SUMMARY OF RULES AND POLICIES
FOR THE
MASTER OF ENGINEERING DEGREE

COLLEGE OF ENGINEERING
CORNELL UNIVERSITY

ITHACA, NEW YORK

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(Comment: last version of Financial Aid Policy approved by the GPPC with draft of rules on February 5, 1992; changes may be made by the GPPC/MEC any time and are internal program decisions as long as the College of Engineering legislation and the Graduate School Agreement are not violated.)

Master of Engineering Committee Rules and Policies

(Revised May 11, 2011)
INTRODUCTION

This report is a summary of the Rules and Policies for the professional degree, Master of Engineering, at Cornell University effective for students enrolled after March 30, 1992. The history of the development of these rules and policies is documented in the “Master of Engineering Rules and Policies History” folder kept in the Master of Engineering Office. These rules and policies cover the one-year graduate professional program leading to Master of Engineering degrees in the following fields of study:

1. Aerospace Engineering
2. Biological and Environmental Engineering
3. Biomedical Engineering
4. Chemical Engineering
5. Civil and Environmental Engineering
6. Computer Science
7. Electrical and Computer Engineering
8. Engineering Management
10. Engineering Physics
11. Geological Sciences
12. Materials Science and Engineering
13. Mechanical Engineering
14. Operations Research and Information Engineering
15. Systems Engineering


In the following, policies, which are derived from the Graduate School Agreement, are noted with the letter (A) and policies that are derived from the College Legislation are noted with the letter (L). All others are policies of the Master of Engineering Committee (MEC) as the administrative and judicial board of the Engineering Division of the Graduate School (definition in: “Code of Legislation of the Graduate Faculty,” 1968).

I. ADMISSION

A. General:

1. An applicant shall become a candidate for a Master of Engineering degree upon matriculation in the Graduate School. An applicant is regarded as an M.Eng. student upon matriculation into an M.Eng. field program. Enrollment occurs upon the student's registration. The distinction between candidate and student is to account for distinction between students entering the program before the receipt of a baccalaureate degree (Early Admit Program).

2. All applicants must have demonstrated interest in and capability for professional engineering work.

3. The applicant's preparation must be in a field of engineering or science deemed appropriate for his proposed course of study.(A)

4. Conditional Admission: An applicant may be admitted conditionally with specific requirements to be satisfied prior to enrollment.
5. **Provisional Admission:** An applicant whose ability to succeed in the program of study is questionable may be admitted as a provisional candidate for one term. If the work during this term is satisfactory (see II.A.1), the provisional candidate will be admitted to full candidacy; if the work is not satisfactory, the provisional candidate may be dropped from the program.

6. Applicants may be admitted to candidacy in a field of study if they already hold a graduate degree in that field, subject to the requirements of III.B.9.

### B. Cornell Undergraduates:

1. The admission standards are to be such as to admit a majority of a typical fourth-year Engineering or Science class.

2. The policy for admission of Cornell undergraduates is:
   
   (a) Subject to approval by the field, to admit a student whose cumulative grade-point average is 2.70 or higher provided his/her grade point average for none of his/her three most recent terms is below 2.50.
   
   (b) To admit other students after review and approval by the Master of Engineering Committee (MEC).
   
   (c) To deny admission to a student whose cumulative grade-point average is below 2.00.

3. Policy for Recommendation and Graduate Record Examinations for Cornell Students
   
   (a) For those applying while enrolled in a Cornell undergraduate program, one letter of recommendation is required. Graduate Record Examinations may be requested at the discretion of the field.
   
   (b) For those no longer enrolled in a Cornell undergraduate program, two letters of recommendation must be submitted. It is recommended that these applicants take and submit the results of the Graduate Record Examination aptitude tests.

4. The applicant, by the time of enrollment into the M.Eng. Program, must have a baccalaureate degree or its equivalent from a college or university of recognized standing. (A,L) An exception to this policy pertains to applicants who are Cornell students who will apply between one to eight credit hours to complete their baccalaureate degree at the time of enrollment in the M. Eng. Program. These students may be granted early admission to candidacy. Such a student is defined as an "Early Admit Student." Requirements are:
   
   (a) Identification of the courses to be applied to the undergraduate program. These courses must be in addition to the 30 credit hours for the Master of Engineering degree.
   
   (b) Completion of one full-time semester while registered in the Graduate School.
   
   (c) Completion of the baccalaureate degree prior to conferral of the Master of Engineering degree.
   
   (d) One semester of Early Admit status is allowed, a second semester is allowed only by petition to the MEC.

### C. Other Applicants:

1. The requirements for admission are generally the same as for admission to candidacy for the general degrees of the Graduate School. (A)

2. The applicants, as judged by their academic and other records, must show promise of ability to pursue graduate study satisfactorily. (A,L) Normally applicants shall have been in the upper one-third of their undergraduate classes.
3. Two letters of recommendation must be submitted.

4. All applicants are encouraged to submit the results of the Graduate Record Examination aptitude tests as an aid in the admission process. Applicants with non-US college degrees must submit the results of the Graduate Record Examination aptitude tests unless waived by the field.

5. Applicants whose native language is not English must take the TOEFL and have the official score reported to Cornell from the Educational Testing Service (ETS). Only students who have studied for two or more years at a college or university where English is the language of instruction located in a country where English is the native language are exempt from the TOEFL.

The Graduate School's minimum TOEFL requirements are as follows. Please note, however, that fields may require higher minimum scores. Check the catalog listing for details on requirements for your proposed field of study.

- Computer-based test (CBT) prior to September 1, 2005: 213
- IBT test (replaced CBT) after September 1, 2005: 20 Writing, 15 Listening, 20 Reading, 22 Speaking. (The Graduate School will reevaluate minimum IBT score requirements for Fall '07 applications.)

International students who have an IBT TOEFL below 105 (cumulative) or a CBT score below 250 will be required to take the Cornell English placement test during orientation.

6. Applicants may be admitted with minor undergraduate subject matter deficiencies. These may be made up during their graduate terms at Cornell, but such courses will not be considered for credit for the Master of Engineering degree.

D. Responsibility for Admission:

1. Admission to candidacy is a function of the Engineering Division of the Graduate School. The MEC delegates authority for admission to the fields to the extent that applicants are approved by the appropriate field and letters of admission to applicants must preface the action with the phrase “On behalf of the Master of Engineering Committee…”

2. In cases where the applicants qualifications fall outside the criteria outlined under sections I.A. – I.C. the field must petition the MEC for approval before a notification of acceptance is sent to the applicant. The MEC may not admit an applicant against the recommendation of the field.

II. ACADEMIC STANDARDS

A. Good Standing:

1. A grade-point average of 2.50 or above is required for all Cornell courses which count for credit towards the degree. In addition, a grade equivalent to 2.50 or above is required for each course transferred from outside of Cornell which counts for credit towards the degree. (L) Except under clearly established extenuating circumstances, credit toward the Master of Engineering degree will not be awarded for any course in which the candidate received a grade below C-. (L) Additional criteria for completing degree requirements may be established by the field.
2. It is the responsibility of the field to determine if a candidate is in good standing. Additional criteria for good standing may be established by the field. A candidate not in good standing is subject to field action and possible review by the MEC.

3. A candidate may appeal in writing to the MEC any decision or action relating to academic standards taken within or by the field. (L)

B. Completion of Degree Requirements:

1. A grade-point average of not less than 2.50 is required for all courses which count for credit towards the degree (noting that this includes courses transferred from outside of Cornell). (L) Except under clearly established extenuating circumstances, credit toward the Master of Engineering degree will not be awarded for any course in which the candidate received a grade below C-. (L) Additional criteria for completing degree requirements may be established by the field.

2. The field must certify in writing to the Graduate School that a candidate has completed all degree requirements in that field.

3. A candidate may petition the MEC in writing to review a field’s refusal to certify completion of degree requirements. The MEC must act in a timely manner on such a petition.

III. DEGREE REQUIREMENTS

A. A student must complete satisfactorily field approved curricula and must have an advisor in their field of study.

B. General Curricula Requirements:

1. Each curriculum must include a minimum of 30 allowable credit hours of which at least 21 credits must be from Cornell. (A, L)

2. The 30 allowable credit hours must be technical. The definition of “technical” for a field is the responsibility of the faculty of that field.

3. At least 21 of the allowable credit hours must be in the field and related areas. Whether or not a course meets this requirement is to be determined by the field faculty.

4. A minimum of three allowable credit hours of engineering design experience involving individual effort is required. A formal written report is required. (A)

5. Neither credits for design work completed before enrollment into the program nor credits for equivalent professional experiences are allowed. (A)

6. Previous suitable engineering or industrial experience may be substituted by the field for the design requirement, but this does not reduce the required 30 credit hours of course work.

7. A maximum of two credit hours graded on an S/U basis, such as seminars or their equivalent, may be included provided they are participatory in nature.
8. The program of study in the candidate’s field must be beyond that required in the field’s four-year baccalaureate program or the four-year B.S. program from which the candidate is a graduate. (A, L)

9. Not all courses counting toward the professional degree need be graduate courses. A field may accept upper-level undergraduate courses in subject areas in which the candidate has done little or no prior study, if, with the approval of the field, such courses meet the educational objectives of the candidate. A field may also accept upper-level undergraduate courses in subject areas where a student has prior study providing there is no substantial overlap of coursework.

10. Courses covering subject matter previously taken may not be repeated for credit.

C. Course Work:

1. Credit will not be allowed for any course counted towards another degree at Cornell or elsewhere. (A)

2. All Cornell credits must be under the supervision of a Cornell faculty member. (A, L)

3. Any student transferring from another graduate program at Cornell into the Master of Engineering program may be admitted, but must register for and complete a minimum of 12 of the 30 required credit hours after application to the program. In extraordinary circumstances, candidates may petition the MEC for waiver of this requirement.

4. Up to nine credits may be transferred with approval of the field involved. Credits may come from outside Cornell or any of Cornell’s colleges and divisions including the Division of Extramural Studies. The following rules apply with respect to transfer credit:
   (a) The candidate must provide documentation, deemed satisfactory by the field, for course eligibility based on the course syllabus and materials.
   (b) It is the responsibility of the student to provide written documentation deemed satisfactory by the Engineering Registrar certifying that the proposed transfer credits have not been counted towards another degree or transcript notation (e.g. a minor, certificate, or special designation).
   (c) Any upper-level undergraduate course credits transferred from outside of Cornell must be reported by each field to MEC annually at the beginning of the fall term. (No lower-level undergraduate course credits may count toward the Master of Engineering degree.)
   (d) If the credits to be transferred have been earned prior to enrollment, the fields must approve them within three weeks of enrollment.
   (e) If the credits to be transferred are earned from outside Cornell and after enrollment, pre-approval of the transfer eligibility is required by the field.

5. Decisions of the fields concerning the denial of transfer credits are final and may not be appealed to the MEC.

6. No more than four calendar years may intervene between the time of enrollment and completion of all degree requirements. This limit may be extended by petition to the MEC to a maximum of seven years.

7. All students shall register for and pay full tuition for a minimum of one semester or equivalent in the Graduate School. Cornell University employees and candidates in Employee Degree Program or Industrial Partnership Program (IPP) are exempt from this rule.

8. Students shall not register for more than 20 credit-equivalent hours per semester except by petition to the MEC.
IV. ADMINISTRATION

A. Master of Engineering Committee:

1. The MEC is the administrative and judicial board of the Engineering Division of the Graduate School.

2. The MEC has the power of granting exceptions to specific College Legislation if in its judgment such action is in accordance with fundamental educational principles of the Engineering Division of the Graduate School.

3. Authority is delegated by the MEC to the curriculum committees of the individual M.Eng. fields for the purpose of specifying and implementing details of their own curricula subject to provisions stated in Section III, "Degree Requirements."

4. All proposals for the establishment of new graduate professional fields must be addressed to the Policy Committee of the College of Engineering which shall review the proposal and present its recommendation to the Engineering Division of the Graduate School. The Graduate School is responsible for further review and submission to the State Education Department.

5. The MEC is composed of one member from each field which offers a Master's of Engineering degree, elected by the faculty for that field. The term of membership is three years.

6. The Chairman of the MEC is a faculty member appointed by the Dean of Engineering for limited tenure, serving at the Dean's pleasure.

B. Financial Aid:

1. The objectives of the Master of Engineering financial aid program are:
   (a) to reinforce the academic quality of the M. Eng. program by merit-based aid administered by the MEC.
   (b) to provide discretionary funds for student support to each field, on the basis of enrollment, to be used for need and merit based awards,
   (c) to protect and encourage small fields by a minimum discretionary allocation to each field, and
   (d) to increase the participation of qualified students from underrepresented groups.

2. A financial aid subcommittee is appointed by the Chair of the MEC. The Chair of the MEC is an ex-officio member of the subcommittee. The subcommittee recommends financial aid policies and awards to the MEC. Awards not arising from discretionary field funds are made by the MEC.

3. The financial-aid procedures of the MEC appear in Appendix A.

C. Changes of Rules and Policies:

1. Amendments to these Rules and Policies may be adopted at a regular meeting of the MEC provided:
   (a) that such changes are in accordance with the agreements between the Graduate School and the College of Engineering,
(b) that the proposed amendment has been submitted in writing to the voting members of the MEC at least three weeks prior to the vote, and 
(c) opportunity has been given for discussion of the amendments at two prior meetings of the MEC.

2. All changes in these Rules and Policies shall require the approval of a two-thirds vote to the MEC.

V. HISTORY

A. The Graduate Professional Programs Committee was established in the College of Engineering Faculty in December 1964

B. Summary of Rules Policies of the Graduate Professional Programs Committee:

1. Approved by the GPPC in May 1982
2. Revised and approved the GPPC in April 1998
3. Revised and approved by the GPPC/MEC on March 30, 1992
4. Altered and approved by the Engineering Faculty on May 10, 1993
5. Approved by the MEC on May 9, 2001
6. Approved by the MEC on December 9, 2005
7. Approved by the MEC on December 8, 2010
FINANCIAL AID PROCEDURES ADOPTED BY THE MEC ON February 5, 1992

STUDENT INFORMATION

1) All accepted Master of Engineering applicants should receive, information on of financial aid, including:
   i) merit-based fellowships
   ii) merit-and need-based teaching assistantships
   iii) need-based fellowships (if available)
   iv) loans
   v) Master of Engineering internships (if available)

2) Information on financial aid should be provided by the Office of Research and Graduate Studies.

3) The Master of Engineering admission form should be designed to be compatible with all forms of financial aid.

AWARDS

4) Master of Engineering program funds shall be awarded only to Master of Engineering students. These awards may consist of:
   i) a Master of Engineering Graduate Teaching Research Specialist (GTRS)- (currently taxable),
   ii) another assistantship (currently taxable) such as research assistant or grader,
   iii) a field or MEC fellowship (currently non-taxable), or
   iv) a combination of the above, not to exceed the total cost of attendance.

5) The Master of Engineering Graduate Teaching Research Specialist obligation must be educationally suitable and may not require more than eight hours per week of each semester in accordance with Graduate School policy.
   The uniform stipend for all Master of Engineering Graduate Teaching Research Specialist shall be one half of the amount (excluding tuition waiver) awarded to full-time, first year, MS/Ph.D. Teaching Assistants in the College of Engineering. This pay level reflects both the maximum amount that a Master of Engineering student may be paid in return for services rendered and the maximum time obligation that can be expected of the students.

   Other assistantships are awarded at the discretion of the fields. The award amounts can be variable, but cannot exceed those of TAs as mentioned above. Examples of other assistantships include laboratory assistants, graders, and research aides.

6) MEC fellowships are awarded by the MEC on recommendation of the Financial Aid subcommittee as described in item 8.

   Field fellowships are awarded at the discretion of each field. Fellowship awards can be given in combination with assistantships. If a field wishes to provide financial assistance to a student in excess of the M. Eng. GTRS amount, all supplementary funding must be in the form of a fellowship. The award letters should explicitly spell out the dollar amounts in each of the two categories, assistantships (for which work is required) and fellowships (for which work cannot be required).

   Graduate tuition fellowships can not be awarded to early admit students.
7) Financial aid award letters should clearly state that the package outlined is the total package offered by the Program, and that Fellowship aid will be credited each semester to the student’s bursar account.

**ALLOCATION OF UNDESIGNATED AND DESIGNATED FUNDS**

8) Approximately 20 percent of undesignated funds will be allocated on an annual basis to fellowships of at least $20,000 (approximately six) to the top Master of Engineering candidates*. Such fellowships will be recommended by the Financial Aid Subcommittee. The subcommittee will review written nominations from each field. Fellowships offers must be accepted by April 15th. Unaccepted fellowship funds may be offered to those students on the fellowship waiting list.

9) Each field will be given a base allotment of funds equivalent to one Master of Engineering Teaching Assistant (equal to \( \frac{1}{2} \) the Graduate School amount for a full time MS/Ph.D. stipend excluding tuition waiver). Fields that fail to enroll students for the academic year will be required to return allocated funds to the college. Such returned funds will be made available to the other fields as supplemental undesignated funds.

10) Funds designated to a specific field by any donor or controlling agent are to be allocated within the field’s total allocation. An exception will be made in cases where the additional funding results from field’s efforts.

11) All undesignated funds will be distributed on a proportional (over base allocation) basis as field discretionary funds to be used for Master of Engineering student financial aid support. The MEC will allocate program funds based on the number of enrolled students in the field during the previous two years.

**ADMINISTRATION**

12) Each MEC representative is charged with budgeting his/her program’s discretionary funds. Funds are to be allocated according to field determined methodologies. Fields are responsible for any awards made in excess of their allocation. Waiting lists should be used as appropriate to avoid over-commitment.

13) Any discretionary program funds not committed at the end of the academic year shall revert to the MEC Financial Aid fund for allocation in the next academic year. Fields may carryover to the next year any designated monies up to the amount of one full tuition.

14) Each field will be asked to report the use of all Cornell funds including field discretionary funds each semester, within one week of frozen-file registration information being distributed to the fields.

15) The financial aid subcommittee should prepare, and distribute to the MEC, an annual summary report of all student financial aid distributed to M. Eng. students from all sources.

16) Authority is delegated to the M.Eng Office of Research and Graduate Studies to plan the allocation of all new unrestricted funds and administer the allocation of restricted funds according to donor wishes.

*Note: This change was recommended by the Finance Subcommittee at the May 13, 2009 MEC meeting.*