MASTER OF SCIENCE OR ENGINEERING IN

Mechanical Engineering

Rensselaer's Mechanical Engineering Master's program provides an educational experience that trains graduate engineers to address emerging needs in the areas of engineering computation and high performance computing, multi-scale modeling, mechanics of materials, heat transfer and energy conversion, microsystems including MEMS (micro-electro-mechanical systems), microfluidics, microscale energy transport, nanotechnology, computational dynamics, fluid mechanics, control and automation, design and manufacturing, and tribology. These are applied to a wide range of applications including the design and manufacturing of new materials, fuel cells, and biomedical devices.

To accommodate a student's career plans and interests in these areas, the master's program requirements are structured so that there is great flexibility in choosing appropriate courses while ensuring sufficient depth and breadth. Each graduate student has an adviser who has the knowledge to make suggestions of specific courses to further the student's educational goals.

ADMISSION REQUIREMENTS

- Bachelor of Science degree in engineering
- Undergraduate GPA of 3.0 or higher
- Grades of "B" or better in courses completed since bachelor's degree
- GRE required
- TOEFL score of 600 or above (required for international students)
- 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
- At least 18 credits must be at the 6000 level
- At least 21 credits from MANE
- Minimum 3.0 GPA; minimum 30 credits

PLAN OF STUDY (30 credit hours)

I. MANE Courses (21 credits) (M.Eng. only)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

II. Culminating Experience (6-9 credits)

The culminating experience may be fulfilled with one of the following options:

- An approved sequence of three integrated or related courses; at least two courses must be in MANE; only one 4000-level course accepted. One of the courses must involve a project or design experience which integrates or synthesizes knowledge from the other courses taken in the Master's program.
  OR
- A 6 credit project
  OR
- An internship/practicum - minimum of one summer/one semester full-time work in approved setting

III. Electives (0-9 credits)

1. _____

NOTE:

1. A maximum of 6 credits may be taken from outside of Engineering or Science; courses outside of Management are allowed only by pre-approval of a faculty adviser.
2. Students interested in applying for a research oriented M.S. degree should discuss details related to curriculum and graduation requirements with a faculty adviser.