MATERIALS SCIENCE M.S.

All students must meet the Requirements for the Master's Degree

OVERVIEW

Students typically engage in research and defend a thesis and must complete a comprehensive exam.

SPECIFIC REQUIREMENTS

Requirements for Admission to Graduate Studies for the Degree of Master of Science

A bachelor's degree in physics, chemistry, metallurgy, engineering, materials science, or mathematics. Applicants with other backgrounds will be evaluated individually.

Minimum Degree Requirements

The above requirements for admission must be supplemented in either of the following ways:

OPTION 1 (THESIS)	
30 graduate credits of an approved program of study including at least 18 credits of coursework, 6 of which must be at the 6000-level; completion of at least 1 3-credit course in each of the following categories: electrical and optical properties of materials, thermodynamics and kinetics, mechanical properties of materials, quantum properties of materials*, computational materials science*, and synthesis and characterization of materials* (* = select 2 out of 3); satisfactory completion of a comprehensive examination; and satisfactory completion of an M.S. thesis including its defense at an oral examination.	30
OPTION 2 (NON-THESIS)	
30 graduate credits of an approved program of study, 6 of which must be at the 6000-level; completion of at least 1 3-credit course in each of the following categories: electrical and optical properties of materials, thermodynamics and kinetics, mechanical properties of materials, quantum properties of materials*, computational materials science*, and synthesis and characterization of materials* (* = select 2 out of 3)solid state theory, quantum mechanics, applied mathematics, and materials properties of solids, and satisfactory completion of a comprehensive examination.	30

Comprehensive Examination

Full-time Materials Science M.S. candidates are required to pass a written Comprehensive (Qualifying) Exam with a score of 50% or better, no later than 4 semesters after joining the program. Failure to pass the test will result in dismissal from the program. The deadline for part-time students is the semester they complete 24 credits. All students (full and part-time) are allowed a maximum of 2 attempts to pass the exam. Offered annually, the 3-hour exam requires students to solve a minimum of 3 problems that cover the following topics: electrical and optical properties of materials, thermodynamics and kinetics, mechanical properties of materials, quantum properties of materials, computational materials science, synthesis and characterization of materials or equivalent core course requirements.

Requirement for Advancement to Candidacy for the Degree of Master of Science

Successful completion of a comprehensive examination in Materials Science.