Master of Science in Materials Science

The Master of Science program in Materials Science provides students from a broad background of physical science and engineering disciplines with the opportunity to earn a master's degree in Materials Science. Students in the MS program will be required to take the full complement of Materials Science foundation courses being offered in a student's first year of the program (20 credits) and then additional, elective courses in their second year to complete the remaining credit requirements (30 total).

Thesis and non-thesis options are available to students.

Application Information

Admission decisions are determined by a holistic review of applicant's transcripts, personal statement, letters of recommendation, research experience, and strength of undergraduate background. There are no spring admissions.

The following criteria should be used as a guide to help you as you apply.

- Undergraduate GPA must be 3.0 or above on a 4.0-point scale.
- GRE scores are NOT required.
- Your personal statement should include your short-term academic goals and long-term professional goals and why the MS program is a good fit for you. Included in your statement, is any research experience as an undergraduate or working career and the names of 3 professors in the Materials Science program you would like to conduct research with and why.
- You do not need to contact faculty to apply or be accepted into the program.
- Review of applications begins in early January and continues until our class is full. Priority is given to early applicants.
- There is no financial support available for a first-year MS student in the program.

Thesis and non-thesis options are available to students.

Non-Thesis Option

30 total credits - 20 credits of required MTSI courses and 10 credits of electives (a professional paper option is available).

Required courses

Semester 1:

MTSI 500 (1 credit)

MTSI 501 (3 credits)

MTSI 511 (3 credits)

MTSI 551 (3 credits)

Semester 2:

MTSI 500 (1 credit)

MTSI 502 (3 credits)

MTSI 503 (3 credits)

MTSI 512 (3 credits)

Summer 1: (optional)

Discipline specific independent study (e.g. CHMY 592 (up to 3 credits))

Summer internship in private sector company or government lab.

Semester 3: Discipline specific graduate courses including but not limited to (choose up to 3)

NOTE: If a student selects the professional paper option, one course (3 credits) in either Semester 3 or Semester 4 must be XXX575, Professional Paper/Research Paper from the student's home department (e.g. PHSX 575, CHMY 575, EMEC 575) *and approved by the MTSI campus director for the program of study. This course will serve as the mechanism for writing a professional paper.*

Acceptable Electives

CHMY 557 (3 credits)

CHMY 558 (3 credits)

PHSX 441 (3 credits)

PHSX 444 (4 credits)

PHSX 461/506 (3/3 credits)

PHSX 531 (3 credits)

EELE 407 (3 credits)

EELE 482 (3 credits)

EELE 556 (3 credits)

EELE 556 (3 credits)

EELE 581 (3 credits)

EMAT 463 (3 credits)

EMAT 560 (3 credits)

EMEC 444 (3 credits)

Semester 4 (if necessary): Discipline specific graduate courses including but not limited to;

BIOB 524 (3 credits)

CHMY 515 (3 credits)

CHMY 564 (3 credits)

PHSX 446 (3 credits)

PHSX 535 (3 credits)

EELE 448 (3 credits)

EELE 505 (3 credits)

EELE 582 (3 credits)

EMAT 461 (3 credits)

EMAT 462 (3 credits)

EMAT 464 (3 credits)

EMAT 553 (3 credits)

EMEC 445 (3 credits)

EMEC 467 (3 credits)

Note: a MTSI-MS student can take no more than 9 credits of 400 level courses.

Thesis Option

30 total credits

Comprehensive Exam, Defense of Thesis, Formatting required.

*20 credits of required MTSI courses and 10 credits of Master's Thesis 590 from home department (*e.g. PHSX 590, CHMY 590, EMEC 590).

Semester 1:

MTSI 500 (1 credit)

MTSI 501 (3 credits)

MTSI 511 (3 credits)

MTSI 551 (3 credits)

Semester 2:

MTSI 500 (1 credit)

MTSI 502 (3 credits)

MTSI 503 (3 credits)

MTSI 512 (3 credits)

Semesters 3 and 4 - *Master's Thesis 590 from home department (*e.g. PHSX 590, CHMY 590, EMEC 590).