



GUIDELINES FOR MASTER'S IN SCIENCE STUDENTS IN CHEMICAL ENGINEERING

GRADUATE STUDIES COMMITTEE

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Chemical Engineering Department
University of Puerto Rico at Mayaguez

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PREFACE

This handbook contains the departmental guidelines and policies related to the Master's Program in Chemical Engineering of the University of Puerto Rico (UPR), Mayagüez, PR.¹ In addition, the UPRM's Office of Graduate Studies provides general information concerning institutional policies (<http://grad.uprm.edu>). The Graduate Program Coordinator, the President of the Graduate Studies Committee, and the secretary assigned to the Graduate Program are valuable sources of information and support for graduate students. Finally, academic policy for graduate students within the Department is the responsibility of the Graduate Studies Committee and its implementation lies on the Graduate Program Coordinator and the Department Chairman. For campus-wide policies, students may contact the Office of Graduate Studies.

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¹ The guidelines presented herein have been prepared in accordance with Certification 09-09 of the UPRM academic senate

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PART 1. ACADEMIC REGULATIONS

A. REQUIREMENTS

The Master's of Science degree in Chemical Engineering at the UPRM requires an intense program of study and research. As such, the Department requires a minimum of 31 credits to complete the degree, which are divided as follows: 12 credits in chemical engineering core subjects; 1 credit in seminar, 6 credits in thesis, 6 credits in subjects within the area of specialization, and 6 credits in subjects outside the area of specialization. A maximum of 9 credits in advanced undergraduate elective courses is allowed, which **should be approved within the first 30 credits** of coursework. At least 60% of all courses must be approved at the UPRM.

The discipline of Chemical Engineering covers many diverse areas and, therefore, the Department provides graduate-level subjects to cover those of most relevance. The philosophy of the Department is to encourage students to develop a more in-depth understanding of the fundamental concepts of Chemical Engineering and, at the same time, broaden their perspective by sampling other, more specialized subjects. To this end, the following **four subjects** have been designated as **core**: (i) Mathematical Methods in Chemical Engineering (InQu 6001); (ii) Reactor Design (InQu 6005); (iii) Advanced Transport Phenomena (InQu 6016); and (iv) Advanced Thermodynamics (InQu 6019). It is expected that students will complete these four core subjects within the first year of their tenure at the UPRM. Students admitted with deficiencies should complete these courses within the first two years. The list of core subjects will be periodically reviewed to accommodate modern developments in the discipline.

In addition to these core courses, students must enroll each semester in Seminar (InQu 6029) and, upon approval of the Thesis Proposal (see section 1.F), in Master's Thesis (InQu 6037). Under special circumstances, a student may be allowed not to enroll in InQu 6029 if he/she is enrolled in a similar course elsewhere. A maximum of 6 credits of Master's Thesis (InQu 6037) may be applied to the fulfillment of master's credit requirements (see below).

To ensure the student's academic and professional development, the Department requires a minimum of 6 credits (typically two courses) in subjects in the specialization area and a minimum of 6 credits (typically two courses) in subjects outside the specialization area, which

should be related to the student's thesis research. These courses should be selected by the student in consultation with his/her thesis advisor.

A Plan of Study Form must be submitted to the Office of Graduate Studies after being approved by the thesis committee and the Graduate Program Coordinator, by the stipulated deadlines during the student's second semester of enrollment. A copy of such form must be sent to the Office of Graduate Studies. New students are also expected to fill the Survey for New Students located in the departmental website within the first semester of study.

Students with deficiencies in courses are expected to complete them satisfactorily during their first year of study.

For the successful completion of a MS program the candidate is expected to have an submitted peer-reviewed publication at the time of the thesis defense.

B. EXPECTED GRADES IN DEPARTMENTAL COURSES

UPRM's regulations require all graduate students to maintain a graduate GPA of 3.0 or higher. A student is placed on probation if his/her GPA drops below 3.0 or receives a non-satisfactory grade (NS) in thesis research. The student is suspended from the graduate program if he/she is placed on probation three times. Chemical engineering master's students are expected to receive a grade of "B" or higher in any course taken to satisfy a departmental requirement. Failure to fulfill this expectation may result in denial of subsequent financial support. Withdrawing courses ("W") is strongly discouraged; such action should be taken after consultation with the thesis advisor and the graduate program coordinator.

C. VALIDATION AND ACCREDITATION OF COURSES TAKEN PRIOR TO JOINING THE UPRM'S MS PROGRAM

A maximum of 9 credits in advanced undergraduate elective courses and graduate courses taken at UPR can be validated even if the credits were used for completion of a BS degree.

Students who have approved graduate courses from another recognized institution offering programs comparable to those of the College of Engineering at UPRM, or students transferring from such a program, may qualify for validation of up to 12 credits towards the MS degree. Core courses approved at other institutions will not be approved nor elective

graduate courses taken at other institutions if the credits were used for completion of a BS degree. Courses approved more than ten years prior to enrollment, at UPRM or elsewhere, will not be approved. Three criteria will be used by the Graduate Studies Committee to approve courses: (a) if the course taken elsewhere is considered equivalent to a UPRM course, then the course can be validated; (b) if a course is not equivalent to any course offered at UPRM, but its contents are deemed to be of an appropriate level and relevance to chemical engineering, then the course can be accredited; (c) courses will not be approved if the requirement of 60% course residence is not fulfilled.

Written requests for approvals of courses taken prior to enrollment in the MS program must be submitted to the Graduate Program Coordinator within the first two semesters of enrollment in the program. The request must include the following: (i) petition letter from the student with approval of the thesis advisor, (ii) course syllabus signed by the course professor, department chair, or higher authority at the institution where the course was taken, (iii) official transcript showing the grade obtained in the course, and (iv) UPRM equivalent course code and title, if applicable. The Graduate Studies Committee will make final decisions on the basis of academic performance and course contents. A grade of A is required in advanced undergraduate elective courses (5000-level), whereas a grade of B or higher is required in graduate coursework (6000-level or higher). Thesis credits approved at other universities will not be validated. Courses approved during a suspension period will not be validated. In keeping with residency requirements applicable at the UPRM, no less than 60% of all the credits of the MS program must be approved at the UPRM.

D. SELECTION OF THESIS ADVISOR(S)

Each graduate student is associated with a research advisor who plays an important role in the student's academic and research programs. First-year master's students are required to go through the process described herein. To help in this process, the Graduate Program Coordinator's Office has prepared a form that will be given to all first-year students. Every new student is required to meet with at least five Chemical Engineering faculty members to discuss possible research topics; each faculty member should sign the form. Then, each student has to select three research projects by the date specified in the form, and prioritize them according to the instructions in the form. **Failure to comply with this requirement in a timely manner may**

result in loss of institutional funding. Students and potential advisors are reminded that the thesis advisor is ultimately responsible for securing funds to support the graduate student during his/her tenure at the UPRM, hence this should be an important point during discussions of potential thesis topics. The Director of the Department, in consultation with the Graduate Studies Committee, will make every effort to grant each student one of his/her choices within funding and space limitations. Students will be notified of their thesis advisor(s) assignments by the end of their first semester. **Students and potential advisors cannot reach agreements without the consent of the Graduate Studies Committee and the Department Director.**

Prior to registration (Fall and Spring semesters), the student's course selection must first be approved by the thesis advisor before the Graduate Program Coordinator authorizes registration. Advisor approval should also be obtained for any subsequent courses add/drop actions during the term (no additional authorization by the Graduate Program Coordinator is required).

Occasionally, a research project does not proceed according to the expectations of the student, the research advisor(s), or both. Early recognition of the possibility of switching the research topic and/or thesis advisor(s) is an important factor in successfully managing this situation. Any student contemplating a change of thesis advisor(s) should contact the Graduate Program Coordinator for consultation and assistance. Students must be aware that in most cases a change in thesis advisor, after the thesis proposal has been approved, will not be granted. However, in the improbable case that such change is approved, the student must present a new master's proposal subjected to the conditions given by the Graduate Program Coordinator in consultation with the Office of Graduate Studies.

E. THESIS COMMITTEE (STUDENT'S COMMITTEE)

Once a thesis advisor has been assigned to the student, the two will work together to choose a thesis committee with the necessary skills and background to assist the student in developing his/her thesis research. The committee should consist of 3-5 members, at least half of which must be from the Department of Chemical Engineering at UPRM. Any committee member external to the UPR system should have an adjunct appointment in the Department according to university regulations. The selection of the committee members must then be informed to the Graduate Program Coordinator and included in the student's plan of study.

F. THESIS PROPOSAL

The Department requires master's candidates to prepare and submit a written Thesis Proposal **before registering for master's thesis for a third time**. The Thesis Proposal consists of a written exposition of the planned research. The purpose of the Thesis Proposal is to obtain important feedback early on in the development of the thesis research. Since the Thesis Proposal counts as the Preliminary Examination in the Chemical Engineering Master's Program, it also provides the opportunity to evaluate the student's overall progress. The proposal must be submitted to the student's thesis committee and to the Graduate Program Coordinator at least **four weeks prior** to the Graduate Studies deadline for Graduate Exams. Failure to complete the Thesis Proposal within the above-mentioned deadline will constitute unsatisfactory progress toward the master's degree (which may be recorded as such if the student is currently enrolled in INQU 6037 – Master's Thesis), and can result in denial of institutional funding.

Although the exact format of the Thesis Proposal is determined by the student and his/her research advisor(s), students are encouraged to follow the guidelines provided by the Office of Graduate Studies (<http://grad.uprm.edu/normastesis.htm>). The following outline can be used as a guide:

- I. **Cover Page.** Provides the thesis title, name(s) of the student, the thesis advisor(s), and members of the student's thesis committee, and date of submission.
- II. **Goal and Specific Aims.** Clearly states the overall goal and specific tasks to be accomplished (not to exceed one page).
- III. **Background and Rationale.** Presents a rationale for conducting the proposed studies. Reviews all key publications in the chosen field, and shows their relation to the proposed studies. This section should be used by the proponent to highlight the scientific contribution of his/her project to the field of Chemical Engineering.
- IV. **Project Plan and Methodology.** Discusses the planned research with particular emphasis on expected difficulties and challenges. Indicates how the experimental and/or theoretical results will serve to meet the proposed objectives. Multiple strategies to accomplish the main tasks should be indicated.

- V. **Safety.** Notes any safety issues related to the use of chemicals, biohazards, and laboratory procedures that are part of the planned research, if applicable.
- VI. **Time Schedule.** Delineates the expected schedule for completion of the Thesis' main milestones.
- VII. **Literature Citations.** Lists all references following the style of any major journal in the field of Chemical Engineering.
- VIII. **Appendices.** This section is optional.

Thesis Proposals, including literature citations, figures, tables, and appendices **should not exceed 40 pages**. Brevity and clarity of presentation will be appreciated by the thesis committee. The Thesis Proposal is a statement of the intended plans for the research program and not a summary of the student's past or current accomplishments.

After the thesis proposal has been approved, and only then, the student may submit his/her proposal to the Office of Graduate Studies to fulfill their requirements. Then, the Director of Graduate Studies will appoint his/her Representative to the student's thesis committee.

G. THESIS COMMITTEE MEETINGS

Purpose and Types of Thesis Committee Meetings

Each thesis committee meeting should focus on the student's education and research progress, with emphasis on achievements and problems encountered. These meetings are opportunities for the student to receive advice and counsel from the members of his/her Committee. As a student progresses in his/her research, however, these meetings should focus on the eventual completion of the student's master's thesis. As such, two types of student thesis committee meetings have been defined and described below.

1. Regular Thesis Committee Meeting

These meetings are an opportunity for the student to discuss his/her progress on the proposed research, as well as to discuss with the committee the feasibility of the intended research. They should be scheduled as recommended by the Thesis Advisor.

2. Plan-to-Finish Thesis Committee Meeting

At the **Plan-to-Finish Thesis Committee Meeting**, the **thesis** committee should evaluate a **Plan-to-Finish Oral Report** presented by the student no sooner than three months prior to the expected defense date. The Plan-to-Finish Oral Report should be a concise summary reevaluating the research plan proposed by the student in the original Thesis Proposal, including discussing and justifying any needed modifications to the original research plan. The report should also discuss the remaining tasks (experiments, computations, analysis, literature review, and writing) that are needed to bring the master's thesis project to a successful completion. A realistic timeline for the completion of these tasks should also be included. In this meeting, the student should also summarize the main results obtained in the master's research and justify why they are sufficient for completion of the master's thesis. The committee should agree that the work carried out by the student, as reflected in the **Plan-to-Finish Oral Report**, constitutes a high-quality research study suitable for presentation to the faculty in the **Final Thesis Defense** (see section 1.I.).

Format of Student's Committee Meetings

For a Progress Report to be most useful, in addition to summarizing the progress made by the student since the last committee meeting, it should clearly state the problems and challenges encountered by the student in his/her research, including unsuccessful attempts made to resolve them and a discussion of future approaches to be tried. When appropriate, supporting data and completed manuscripts may also be presented during the Progress Report.

Student committee meetings should be attended by the student's committee and by invited guests deemed appropriate by the student's thesis advisor.

The student's committee meetings **should not exceed 90 minutes**, with up to 45 minutes for the student's presentation and 45 minutes for discussions. Following the student's committee meeting, **in consultation** with the thesis advisor(s), the student should prepare a detailed summary of the thesis committee's evaluation of his/her research to date, as well as indicate any real or potential problems identified.

H. FINAL THESIS DEFENSE

Following the satisfactory completion of the **Plan-to-Finish Thesis Committee Meeting**, master's candidates should commence the Thesis Defense process, which will be as follows:

1. An Application for Oral Examination and one copy of the final thesis must be submitted to

the UPRM Office of Graduate Studies by the date indicated in the official Academic Calendar and at least one month prior to the proposed defense date. It is important to stress that in order to submit an Oral Examination Application to the Graduate Studies Office, the Master's Thesis Committee must agree to sign it, explicitly certifying that the candidate is ready to present the exam and that the thesis report is complete, therefore, any concerns that have arisen during Committee Meetings must be addressed in the **Plan-to-Finish Thesis Committee Meeting Summary**. In order for your application to be accepted by the UPRM Office of Graduate Studies you must have applied for graduation, have an approved plan of study and proposal, be registered in INQU 6037 – Master's Thesis and have fulfilled all requirements of the program. The Office of Graduate studies will appoint an Office of Graduate Studies representative that will be member of your Examining Committee in addition to your thesis committee members.

2. It is the student's responsibility to coordinate with the Examining Committee members a date, time, and place for the defense. The student should preferably get a written confirmation of the place reservation.
3. It is the student's responsibility to request a grade for the Graduate Studies Seminar at least two weeks prior to the last day of classes of their last semester in the program. See the Graduate Seminar Syllabus for more details.
4. At least one month prior to the proposed defense date the student must provide a copy of the final version of the thesis to the members of the Thesis Committee: (a) the thesis advisor(s), and (b) every thesis committee member. It is customary for the Office of Graduate Studies to provide the copy of the thesis to their representative but it is the student's responsibility to corroborate. During the next two weeks, the Examining Committee will review, comment upon, and suggest changes to the thesis.
5. **Two weeks** before the oral thesis defense, the student should turn in to the Graduate Program Coordinator's Office copies of the Technical Summary. The Technical Summary is a text-only document no longer than two pages describing the scope and significance of the master's thesis. The primary audience is the Chemical Engineering faculty, who will be interested in a concise description of the thesis research and its most significant findings. The Technical Summary should explain the impact of the Master's

Thesis on the Chemical Engineering profession and on the advancement of scientific knowledge in the field.

6. Upon receipt of the Technical Summary, the Graduate Program Coordinator's Office will distribute it to the entire Departmental faculty, along with an announcement designed to generate faculty attendance at the final thesis defense.
7. The thesis advisor will preside over the Thesis Defense and will introduce the candidate to the audience. The student should make plans to speak for no more than 45 minutes. The thesis advisor will also be in charge of the open and closed question-and-answer sessions that follow the candidate's presentation and the final confidential deliberations by the Examining Committee. The thesis presentation and open question-and-answer session are open to the public, but will be followed by a closed session between the candidate and the Examining Committee. Additional questions may be asked during the closed session, but the total time for the Thesis Defense will not exceed 3 hours.
8. After the closed session with the candidate, the Examining Committee will deliberate on the approval/non-approval of the Thesis Defense, with a majority vote required for approval. The result of the Thesis Defense will be notified immediately to the candidate by the thesis advisor. In the case of non-approval, the Examining Committee will make recommendations for a second Thesis Defense whose result will be final.
9. Once the Thesis Defense is successfully completed, the student must assemble the final version of the thesis document within the timeline stipulated by the Examining Committee and the constraints set forth by the Office of Graduate Studies. All thesis materials must be submitted to the Office of Graduate Studies in pdf-format.
10. The student should turn in the following materials to the Graduate Program Coordinator's Office at least one week before the date established by the Office of Graduate Studies to submit the final version of the thesis,:
 - One copy of the Thesis Abstract.
 - One copy of the Thesis Title Page signed by all the members of the Thesis Examining Committee.
 - Forwarding Address Form.
 - Signed Chemical Engineering Department Departure Form.

I. UNSATISFACTORY PROGRESS

Students judged to be making unsatisfactory progress toward their degree objectives will be so notified in writing by the thesis advisor(s), the Graduate Program Coordinator, or the Office of Graduate Studies. If sufficient improvement is not made by the end of the following semester, financial support may be cancelled.

Unsatisfactory progress includes not meeting any of the requirements set forth herein, not making sufficient progress in developing a research project leading to the degree of Master in Science in Chemical Engineering, inadequate performance in coursework, failure to attend departmental research seminars, failure to have timely thesis committee meetings, etc. The student will be notified why unsatisfactory progress has been assessed and will be given guidelines to improve his/her performance.

PART 2. FINANCIAL SUPPORT

Graduate students may provide their own financial support or receive financial assistance in the form of fellowships, research assistantships, or teaching assistantships.

A. FELLOWSHIPS

Fellowships come from the UPRM or from external sources. Examples of external fellowships include: NSF, DOD, NIH, NASA, GEM, Hertz, Kodak, Lucent, Ford Foundation, Sloan Foundation, Merck, and Whitaker Foundation Fellowships. Information about external fellowships is maintained in a binder in the Graduate Program Coordinator's Office. UPRM's Office of Graduate Studies may have a more complete listing of outside fellowships. Internal fellowships are typically limited to first- and second-year master's students. Funds for such awards are usually provided by gifts from alumni or donations from industry. Fellowships are awarded on the basis of academic merit, and a high level of performance in coursework and research activities is expected of each recipient.

Recipient of Departmental Fellowships are under no obligation, either real or implied, to the donor of the fellowship, other than to complete his/her program of study and research diligently. Recipients of external fellowships should check with the appropriate coordinating official to determine any existing obligations regarding their fellowships.

The recipient of an institutional or departmental fellowship is allowed two weeks vacation per calendar year, which should be taken in consultation with the thesis advisor. Additional vacation time is allowed only by permission of the thesis advisor(s).

B. RESEARCH ASSISTANTSHIPS

Research Assistants (RAs) are supported from research contracts or grants, and are supervised by faculty members of the Department. In this case, the Principal Investigator (PI) has a responsibility to the funding organization to conduct research in specific areas covered by the grant. In most cases, an appointment as a RA coincides with the selection of a research topic and a thesis advisor(s). This means that the selected or assigned thesis advisor is the PI or a co-PI of the grant funding the student.

In a few cases, students may be assigned as research assistants to a project where there is an agreement between the student and the thesis advisor(s) that the work will not be used as part

of the thesis. A typical time commitment to this type of research project would be 18 hours per week.

In the case of RAs, an arrangement is made with the thesis advisor(s) to provide project funds for tuition and/or stipend. The thesis advisor(s) will inform the Graduate Program Coordinator's Office each semester of the availability of such funds, so that appointments can be processed. When paid on a 12-month basis, a RA is allowed two weeks vacation per calendar year, which should be taken in consultation with the thesis advisor. Additional vacation time is allowed only by permission of the thesis advisor(s).

C. TEACHING ASSISTANTSHIPS

Teaching Assistants (TAs) play a central role in the Department's educational program. Service as a TA, which requires working closely with one or more faculty members, is an important and beneficial aspect of the graduate school experience. Each TA is assigned to a specific undergraduate or graduate course. While the exact duties of the TA vary depending on the course and the instructor's teaching methodology, typical duties may include the following:

- Developing and grading problem assignments
- Grading reports and examinations
- Holding regular office hours (6 per week) for individual students and group sessions
- Leading recitation sections and tutorials
- Planning, designing, and supervising laboratory experiments
- Proctoring examinations
- Preparing a course solution book to be archived in the Department
- Attend the classes of the course they are assisting
- Attend orientation and training workshops organized by the Department or by the University

TA assignments are generally made at least one month before the beginning of a semester. In some instances, however, enrollment-driven last-minute TA assignments are necessary. Not all students may be selected for TA appointments. Upon assignment as a TA, the student will be provided with a list of detailed responsibilities, including information on the preparation of a course solution book, by the course instructor(s).

TAs are expected to be available for the **complete academic period** of their assignment. A student working as a full-time TA (6 credit-hours) is expected to devote 15 hours per week to TA duties. Some courses with limited enrollment require only a fractional TA effort, and in those cases, partial TA appointments are made. TAs' stipends are set by the institution and announced each term by the Office of Graduate Studies.

D. GRADUATE GRADERS

A limited number of positions known as graduate graders may be available to assist in the teaching of some high-enrollment undergraduate courses. Graders are involved in grading homework assignments, photocopying handouts, and preparing audiovisual materials for class. Graders should not be responsible for any activity involving direct contact with students. Graders' stipends are set by the institution and announced each term by the Office of Graduate Studies.

E. CONSULTATION OR OUTSIDE JOBS

The financial aid provided by the Department for fellowships, RAs, or TAs usually carries a restriction that the student must devote full-time effort to the activities for which he/she is receiving support. Students receiving any research or teaching assistantship through the institution (UPRM) cannot have inside or outside jobs. For any other type of institutional support, the students should consult with their thesis advisor(s) and ask the Graduate Program Coordinator before undertaking any compensated activity, and obtain an approval form from the Director of Graduate Studies.

F. TIME LIMIT FOR FINANCIAL SUPPORT

Certification 05-62 as amended by certification 14-19 describes the institutional rules for graduate financial assistance. Financial support, either institutional or external, for a masters student can be only for two years. This timeframe can be extended for two additional years with approval from the Graduate Office Director, as recommended by the Chemical Engineering Graduate Program Coordinator or Director, but only one of these years can be funded through institutional support.

PART 3. ADMINISTRATIVE ASPECTS

A. KEYS

New students will receive their office assignments during the first few weeks of their first semester (Fall or Spring). Once students have been assigned a thesis advisor, he/she will instruct them on securing an office and/or a laboratory key. The Department Director's Secretary will contact the student when the key form is complete. At that time, the student should pick up the signed key request form from the Department Office, and bring it to the Property Office between 10:00 AM and 2:00 PM to request his/her keys. Under no circumstances are students to be given keys to faculty offices or departmental facilities such as the mailroom, conference room, classrooms, or auditorium.

B. MACHINE SHOP FACILITIES

A Departmental Machine Shop is available for usage by students and faculty in Chemical Engineering. The machinist will perform the desired work once a work order is filled out and submitted to the department officers.

C. LABORATORY SAFETY

The Department has established policies and procedures to make students and employees aware of their responsibilities for safe practices in the laboratory and elsewhere. Although our office work and research activities are diverse, the following requirements apply in all cases:

1. We are all mutually responsible for our own safety and the safety of those who work with us, for us, or around us.
2. The responsibility for the safe conduct of an experiment, or for the safe utilization of laboratory space, rests with the person running the experiment or utilizing the laboratory space at any given time.
3. To the extent that the execution of an experiment is supervised by someone who is not performing the experiment, that supervisor shall satisfy himself/herself that the person who is performing the experiment is both aware and able to follow safe laboratory procedures.

Presentations on laboratory safety should be given by the Departmental Safety Coordinator for one hour during the first session of the Graduate Seminar (InQu 6029/8099) each semester. All graduate students are required to attend this presentation and to sign the attendance log before they begin their laboratory work. The safety seminar format varies; it can be a lecture by the Departmental Safety Coordinator, an invited lecture, or a written examination on the Department of Chemical Engineering Chemical Hygiene Plan.

The importance of lab safety cannot be overemphasized. More specific information on safety-related policies and procedures is available from the Departmental Safety Committee.

D. COMPLETION OF STUDIES

Each student must submit the following materials to the Graduate Program Coordinator's Office at least one week before the date established by the Office of Graduate Studies to submit the final version of the thesis:

1. Forwarding Address Form.
2. Evidence of submitted peer-reviewed publication.
3. Departmental Departure Form - This form requires various approvals, including those of the student's thesis advisor(s) and the Associate Director for Administrative Affairs to ensure that the laboratory and/or office space is left neat and clean, and that no unapproved chemical samples are left behind. In addition, all keys must be returned prior to leaving the UPRM (proper documentation from the Property Office is required) and the Graduate Exit Survey must be filled. (<http://inqu.uprm.edu/resources>)
4. One copy of the master's thesis abstract and two copies of the cover page of the thesis (that must be signed by the Thesis Examining Committee) for final approval and signature by the Department Chair. The student should also provide a copy of the final thesis.