Applicants and New Students

The following information has been assembled to assist you in understanding application requirements, the admission process, financial aid, and degree programs in the Department of Mechanical, Aerospace & Nuclear Engineering.

I. Application Requirements

**Graduate School Application:** The same application is used for financial aid applicants.

- **Statement of Background and Goals:** We are interested in a brief (500 words or less) description of what you would like to do in graduate school, your intended areas of specialization and research, your ultimate degree objectives, and any relevant background or experience. The addition of a resume aids in our evaluation.

- **Transcripts:** We are most interested in up-to-date transcripts from undergraduate (or other graduate) work in engineering or related fields. You may send copies initially, but official transcripts (or certified copies) will ultimately be required by the Graduate Admissions Office. The minimum required GPA is 3.0 on a 4.0 scale.

- **Letters of Recommendation:** We prefer letters from university professors or engineering supervisors who are familiar with your technical capabilities and potential for success in a graduate program. If you are completing Master's work at another university, a letter from your thesis/project adviser is strongly recommended.

- **Graduate Record Exam (GRE):** We require the GRE for full and part time graduate students. The requirement may be waived in exceptional circumstances. GRE scores are always required for students seeking financial aid and for international students. The scores of the Aptitude and any advanced tests are considered as part of the total application package. Officially, there is no minimum score required, however, we look for a score of at least 156 on the Verbal, at least 146 on the Quantitative, and at least 4.0 on the Analytic Writing. Students with other strong qualifications who miss these targets may still be considered. The most important aspects of your application are your academic record, letters of recommendation, and relevant experience.

- **Abstracts of Theses/Publications** (optional): These are welcome as part of the application package. PLEASE DO NOT send an entire thesis or lengthy reports; they will be discarded.

- **International Applicants:** International student applicants who have not studied for at least two years in the U.S., Canada, or the U.K. immediately prior to the planned semester of enrollment must submit a Test of English as a Foreign Language (TOEFL) record showing a score of at least 600. If
applicants have not earned a master’s degree requiring at least one year of study in the U.S., Canada, or U.K. the semester **immediately prior** to the planned semester of enrollment, TOEFL records are also required. Alternatively, an International English Language Testing System (IELTS) score may be submitted in place of the TOEFL with a minimum overall band score of 7.0 required.

**Notes for Rensselaer Graduates:** We require letters of recommendation and GRE scores. Transcripts will be obtained by the Graduate Admissions Office.

**Application Deadlines:** There are no deadlines for submission of applications for admission. International applicants who are seeking financial aid should visit the Office of Admissions website for specific dates and deadlines. Other applicants who are requesting financial support are encouraged to adhere to the same deadline to receive the fullest consideration.

## II. Application Review Process

When an application package is "complete" (Items 1-5 above), it is reviewed for admissibility to the graduate program by the Department Graduate Admissions Committee. For Fall (or Summer) applicants this review process begins in December; for Spring applicants it begins in August or September. An admission decision is based on an applicant’s record and his or her potential for success in the degree program. An applicant is either admitted, admitted with a condition (such as completion of background courses, or achieving a minimum grade point average in the first semester), or not admitted. Note that the Department makes a recommendation to the Graduate Admissions Office, which then makes the final decision.

A preliminary financial aid decision is also made at this time for applicants who are admitted. There are many more applicants for financial aid than there are available awards. Financial aid is based on a complete evaluation of your academic and non-academic achievements, letters of recommendations, etc. The possibilities are:

- **Decision Pending:** A decision will be made at a later date. We will compare all applications with similar research interests in light of available funds before reaching a decision. (Occasionally a financial award will be made simultaneously with an admission decision.)

- **No Aid Available:** Although a student is generally qualified to be considered for a financial award, sufficient funds will not be available to support the applicant.

- **No Aid Recommended:** An applicant is not sufficiently qualified to be considered for a financial award during the first year of study.

- **Not Applicable:** The applicant has not requested aid; therefore, no evaluation for a financial award will be made.
If no financial aid award is made for a given term, it is highly unlikely that aid will be forthcoming in later terms, unless there is a substantial change in the overall record. Applicants are discouraged from reapplying in successive terms in hopes of obtaining financial aid. The Graduate Admissions Office will notify all applicants regarding admission and preliminary aid decisions. Once the Notice of Intention to Enroll card is returned, the Department will contact the student regarding advising and preparations for registration. (Nonresident aliens must provide proof of financial support or a full Department financial award in order than an I-20 may be issued.)

III. Financial Aid

Several types of financial support are available to graduate students:

• **Graduate Assistantship-Research:** This consists of a 9-month stipend and payment for up to 15 credit hours tuition per semester. The student works under direct supervision of a faculty member, usually on a funded research grant or contract. Workload is nominally 20 hr/wk, and usually the assigned activities are directly related to or are a part of the student’s research for the degree. Stipends are about $18,500 per academic year (2013-2014) depending on the student’s standing and available funds. Typically, such awards occur after a period of collaboration with a given professor, rather than upon enrolling.

• **Graduate Assistantship-Teaching:** This consists of a 9-month stipend (approximately the same as Graduate Assistantship-Research) and payment for up to 12-15 credit hours per semester. Assignments of up to 20 hr/wk range from grading to running problem sessions to running laboratories, mostly for undergraduate course work, but include no classroom teaching.

• **Fellowships:** A limited number of Rensselaer Scholar Fellowships are available on an Institute-wide competitive basis. These awards are extremely competitive. The Department will submit the files of eligible applicants to the Fellowship Committee. Rensselaer Scholar Fellowships are not renewable. However, a Graduate Assistantship will normally be made available to students continuing their study beyond one year. Occasionally, a special category fellowship will become available for a student with a particular background and area of study. The Department will make award selections from eligible candidates.

• **Summer Support:** Full- or part-time support for work done in the summer depends on the availability of research funds. Faculty members with funded grants or contracts normally make their own selections of students to work in the summer. Each student is responsible for securing his or her own summer support by contacting the appropriate faculty member. Teaching assistantships during summer sessions are extremely limited, since there are not many courses offered.

Financial aid decisions are made beginning in March for Fall applicants and October for Spring applicants. A reasonable time limit for acceptance will be imposed; however, no acceptance for Fall applicants will be required before April 15. If we are unable to make a financial award by April 15 (Fall
applicants), we will hold all pending files of applicants seeking financial aid for any positions which may become open during the summer, in which case we will notify the student immediately. Financial aid slots open up during the academic year as grants are awarded, current students with aid graduate or withdraw, etc. Such financial aid is likely to go to a currently enrolled student who has attained academic success in course work and research.

IV. Degree Programs

The Department offers three degrees (M.S., M.Eng., and Ph.D.). Only minimal consideration is given to an applicant's curriculum choice ("Intended Program" on the application form) when admission and financial aid decisions are made. Once a student is admitted to the Department, the choice of curriculum is largely a matter between the student and his or her advisor, and changes are very easy to accommodate. There is a requirement that full-time students attend a number of Graduate Seminars, as described on the information sheet entitled Colloquia Guidelines.