The Mines applied mathematics and statistics graduate program prepares the next generation of leading mathematical and statistical researchers, both in the private and public sectors for a world driven by increasingly complex technology and scientific challenges. Graduates of the MS and PhD programs work in a variety of different sectors, including technology, engineering, finance and academia. Recent graduates have obtained positions at companies like Northrop Grumman and Oppenheimer Funds, as well as national laboratories and both teaching- and research-oriented universities.

DEGREE OPTIONS

- **Doctor of Philosophy**: 72 credit hours, comprised of at least 24 credit hours of thesis research. Students pursuing the PhD may count up to 6 credit hours from courses at the 400-level. Doctoral students must pass the comprehensive exam and complete and successfully defend a satisfactory thesis.

- **Master of Science (thesis based)**: 30 credit hours, comprised of 6 required courses, 2 elective courses and an additional 6 credit hours of research.

- **Master of Science (non-thesis)**: 30 credit hours of coursework, comprised of 6 required courses, 2 elective courses and an additional 6 credit hours from any of the MATH 500 electives, or from another 400-500 level course in another department.
RESEARCH AREAS

Computational and Applied Mathematics
- Study of wave phenomena and inverse problems
- Numerical methods for partial differential equations
- Study of differential and integral equations
- Dynamical systems
- Mathematical biology
- Computational radiation transport
- Computational acoustics and electromagnetics

• Multiscale analysis and simulation
• High-performance scientific computing

Statistics
- Inverse problems in statistics
- Multivariate statistics
- Spatial statistics
- Stochastic models for environmental science
- Survival analysis
- Uncertainty quantification

PROGRAM ADMISSION REQUIREMENTS

• A bachelor’s degree with a grade-point average of 3.0 or better on a 4.0 scale.
• Graduate Record Examination (GRE) with quantitative section score of 151 or higher (or 650 on the old scale). Applicants who have graduated from Mines within the past five years are not required to submit GRE scores.
• For international applicants or applicants whose native language is not English, a TOEFL score of 79 or higher (or 550 for the paper-based test, 213 for the computer-based test) is required. In lieu of a TOEFL score, an IELTS score of 6.5 or higher will be accepted.

ACCEPTING APPLICATIONS
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