

Academic Information and Regulations

Each student is expected to be familiar with the academic regulations of the university and the particular requirements for his or her educational program. The student has sole responsibility for complying with regulations and meeting degree requirements as set forth in this catalog and as amended from time to time.

General academic standards and regulations are set forth below, followed by the university requirements for degrees. Students should also consult the current edition of *The Rensselaer Handbook of Student Rights and Responsibilities*, which explains disciplinary regulations and related matters. This handbook is available from the Office of the Dean of Students.

Exceptions may be granted to the undergraduate academic regulations when circumstances suggest this to be in the best interest of the student's educational objectives. Such requests are handled individually, and students should first consult with their faculty advisers about the correct procedure. The Advising & Learning Assistance Center approves exceptions for undergraduates. In only the most compelling circumstances will exceptions be made to the graduate academic regulations. After consulting with their academic adviser, graduate students can seek exceptions at the Office of Graduate Education.



Registration

Before the end of each semester, all students enroll for courses for the next semester. With the help of a program adviser or by using a Plan of Study, specific required and elective courses are selected, and this information is submitted to the registrar. Registration procedures are in the *Class Hour Schedule*, which is available on-line at <http://sis.rpi.edu> or from the Registrar's Office.

Courses with insufficient registration will be canceled. Students affected will be notified so that they can select another course. The university reserves the right to cancel or not offer any course listed in the *Rensselaer Catalog*.

School Ombudspersons

Architecture

Frances Bronet, Greene 210B

276-6866, fax 276-3034, e-mail: bronef@rpi.edu

or Mark Mistur, Greene 302, 276-6868, e-mail: mistum@rpi.edu

Engineering

Dean's office, JEC 3018

276-6620, fax 276-4860

Humanities and Social Sciences

Elizabeth Large, Sage 5208

276-2576, fax 276-4871, e-mail: largee@rpi.edu

Management and Technology

Robert Sands, Pittsburgh 3202
276-6585, fax 276-2665, e-mail: sandsr@rpi.edu

Science
Samuel Wait, SC 1C05
276-6305, fax 276-2825, e-mail: waitsc@rpi.edu

Times for Registration

All full-time continuing students must register during the period specified each semester by the registrar. New, part-time, or readmitted students must register before the first day of classes. An undergraduate may not register for a semester after the tenth class day of the term. Graduate students may not register after the tenth class day of the term.

Waivers to the above deadlines are not normally given unless circumstances beyond the student's control prohibit complying with the deadlines. Undergraduates wishing to register after the deadline must have a signed waiver from the director of the Advising and Learning Assistance Center. Graduate students may be granted a waiver from the Office of Graduate Education. Students granted a waiver must pay late fines and file specified forms with the registrar. Students will not be permitted to register after the start of the fifth week of classes except in extraordinary circumstances.

An off-campus student may register for Independent Study, Thesis, or Research by writing to the department chair or adviser prior to the end of the Add Period. The chair or adviser will arrange for the registrar to register the student.

A student's registration is not complete until he or she has paid or arranged for payment of university fees. If special arrangements for payment are necessary, they should be made through the Bursar's Office. Every full-time student entering Rensselaer must submit a medical history and record of physical examination on a form provided by Rensselaer. A student's registration is not complete until this form is submitted.

Late Registration Fees

Full-time continuing students who miss registration must pay \$50 and register before the first day of classes each term. All students who fail to register before the start of classes will be charged \$25 to cover additional processing costs. For full-time continuing students, this charge is added to the \$50 fee. Students must pay late registration fees prior to registering.

Cross-Registration at Consortium Colleges

It is possible to register for courses, at no additional tuition charge, at 21 other colleges and universities in the Capital Region, all members of the Hudson Mohawk Association of Colleges and Universities:

In addition to Rensselaer, consortium members include:

Adirondack Community College
Albany College of Pharmacy
Albany Law School
Albany Medical College
The College of Saint Rose
Empire State College
Fulton Montgomery Community College
Graduate College of Union University
Hartwick College
Hudson Valley Community College
Maria College

Massachusetts College of Liberal Arts
Excelsior College
The Sage Colleges
Schenectady County Community College
Siena College
Skidmore College
SUNY Cobleskill
University at Albany
Union College

Courses taken at one of the consortium colleges are entered on the student's record in the same manner as courses taken at Rensselaer and thus carry term and cumulative hours and grade points. Students must be full-time and no more than half of a student's academic credits may be taken at a consortium college in any semester. Students can not cross register for courses offered at Rensselaer.

For graduate students, prior to enrolling in a course taught at a consortium college, the course should appear on an approved Plan of Study. The Office of Graduate Education reserves the right not to accept the course toward a degree program if it was not listed on an approved Plan of Study.

Cost for courses taken at one of these colleges is covered by the tuition charge at Rensselaer and subject to the same regulations that apply for courses taken at Rensselaer. Such courses may be taken on the Pass/No Credit option and may be added or dropped in accordance with the policy in effect at Rensselaer. The Pass/No Credit option is not available to graduate students. When the other college is on a calendar year that differs from Rensselaer's, time adjustments for adding or dropping courses or placing courses on Pass/No Credit will have to be made. The student taking such courses is responsible for learning the last date for such changes. This information may be obtained from the registrar.

The general regulations governing the interchange of students and other forms and information concerning the program are available at the Registrar's Office.

Auditing

Auditing is attending a course without credit. Participation in recitations or discussions (or the requirement of such participation) is at the discretion of the instructor. Auditors must register after classes begin, but before the end of the second week of classes, and may not register for credit in the audited course later in the term. They may, however, register in a later term for this course on a credit hour basis. A permanent record will be maintained for the audit. The only grade given for the audited course is "AU" (Audit). Full-time matriculating Rensselaer students can audit up to three courses per semester on a nonfee basis with the permission of their adviser and the course instructor. Rensselaer students must be full-time for the summer term in order to be eligible to audit on a nonfee basis. The spouse of a full-time teaching assistant, research assistant, or fellowship recipient may audit one course per semester at no cost. All other persons, if granted auditing privileges, will be charged the regular credit hour fees for the course.

Program Adjustments (Drop/Add)

All Students Specific regulations are given below for undergraduate and graduate students. The following apply to all students.

Dropping or adding courses is done via Rensselaer's Web registration system. Detailed instructions are available in the *Class Hour Schedule*.

Responsibility for dropping or adding courses prior to the deadline rests entirely with the student. Failure to fulfill the responsibility because of an oversight, ignorance, or possibility of low grades is not sufficient grounds to petition for permission to drop or add a course after the deadline. It is the policy of the Institute that no petitions be accepted for the retroactive dropping or adding of a course except under extenuating circumstances beyond the student's control.

No credit will be given for a course in which the student is not properly registered. Failure to attend a class for which a student is registered or unofficial notification to the instructor does not constitute dropping a course and will result in an Administrative "F" ("FA" grade).

Undergraduate Students The following additional regulations apply to program adjustments:

- n Undergraduates may add a course any time during the first ten class days of a semester.
- n A student may change sections of a course any time during the first two weeks of the semester.
- n A student may drop a course any time during the first eight weeks of the semester.
- n If a full-time undergraduate student is taking less than 12 credit hours, the director of the Advising and Learning Assistance Center must approve.
- n During the summer sessions, courses may be added during the first week of each session. Courses may be dropped any time before the end of the third week of classes.

Only the Academic Standing Committee via the director of the Advising and Learning Assistance Center can make exceptions to the drop/add rules. Students wishing exceptions must petition with supporting documents from parties involved, such as instructors, adviser, or medical director.

Students who have approval to drop a course after the eighth week of classes will receive a grade of “W” in the course.

Under no circumstances will a student be permitted to register after the start of the last week of classes for the term.

Full tuition is charged after the fifth week of classes and prorated for courses dropped prior to the fifth week of the semester for students withdrawing from the university.

Graduate Students The following additional regulations apply to program adjustments:

- n Tuition charges for part-time students are based on the number of credits a student is enrolled in at the end of the fifth week of the term independent of any further late drops. Any additions made after the fifth week result in additional tuition charges. Tuition for part-time students is charged on a per-credit-hour basis.
- n When program adjustments are made, the student’s Plan of Study should be updated accordingly.
- n During the summer sessions, courses may be added during the first week of each session. Courses may be dropped any time before the end of the third week of classes.
- n Graduate students may add a course any time during the first ten class days of a semester.
- n A student may change sections of a course any time during the first two weeks of a semester.
- n A student may drop a course during the first eight weeks of the semester.
- n A graduate student must take at least 12 credit hours each term to be considered a full-time student unless employed as a teaching assistant, in which case a minimum of 9 credits is allowed. Full-time graduate students must maintain full-time status at all times throughout their graduate career.
- n Graduate students receiving a summer stipend and students intending to graduate in the summer must register for the summer semester.

Only the Office of Graduate Education can make exceptions to the drop/add rules. Students wishing exceptions must petition with supporting documents from parties involved, such as instructors, adviser, or medical director.

Students who have the approval of the Office of Graduate Education to drop a course after the eighth week of classes will be given a grade of “W” in the course.

Academic Load

Undergraduate The normal academic load for undergraduates is 14 to 18 credit hours. An undergraduate whose program exceeds 21 credit hours must secure the written permission of his or her adviser. An undergraduate whose program is less than 12 credit hours must secure the written permission of his or her adviser and the director of the Advising and Learning Assistance Center.

The minimum requirement for a full-time undergraduate is 12 credit hours. An undergraduate student

whose program is reduced to fewer than 12 credit hours in any semester may continue at Rensselaer only on the recommendation of the Committee on Academic Standing. The student must petition the committee for such recommendation.

Graduate The full-time load for a graduate student normally is 12 to 15 credit hours each term. A student who wishes to register for more than 15 credit hours must have the permission of his or her department and the approval of the Office of Graduate Education. A full-time student may register for as many as 12 credit hours during the summer, at the rate of six credit hours for each of two summer terms, with the permission of the adviser and the chairperson of the department. Summer tuition is charged at \$1,320 per credit hour for full-time students.

Graduate Teaching Assistants Graduate teaching assistants are not required to take more than 9 credits per semester. However, at their own discretion and with Department Chairperson and Office of Graduate Education approval, graduate assistants may take up to 15 credits per semester for the following reasons:

n 3 additional credits assigned to a research project for thesis.

n 3 additional course credits added to meet a specific academic objective.

Rensselaer Staff The maximum study load for a full-time member of the Rensselaer staff is eight credit hours per term. This includes all courses taken for credit, whether undergraduate or graduate. Requests from staff members to register for graduate research beyond the maximum study load are decided by the student's department and the Office of Graduate Education.

Advisers

A faculty adviser is assigned to each student to assist in academic program planning toward a sound plan of study. Accordingly, the adviser's signature is usually required on Pass/No Credit forms, thesis registration forms, and related forms. Students should contact their advisers on any matters pertaining to their educational programs. The Advising and Learning Assistance Center, the academic department, and the Office of Graduate Education are also available for consultation.

Undergraduate Curricula and Courses of Instruction

To ensure that all plans of study are educationally coherent and satisfy degree requirements, a curriculum has been constructed for each field in which the baccalaureate degree is offered. These curricula consist of required courses, recommended courses, course options, and electives. These curricula are outlined in the section of this catalog describing individual schools and departments.

Course Listing

Course descriptions can be seen in the Course Description section. Courses offered for undergraduate academic credit are those at the 1000-4000 levels. Higher-level numbers indicate courses designed primarily for graduate students.

Substitutions for Required Courses

Substitutions for required courses are permitted only with the approval of the heads of the departments concerned and the dean of the school or a designated representative. Where substitutions are granted, written notice must be filed with the registrar.

Undergraduates Taking Graduate Courses

Undergraduates may not ordinarily take graduate courses, unless they have already been accepted for graduate study by either the Professional School or the Office of Graduate Education. Exceptions will be considered on an individual basis. An undergraduate wishing to take a graduate course must submit to

the Office of Graduate Education a Request to Take a Graduate Course form (available online and at the Office of Graduate Education) that has been signed by his/her adviser and the instructor in charge of the course. Normally the Office of Graduate Education will not approve such a request unless the student meets the requirements for graduate admission. Generally this means that the student should be a senior with a grade point average of at least 3.0. The Office of Graduate Education reserves the right to cancel the registration of an undergraduate in a graduate course if the student has not received approval to take the course. No tuition refund will be given. Courses taken at the 6000 level must be taken on a letter grade basis; they may not be taken under the Pass/No Credit option.

Undergraduates admitted to the Professional Program of the School of Engineering may have to take certain graduate courses and may elect other such courses with the adviser's approval.

Curriculum Changes

Because life and growth are synonymous with change, the university continuously reevaluates its educational programs and procedures. This means that no curriculum is static, and the listings in this catalog are subject to modification. The entering student, therefore, is advised to keep abreast of his or her curriculum requirements.

An undergraduate student regularly admitted to the university is entitled to transfer from one curriculum to another, subject to the adequacy of related course work and availability of space. In certain curricula, such as the accelerated biomedical program and the management-law program, transfer possibilities are limited.

To make such a change, the student must complete a Change of Curriculum form available from the Registrar's Office. Those students on academic probation or needing more advice will be referred to the department chair to which the transfer is requested.

Bachelor's Degree

The bachelor's degree is awarded to students who have pursued successfully, as evaluated by the faculty, a plan of study that encompasses several disciplines. Each plan of study has at least two objectives: first, to reach a preprofessional standing or fundamental mastery in a selected discipline; second, to develop some grounding in knowledge found in liberally educated persons, an appreciation of technology and science, and an openness to ongoing learning.

The requirements of each baccalaureate program are outlined as follows:

- n The number of courses and credit hours is prescribed by each curriculum. Minimum requirements are 124 credit hours for science and for humanities and social sciences majors, 124 for management, 128 for engineering and 126 for the Bachelor of Science (Building Sciences) degree in the School of Architecture, and 168 for the professional degree in the School of Architecture.
- n The minimum grade point average (GPA) is 1.80.
- n To receive a baccalaureate degree, a student must have been admitted to the curriculum corresponding to the degree, must have satisfied the curriculum requirements, and must be enrolled in that curriculum at the time the degree is granted.
- n The course content in physical, life, and engineering sciences must total a minimum of 24 credit hours, including at least eight credit hours of mathematics. For information on additional requirements see the School of Science section of this catalog.
- n The course content in humanities and social sciences must total a minimum of 24 credit hours, including at least eight credit hours in the humanities and eight credit hours in the social sciences. For information on additional requirements see the School of Humanities and Social Sciences section of this catalog.

- n Every student is required to successfully complete a writing course or a writing intensive course for a grade. Students can also satisfy this requirement with an AP English score of at least four, an SAT verbal score of at least 670, or a transfer course meeting Institute requirements for a writing intensive course. Students with an SAT score less than 610 are strongly advised to satisfy this requirement by taking a writing course.
- n The minimum course concentration in the area of the selected discipline is prescribed by each curriculum but cannot be less than 30 credit hours.
- n At least 24 credit hours are to be elective, of which no less than 12 credit hours are unrestricted electives.
- n The student must be registered full-time for a minimum of four semesters. Two semesters of part-time study at Rensselaer will be considered equivalent to one semester of full-time study. In addition, the student must complete a minimum of 48 credit hours at Rensselaer, all of which will be applied to the baccalaureate degree. If a transfer student elects to study abroad or enroll in the co-op program, no more than 12 such credits may apply to the 48 needed for the bachelor's degree. The student's plan of study at Rensselaer must include at least 16 credits of courses above the 1000 level in the major field, or in an approved concentration.

The Institute requires a degree candidate to earn the last 30 credits in courses completed on this campus or through a program formally recognized by the Institute. Transfer courses are limited to two courses or eight credits counting toward the student's last 30 credits and require approval of the director of the Advising and Learning Assistance Center.

Baccalaureate candidates must have passed all of the prescribed academic work and have satisfied the fee requirements. Candidates must also be in good academic and disciplinary standing. Undergraduate students on probation at the time of completion of course work may be required to meet certain stipulations for removal from probation. However, such requirements may be waived for those students whose cumulative GPAs satisfy the baccalaureate degree requirements. In general, a term's work with grades of not less than C will be required in programs arranged by the Committee on Academic Standing. The director of the Advising and Learning Assistance Center will state requirements to the students in writing.

Degree candidates must be registered during the semester in which they intend to graduate and must file a degree application with the registrar by the dates specified in the academic calendar. Students who previously applied for graduation but did not complete all their requirements on time must submit a new application specifying the new date of graduation.

Double Degrees

A student may become a candidate for a second baccalaureate degree when he or she has completed: (1) the equivalent of at least two terms (30 credit hours) of additional work beyond the requirements of a single degree, and (2) the courses in the department in which the student is registered and such other courses as are required for the second degree.

Dual Majors

Undergraduate students who fulfill all the degree requirements for two curricula and who have met the conditions below will have completed a dual major. They will receive one diploma noting both majors. (1) The student must designate a first-named and second-named major in writing at least one semester prior to graduation, and have the appropriate department(s) approve this designation prior to filing the dual major form with the registrar. (2) Each student will be assigned an adviser in each department who will monitor progress towards degrees in that department. (3) The degree clearance officer in the department will certify that the student has met the degree requirements in that department. (4) The 24 credit hour mathematics/science requirement and the 24 credit hour humanities and social sciences requirement will satisfy the Institute requirements for both majors.

Minors

Within the distributional requirements described, the student may elect any courses that meet his or her personal or professional needs. Courses can be chosen to form a minor—that is, a set of courses coherent based on subject, methodology, or other factors. Many departments offer one or more such minors; several of the minors are interdisciplinary. A student wishing to complete a minor should consult with the adviser for that minor before completing the second course in it (departmental secretaries have this information). Minors vary in their requirements from 15 to 21 credit hours. Courses for the minor may not be taken on a Pass/No Credit basis.

Graduate Curricula and Courses of Instruction

Individual curricula are given under the heading of departments in which they are offered. Course requirements and credit hours usually are tabulated term by term, with specific courses listed by number and title.

Curriculum Changes

Because life and growth are synonymous with change, the university continuously reevaluates its educational programs and procedures. This means that no curriculum is static, and the listings in this catalog are subject to modification. The entering student, therefore, is advised to keep abreast of his or her curricular requirements. Announcements of changes, if any, are available from the departmental offices.

A graduate student who wishes to change from one curriculum or department to another must file a Graduate Change of Status form, available at the Registrar's Office. This change requires approval of the chairpersons involved and of the Office of Graduate Education. When further information is needed before a change can be approved, the student may be requested to follow graduate admission application procedures.

Courses and Grade Requirements

Courses offered for graduate credit bear the suffix numbers 4000-9990. However, those designated by 4000-4990 are open for credit to both graduates and advanced undergraduates, and there are limitations on the number of such courses that may be applied to a graduate degree. Undergraduate courses below the 4000 level may not be used for credit toward graduate degrees. Also, graduate students are not permitted to take courses on a Pass/No Credit basis.

The minimum average of all grades used for credit toward an advanced degree must be B. If a student's grades fall below a B average, the Office of Graduate Education may request that the department conduct a formal review to determine whether continuation is warranted. The student's adviser, committee, or department may recommend to the Office of Graduate Education that the student whose performance is unsatisfactory be dropped from the graduate program. A student who has accumulated two failing grades will be dropped from the graduate program.

Satisfactory Performance

Continuation in the graduate program requires satisfactory performance on the part of the student. Satisfactory performance is not limited to the academic record, but includes other appraisals of the student's record and ability.

Substitutions for Required Courses

Substitutions for required courses are permitted only with the approval of the heads of the departments concerned and the Office of Graduate Education. Where substitutions are granted, written notice must be filed with the registrar.

Plan of Study

The graduate program is flexible and affords each student an opportunity to plan a course of study suited to his or her own objectives. To assure a coherent program in accord with the student's maturing capacities and aims, each student is to maintain, with the adviser's assistance, a Plan of Study for the degree for which he or she is studying.

The Plan of Study should be submitted during the student's second full-time semester. To be considered valid, the Plan of Study requires the approval of the adviser and the designated departmental person. The Plan of Study is to be prepared on the forms provided by the Office of Graduate Education. Upon approval by the adviser and the designated departmental person, the department will transmit the original to the registrar, with copies going to the Office of Graduate Education, the student, and the adviser. The student should also keep a copy for himself or herself.

Each student who has filed a Plan of Study should register in the usual manner and in accordance with the plan. If there are any significant changes, a revised Plan of Study must be submitted promptly following the same procedure outlined above.

Master's Degree

A student is admitted to study for the master's degree when the student's record indicates ability to do advanced work in that field. When a student decides to do graduate work in a field different from the undergraduate degree, however, the department may require him or her to establish additional background by taking certain undergraduate courses.

The Master of Science degree is under the auspices of the Office of Graduate Education. The Professional School in the School of Engineering provides the Master of Engineering degree. The professional Master of Architecture degree is provided by of the School of Architecture and the Master of Business Administration degree is provided by the Lally School of Management and Technology. The School of Humanities and Social Sciences provides the Master of Fine Arts.

Office of Graduate Education Requirements

A candidate for a master's degree must:

- n Complete a Plan of Study, approved by the department with satisfactory grades. The master's requires 30 credit hours beyond the bachelor's degree. Certain programs have been specifically approved for additional credit hours, (e.g., the MBA and MFA require 60 credit hours). At least half the total credit hours presented toward the degree must have the suffix numbers 6000-7999, with the further limitation that no more than 15 credits of 4000-4990 courses are to be allowed.
- n Satisfy residence requirements.
- n Present an independently written (single author) thesis or project, if required.
- n Pursue a Plan of Study that will lead to the completion of all requirements, including those of the department, within two and one-half years.
- n Pay binding fee, if applicable.
- n File a degree application with the Registrar's Office by the date specified in the academic calendar for the semester in which he or she plans to be graduated. If a degree application was filed for a previous semester but the requirements were not fulfilled, a new degree application must be filed for the semester in which the student actually is graduated.

Degree candidates who at any point in their tenure at Rensselaer are, or become, full-time students must maintain continuous full-time registration throughout their Rensselaer academic career to be eligible to graduate. These students must be registered full-time during the semester in which they intend to graduate, and:

n Be in good academic and disciplinary standing.

n Satisfy the culminating experience requirement as specified by the department.

A student pursuing more than one master's degree at Rensselaer must meet the above requirements for each degree sought.

Residence and Time Limit

A student working for a master's degree is required to be registered for at least two terms and to complete a minimum of 24 credit hours of resident instruction for each master's degree sought. Department residency must be met in addition to the Office of Graduate Education requirements. Residency requirements for the Troy campus may also be met within programs offered at certain off-campus sites (branch campuses).

For full-time students, all work for a master's degree, whether done at Rensselaer or elsewhere, must be completed within two and one-half years of registration for the first credits applied toward the master's degree. Full-time students not fulfilling the master's degree requirements by the end of two and one-half years will be dismissed unless the Office of Graduate Education has given advanced approval for additional time to complete the degree. Extensions are granted for only the most compelling reasons and are rare. If approved, the student must register full-time for any additional terms and tuition is charged at the normal full-time rate. The student must be in good academic standing and have an acceptable Plan of Study. Satisfactory performance is not limited to academic record, but includes other appraisal of the student's record and ability.

Students engaged in working professional programs (part-time students), must complete all work for the master's degrees requiring 30 credits within three calendar years of the original admission date. Those working professionals working on master's degrees requiring 60 credits must complete the requirements within five years, beginning with the date of the original admission letter. Extensions may only be granted if the student is in good academic standing and has an acceptable Plan of Study. Working professionals must petition the Vice President responsible for Education for Working Professionals for an extension. Final approval may be granted by the Dean of Graduate Education.

The Office of Graduate Education may initiate a departmental review of any student who has accumulated 36 or more credits on a master's degree program (66 or more for the Master of Business Administration) without satisfying degree requirements unless the individual's Plan of Study has been approved for more than 36 (66) credits. The review will consider whether the student should be dropped from the graduate program.

Students enrolled in thirty-credit master's programs must not list more than thirty credits on their Plans of Study, with the further restriction that these credits must be selected from the first thirty-six credits earned.

Thesis, Projects, and Professional Projects

Certain departments may specify presentation of a thesis or completion of a master's project as a requirement for a master's degree. Usually six, and no more than nine, credit hours are allowed for a master's thesis or multiple semester master's project. Professional projects are completed in one semester and are limited to four credit hours for each project.

In a department that ordinarily requires a thesis or project, a student may be permitted to substitute additional courses that constitute a comparable culminating experience on recommendation of the adviser and with the approval of the department chair.

The thesis or project report must be presented to the candidate's adviser for review at least two weeks before the end of the term in which the degree is to be awarded. Any final examination on the thesis or

project is to be held by the date listed in the academic calendar for the year. Theses and certain multiple semester projects are graded either S (satisfactory) or U (failed). Professional projects and certain other multiple semester projects receive a standard letter grade.

The candidate must deposit a copy of the thesis (or certain multiple-semester projects), together with the adviser's written approval of both content and format, at the Office of Graduate Education at least one week before the end of classes in the term in which the degree is to be awarded. The Office of Graduate Education must certify that the approved document has been deposited before the degree is awarded. Only work meeting the highest standards of integrity will be accepted for degree requirements at Rensselaer. Academic integrity is a requirement of continued good academic standing and for the awarding of a graduate degree.

Doctoral Degree

Rensselaer awards the doctor's degree in recognition of high achievement in scholarship and independent investigation. The Doctor of Philosophy degree, under the auspices of the Office of Graduate Education, is awarded when the dissertation is directed toward making an original contribution to fundamental knowledge in a particular field or in an interdisciplinary field. A dissertation that is scholarly, creative, original, and publishable may deal also with the relation of a discipline to educational problems and objectives within the field. The Doctor of Engineering degree, under the auspices of the Professional School of the School of Engineering, is awarded when the student proposes an engineering problem of substance and develops a solution to it in a creative and distinguished manner.

Office of Graduate Education Requirements

A candidate for the doctor's degree must:

- n Complete a Plan of Study with satisfactory grades containing 90 credit hours beyond the bachelor's degree including any appropriate work completed toward a master's degree. In satisfying this requirement at least two-thirds of the total credit hours, excluding thesis, must contain the suffix numbers 6000–7999, with the further limitation that no more than 21 credit hours of 4000-4990 courses are to be allowed.
- n Satisfy residence requirements.
- n Form an approved doctoral committee.
- n Pass a candidacy examination.
- n Present an independently written (single author) dissertation.
- n Pass a final examination.
- n Pursue a Plan of Study that will lead to the completion of all requirements, including those of his or her department, within seven years.
- n Satisfy the binding fee requirement.
- n File a degree application with the Registrar's Office by the date specified in the academic calendar for the semester in which he or she plans to be graduated. If a degree application was filed for a previous semester but the requirements were not fulfilled, a new degree application must be filed for the semester in which the student actually is graduated.
- n Be in good academic and disciplinary standing.

To be eligible to graduate, degree candidates must have either: maintained continuous full-time registration; maintained continuous full-time registration following a change of status from part-time to full-time; or been, at all times, a part-time student. Under no circumstances will a full-time student be allowed to transfer to part-time status and maintain eligibility for graduation.

Full-time degree candidates must be registered full-time during the semester in which they intend to graduate.

Residence and Time Limit

A student working for the doctor's degree is required to take at least 45 credit hours of course and/or thesis work at the Troy campus. Residency requirements for the Troy campus may also be met within programs at certain off-campus sites (branch campuses).

For full-time students, all work for the doctorate must be completed within seven years of registration for the first credits applied toward the 90 credits required for the Ph.D. All doctoral candidates must pass the appropriate examinations as determined by their department within two years of registration for the first credits applied toward the Ph.D. Full-time students entering with a master's degree in their field of study must finish all degree requirements for the Ph.D. within a continuous five-year time period. Students who have not met their applicable time limit will be dismissed from the program unless the Office of Graduate Education has given advanced approval for additional time to complete the degree. Extensions are granted for only the most compelling reasons and are extremely rare.

Individuals who leave Rensselaer without obtaining an authorized leave of absence and who have not requested an extension before the seven-year limit will be dismissed from the program. Individuals who do receive authorized leaves because of serious illness, involuntary military service, or maternity leave can, with the submission of the medical or military documentation, request the Office of Graduate Education to exclude up to two years of authorized leave time from the seven-year limit.

Doctoral Committee

The chair of the student's department assigns a temporary adviser to guide the student until a doctoral committee can be appointed. As soon as the student has chosen a dissertation area, he or she must arrange to conduct the dissertation work with a dissertation adviser who is a full-time tenure-track member of the faculty. The dissertation adviser then consults with the chair of the student's department regarding the nomination of a doctoral committee of at least four members. The department chair sends the nominations to the Office of Graduate Education, which approves the doctoral committee.

The committee must include at least four full-time tenure-track Rensselaer faculty members. One committee member must be outside the student's department. Where special circumstances exist, an individual who is not a tenured or tenured-track Rensselaer faculty member may be approved as one of the four committee members, or as an additional fifth member from outside the university. In each case, the individual must receive prior approval by submitting a curriculum vitae to the academic department chair, and to the Dean of Graduate Education. The committee members represent the principal areas included in the student's Plan of Study. They assume responsibility for this plan and also for the student's candidacy and final examinations.

Plan of Doctoral Study

A prospective candidate for the doctorate ordinarily follows a Plan of Study of a minimum of 90 credit hours beyond the bachelor's degree, including any appropriate work completed toward a master's degree. Students must list on their Plan of Doctoral Study only the first ninety credits that are sufficient to meet the academic requirements for the doctoral degree. They should list these credits in chronological order of registration, and may not include credits taken after they have sufficiently met degree requirements.

Candidacy

A student may apply for the candidacy examination, given by the doctoral committee, when:

- n His or her course work nears completion.
- n He or she has the approval of the doctoral committee.
- n The examination, usually the Candidacy Exam, that the department uses to formally determine a

student's ability to pursue research leading to a doctoral degree, must be taken within the first two years of the date of the earliest course listed on the student's Plan of Doctoral Study.

A student is admitted to candidacy for the doctorate when he or she has passed the candidacy examination and received formal approval for such candidacy from his or her doctoral committee and department. When these requirements are met, the chair of the doctoral committee should notify the Office of Graduate Education of the student's candidacy. All degree requirements must be completed within three years of admission to candidacy.

Dissertation and Final Examination

The doctoral dissertation demonstrates the candidate's capacity for independent work. It embodies the results of an original investigation in the candidate's principal field of study on a subject approved by the student's doctoral committee. Only work meeting the highest standards of integrity will be accepted for degree requirements at Rensselaer. Academic integrity is a requirement of continued good academic standing and for the awarding of a graduate degree. The field of the dissertation should be chosen as soon as possible after entry upon doctoral study. A manual, *Thesis Writing*, containing required format specifications, is available from the department, the Office of Graduate Education, or on the Web on the Office of Graduate Education's home page at <http://www.rpi.edu/dept/grad/gradschool.html>. Before preparing your final manuscript, please check the Office of Graduate Education website for the most recent formatting and submission guidelines.

The dissertation is presented to the candidate's dissertation adviser at least one month before the end of the term in which it is expected that the degree will be awarded. Each member of the doctoral committee must be presented with an unbound copy of the dissertation at least one week before the final examination is scheduled.

Dissertation Defense/Final Examination When the dissertation is completed, the candidate must defend it in a public examination conducted by his or her doctoral committee, which passes on its acceptability. The final examination is to be held by the date listed in the academic calendar for the year. The committee transmits a record of its decision on the dissertation examination to the Office of Graduate Education.

Dissertation Submission After passing the final examination and no later than two weeks before the end of the term in which the degree is expected to be awarded, the candidate must deposit at the Office of Graduate Education two original copies of the dissertation in its final form including the required format specifications. A copy of the abstract, no longer than 350 words or 2,450 characters, with an abstract title page also must be included. The dissertation should be placed in a manila envelope with a copy of the title page on the front side. The original copy of the abstract with an abstract title page also must be included. The abstract title page should be the same as the dissertation title page except for the words "An Abstract of a Dissertation" etc. added. The title page for the dissertation must have the original signatures of the members of the doctoral committee. A Thesis/Project Examination Form, approving both content and format, signed by the chair of the doctoral committee must accompany these. The Office of Graduate Education must certify that the approved dissertation has been deposited before the degree can be awarded.

Publication of Dissertation Before the candidate is certified for graduation, he or she must pay a dissertation fee to cover the costs of microfilming, publication of the abstract, and binding two original copies for preservation and use in the general library. A copy of the microfilm is deposited in the Library of Congress, and the abstract is published in the monthly journal, *Dissertation Abstracts*. Copies of the dissertation on microfilm and the journal then are available from University Microfilms, Ann Arbor, Michigan. The forms to be filled out for this purpose are available in the Office of Graduate Education and may be completed either prior to or at the time the dissertation is submitted.

A student who wishes to publish or present publicly any portion of his or her dissertation before it has been accepted in fulfillment of his or her degree requirement must have the permission of the adviser or chair of his or her doctoral committee. Any dissertation material so presented must include the following statement: "This paper is taken in part from a dissertation to be submitted in partial fulfillment for the degree of _____ in the Department of _____ at Rensselaer Polytechnic Institute."

The right of conventional publication is in no way abridged by microfilming, and the student is urged to seek additional publication in technical journals or elsewhere.

Academic Credit

Units of Credit

Academic credit is assigned in terms of credit hours. For formal course work, one credit hour represents one lecture or recitation hour or one laboratory period per week for one term. Approximately three hours of endeavor per week, both in and out of class, are associated with each credit hour. Contact hours are the number of class hours per week. When the number of contact hours differs from the credit hours for a course, the course description so indicates.

Students Entering Rensselaer as Freshmen Incoming freshmen may be eligible for advanced placement or advanced standing.

Advanced Placement The student should request the Educational Testing Service (ETS) to send Advanced Placement (AP) scores to the Registrar's Office at Rensselaer. The scores are evaluated and notice of the decision is sent to the student. Credit is granted, but there is no grade assigned and the credit is not included in calculating the grade point average (GPA).

Advanced Standing Credit may be granted for college-level work taken while in high school. Transfer credit will not be given for any college courses taken while in high school if these courses are used in obtaining the high school diploma. One exception is the matriculated student who attends college full time and transfers back credits to complete the high school diploma. This rule does not exclude the possibility of placement in a higher level of a subject area without being given academic credit for the placement. "Placement" in this case does not refer to the Educational Testing Service Advanced Placement Tests, which are accepted at the Institute depending on the level of score.

After admission, the student should have an official copy of a transcript from the college sent to the Registrar's Office at Rensselaer along with a copy of the course description for each course. The appropriate academic department evaluates the material. If acceptable, it is posted on the student's record and a copy of that record is sent to the student. No grade is given and it is not included in calculating the GPA.

Rensselaer Polytechnic Institute does not accept the College Level Entrance Program (CLEP) for credit.

Undergraduate Students Entering Rensselaer from Another College Students entering Rensselaer from another college must apply to the Office of Transfer Admissions. The Office of Transfer Admissions notifies the student of the results of preliminary evaluation and requests the student to send a final transcript at the end of the current semester to the Office of Transfer Admissions. After the final course evaluation is made, the credit hours will be posted on the student's permanent record. No grade is given for accepted courses, nor are these courses included in calculating the GPA.

Undergraduate Transfer Credit

Subject to specific approval, academic credit for courses taken at another college or university may be transferred to Rensselaer. For information on additional requirements for transferring Humanities and Social Sciences credits or Science credits, refer to the individual school's section of this catalog. Rensselaer students taking courses at other institutions should follow the following procedures.

The Transfer Credit Approval form, which can be obtained in the Registrar's Office, should be used for approval of all transfer credit granted. Equivalent "A," "B," or "C" or "C-" grade work is required for transfer credit.

Students desiring to take course work at other institutions should obtain approval prior to enrollment at that institution. Transfer credit cannot be guaranteed unless prior approval is obtained, since unapproved courses may not be equivalent to Rensselaer courses. In addition, many institutions require proof of prior approval before allowing a visiting student to register.

Students desiring transfer credit must have the registrar of the other institution forward an official transcript and course descriptions (or the student may submit copies of catalog course descriptions) to the Rensselaer Registrar's Office. When the Transfer Credit Approval form, the official transcript, and course descriptions are received, the Registrar's Office will forward the material to the appropriate departments for their review (if approval was not previously obtained). Final grades will be checked for courses previously approved, and if at least a "C," or "C-" credit can be given directly. A student who repeats at another college a course failed at Rensselaer may be required by the department at Rensselaer to pass an examination.

The institute requires a degree candidate's last 30 credits in courses to be completed on this campus or through a program formally recognized by the Institute. Transfer courses are limited to two courses or eight credits counting toward the student's last 30 credits and require approval of the director of the Advising and Learning Assistance Center.

A student transferring back to Rensselaer who now holds an associate's degree and who formerly was a Rensselaer matriculating student may begin a new cumulative GPA subject to the approval of the director of the Advising and Learning Assistance Center. His or her former Rensselaer courses will still appear on the permanent record but will not be calculated in the new GPA.

Credit by Validation Exam

Academic credit for college-level proficiency may, in special cases, be established for formal study done in other than an accredited institution by validation exam. Only full-time students are eligible. A written statement submitted to the registrar detailing the basis of their experience is required. A student must obtain approval from the registrar and the adviser or department head in the area concerned. Validation examinations are not permitted for courses previously failed or audited. A fee is charged for each examination taken. Students should check with the Registrar's Office for procedures and appropriate forms.

Graduate Credit by Transfer and Examination

Credit for graduate work completed at other accredited institutions may be offered in partial fulfillment of the requirements for a degree at Rensselaer when the work is appropriate to the student's program. As a rule, this work will have been earned prior to admission at Rensselaer. Students already enrolled at Rensselaer who wish to take courses elsewhere must obtain the prior approval of his or her adviser and the Dean of Graduate Education.

Because the residence requirement for the doctor's degree is 45 credit hours beyond the master's degree, not more than 45 credit hours may be transferred toward the doctorate.

Double counting credits for multiple degrees is subject to approval by all departments.

Application for the transfer of credit must be made to the student's department. The department is responsible for evaluating course work taken elsewhere and reporting allowable transfer credit to the registrar on the transfer credit approval form. Courses taken elsewhere and approved for transfer to Rensselaer must be taken at the graduate level and have a grade of "B" or "B-" or better to be approved. They are not considered in computing the B average requirement.

A student who obtains the approval of his or her adviser and the Dean of Graduate Education to work elsewhere while already enrolled at Rensselaer must apply for transfer of credits as soon as the credit has been earned. Transfer of Credit forms may be obtained from the Registrar's Office.

Academic credit for college-level proficiency may, in special cases, be established for formal study done in other than an accredited institution by validation exam. A student must obtain approval from the registrar and the adviser or department head in the area concerned. A fee is charged for each examination taken. Students should check with the Registrar's Office for procedures and appropriate forms. Normally a validation exam is used to satisfy a specific course requirement, thereby allowing the student to replace the required course with an appropriate elective on his or her Plan of Study. Credits earned by validation exam may not be used to satisfy residence requirements.

A graduate student who has taken courses at Rensselaer as a special nondegree student may transfer to a degree program a maximum of 12 credits earned in that status. If a student has taken a graduate credit course while an undergraduate, received a grade of B or B- or better, and did not use the credit to fulfill the requirements for the bachelor's degree, he or she may request, through the faculty adviser, that the Office of Graduate Education count the credit toward the requirements for an advanced degree.

Class Attendance and Examinations

Attendance Requirements

The academic department concerned generally determines requirements for class attendance. Each instructor must make these requirements clear at the beginning of the course, and the student has to abide by them. If the instructor does not inform the class of the attendance policy, the class should ask for a statement of the policy.

The instructor maintains the academic standards held to by Rensselaer. The instructor who defers a class or changes his or her class schedule for any reason is still responsible for arranging for the work that is missed. The entire class must agree with any change in a class meeting schedule or final exam schedule.

When an instructor finds a student's attendance unsatisfactory, the student may be referred to the dean of students for counseling.

A student who is a member of an authorized team or organization for which events are scheduled is excused from class attendance during the time actually spent away from the campus or during the hours of the events on campus. The student still has to complete the work that is missed. A student admitted to Samaritan Hospital will, upon request, receive a written excuse from the medical director.

Because Rensselaer is a nondenominational university that welcomes all faiths, the decision regarding absence from classes and laboratories on religious holidays is left to the individual. In the case of conflicts between the university calendar and an individual's beliefs, students, faculty, and administrative staff will make arrangements to assure that religious participation is not restricted.

Final Examinations

The examinations given at the end of each semester take place at the times announced on the examination schedule, published prior to the examination period. No student is allowed more than one final examination in a course. (See Senior 'F' Examination Rule.)

Every student has to take all of his or her examinations at the scheduled time unless excused because of illness or other sufficient reason by the dean of students or, in the case of graduate students, by the Office of Graduate Education. Procedures for resolution of conflicts (i.e., examinations scheduled for the same time), will be announced with the final examination schedule. The reason for an expected absence should be presented in advance of the examination. The dean of students or the dean of the Office of Graduate Education will accept no excuse on the grounds of illness unless the medical director approves it.

The student who has been excused by the dean of students or dean of the Office of Graduate Education from a final examination is reported "NE" (Not Examined) and will be examined later at a time set by the instructor. Only the dean of students and the Office of Graduate Education may excuse a student from a final examination. Unless so excused, a student who is absent from final examinations is given zero credit for the exam and may at the discretion of the instructor be given an "F" for the course.

Senior "F" Examination Rule

Senior students who have no outstanding failures on record that would prevent graduation and who fail only one course taken during the first semester of their senior year and who are candidates for a degree at the end of the second semester, may be eligible to take a re-examination in the course that was failed. These students must not have outstanding "I" or "NE" grades, either in prior semesters or in the current semester that would prohibit them from graduating. A senior who fails a course in the second semester may take a re-examination providing the course failed is the only course preventing his or her graduation.

Students must apply to the registrar to qualify for a Senior "F" Exam. The registrar will certify the eligibility of the student for a re-examination and authorize the instructor to examine eligible students.

For students who seek to qualify for their bachelor's degree in the spring semester, the following applies: A student failing a course in the fall semester of the senior year will be examined after the middle and before the end of the spring term. If it is possible to repeat the failed course in the spring semester, the student has that option. A re-examination in a failed spring semester course may not be taken until the first summer session at the earliest. The time of the re-examination will be at the discretion of the department involved.

Students should know that it may not be possible to give re-examination in courses that require certain physical facilities until those facilities are again available.

For students who seek to qualify for their bachelor's degree in August or December, similar rules apply. The student should consult the registrar for details.

Under no circumstances will an examination be taken later than one year after the end of the term in which the failure occurred. The results of the re-examination when passed or failed will not alter the term or cumulative grade point average previously earned nor remove the "F" grade from the record. When passed, a statement is posted on the transcript stating the failed course was passed by re-examination.

Study-Review Period

No classes or exams will be held during the study-review period at the end of the semester. This day or these days will be the study period for final examinations.

Grading System

Implementation of +/- grading system being phased in between 2005-2007.

See online catalog for phase-in schedule.

Letter Grades

The letter grades and their meanings are:

A = Excellent, A- = Excellent

B+ = Good, B = Good, B- = Good

C+ = Average, C = Average, C- = Average

D+ = Passed, D = Passed (not available to graduate students)

F = Failed

FA = Failed (due to administrative reasons)

I = Incomplete course work

IP = In Progress (multiple-term course)

NE = Not Examined

NC = Failed a Pass/No Credit course (undergraduates only)

P = Passed a Pass/No Credit course (undergraduates only)

S = Satisfactory in a Satisfactory/Unsatisfactory graded course

U = Unsatisfactory in a Satisfactory/Unsatisfactory graded course

W = Withdrawn

WI = Failed (course that was previously graded "I" and the student did not meet the deadline for completing course work)

Z = Grade Unknown—see instructor

AU = Audit

"D" Grade The letter grades "D" or "D+" does not apply to graduate students. Thus, when a graduate student takes a course that is also open to undergraduates and performs at a level equivalent to a "D" or "D+" grade, this grade cannot be recorded. Such grades are automatically converted to "F"

"FA" Grade This letter grade is assigned by the registrar to students who withdraw from a course but do not submit a Drop/Add form or an official notice of withdrawal from the university.

"I" Grade The grade "I" (incomplete course work) is given, when, due to illness or other extenuating circumstances such as a personal emergency beyond the student's control, a student has been unable to complete the required course work. The "I" grade is given only after the contract form, Authorization for Grade of Incomplete, has been completed and signed by both the instructor and the student and received by the registrar.

The "I" grade is given only in instances of incomplete course work, such as laboratory exercises, course projects, term papers, etc. Under no circumstances may the "I" be given for the following situations:

n Absence from a final examination.

n Student on class list who has never attended class.

n Student who wishes to do additional post-semester work in order to improve a grade.

n Student who wishes to repeat the course as auditor, retaking examinations, etc., in order to improve a grade.

The "I" grade must be completed within one semester. If facilities (i.e., laboratory) are required to complete the outstanding work but are not available during the next semester, then one year is the maximum time limit, subject to approval by the instructor.

If the agreements made in the "I" grade contract are not observed or if the "I" grade is not cleared in the time specified in the contract, the grade automatically becomes the grade noted on the "I" contract at the

time the “I” contract is signed. If no grade is noted on the contract the “I” grade automatically becomes a “WI.” Once the “I” grade is changed to “WI,” no other grade change will be accepted. The “WI” grade will be calculated as an “F” in the student’s GPA. The grade of “I” is considered a penalty grade in the calculation of the term GPA.

The grade of “I,” until it is changed, is calculated as if it were the grade of “F”

“WI” Grade The registrar assigns this letter grade to students who received an Incomplete (“I”) and failed to meet the criteria or the deadline specified in the “I” contract. It is calculated as an “F” in the student’s GPA.

“IP” Grade The “IP” (In Progress) grade is given at the end of preliminary semesters of multiple-term courses such as Thesis, Project, or Research.

“NE” Grade The “NE” grade is given only by the dean of students or the Office of Graduate Education to students who have been excused from taking a final exam at its scheduled time. In each case, the course instructor is to be informed. (See “Final Examinations” rules listed previously.) If the examination is not taken by the date specified, the grade automatically becomes an “F.” Once the “NE” grade is changed to an “F,” no other grade change will be accepted.

Grades of “NE” given in the fall semester must be made up during the spring semester. “NE” grades given at the end of the spring semester must be made up during the summer recess and not later than two weeks after the beginning of the fall semester. The grade of “NE” is not considered in the calculation of the term GPA.

“P” and “NC” Grades (Pass/No Credit Option) Subject to the limitations listed below, undergraduate students may elect to take courses on a pass or no credit basis, for which the grade is either “P” (Pass) or “NC” (Fail). Grade points will not be assigned for these courses and the “P” or “NC” will not be reflected in the grade point average. “NC” is a failing grade and can be cause for academic action. Courses taken on a Pass/No Credit option can count toward credit-hour and distribution requirements if the grade “P” is received. This option allows a student to take courses outside his or her normal curriculum or minor program that, because of grade considerations, the student otherwise might not consider.

A student may take no more than 12 credit hours of courses designated as Pass/No Credit courses. No more than 6 credits of these may be humanities and social sciences courses used to satisfy the requirements of the undergraduate courses in these fields. A Pass/No Credit course may not be used in the H&SS depth requirement. Courses graded Satisfactory/Unsatisfactory only are not included in the above restrictions. For the five-year B. Arch. curriculum, the Pass/No Credit option is extended, giving a maximum of 16 Pass/No Credit credits.

No course previously failed or specifically required by name or required to be chosen from a list of named courses in the student’s curriculum or minor may be taken on a Pass/No Credit basis. Courses at the 6000 level may not be taken on a Pass/No Credit basis.

A student exercising the Pass/No Credit option must file a form with the registrar before the Friday of the 13th week of the semester. Having elected to take a course on this basis, a student may drop the Pass/No Credit designation by notifying the registrar in writing by the Friday of the 13th week of classes for the semester.

This option is not available to graduate students or nonmatriculated students.

“S” and “U” Grades These grades can only be assigned in courses specifically approved for such grading by the Faculty Senate Curriculum Committee. Examples of such courses are seminar, thesis, or certain general electives, such as Tour of the Solar System, and others.

“W” Grade The grade of “W” is assigned when a student is permitted to withdraw from a course after the deadline to drop a course. Only the Office of Graduate Education or the Academic Standing Committee can permit a student to drop a course after the deadline. If permission is granted, the registrar will assign a grade of “W.”

“Z” Grade The registrar assigns the grade of “Z” if the instructor does not submit the course grade in time to print the semester grade reports. The student should see his or her instructor for a grade.

Grade point average

A student’s grade point average is determined on the basis of the following numbers assigned to the letter grades: A=4, A-=3.67, B+=3.33, B=3, B-=2.67, C+=2.33, C=2, C-=1.67, D+=1.33, D=1, F=0, I=0, FA=0, WI=0. The grades P, U, S, IP, NE, NC, W, and Z are not considered in computing averages. The grade point average is computed by multiplying the number corresponding to the grade in each course by the number of credit hours for the course, totaling these products for the courses taken, and then dividing the sum by the total number of credit hours for the courses considered.

The grade point average for the term is computed at the end of each term. The cumulative grade point average is also computed at the end of each term for the full period of attendance at the university.

All grades are included in computing the average; even those earned in courses not required for the degree sought. Courses taken at institutions other than those at a consortium college, or through exchange programs are not included in calculating the GPA although they may qualify for credit.

Undergraduate Repeating a Course If an undergraduate repeats a course, both grades are entered on the record. However, course credit will count only once and, although both grades appear on the transcript, the grade received in the repeated course is always the one used in computing the GPA. Senior “F” examination rules remain the same. The grade for a repeated course taken on a Pass/No Credit basis or for which the student receives a grade of “W” or taken at another institution cannot be used in place of the original course grade in calculating the GPA. Students in a premedical or preprofessional program may want to consult with their advisers before repeating a course.

Graduate Repeating a Course If a graduate student repeats a course, both grades are entered on the record and the grade points and credit hours corresponding to each are considered in computing the average.

Scholastic Reports

Grades are reported to the registrar at the end of each semester. Students are responsible for knowledge of their deficiencies and failures and may obtain a copy of their grades from the Registrar’s Office or may view their grades online. Only final semester grades are part of the student’s permanent record. Class rankings for undergraduates are calculated only once a semester, at the time grade reports are printed. Final semester grades and transcripts may be withheld from the student because of an outstanding bill to the Institute or because of pending disciplinary action.

Curriculum Advising and Program Planning

A Curriculum Advising and Program Planning (CAPP) report is available online for undergraduate students. This report shows what degree requirements have been met and identifies those requirements that are outstanding.

Undergraduate Academic Honors

A student who in any semester attains a grade point average of 3.00 or better and has no grade below C is placed on the Dean’s List for the following semester. Grades below “C” include “I,” “C-,” “D+,” “D,”

“F,” “FA,” “U,” and “NC.” No student will be placed on the Dean’s List who takes less than 12 credit hours. Thus, a student must have completed at least 12 credit hours with the grades of A, A-, B+, B, B-, C+ or C.

The Dean’s List is compiled at the end of the grading period. No students will be placed on the Dean’s List retroactively except in the case of administrative error or late submission of grade reports by a professor. A student will not be placed on the Dean’s List upon resolving a grade of “I.”

Undergraduate Graduation Honors

Undergraduate students with cumulative grade point averages of 3.50 or higher will receive special recognition with the following inscriptions on their diplomas: “Cum Laude” (3.50-3.69), “Magna Cum Laude” (3.70-3.89), and “Summa Cum Laude” (3.90-4.0).

To be eligible for such recognition, the student must have completed two years in residence in the four-year program or three years in residence in a five-year program.

Academic Standing

A student is considered in good academic standing if the student is making satisfactory progress toward his or her educational goals. Students not making satisfactory progress will be suspended or dismissed from the university. The university serves students from diverse educational backgrounds and interests and recognizes the individual differences in educational goals between matriculating and nonmatriculated students, between full-time and part-time students, and between graduate and undergraduate students.

Undergraduate Academic Probation

Students are placed on academic probation as a warning that they are in jeopardy of losing their good academic standing. Students are informed of their probationary status by a letter from the director of the Advising and Learning Assistance Center at the end of the semester. Academic and extracurricular restrictions may be placed on them so that they can concentrate on their academic programs.

A student whose grade point average for any term falls below 1.50 is placed on academic probation automatically. In addition, any student whose cumulative grade point average falls below the following specified averages is automatically placed on probation: freshmen—1.50 at the end of the fall term or 1.60 at the end of the spring term; sophomores—1.70 at the end of the fall or spring term; juniors and seniors—1.80 at the end of the fall or spring term.

Probation is removed when the following minimum requirements are met during a term in a program of not less than 12 credit hours: freshmen—1.80 grade point average for the term and a cumulative grade point average of 1.60; sophomores—1.80 grade point average for the term and a cumulative grade point average of 1.70; juniors and seniors—1.80 grade point average for the term and a cumulative grade point average of 1.80.

A student on academic probation may have that status removed at the end of the summer session if he or she maintained a grade point average of 1.50 during the previous term and has raised his or her cumulative average to the following prescribed levels: entering sophomore year, 1.60; entering junior year, 1.70; entering senior year, 1.80.

Undergraduate Academic Suspension and Dismissal

The Committee on Academic Standing reviews the records of students subject to suspension or dismissal. The committee is authorized to suspend or dismiss any student who:

- n Fails to qualify for removal from probationary status at the end of a term.
- n Has been on probation for two separate terms and is subject a third time to probationary status.
- n Fails three or more courses in any one term.

Undergraduate Disciplinary Suspension or Expulsion

A student whose behavior is in violation of university regulations is subject to disciplinary action. This may result in disciplinary suspension or expulsion from Rensselaer. These disciplinary actions may become a permanent part of the student's record. A student who is expelled for disciplinary reasons cannot apply for readmission.

Graduate Academic Suspension and Dismissal

The Office of Graduate Education will review the records of students recommended for suspension or dismissal by the department chair. The student will be notified in writing by the Office of Graduate Education of any decision to suspend or dismiss. A student who is dismissed from a graduate program is not eligible for readmission or for a change of curriculum except under conditions stated in the letter of dismissal.

Nonmatriculated Undergraduate Student Eligibility

The Advising and Learning Assistance Center reviews the records of nonmatriculated undergraduates each semester to determine if the student is performing satisfactorily. A student whose academic performance is not satisfactory as determined by the director of the Advising and Learning Assistance Center and the Committee on Academic Standing will not be permitted to continue at Rensselaer. Also, nonmatriculated students are permitted access to courses on a space available basis.

Nonmatriculated Graduate Student Eligibility

The records of nonmatriculated graduate students will be reviewed each semester to determine if the student is performing satisfactorily. If it appears that the student is not performing satisfactorily, the academic department will be consulted, if appropriate, and it may be determined that the student not be permitted to continue at Rensselaer. Also, nonmatriculated students are permitted access to courses on a space-available basis.

Activities Eligibility Requirements

In order to participate in activities sponsored by the Rensselaer Union, the student must pay an activities fee. Certain activities such as intercollegiate athletics may have special requirements such as minimum credit hour registration, graduate or undergraduate status, etc.

Students on academic probation risk being dismissed from the university if they continue without improvement and should, therefore, examine carefully time committed to extracurricular activities.

A meeting for this purpose must be arranged between the student and a member of the Dean of Students Office by the second week of the semester following that in which the student was placed on academic probation. The student is responsible for arranging this meeting.

Withdrawal from Rensselaer

To leave the Institute in good standing, an undergraduate must submit a letter to the dean of students and a graduate student must submit a letter to the Office of Graduate Education stating the reasons for withdrawal and the student's last day of residence on campus.

Students who withdraw prior to the eighth week of the semester will receive no grades for the semester. Students who are permitted to withdraw after the eighth week of classes will receive the grade of "W" in all courses.

The student who must withdraw for medical reasons may be exempt from this rule if the medical director determines that it is advisable for the student to withdraw.

Students who withdraw without informing the dean of students or the Office of Graduate Education will

receive a grade of “F” in all courses. Undergraduates will be subject to action by the Committee on Academic Standing.

Undergraduate Student Leave of Absence

Students who wish to spend a period of time away from Rensselaer may request a leave of absence. In order to be considered for a leave, undergraduate students must submit a letter to the dean of students, stating the reasons for the request and the length of leave desired. Undergraduate leaves are normally given for up to one year. For financial aid purposes only, a leave of absence is limited. Once the allowable period of time has expired, student are considered withdrawn.

Students may also be placed on an involuntary leave of absence from Rensselaer. There are four possible scenarios that might apply: (1) the student is unable to meet financial obligation to the Bursar’s Office. Any outstanding amounts from a prior semester(s) must be paid in full (along with current semester bill) in order for reinstatement. If not, then the student is placed on a mandatory financial leave of absence with an effective date of the 1st day of classes. (2) The student is determined by medical or psychological professional staff that the student should not attend the semester. A mandatory leave of absence is placed on the student record with an effective date based on professional assessment. (3) The Dean of Students Office declares an emergency removal from campus. A mandatory leave of absence is placed on the student record with an effective date to correspond to the actual emergency removal from campus. (4) There is a disciplinary sanction such as a suspension or expulsion. A mandatory separation is placed on the student record with an effective date of when the actual sanction is issued.

If a student voluntarily or involuntarily is placed on leave, they must go through the readmission process to return to campus, provided they are in clear financial standing and have met all the necessary requirements. Once a student is placed on a leave of absence, the student must verify the re-instatement deadline with the Dean of Students Office if they choose to return to Rensselaer.

Graduate Leave of Absence and Withdrawal

Graduate students who wish to spend time away from their studies may request a Leave of Absence (LOA) by contacting the Office of Graduate Education, (OGE). Leaves are generally granted only during the first eight weeks of classes. Tuition refunds are based on the schedule listed on page 65 . The maximum length of time granted for an initial leave request is one year. Under extenuating circumstances, students may request an extension for an additional year by contacting OGE. A leave of absence does not afford extra time to complete the degree. Exceptions to this rule can be requested when the leave is taken for maternity, medical, or military reasons.

The following processes apply to graduate student leave of absence, dismissal, and withdrawal:

1. If a graduate student is unable to meet his or her financial obligation to the Bursar’s Office, any prior semester balances plus the current semester bill must be paid in full before the bursar will remove student account’s financial hold. Otherwise, the Bursar’s office will place the student on a mandatory financial leave of absence with an effective date of the 1st day of classes.
2. If a Rensselaer medical or psychological professional determines that a graduate student should not attend the semester, they will recommend a medical leave of absence to the OGE. The Health Services Department and OGE will determine the leave’s effective date. The medical director will make the final decision on readmission or continuance in the program for students on medical leave of absence.
3. If OGE or the Dean of Students Office (DOSO) declares an emergency removal of a graduate student from campus, these offices will determine the effective date of the dismissal, suspension or mandatory leave.
4. If a graduate student is dismissed for disciplinary reasons, the effective date is determined at the time, not based on final appeal.

Effective Date

The Health Services department and OGE determine the effective date of medical withdrawals. This date shall reflect a date that the withdrawal is actually necessary and shall be the determining factor when calculating refunds. To ensure compliance with Title IV federal funding agencies, *back dating of leaves or withdrawals is not possible for graduate students with Title IV federal loans.*

Undergraduate Readmission of Students Dismissed for Academic Reasons

Students who have been dismissed from the Institute for academic reasons may apply for readmission after one full academic term (not including summer school) has elapsed. The Dean of Students Office makes all readmission decisions concerning academically dismissed undergraduate students. Requests for readmission should be on file at least two months prior to the term in which readmission is desired. Transcripts and course descriptions of work taken elsewhere must be submitted as part of the readmission process. Applications for readmission should be received from and returned to the Dean of Students Office.

Undergraduate Readmission of Students Suspended for Disciplinary Reasons

Students suspended from the Institute for disciplinary reasons may reapply one month prior to the end of their suspension. Approval for readmission may be obtained from the Office of the Dean of Students.

Undergraduate Readmission of Students in Good Standing

Students who have been permitted to withdraw in good standing or who have been granted a leave of absence will ordinarily be readmitted upon request of the Dean of Students.

Graduate Readmission

Graduate students desiring readmission must have the approval of the Office of Graduate Education. The student must fill out a Graduate Change of Status form, which is available in the Registrar's Office. A student requesting readmission, will be required to have departmental approval. Academic departments and/or the Office of Graduate Education may require reapplication.

Medical Determinations

The medical director will make final decisions regarding readmission or continuance in the university when medical factors are a consideration.

Academic Prizes

The date in parentheses indicates the year in which the prize was established.

The Macdonald Prize (1890) The prize, established by Charles Macdonald, Class of 1857, consists of the net annual income from \$2,000. It is awarded at Commencement to a senior in civil engineering who has demonstrated outstanding ability in academic work and gives promise of outstanding professional success.

The Macfarlane Prize (1924) The prize, established by Mrs. Walker D. Hines in memory of her father, Graham Macfarlane, Class of 1872, consists of the net annual income from the Macfarlane Fund. It is awarded to the student who has presented the best computer graphics project during the work of the first year.

The Class of 1902 Research Prize (1927) Established by the Class of 1902. It is awarded at Commencement to the senior who presents the best thesis involving research in any branch of engineering or science.

The Ricketts Prizes (1928) The prizes, five in number, consist in each case of the net annual income from \$2,000. Three of the prizes were established by Palmer C. Ricketts, Class of 1875, who served

Rensselaer for 50 years as instructor, professor, director, and president. They are awarded at Commencement to a senior in mechanical engineering, to a senior in electric power or electrical and systems engineering, and to a senior in chemical engineering. Other prizes were established in 1935 and 1936 by President Ricketts' widow, Vjera C. Ricketts. They are awarded at Commencement to a senior in the School of Architecture and to a senior in aeronautical engineering. The conditions are the same as those governing the award of the Macdonald Prize.

American Institute of Architects Medal (1934) The American Institute of Architects each year awards a silver medal and a book to the member of the graduating class in the School of Architecture who is outstanding in scholarship, personality, and promise of a successful professional career.

The Ray Palmer Baker Prize (1937) The prize, established by bequest of Vjera C. Ricketts, widow of President Ricketts, consists of the net annual income from \$2,000. It is awarded at Commencement to a senior in management engineering. The conditions are the same as those governing the Macdonald Prize.

The Matthew W. Del Gaudio Award (1937) The New York Society of Architects awards this prize annually to a graduating student in architecture who has shown excellence in total design.

The William Pitt Mason Prize (1939) The prize was established by friends and former students of William Pitt Mason, a graduate in the Class of 1874 and professor of chemistry and chemical engineering at Rensselaer for 50 years. The prize consists of the net annual income from \$2,000 and is awarded at Commencement to a senior in the Department of Chemistry. The conditions are the same as those governing the Macdonald Prize.

The Mary A. Earl McKinney Prizes (1941) These prizes, established by Dr. Samuel P. McKinney, Class of 1884, consist of the net annual income from \$9,000. They are awarded in the form of first and second prizes in two contests, one for freshmen, and the other for all undergraduates. These contests are designed to test proficiency and improvement in English. The contests were originated by Homer H. Nugent, who served Rensselaer for 27 years as professor of rhetoric and head of the Department of English.

The Caird Prize (1945) Established by James M. Caird, Class of 1895, and Barbara J. Caird, the prize consists of the net annual income from \$2,000. It is awarded at Commencement to the senior who has demonstrated outstanding ability in environmental engineering. In a year when no senior is eligible, this award may be made to a graduate student who, by high achievement in academic work and demonstrated qualities of character and leadership, gives promise of outstanding success in professional practice in environmental engineering.

The Matthew Albert Hunter Prize in Metallurgical Engineering (1951) An annual award based on the income from funds contributed by former students of Dr. Hunter, the prize is awarded annually to the senior in materials engineering who has demonstrated outstanding ability in academic work leading to a career in that field.

The Wynant James Williams Prize in Electrical Engineering (1954) An annual award based on the income from funds contributed by friends and former students of Prof. Williams, the prize is awarded annually to a senior in electric power or electrical and systems engineering for outstanding scholarship, personality, and promise.

The Harriet R. Peck Prize (1954) An award established by friends of Miss Peck, head librarian of Rensselaer from 1912 to 1947. Presented to a fifth-year student in the School of Architecture for the best solution of a problem in architectural design. The prize is awarded in selected years.

The Alpha Rho Chi Medal (1955) An annual award established by Alpha Rho Chi, a professional architectural fraternity, the medal is given to a member of the graduating class in the School of Architecture for leadership, service rendered to the school, and promise of professional merit.

The Scott Mackay Award (1958) An annual award based on the income from funds contributed by former students of Prof. Mackay, the award is made to a senior in materials engineering who has given time and effort to the service of others without seeking recognition or acclaim, and who has completed the academic program at Rensselaer creditably.

The Arthur M. Greene Prize (1960) Established by J. Erik Jonsson, Class of 1922, in memory of Dr. Arthur M. Greene, professor of mechanical engineering from 1907 to 1922, this prize consists of the net annual income from \$5,000. It is awarded at Commencement to a senior in mechanical engineering who, in the opinion of the professors in the department, has demonstrated the all-around qualities most likely to lead to professional distinction.

The J. Erik Jonsson Prize (1960) Established by J. Erik Jonsson, Class of 1922, the prize consists of the net annual income from \$5,000 and is awarded at Commencement to a senior who has spent at least three years at Rensselaer and has achieved the highest academic record in the class.

The Harold N. Trevett Award (1960) An annual award based on the income from funds contributed by friends and former students of Prof. Trevett, the prize is awarded annually to a senior in electric power or electrical and systems engineering for outstanding scholarship in electric power or electrical and systems engineering subjects during the junior and senior years.

The G. Howard Carragan Award (1961) An annual award based on the income from funds contributed by friends and former students of Prof. Carragan, the prize is awarded to a senior in the Department of Physics for outstanding scholarship.

The W. Franklin Spafford Prize (1961) Established by an anonymous donor in honor of the first head of the Department of Management Engineering. This prize is awarded at Commencement to a graduate student in management who has demonstrated high scholastic ability and has made a substantial contribution to that field.

The Joseph L. Rosenholtz Prize (1963) An annual award based on the income from funds contributed by friends and former students of Prof. Rosenholtz, the prize is awarded to a senior for outstanding work in earth sciences. Should no student qualify for the prize in any one year, the funds available for the prize may be used for related purposes as determined by the Board of Trustees.

The Thomas Archibald Bedford Prize (1964) Established by Clay P. Bedford in memory of his father, the prize is awarded at Commencement to a graduate student in civil engineering who has demonstrated high scholastic ability and has made a substantial contribution to the field. The selection is made by the provost upon recommendations from the Office of Graduate Education. Should no student qualify for the prize in any one year, the funds available may be used for related purposes as determined by the Board of Trustees.

The John and Mary Cloke Prize (1964) This prize is an annual award from the income of a retirement gift given to Prof. and Mrs. Cloke by students and associates of Dr. John B. Cloke, a member of the chemistry faculty for 45 years. Prof. Cloke established the prize to be awarded at Commencement to a graduating senior in the Department of Chemistry who is continuing in chemistry, medicine, or biological science, and who has made a distinguished record, especially in the department.

The Livingston W. Houston Citizenship Award (1964) Established by Clay P. Bedford, the prize is given in memory of Livingston Waddell Houston, 11th president of Rensselaer. It is awarded at Commencement to a student who, in the opinion of a committee consisting of the president of the university, the provost, dean of students, director of athletics, and director of the student union, is considered the "First Citizen of the College." The recipient must rank high in character, leadership, scholarship, and athletic ability. Should no student qualify for the prize in any one year, the funds available for the prize may be used for related purposes as determined by the Board of Trustees.

The Allen B. DuMont Prize (1969) Established by the Allen B. DuMont Foundation in memory of Dr. DuMont, this prize is awarded at Commencement to a graduate student in electric power or electrical and systems engineering who has demonstrated high scholastic ability and has made a substantial contribution to that field. Should no student qualify for the prize in any one year, the funds available may be used for related purposes as determined by the Board of Trustees.

The Max Hirsch Prize (1972) The prize, established by Prof. Edith H. Luchins in memory of her father, consists of the net annual income from \$2,000. It is awarded at Commencement to a senior in the Department of Mathematical Sciences who has demonstrated outstanding ability in academic work and gives promise of outstanding success in a career in mathematical sciences.

The Michael A. Sadowsky Prize (1972) This prize was established by former students and friends of Dr. Sadowsky, professor emeritus of mechanics. It is awarded at Commencement in selected years to a master's degree candidate in mechanics for outstanding scholarship and a demonstrated ability in the application of mechanics.

The Ralph Ernest Huston Prize (1973) The prize was established by Antoinette K. Huston and sons, Peter, Kenneth, Richard, and T. Michael, in memory of Dr. Ralph Huston, professor of mathematics from 1934 to 1969. It is awarded at Commencement to the first- or second-year graduate student in the Department of Mathematical Sciences who has demonstrated unusual promise and ability as a teacher. Should no student qualify for the prize in any one year, the funds available may be used for related purposes as determined by the Board of Trustees.

The Moles' Award (1973) The award, consisting of a prize of \$100 and an award certificate, is given by the Moles, a national association of men engaged in engineering construction. It is given to a student in engineering whose academic achievement and enthusiastic application show outstanding promise for personal development leading to a career in construction engineering and management.

The Charles D. Dyce Prize (1975) The prize was established by friends in memory of Charles D. Dyce, Class of 1972. It is to be awarded to a student in the School of Engineering who, at the conclusion of the freshman or sophomore year, has demonstrated high scholastic ability and involvement in extracurricular activities and indicates potential for constructive leadership.

The Erwin R. Gaertner Prize (1975) The Gaertner Prize is awarded to a senior majoring in nuclear engineering or engineering physics who intends to pursue graduate study in that field. The award consists of the annual income from funds contributed by friends and former students of the late Prof. Gaertner and is bestowed in recognition of general excellence in scholarship, personal character and attitudes, and promise of outstanding performance in research related to nuclear engineering and engineering physics.

The Lt. Charles D. Dyce Award (1976) Established in memory of Lt. Dyce, Class of 1972, this award is presented to a freshman or sophomore cadet in the Army Reserve Officers Training Corps who has demonstrated high leadership potential and outstanding military bearing and whose superior performance has served to support cadet corps activities. Selection is made in a manner prescribed by the chairman of the Department of Military Science.

The Leopold L. Balleisen Prize (1976) Established by Donald H. Balleisen in memory of his father, a graduate in the Class of 1918. For a senior who has won a varsity letter in his or her senior year and one other year and, of those thus qualified, stands highest academically in the senior class.

The Hillard B. Huntington Award (1976) The prize was established by friends and former students of the late Hillard B. Huntington, professor emeritus of physics. It is awarded at Commencement to an outstanding graduate student in physics.

The Lewis S. Coonley Prize (1978) An annual award established by friends and former students of Prof. Coonley, the prize is awarded to one or more graduating seniors to honor achievement that betokens success in the practice of chemical engineering process design.

The Clarence E. Davies Award (1978) Sponsored by the Hudson-Mohawk Section of the American Society of Mechanical Engineers (ASME), in honor of Col. Davies, a 1914 graduate of Rensselaer who was ASME executive secretary from 1934 to 1957, this award is presented at Commencement to an outstanding senior in Mechanical Engineering.

The Henry J. Nolte Memorial Prize (1978) The prize, established in memory of Henry J. Nolte, who attended Rensselaer in the class of 1919, consists of the net annual income from \$1,100. It is awarded at Commencement to a baccalaureate or master's degree candidate in electrical and systems engineering who has done an outstanding engineering research or design project.

The Joaquin B. Diaz Memorial Prize (1978) Established by friends, family, and colleagues in memory of Dr. Joaquin B. Diaz, the Albert Einstein Professor of Science at Rensselaer from 1967 to 1978, this award is presented to a graduate student who shows ability and enthusiasm for research in mathematics.

The Del and Edith Karger Dissertation Prize in Management (1978) This prize is awarded to a graduate student in the School of Management whose original publication is judged an outstanding contribution by a committee of faculty and alumni.

The L. David Walthousen Award (1979) This award is presented annually to a senior in the Department of Nuclear Engineering and Engineering Physics who shows promise of excellence in the experimental aspects of nuclear engineering. The award consists of the annual income from funds contributed by friends and former students of the late L. David Walthousen, supervisor of the RPI Critical Facility.

The Myron P. Laughlin Prize (1980) The prize, established by Myron P. Laughlin, consists of income from a \$1,000 mortgage bond. It is awarded to the student who has written the best pre-engineering laboratory report.

W. H. Bauer Doctoral Prize in Chemistry (1981) This prize is awarded to the candidate who has an exceptional graduate record, has carried out meritorious doctoral thesis research and shows outstanding promise in the field of chemistry. The prize is derived from the income earned from an endowment established by friends and colleagues of Walter H. Bauer, professor of chemistry 1934-72 and dean of science 1960-72.

The Willie Stanton Award (1981) Established by the Rensselaer Union, the award is in honor of William P. (Willie) Stanton, Class of 1972 (hon.), a dishwasher and cook who served the academic and social needs of Rensselaer students for over 45 years. It is presented annually to the senior who is judged to have contributed the most to the service of the student body. The selection committee consists of the vice provost for student affairs, the dean of students, and the director of the Rensselaer Union.

The Karen & Lester Gerhardt Prize in Science and Engineering (1982) This prize was established to honor a full-time engineering or science doctoral candidate, who by the originality and insight of his or her work emphasizes the tradition of excellence that is Rensselaer.

The Edwin J. Holstein Memorial Award (1983) This prize was established to recognize outstanding academic achievement in economic science.

The Paul B. Daitch Award (1984) An annual award based on the income from funds contributed by his family, friends, and colleagues in memory of Professor Paul B. Daitch, the prize is awarded at

Commencement to the graduating biomedical engineering senior who combines both outstanding scholarship and level of service to RPI and/or the community, in keeping with Dr. Daitch's interest in public service.

The Paul E. Hemke Award (1985) Sponsored by the Northeastern New York Section of the American Institute for Aeronautics and Astronautics, in honor of Dr. Paul E. Hemke who founded the Aeronautical Engineering Department at Rensselaer. The award is presented at Commencement to a senior in Aeronautical Engineering in recognition of outstanding academic achievement and promise for a successful professional career.

The Delmar W. Karger Award in Management (1986) This award is made to the outstanding graduating master's student in management based upon academic record and leadership, as judged by a committee of faculty and alumni.

The Epsilon Delta Sigma Award (1986) An annual award established by Epsilon Delta Sigma, the Honorary Management Society, given to an undergraduate or graduate management student who has demonstrated outstanding service to the School of Management.

The Paul A. McGloin Prize (1989) An annual prize established in honor of Professor Paul McGloin, scholar and teacher in the computer science and mathematical sciences departments from 1955 to 1989. The prize is given to an outstanding senior in computer science.

The Robert McNaughton Prize (1989) An annual prize established in honor of Professor Robert McNaughton, scholar and teacher in the computer science and mathematical sciences departments from 1967 to 1989. The prize is given to an outstanding graduate student in computer science.

The Roland Walker Prize (1989) This prize was established by friends and former students of Roland Walker, professor emeritus of biology. The prize is awarded to a senior in biology for outstanding scholarship.

The Del and Ruth Karger Dissertation Prize in the Department of Decision Sciences and Engineering Systems (1991) The prize is awarded at Commencement to a doctoral degree candidate in DSES whose dissertation is deemed outstanding.

The Delmar W. Karger Award in the Department of Decision Sciences and Engineering Systems (1991) The award is made at Commencement to a master's degree candidate in DSES whose master's work—including a project or thesis—is deemed outstanding.

The U.W. Marx Prize (1991) The award is given by U.W. Marx, a general contractor and construction management firm in Troy, NY. It is awarded for the best undergraduate project in civil engineering during the academic year.

The PPG Industries Foundation Management Systems Award (1991) An annual prize established by PPG Industrial Foundation awarded to an outstanding senior in the area of management systems.

The Walter Eppenstein '52 Graduate Teaching Assistant Award (1991) Established by friends and colleagues of Walter Eppenstein, professor emeritus of physics, to honor his contributions to education at Rensselaer. It is awarded to one or two graduate students for outstanding contribution to our teaching program.

The Charles M. Close '62 Doctoral Prize (1992) The prize is based on income derived from contributions by members of the electrical, computer, and systems engineering faculty in honor of their colleague Professor Charles M. Close. The prize is awarded annually to a doctoral candidate in electrical, computer, and systems engineering who has done outstanding work as a researcher and teacher, and who shows promise of a distinguished academic or research career.

The Robert G. LaFleur Geology Prize (1993) The prize was established by friends of Professor Robert G. LaFleur for students demonstrating an excellent record in, commitment to, and promise in the field of environmental geoscience.

The Edward J. Kilcawley Prize (1994) The prize was established to perpetuate the memory of Professor Edward J. Kilcawley, a visionary environmentalist, a “man before his time” and to reward a graduate student following his field by Frank R. Sherman, BCE Class of 1939, for whom “Kil” was a mentor, an inspiration, and a life-long good friend. It is awarded at Commencement to a recipient of the degree of Master of Civil Engineering who has pursued his studies in environmental issues, is possessed of the qualifications required for the MacDonald Prize, has been elected to memberships in Tau Beta Pi and the Society of the Sigma Xi, and is a native born citizen of the United States.

The Val Carlson '52, Architect, AIA, Award (1997) This endowment fund established by Val Carlson '52 is presented annually to the most improved student graduating from the School of Architecture with a Bachelor of Architecture degree. Preference is given to students from the state of Connecticut. If no person from Connecticut qualifies, then students from the New England states will be considered.

The Stanley I. Landgraf Prize '46 (1998) An annual prize established to honor Stanley Landgraf, Rensselaer trustee, Acting President, and friend of the Computer Science Department. The prize is given to a computer science major who excels in leadership skills and academic achievement.

Center for Finance & Technology Award (1999) An annual prize awarded to an academically outstanding undergraduate management student with a concentration in Finance.

The Jack Hollingsworth Prize (1999) An annual prize given to honor Jack Hollingsworth, professor of mathematics. This prize is awarded to a computer science student who made a major contribution to the educational program at Rensselaer.

The Severino Center Award in Entrepreneurship (2000) An annual prize given to an outstanding undergraduate management student with a concentration in technological entrepreneurship.

The Glenn Martin Mueller '64 Prize (2000) An annual prize established to honor Glenn Martin Mueller, Rensselaer Trustee and graduate, Class of 1964. A leading venture capitalist in Silicon Valley, Glenn was a champion of the entrepreneur, funding many successful start-up companies. This prize is given to a computer science major who is deemed to be the most entrepreneurial.

The George H. Handelman Award for Graduate Study in Applied Math (2000) This award is given to a graduating senior (in any field) who shows promise in applied mathematics and has been admitted to a graduate program in Applied Mathematics.

The Dr. Johanna Maas Chemistry Teaching Assistant Award (2000) This award is presented annually to one or more graduate students for outstanding service in the teaching program of the Chemistry Department. It was established by Sonja Krause, Class of 1954, and others in memory of Dr. Johanna Zelig Maas, chemist, physician, Holocaust survivor, and humanitarian.

Architecture Faculty Award (2001) Faculty award to a graduating student who has demonstrated exceptional all-around capacity and promise for a successful career in architecture.

The Zelda and David G. Gisser Prize in Biomedical Engineering (2002) An annual prize established by Zelda Gisser in memory of her husband, David G. Gisser. It is awarded to a biomedical engineering graduate student whose dissertation is considered exemplary in the area of experimental work.