate degree. (Note: On the referral sheet that the department returns to graduate admissions, the department will note that the student has been accepted to the combined B.S./M.S. program. Graduate Admissions will then approve admission without the B.S. completed.)
4. Following admission, a supervisory committee will be established within the department during the first semester of work toward the combined degree. The entering student will select an advisory committee and prepare a program of study for completion of the B.S. and M.S. degree during first semester in the combined program.
5. A mid-program review will be conducted by the supervisory committee after 2 semesters in the program.
6. Each degree will be awarded when all work is completed. A Master's degree will **not** be awarded under this program if all requirements for the B.S. are not completed.