

MASTER OF SCIENCE OR ENGINEERING IN Materials Science and Engineering

The mission of the Graduate Program in Materials Science and Engineering at Rensselaer is to change the world through discovery and development of new materials with novel properties and responses for applications. We are committed to igniting and nurturing creativity in bright minds and to molding future technology leaders through cutting edge scientific research and coursework. We believe in empowering the students to think out-side the box to expand the frontiers of materials science to address and contribute to societal needs in strategic areas including energy, communication, health care, and security.

MASTER OF SCIENCE

ADMISSION REQUIREMENTS

- Bachelor of Science degree in materials engineering or a closely-related engineering or science discipline from an accredited undergraduate institution
- Undergraduate GPA of 3.0 or higher
- Grades of "B" or better in courses completed since bachelor's degree
- GRE required
- Completed application form
- Official transcripts for all undergraduate and graduate work
- Statement of background and goals as it applies to the program
- Two letters of recommendation
- Resume

GRADUATION REQUIREMENTS

- Matriculated status
- Approved Plan of Study
- 24 course credits at the 6000 level (18 credits from required courses (see below), and 6 credits from elective courses).
- 6 credits for M.S. these
- Minimum 3.0 GPA; minimum 30 credits

PLAN OF STUDY (minimum 30 credit hours)

I. Required Courses (18 credits)

MTLE-6030	Advanced Thermodynamics (4 credits)
MTLE-6250	Advanced Mechanical Properties of Materials (4 credits)
MTLE-6060	Advanced Kinetics of Materials Reactions (3 credits)
MTLE-6120	Advanced Electronic Properties of Materials (3 credits)
MTLE-6460	Advanced Structure and Bonding in Materials (4 credits)

II. Elective Courses (at least 15 credits)

Any courses at the 6000 level from the School of Engineering or the School of Science.

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3. _____
4. _____
5. _____

MASTER OF ENGINEERING

ADMISSION REQUIREMENTS

- Bachelor of Science degree in materials engineering or a closely-related engineering or science discipline from an accredited undergraduate institution
- Undergraduate GPA of 3.0 or higher
- Grades of "B" or better in courses completed since bachelor's degree
- GRE required
- Completed application form
- Official transcripts for all undergraduate and graduate work
- Statement of background and goals as it applies to the program
- Two letters of recommendation
- Resume

GRADUATION REQUIREMENTS

- Matriculated status
- Approved Plan of Study
- 27 course credits (18 credits from required courses (see M.S.), and 9 credits from elective courses; 6 of the 9 elective credits must be at the 6000 level from the School of Engineering or the School of Science).
- 3 credits for M.S. project
- Minimum 3.0 GPA; minimum 30 credits

PLAN OF STUDY (minimum 30 credit hours)

I. Required Courses (18 credits)

MTLE-6030	Advanced Thermodynamics (4 credits)
MTLE-6250	Advanced Mechanical Properties of Materials (4 credits)
MTLE-6060	Advanced Kinetics of Materials Reactions (3 credits)
MTLE-6120	Advanced Electronic Properties of Materials (3 credits)
MTLE-6460	Advanced Structure and Bonding in Materials (4 credits)

II. Elective Courses (9 credits)

1. _____
2. _____
3. _____

III. M.S. Projects (3 credits)

MTLE-6980	Master's Project
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