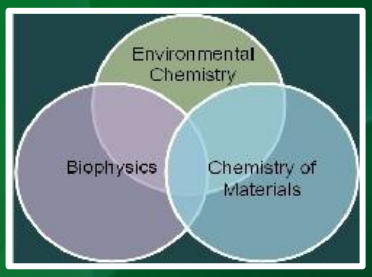
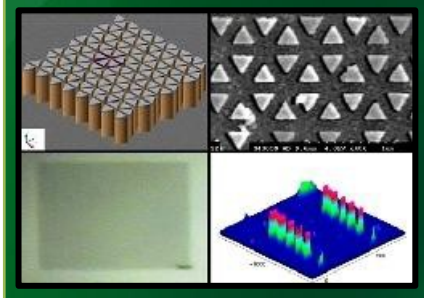
2018

Department of Chemistry

UNIVERSITY OF PUERTO RICO
Mayagüez Campus





Student Guide to the Graduate Program in Chemistry

Requirements and Policies:

This document describes the current requirements and policies of the Graduate Program in Chemistry as revised by the Graduate Committee of the Department of Chemistry.

REVISED BY: GRADUATE COMMITTEE OF THE DEPARTMENT OF CHEMISTRY
June 2018

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Student Guide to the Graduate Program in Chemistry

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University of Puerto Rico – Mayagüez Campus

June 2018

Introduction

The graduate program in Chemistry at the University of Puerto Rico – Mayagüez Campus began with the Master's degree in Chemistry in 1960, and continued with the Doctor of Philosophy's degree in Applied Chemistry in January 2004. The doctoral program in Applied Chemistry was approved by the Puerto Rico Council on Higher Education on December 18, 2003, through Certification #2003-191 [1]. The doctoral program currently has three main areas of research included Biophysical Chemistry, Chemistry of Materials and Environmental Chemistry. Likewise, the master's program offers the traditional areas of chemical research: Analytical Chemistry, Inorganic Chemistry, Biochemistry, Organic Chemistry and Physical Chemistry, as well as applied research on the three Applied Chemistry interdisciplinary areas.

This document describes the current degrees' requirements and policies as was revised by the Chemistry Graduate Committee and approved by the Faculty of the Department of Chemistry. This document is subjected to changes as deemed appropriate by the Graduate Committee, whenever the program's requirements or policies have changed or to include additional information [2].

This document is a complement to the *Certifications 09-09 and 15-21* which establish the Norms and Regulations of the Graduate Studies at the University of Puerto Rico - Mayagüez Campus. *Certifications 09-09 and 15-21* include all requirements that are common to all graduate programs within our Campus. This student guide includes norms, regulations and requirements that are specific to our program. A current version of the *Certifications 09-09 and 15-21* is available online at http://grad.uprm.edu. This guide applies to those graduate students pursuing studies in M.Sc. degree in Chemistry and Ph.D. degree in Applied Chemistry, as part of the graduate program in Chemistry at the University of Puerto Rico – Mayagüez Campus. Students accepted onto the graduate program will be considered active students as long they make satisfactory progress towards the completion of the chosen program's requirements.

Student's Graduate Committee

Section D.1 of *Certifications 09-09 and 15-21* requires that graduate students must select their advisor and the members of the student's graduate committee during their first semester in the program. It also states that the Director of the Department or the Graduate Program Coordinator will designate the members of the committee, in consultation with the advisor and the student. The committee should be constituted by professors related to the student's research project. The committee will consist of 4 to 6 members for the doctoral's degree program and a minimum of 3 members for the master's degree program. At least half of its members must belong to the Department of Chemistry. Professors from non-UPR institutions, government or industrial scientists may also belong to this committee, but they must receive an *adjunct* appointment as established by the *Certification 02-46*.

All documents required by the *Certification 02-46* must be submitted to the Personnel Committee of the Department of Chemistry for its evaluation and its subsequent endorsement or refusal. Students must choose Ph.D.-holding-faculty members from the Department of Chemistry or from a list of *adjunct professors* that may serve as a research advisor (Chairperson) of the student's graduate committee. If deemed appropriate, the students's graduate committee may also include a Co-Chair when there is strong research collaboration among professors (see section D.1 of *Certifications 09-09 and 15-21* for more details). Each student must file the appropriate forms for the selection of the research advisor and the student's graduate committee; a copy of which is included in the appendix section of this guide.

According to Section D.3 of *Certifications 09-09 and 15-21*, the students' graduate committee should fulfill several duties and responsibilities including student's academic and research progress evaluations every semester, and to provide advice.

Plan of Study

The plan of study lists all courses that the student will take, and is an excellent planning tool for the Director of the Department and the Graduate Program Coordinator in determining which graduate level courses to offer in the future. It may also contains a record of those graduate level courses previously approved for transfer. Requests for credits transfer to the doctoral program either from a Master´s program or other sources will be evaluated on an individual basis. The graduate student must prepare a plan of study in consultation with his/her graduate committee and submit the signed plan of study to the **Chemistry Department Graduate Program Office**. Advanced B.S. or M.S. courses, with a 5000 level or higher, will NOT be accredited until the plan of study is revised and approved by the Director of the Department. The graduate student shall complete the plan of study within two (2) weeks after selection of his/her graduate committee, and not later than seven (7) working days prior the established graduate school deadline of her/his second semester within the program. A copy of the approved and signed plan of study shall be sent to the Office of Graduate Studies. This is a required document since the Registrar's Office will evaluate any requests for graduation by checking whether the student has completed all the courses listed in the plan of study.

Research Proposal

M.Sc. Program:

The graduate student will write an original proposal describing his/her future research. The research proposal must be submitted to the **Chemistry Department Graduate Program Office** before the first semester in which the graduate student is registered in research (QUIM 6998) has ended. This program does not require an oral defense of the proposal.

Ph.D. Program:

The graduate student will write an original proposal describing his/her dissertation or doctoral research and will present an oral defense to his/her graduate committee. The written dissertation proposal is a requirement to both, the Program in Applied Chemistry and the Office of Graduate Studies (see Section 7.b.2.c of the *Certification 09-09* for more details). The oral defense of the dissertation proposal shall follow the *Norms for the Administration of Oral Exams to Graduate Students* and does not require

participation of the Office of Graduate Studies' Representative. The oral defense of the dissertation proposal is ***a requirement only to the Applied Chemistry Program. A copy of the defended and approved dissertation proposal shall be submitted to the Office of Graduate Studies before the graduate student is enrolled for the second time in research.*** Students must use the official document available in the appendix of this guide as the formal cover page for the research proposal.

Students should start writing their research or dissertation proposals as soon as they complete the plan of study. ***It is strongly recommended that students fulfill the research or dissertation proposal requirement during their first enrollment in either QUIM 6998 (M.Sc.) or QUIM 8997 (Ph.D.). Doctoral students are also encouraged to schedule the defense of their dissertation proposal within 2-3 weeks after the student's advisor has approved the proposal for release to the other committee members.*** This recommendation will allow graduate students to avoid the following consequences of missing the dissertation or research proposal deadline: 1) An administrative withdrawal (W) by the Registrar; 2) Ineligibility to receive assistantships in any form; 3) Be no longer an active student; and 4) Losing student status and therefore Visa privileges (for International students only).

The research advisor and the student's graduate committee will provide counseling during the preparation of the dissertation or research proposal. Additional guidance can be obtained from the *Guide for the preparation of Proposals, Thesis, Dissertations and Project Reports at the UPRM Campus* (http://grad.uprm.edu/oeg/EstudiantesActivos/Normas/guia.php). ***It is a requirement of the Department of Chemistry that proposals follow the formatting and guidelines of a funding agency such as NIH, NSF, EPA or USDA, among others. Students should consult with their research advisors and committee members on the content and format of their proposals.*** Students are also encouraged to include preliminary results as part of the proposal, even though it is not a requirement.

For doctoral students, committee members must agree on a date on which the proposal defense will be held. Students must then notify (at least one week in advance) the date, time, and location of their defense to the Graduate Coordinator, who later will notify the Department at large. The appropriate documentation, available in the appendix of this guide, should be completed by the student's graduate committee after she/he passes the oral exam, and submitted to the **Chemistry Department Graduate Program Office**.

Upon completion of all the research proposal requirements, the research advisor must provide the student with a letter acknowledging the completion of the proposal requirement and summarizing the recommendations of the student's graduate committee. This letter should be delivered to the student, with a signed copy to the ***Chemistry Department Graduate Program Office***, within one week of the oral defense. The committee should also meet with the graduate student at least once a year to assess his/her progress. The typical time frame for the abovementioned meeting is 8 to 12 months after the initial defense. A template for the letter acknowledging the completion of the proposal requirement and summarizing the recommendations of the student's graduate committee is available in the appendix of this guide.

Financial Aid

Assistantships

Enrolled graduate students may receive teaching or research assistantships. ***Assistantships are not regarded as a job or any other form of employment*** (see Certifications 05-62 and 15-91 for more details). Assistantships are stipends offered for a number of academic activities intending to train a student towards a career in teaching and/or research.

Graduate students must maintain an overall grade point average of 3.00/4.00 and to complete a minimum of 21 hours of training (workshops, seminars, conferences, etc.) during their first year of study to be eligible. All these training activities must be approved by the **Graduate Program Coordinator**.

Assistantships may be renewed if funds are available and if students´ performance is satisfactory. Students must file a request for assistantship one semester prior to the corresponding period by completing the request form available at the ***Chemistry Graduate Program Office***.

Graduate students with total or conditional admission may apply for assistantships. Students who fall under any of the following categories **are not eligible for assistantship**:

- Suspended
- On Probation
- Holding a job
- Visiting Student
- Enrolled in continuous education courses

Some agencies that provide scholarships also request that students do not accept other financial aids or assistantships. Students holding extramural scholarships are responsible for following the guidelines established by these funding agencies. ***Research advisors are also responsible to oversee that graduate students comply with the guidelines established by the funding agencies***.

Students who receive assistantships [3] must be registered in:

a. no less than 9 credit hours in 5000 or higher level graduate courses (***Note: for students with conditional admission, the 9 credit hours may include undergraduate level courses specified as deficiencies in their program admission letter***), or

b. QUIM 6998 or QUIM 8997 (0-6 credit hours)

The maximum number of credit hours that a graduate student may have in a semester is 18 (registered credits plus assistantship credits). A typical teaching assistantship load at the Chemistry Department is about 6-8 credit hours. ***Graduate students do not have to be registered in a course in order to receive an assistantship during the summer.***

NOTE: Federal regulations require that international students may receive a maximum compensation equivalent to eight (8) credit hours per semester. Meanwhile, US citizen students are eligible to a maximum of nine (9) credit hours of compensation per semester but require an authorization from his/her research advisor.

Teaching Assistantships (TA) are assigned by the Director of the Department or Associate Director, in collaboration with Course Coordinators. TA's load of 20-hours of work are equivalent to seven (7) credit hours. Candidates must be enrolled as a full time graduate students in order to qualify as a teaching assistant. Graduate students will receive a TA assignment according to funds availability, academic performance, service record, and evaluations from previous TA experiences.

The program in which the student is enrolled and the student's highest academic degree are used as a criteria to determine the number of academic semesters that the student is eligible to receive assistantship. For instance, students ***holding a B.S. degree when admitted to the Ph.D. program will be eligible for up to five (5) years of assistantship (see the table below for details). The five year term applies regardless of whether the funds are institutional or external***.

Assistantships may be extended for up to three (3) additional years, after a formal request written by the student's advisor and endorsed by the Department Director or Graduate Coordinator, is approved by the Graduate Studies Director who will evaluate the merits of the request. Nonetheless, ***only 1 year of the 3 additional years can be sponsored with institutional funds***. The third year extension will be considered only for exceptional circumstances.

Financial Support (Ph.D. students that hold a B.S. degree)

Support Source	Years	Special Requirements
Institutional	**5**	None
External or Institutional	**1**	An approval letter signed by the Director of the Department or the Graduate Program Coordinator.
External	**1**	An approval letter signed by the Director of the Department or the Graduate Program Coordinator.
External authorized by the Graduate Council	**1**	A request letter addressed to the Director of the Graduate School (signed by the mentor). An endorsed letter from the Department Graduate Committee and approved by the Director of the Department.

When students holding a M.Sc. degree from the UPR-Mayagüez Campus are enrolled in the Ph.D. program, they are eligible for up to three (3) years of assistantship (see the table below for details). ***The 3 year term applies regardless of whether the funding sources are institutional or external.*** The assistantship may be extended for up to two (2) additional years, after a formal request by the student's advisor and endorsed by the Department Director or Graduate Coordinator, is approved by Graduate Studies Director who will evaluate the merits of the request. Nonetheless, ***only 1 year of the 2 additional years can be sponsored with institutional funds***. The second year extension will be considered only for exceptional circumstances.

Financial Support (Ph.D. students that hold a M.Sc. degree from the UPR-Mayagüez Campus)

Support Source	Years	Special Requirements
Institutional	**3**	None.
External or Institutional	**1**	An approval letter signed by the Director of the Department or the Graduate Program Coordinator.
External authorized by the Graduate Council	**1**	A request letter addressed to the Director of the Graduate School (signed by the mentor). An endorsed letter from the Department Graduate Committee and approved by the Director of the Department.

When students holding a M.Sc. degree from institutions other than UPR-Mayagüez Campus are enrolled in the Ph.D. program, they are eligible for up to five (5) years of assistantship (see the table below for details). Assistantships may be extended for up to three (3) additional years, after a formal request written by the student's advisor and endorsed by the Department Director or Graduate Coordinator, is approved by the Graduate Studies Director who will evaluate the merits of the request. Nonetheless, ***only 1 year of the 3 additional years can be sponsored with institutional funds***. The third year extension will be considered only for exceptional circumstances.

Financial Support (Ph.D. students that hold a M.Sc. degree from institutions other than UPR-Mayagüez Campus)

Support Source	Years	Special Requirements
Institutional	**5**	None.
External or Institutional	**1**	An approval letter signed by the Director of the Department or the Graduate Program Coordinator.
External	**1**	An approval letter signed by the Director of the Department or the Graduate Program Coordinator.
External authorized by the Graduate Council	**1**	A request letter addressed to the Director of the Graduate School (signed by the mentor). An endorsed letter from the Department Graduate Committee and approved by the Director of the Department.

Students enrolled in the M.S. program are eligible for up to two (2) years of support. ***The two year term applies regardless of whether the funding sources are institutional or external.*** If justified, the assistantship may be extended for up to two (2) additional years, after a formal request by the student advisor and endorsed by the Department Director or Graduate Coordinator, is approved by Graduate Studies Director who will evaluate the merits of the request. ***Nonetheless, only 1 year of the 2 additional years can be sponsored with institutional funds***. The second year extension will be considered only for exceptional circumstances.

Financial Support (M.Sc. students)

Support Source	Years	Special Requirements
Institutional	**2**	None.
External or Institutional	**1**	An approval letter signed by the Director of the Department or the Graduate Program Coordinator.
External authorized by the Graduate Council	**1**	A request letter addressed to the Director of the Graduate School (signed by the mentor). An endorsed letter from the Department Graduate Committee and approved by the Director of the Department.

Master of Science (M.Sc.) Degree Program Requirements

Courses:

The M.Sc. degree program in Chemistry consists of a minimum of thirty (30) credit hours, where nine (9) of which will be on advanced chemistry courses, two (2) on seminars, thirteen (13) on elective courses and up to six (6) in chemistry research. A minimum grade point average of 3.00/4.00 is required to be a bona-fide student.

Course Distribution

Course Category	***Total Credit Hours***	***Plan of Graduate Studies Code***
Advanced Chemistry Courses: Analytical, Biochemistry, Inorganic, Organic, Physical Chemistry	9	Elective (3)
Elective Courses (by area) in Chemistry	13	Elective (3)
Seminar Courses (1 credit hour each): QUIM 6005 – Graduate Seminar I – This seminar is based on scientific review. QUIM 6006 – Graduate Seminar II – This seminar is based on the advances of the student's research.	 1 1	 Core (1) Core (1)
QUIM 6998 – Chemistry Research	6	Core (1)
Total	**30**	

Transfer of courses to the Master of Science (M.Sc.) Degree

Upon request, the Chemistry Department Graduate Program Coordinator will consider evaluation of course equivalencies and its transfer from previous graduate work towards the M.Sc. degree in Chemistry.

Research

The Master of Science's degree seeking student shall perform an independent and original research that represents a significant contribution to furthering knowledge in the specialty area. The student must also meet with his/her graduate committee to assess academic and research progress, and to receive advice. A term-semester report must be filed using the appropriate form available at the graduate program website or in the appendix of this guide. Since university deadlines apply, all thesis defense should be scheduled to take place at least 30 days after the student submit **the written thesis in full** to the Office of Graduate Studies.

Candidacy

When the graduate student completes all the courses listed in the plan of study, and successfully passes the thesis exam, then he/she will be officially considered a Master of Science candidate.

Roadmap toward the completion of a M.Sc. degree in Chemistry.

Year in Program	First Semester	Second Semester	Summer Term
1	Orientation Advanced Chemistry Course 1 Advanced Chemistry Course 2 Elective Course 1	Advanced Chemistry Course 3 Elective Course 2 QUIM 6998 Graduate Seminar	Proposal Preparation
2	Elective Course 3 Elective Course 4 QUIM 6005 QUIM 6998	Elective Course 5 QUIM 6006 QUIM 6998 Thesis Defense	

Ph.D. Degree Program Requirements

Transfer from the M.Sc. to the Ph.D. track

On May 3rd, 2006 the Chemistry Department Graduate Committee agreed that any student, having at least 18 credits approved in the M.Sc. track and holding a GPA of at least 3.40/4.00, can submit a request through Apply Yourself in order to be transferred from the M.Sc. to the Ph.D. track. The Chemistry Department Graduate Committee will evaluate the student's application accordingly and will send any recommendation or refusal to the Director of the Department for the appropriate course of action.

Since this Ph.D. program is interdisciplinary in nature, the graduate student may take one or more courses in other areas of Science, Business Administration or Engineering from the UPR system. The Chemistry Department Graduate Program Office has available a list of elective courses that the graduate student can take, upon availability.

List of elective courses (not exclusive) outside the three main areas of study:

GERE 6050 (3 cds)	INQU 5019 (3 cds)	QUIM 6606 (3 cds)
AGRO 6607 (3 cds)	QUIM 5066 (3 cds)	QUIM 6035 (3 cds)
BIOL 6605 (3 cds)	QUIM 5150 (3 cds)	QUIM 6403 (3 cds)
INCI 6015 (3 cds)	QUIM 5071-2 (3 cds)	QUIM 6395 (1 cd)
INCI 6011 (3 cds)	QUIM 5073-4 (1 cd)	QUIM 6806 (2 cds)
ININ 5505 (3 cds)	QUIM 5025 (3 cds)	QUIM 6915 (3 cds)
INQU 5015 (3 cds)	QUIM 6007, 08, 15 (1-3 cds)	QUIM 6916 (4 cds)
INQU 5018 (3 cds)	QUIM 6012 (3 cds)	QUIM 8615 (3 cds)

Doctoral Exam

The doctoral exam is composed of three (3) parts. The first two parts of the doctoral exam consist of four (4) written exams. Graduate students will have a maximum of four (4) hours to complete each exam. **The first part** consists of two exams based on ***Elective ("Core") Advanced Courses*** (analytical, biochemistry, inorganic, organic, and physical chemistry). Students will select two of these five traditional areas of Chemistry. These exams will be prepared by professors who taught courses in the respective areas within the last 3 years. The courses' syllabi will serve as the exam's study guide. Students may choose to take the first part of the doctoral exam the semester immediately after they finish the elective ("*core*") advanced course work. **The second part** consists of two exams based on ***courses of Applied Chemistry's areas*** (see course distribution list for details): biophysical chemistry, environmental chemistry, and chemistry of materials. These exams will be prepared by professors who taught courses in the respective areas within the last 3 years. The courses' syllabi will serve as the exam's study guide. Students may choose to take the second part of the doctoral exam the semester immediately after they finish all the required courses by area in Applied Chemistry. **The third part** consists on a preparation and oral defense to the Department's faculty of an original research proposal where students describe ***an experimental design and plan for their practicum***. The proposal will be presented 3 to 6 weeks after completion of the second part of the doctoral exam. Students will present the objectives of the Practicum and advantages of the extramural research facilities. The proposal should follow the guidelines established by the National Science Foundation (NSF), National Institute of Health (NIH), Environmental Protection Agency (EPA), or United States Department of Agriculture (USDA/NIFA), among others. The proposal should include:

- Abstract
- Problem definition and its importance
- General and Specific Objectives
- Literature relevant to the research topic and the proposed internship
- Preliminary results for the research project and its relation to the internship proposal.
- Work plan and contribution to the student's research goals and alternative strategies.
- Timetable for the Practicum and the student's research project.

NOTE: The Practicum results must be part of the thesis dissertation.

Evaluation of the doctoral exam

The student's performance in each individual exam will be graded in terms of (**+**) for excellent, (**0**) for adequate, and **(–)** for deficient. To pass an individual exam, the student must earn a grade of (**+**) or (**0**) in each exam. To pass a part, which is a combination of two individual exams, the student must earn a global grade of (**+**) or (**0**). However, a grade of (**0)** in a part must be as a result of a combination of (**0)** + (**0)**. A grade of zero as a result of a combination of (**+**) and (**–)** is NOT a passing grade because a grade of (**–)** **in an individual exam** is NOT considered as a passing grade. ***In the event of a failure of any exam within a part, the student may repeat that exam once***. Students who fail for the second time any exam will be withdrawn from the Ph.D. program.

An overall score of (+) is required to pass the doctoral exam. To pass the doctoral exam, the student must earn a global grade of (**+**). The global grade is a result of the combination of the grades of part 1, part 2 and part 3 of the doctoral exam.

If a student considers that a specific exam was not graded correctly, then the student will have two weeks after receiving the result of the graded exam to request a reconsideration of that exam via a letter to the Chemistry Department Graduate Program Office, with copies to the Director of the Chemistry Department, the Dean of Arts and Sciences, and the Director of the Office of Graduate Studies [4]. The Chemistry Department Graduate Program Coordinator will then discuss the test results with the professors that served as graders, and notify the student on the final decision. If the student does not receive a response, the student may write a letter to the Office of Graduate Studies or to the Graduate Council.

Practicum

The objectives of the Practicum are to:

1. Increase the student's knowledge and skills in the chosen area of specialty.
2. Develop student's communication and work skills through an exposure to extramural research groups.
3. Develop student's skills in solving challenging problems in both fundamental and applied research.
4. Develop new multidisciplinary collaborations between extramural and Ph.D. in Applied Chemistry program researchers.

Every student will work one semester or four months in an academic, industrial, or government laboratory outside UPR-Mayagüez campus. Since the department does not have funds to subsidize this *Practicum*, research advisors and graduate students must request external funding through grants or scholarships. The graduate student may choose one of the following four options to comply with the timeline of the *Practicum*:

1. A continuous four month period.
2. Two 2-months summer terms.
3. A combination of a maximum of three weeks of workshops and research experience related to the students research, equivalent to four months.
4. A flexible period where students fulfill teaching assistantship's requirements and visit a laboratory outside UPR-Mayagüez Campus where a *Practicum* is conducted. This time period must be equivalent to a total of 700 contact hours in research.

It is recommended that the *Practicum* be carried out during the summer since it should be easier to program and find housing for students. ***The Practicum should not consist of routine work in an academic or industrial environment; it must contribute to the student's research project and as such, it is expected to be part of the student's dissertation***. Attendance to scientific meetings ***will not be counted as an activity to meet the Practicum requirement.*** Professional experience in industry in lieu of the *Practicum* will NOT be accepted.

The appendix includes a form to be completed by the host professor and the student's research advisor prior to start the *Practicum*. This form summarizes the research collaboration plan that will be developed among parties. The host, the graduate student, and the student's research advisor are expected to develop a research plan, and meet during the *Practicum* to assess the student's research progress. It is highly recommended that this form as well as travel permission forms and insurance requirements be completed two months in advance of the *Practicum*. ***If the Practicum is performed during the academic semester, the student shall register in research, thus avoiding an inactive student status***.

During the Practicum, the graduate student must write a monthly progress report and send copies of this report to the **Chemistry Department Graduate Program Office** and to the student's research advisor. Upon completion, the graduate student will make an oral presentation in the Graduate Seminar or in a scientific conference such as the Puerto Rico Senior Technical Meeting. The presentation of the *Practicum* results will be evaluated by the *Practicum* supervisor and the student's graduate committee. Upon approval of the student final report, the President of the student's graduate committee will submit an acknowledging letter to the Graduate Program Coordinator notifying the completion of this requirement.

Graduate students may also receive salary or remuneration during the Practicum. International students expecting to receive salary during the Practicum must request an authorization letter from the Office of Immigration Affairs because changes in their Visa status could apply.

Research

Doctoral students shall perform independent and original research that represents a significant contribution to furthering knowledge in her/his specialty area. Each student should meet with her/his graduate committee every semester to assess academic and research progress, and to receive advice regarding the progress of his/her research. Each student should file the latest version of the term-semester progress report form available at the graduate program website or in the appendix section of this graduate student guide. As part of the requirements of this Ph.D. degree program, graduate students are required to have published his/her research results in at least two articles in peer-reviewed journals. One of the articles must be ***in print*** while the second article most be accepted ***without further changes and have a DOI assigned to it before his/her thesis dissertation***. The dissertation defense will be scheduled to take place at least 30 days after the students have submitted his/her written dissertation ***in full*** to the Office of Graduate Studies (deadlines apply).

Candidacy

The graduate student will be considered a Doctor of Philosophy (Ph.D.) candidate when he/she has successfully completed all courses listed in the plan of study, has successfully defended the dissertation proposal, and has passed the doctoral exam. ***Students are not required to give a doctoral seminar to become Ph.D. candidates***.

Seminar

Graduate students are expected to present a seminar of their research work after fulfillment of the following requirements: (1) completion of the course work, (2) a research manuscript has been accepted for publication in a peer-reviewed journal, and (3) a second research manuscript has been submitted and editor's decision is pending.

Transfer of Courses from M.Sc. Degree

The Chemistry Department Graduate Program Coordinator will evaluate those requests for equivalencies and/or transfer of courses from previous graduate work towards the Ph.D. degree. The maximum number of credit hours allowed is **twenty (20)** with a grade of A or B.

Transfer from the M.Sc. track to the Ph.D. track

On May 3rd, 2006 the Chemistry Department Graduate Committee agreed that any student, having at least 18 credits approved within the M.Sc. track and holding a GPA of at least 3.40/4.00, can submit a request through Apply Yourself in order to be transferred to the Ph.D. track. The Chemistry Department Graduate Committee will evaluate the student's application accordingly and will send the Committee's decision to the Director of the Department for the appropriate course of action.

Courses:

The Ph.D. degree program in Applied Chemistry consists of a minimum of fifty two (52) credits, of which up to twenty seven (27) may be in research. Other requirements may apply:

a. No more than nine (9) credits can be at the 5000 level.
b. A minimum of nine (9) credits will be required in areas outside of the specialty.
c. The minimum grade point average required will be 3.00/4.00.
d. Requests for credits transfer to the doctoral program either from a Master´s program or other sources will be evaluated by the Chemistry Department Graduate Committee on a case by case basis.
e. Advanced Chemistry Courses on five fundamental areas – 9 credit hours.
f. Recommended Courses and Electives by Area of Specialty – 15 credit hours of which at least 6 credit hours should be in courses from the area of specialty. The graduate student should take these courses after consulting with his/her research advisor.

Due to the interdisciplinary nature of this Ph.D. program, the graduate student may take one or more courses in other areas of Science and/or Engineering from the UPR system. The Chemistry Department Graduate Program Office has a list of additional courses that the graduate student could take.

Course Distribution

Advanced Chemistry Courses (3 courses @ 3 credit hours) – 9 credit hours
Grade Requirements – 28 credit hours
Recommended Courses and Electives by Area of Specialty – 15 credit hours

Course Category	***Total Credit Hours***		***Plan of Graduate Studies Code***
Advanced Chemistry Courses: Analytical, Biochemistry, Inorganic, Organic, Physical Chemistry	9		Elective (3)
Elective Courses (by area) of Applied Chemistry	6	15 total	Major (2)
Free Elective Courses	9		Elective (3)
QUIM 8980 – Doctoral Seminar	1		Core (1)
Courses in School of Business Administration: GERE 6025 – Organizational Behavior GERE 6027 – Legal Aspect of Business Organization GERH 6037 – Wage and Salary Administration	3		Elective (1)
QUIM 6705 – Supervised Teaching of Chemistry	3		Core (1)
QUIM 8008 – Scientific Communication in Chemistry	3		Core (1)
QUIM 8980 – Doctoral Seminar	1		Core (1)
QUIM 8997 – Doctoral Research and Dissertation	18		Core (1)
Total	**53**		

Note: According to ***Certification 09-09*** the student must complete at least 60% of his coursework within the graduate program. Therefore, a maximum of 20 credits can be transferred from other programs once approved by the Chemistry Department Graduate Program Officers.

Advanced Chemistry Courses (3 courses of 3 credit hours):

QUIM 6011 – Advanced Inorganic Chemistry
QUIM 6215 – Advanced Analytical Chemistry
QUIM 6401 – Advanced Organic Chemistry
QUIM 6605 – Advanced Physical Chemistry
QUIM 6715 – Advanced Biochemistry

General Requirements:

QUIM 8980 – Doctoral Seminar, 1 credit hour
QUIM 8997 – Doctoral Research and Dissertation, 27 credit hours
QUIM 6705 – Supervised Teaching of Chemistry, 3 credit hours
QUIM 8008 – Scientific Communication in Chemistry, 3 credit hours

Courses in School of Business Administration:
ADMI 6005 – Special Topics, 3 to 6 credit hours
GERE 6025 – Organizational Behavior, 3 credit hours
GERH 6027 – Legal Aspect of Business Organization, 3 credit hours
GERH 6030 – Supervisory Management, 3 credit hours
GERH 6037 – Wage and Salary Administration, 3 credit hours

Elective Courses in Areas of Applied Chemistry:

A. **Biophysical Chemistry (2 courses required):**

QUIM 6009 – Spectroscopy of Biological Molecules, 3 credit hours
QUIM 6016 – Biophysical Chemistry, 3 credit hours
QUIM 8616 – Nucleic Acids, 3 credit hours
QUIM 8995 – Special Topics in Biophysical Chemistry, 1 – 3 credit hours

B. **Chemistry of Materials (2 courses required):**

QUIM 6045 – Computer Simulations Applied to Materials Science, 3 credit hours
QUIM 6216 – Surface Analytical Chemistry, 3 credit hours
QUIM 6606 – Electrochemistry, 3 credit hours
QUIM 6707 – Solid State Chemistry, 3 credit hours
QUIM 6835 – Chemeometrics, 4 credit hours
QUIM 8995 – Special Topics in Chemistry of Materials, 1 – 3 credit hours

C. **Environmental Chemistry (2 courses required):**

QUIM 6010 – Advanced Environmental Chemistry, 3 credit hours
QUIM 6036 – Chemical Aspects of Environmental Problems, 3 credit hours
QUIM 6055 – Trace Analysis of Environmental Contaminants, 3 credit hours
QUIM 6218 – Chemical Separations, 3 credit hours
QUIM 8995 – Special Topics in Environmental Chemistry, 1 – 3 credit hours

Roadmap toward the completion of a Ph.D. degree in Applied Chemistry.

Program Year	**Orientation Week**	**First Semester**	**Second Semester**	**Summer Term**
1	Orientation	Advanced Chemistry Course 1 Advanced Chemistry Course 2 Elective Course 1 *Graduate Seminar Attendance*	Advanced Chemistry Course 3 Elective Course 2 QUIM 8008 QUIM 8997	Proposal Write-Up
2		QUIM 8997 Defend and Submit Proposal QUIM 6705 *Graduate Seminar Attendance*	Doctoral Exam Free Elective Course 1 QUIM 8997 *Graduate Seminar Attendance*	Practicum or QUIM 8997 Publication 1
3		Free Elective Course 2 Free Elective Course 3 QUIM 8997 *Graduate Seminar Attendance*	QUIM 8997 *Graduate Seminar Attendance*	QUIM 8997 Publication 2
4		QUIM 8997 QUIM 8980	QUIM 8997 Dissertation Defense	

Authorship and Copyright

Graduate students should be aware that in the event of a change of the research advisor, the Department of Chemistry will not allow (at any expenses) the transfer of any material resulting from a research project or dissertation to the incoming advisor (from the same department, another department or institution) without a written consent from the former student's research advisor. Students can also change any member of their graduate committee, at any time, but the research project or dissertation is not exchangeable or transferrable. The copyright of all the research work done (articles, proposals, patents, etc.) belongs to the former student's research advisor. See two official documents for more details: "***Manual del Profesor 2017***" of the Dean of Academic Affairs of the UPR-Mayagüez Campus and "***Reglamento General de la Universidad de Puerto Rico***".

References:

1. Criterion 9, Report on Findings, Puerto Rico Council on Higher Education License and Accreditation Office, May 2003.
2. This version of the graduate student guide will be effective starting in August 2018.
3. Office of Graduate Studies, "Criterios de Elegibilidad para Recibir Ayudantías", http://grad.uprm.edu/eligayudantias.htm, June 29, 2005.
4. Letter from Anand Sharma, Director of the Office of Graduate Studies on "Proceso de Alegación Examen Doctoral", July 1, 2008.

Appendix

University of Puerto Rico
Mayagüez Campus

College of Arts and Sciences
DEPARTMENT OF CHEMISTRY

http://www.uprm.edu/wqim

Selection of
Research Advisor
Department of Chemistry

Selection of Thesis/Dissertation Director

Name of Student: _____

Student ID: _____

Date of Admission to the Program: _____

Interviewed Faculty:

	Professor's Name	***Date***	***Professor's Signature***
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____

After the above interviews, I choose the following professor as my Thesis/Dissertation Director (Advisor):_____

_____ _____
Student's Signature Date

By signing below, I hereby accept the abovementioned student to develop a research project under my supervision and advise him/her in relation to his plan of studies within the program.

_____ _____ _____
Advisor's Name Date Advisor's Signature

Vo. Bo.

_____ _____
Date
Director of the Chemistry Department

Note: Is a compulsory requirement to interview at least three (3) Professors.
YOU MUST RETURN THE SIGNED FORM TO THE CHEMISTRY GRADUATE PROGRAM OFFICE: ***NO LATER THAN THE LAST DAY OF CLASSES OF YOUR FIRST SEMESTER.***

Universidad de Puerto Rico **Recinto Universitario de Mayagüez Decanato de Asuntos Académicos** ***Oficina de Estudios Graduados*** Call Box 9000
Mayagüez, Puerto Rico 00681-9000

University of Puerto Rico
Mayagüez Campus Dean of Academic Affairs ***Office of Graduate Studies*** Call Box 9000
Mayagüez, Puerto Rico 00681-9000

FORMA DAAEG-003
Rev. November 2010

PLAN OF GRADUATE STUDY

The original of this record should be sent to the Registrar's Office during the student's second semester of graduate studies. A copy should be sent to the Office of Graduate Studies and a copy should remain in the Department.

1. Student's Name:	2. UPR ID Number:
3. Degree: ☐MA ☐ME ☐MS ☐MBA ☐PHD	4. Plan (only for Master's): ☐ I ☐ II ☐ III
5. Major:	6. Option:

7. Graduate Committee (3-5 members for Master's, 4-6 members for Doctorate). At least half of the members must belong to the student's graduate program.

Name	Highest Degree	Rank	Department	Signature
Chairperson:				
Co-chair (if applicable):				

8. Deficiencies-up to four 3000 or 4000 level courses included in the admissions letter. <u>The student must successfully complete these courses with a GPA of 3.0 or more during the first two years of study after admission to avoid suspension after the two-year period.</u>:

Course Code	Title	Term	Credits

STUDENT'S NAME:	UPR ID NUMBER:

9. Graduate courses completed at other institutions, or previously at the Mayagüez Campus, for which transfer toward a graduate degree is being requested (students must successfully complete 60 percent of the courses in their plan of graduate study at UPRM). For second admissions, include courses from the first admissions to be accredited.

Institution	Course code	Course title	Credits	Code of UPRM Course substituted	Type of UPRM course substituted (core[1], major[2], or elective[3])

10. Courses taken or to be taken at the Mayagüez campus. A maximum number of nine (9) credits at the 5000 level courses is permitted. Some programs do not have core courses. Please arrange the courses in order (first core, then major, then electives).

Course Code	Title	Term	Credits	Type (core[1], major[2] or elective[3])

1 Core – courses that must be taken by all students in a graduate program.

2 Major – courses central to the student's specialty

3 Electives – courses outside the immediate field of specialty (minimum 6 credits for Master, 9 for Doctorate)

STUDENT'S NAME:	UPR ID NUMBER:

11. Special examinations – qualifying, comprehensive, preliminary, etc. Special examinations can be taken twice.

Type of examination	Date passed	Date when the result was informed to the Registrar's office

12. This plan of graduate study is approved by:

Student:	Coordinator of the Graduate Program: (if applicable)	Director of the Department:
Date:	Date:	Date:

The original of this record should be sent to the Registrar's Office during the student's second semester of graduate studies. A copy should be sent to the Office of Graduate Studies and a copy should remain in the Department.

1 Core – courses that must be taken by all students in a graduate program.

2 Major – courses central to the student's specialty

3 Electives – courses outside the immediate field of specialty (minimum 6 credits for Master, 9 for Doctorate)

University of Puerto Rico
Mayagüez Campus

College of Arts and Sciences
DEPARTMENT OF CHEMISTRY

http://www.uprm.edu/wqim

Request for Teaching Assistantship
For Students from
Chemistry

Semester: ☐ **Fall** ☐ **Spring** ☐ **Summer** **Academic Year:**

***Deadlines will be:** 4th Monday of September 1st Monday of March (also for summer sesion) of the semester prior request

Name: **e-mail:**

Student ID Number	**Social Security Number**	**Nationality**	**Department**
Highest Academic Degree ☐BS ☐MS	**Date of Admission** Fall (Year) Spring (Year)	**Phone Number:** **Home:** **Cell:**	**Extension (RUM):** ***Defending thesis/dissertation on this semester?*** ☐ *Si* ☐ *No*

Assistantship Record				
Academic Year	***1st Semester***	***2nd Semester***	***Summer***	***Official Use-Department***
	Teaching☐ Research☐	Teaching☐ Research☐	Teaching☐ Research☐	***Need and Assistantship extension letter?*** In need of: YES☐ NO☐ Provided: YES☐ NO☐
	Teaching☐ Research☐	Teaching☐ Research☐	Teaching☐ Research☐	
	Teaching☐ Research☐	Teaching☐ Research☐	Teaching☐ Research☐	
	Teaching☐ Research☐	Teaching☐ Research☐	Teaching☐ Research☐	
	Teaching☐ Research☐	Teaching☐ Research☐	Teaching☐ Research☐	
	Teaching☐ Research☐	Teaching☐ Research☐	Teaching☐ Research☐	

I, _____, Director of the thesis/dissertation of the above mentioned student hereby notify that I:

(Choose all that apply)

WILL NOT ☐ grant an externally supported research assistantship.

WILL ☐ grant an externally supported research assistantship of __ credits with external funds originated from the following company or agency

DO ☐ / **DO NOT**☐ authorize the student to receive a **teaching assistantship** form the Department of Chemistry.

DO ☐ / **DO NOT**☐ authorize to receive an additional 50% teaching assistantship based on the needs and demand of the Chemistry Department.

Signature thesis/dissertation director: _____

V^{O} B^{O} director from applicant's department: _____

***Deadline:** To electronically submit the documents to the Graduate Program Office **of the Chemistry Department.**

University of Puerto Rico
Mayagüez Campus

College of Arts and Sciences
DEPARTMENT OF CHEMISTRY

http://www.uprm.edu/wqim

Request for Teaching Assistantship
For Students from
Chemistry Department

Semester: ☐ **Fall** ☐ **Spring** ☐ **Summer** **Academic Year:**

Name: **e-mail:**

Student ID Number	Social Security Number	Nationality	Department

I hereby request a teaching assistantship from the Department of Chemistry for the abovementioned academic period. I acknowledge edge that the renewal of my assistantship will be conditioned to: **1)** the **needs** of the Department of Chemistry **2)** A favorable **performance evaluation** from my superiors. Consequently I hereby commit myself to obey and follow the instructions made by my superiors and to **comply with all the safety and environmental protection regulations established for the laboratories**. I will **notify the Department of Chemistry** ***no less than 30 days prior of the beginning of the semester for which I am requesting the assistantship***, if any of the following occur:

1. I **decline the teaching assistantship offered** by the Department of Chemistry
2. I **fall in academic probation** during the semester on which the assistantship is being granted.
3. I **accept a fellowship/grant or assistantship** in addition to the one granted by the Department of Chemistry.
4. Any other situation or condition that can affect my duties and services as a teaching assistant (health condition, business travel, presentation in a meeting or congress, etc.)

Signature of the Student requesting the teaching assistantship: _____

Date: _____

Expected Class Schedule:

Course	Crs.	Schedule	Professor

Schedule		Monday (L)	Tuesday (M)	Wednesday (W)	Thursday (J)	Friday (V)
LWV	MJ					
7:30 – 8:20	7:30 – 8:45	☐	☐	☐	☐	☐
8:30 – 9:20		☐		☐		☐
9:30 – 10:20	9:00 – 10:30	☐	☐	☐	☐	☐
10:30 – 11:20		☐		☐		☐
11:30 – 12:20		☐		☐		☐
12:30 – 1:20	12:30– 1:45	☐	☐	☐	☐	☐
1:30 – 2:20		☐		☐		☐
2:30 – 3:20	2:00 – 3:15	☐	☐	☐	☐	☐
3:30 – 4:30	3:30 – 4:45	☐	☐	☐	☐	☐
4:30 – 5:45		☐		☐		☐
6:00 – 7:15	5:00 – 6:15	☐	☐	☐	☐	☐

Assistantship Details:

Type of Assistantship	Course	Duties	Crs.

Rev. 02/2012

Graduate PROGRAM in APPLIED CHEMISTRY: STUDENT REPORT (ACP:GSR)

Semester: ☐ **Fall** ☐ **Spring** ☐ **Summer** **Academic Year: 20___ - 20___**

During Summer/Fall semester(s) of registration advisement the student is to complete this form. Upon preliminary completion, the student is to take this form to his/her faculty advisor and student committee for a joint discussion and completion of the document. ***Once both student and members of his/her committee agree upon progression information, the faculty advisor submits the form to the Coordinator of the Graduate Program.*** **Students will not be able to register for the Fall, Spring, or Summer Term until the corresponding report is submitted.**

Student Name:	Student ID:
Program:	Degree:
Admit Date:	Years in Program:
Advisor's Name:	Status:
Date of Progress Report Meeting:	

List all courses taken in the past academic year. Please specify the type of requirement Core <Graduate Program core> (1), Major <Division Core> (2), Electives <Departmental Cores and elective courses> (3).

Course	Term	Credit Hour(s)	Type of Requirement

1. Have There Been Any Changes to Original Plan of Studies? ***Yes [ ] No [ ]**
* If "Yes" then a Revision of Plan of Studies form must be completed and submitted with this document.

2. Financial Support:

Is financial support continuing? Yes [ ] No [ ] N/A [ ]
Indicate source of financial support: Institutional [ ] External [ ] Other [ ]
Name of the agency or organization providing the support: _____

3. Thesis / Dissertation / Practicum / Comprehensive Exam:

Research proposal defended and accepted by committee?	Yes	No	Pen.
Actively engaged in thesis or dissertation research?	Yes	No	Pen.
Completed Doctoral Examination	Yes	No	N/A
Completed Practicum Requirement	Yes	No	N/A
Completed Publication Requirement	Yes	No	N/A
Writing thesis/project/practicum report/comprehensive exam?	Yes	No	Pen.

4. Briefly and succinctly discuss and evaluate the progress toward completion of degree requirements that has been made in the past academic year. Please state if your progress is on target as specified by your plan of studies and research proposal.

5. Discuss and evaluate specific research goals for the forthcoming year and how they will be accomplished:

6. List any publications by the student during the past academic year (please use ACS format):

7. List any presentations by the student during the past academic year (in ACS format):

8. List any awards and/or honors received by the student during the past academic year:

9. Expected Thesis/Dissertation defense Date:_____

10. Has there been a change in the Dissertation Defense Date? If so please explain why.

11. Please list the potential/actual members of your Dissertation Defense Committee.

Committee Member	Department	Status

12. Academic advisor's comments (Please, provide information on the student's overall academic performance and progress over the past academic year):

13. Student Progress:

Satisfactory [ ] Needs Improvement [ ] 2nd Needs Improvement [ ] Unsatisfactory [ ]
Note: If progress is Unsatisfactory, please give justification(s) in the above space or on an attached a sheet. If 2nd Needs Improvement, an automatic Continuance Review is required.

14. Required Signatures:

Name	Department	Signatures	Date
Student			
Advisor			
Member 1			
Member 2			
Member 3			
Member 4			
Member 5			

University of Puerto Rico
Mayagüez Campus

College of Arts and Sciences
DEPARTMENT OF CHEMISTRY

http://www.uprm.edu/wqim

Research Proposal
Cover Page for the
Department of Chemistry

By

A proposal submitted in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY
in
Applied Chemistry

UNIVERSITY OF PUERTO RICO
MAYAGÜEZ CAMPUS

Proposal and Defense Approved by Committee:

_____	_____
	Date
_____	_____
	Date
_____	_____
	Date
_____	_____
	Date
_____	_____
	Date
_____	_____
	Date

University of Puerto Rico
Mayagüez Campus

College of Arts and Sciences
DEPARTMENT OF CHEMISTRY

http://www.uprm.edu/wqim

Request for
Internship ("Practicum")
Department of Chemistry

Name of Student: _____

Student's Host Professor: _____

Host Institution: _____

Department: _____

Dear colleague, as part of our requirements for the Ph.D. in Applied Chemistry, our students are required to conduct a research internship also known as "Practicum". As part of this internship, every student must work a term of four months to one semester in an academic, industrial, or government laboratory outside the UPR-Mayagüez campus. It is recommended that the four month period be flexible, but cumulative to comprise at least its minimum time period. This research internship may be distributed as follows:

1. A period of four months without interruption.
2. Two summer terms.
3. A maximum of three weeks in workshops related to the students research, and research experience to meet the four month period.
4. A flexible period where students fulfill the requirements of a teaching assistantship, and visit the laboratory outside the UPR-Mayagüez Campus where the research is conducted. This time period must include a total of 700 contact hours in research.

The internship should not consist of routine work in an academic or industrial environment; it must contribute to the student's doctoral dissertation research. It should also promote to the development of a new research collaboration for our Ph.D. degree program or strengthen one. Consequently, the student, host, and research advisor should schedule regular meetings to discuss the student's research progress, and plan the presentation and publication of the research.

After returning from the Internship, students must present a progress report, make a presentation in the Graduate Seminar or in a regional or national scientific conference such as the A.C.S. Meeting and receive a formal evaluation from the Internship supervisor or host. Upon approval of the report, the President of the student's Graduate Studies Committee will complete the corresponding internship report form to the Chemistry Department Graduate Program Office, to notify the completion of this requirement. We will appreciate if you complete the following letter to confirm your commitment to accept the abovementioned student at your research facilities to fulfill his/her practicum requirement.

Regards,

_____
President Student's Graduate Studies Committee

_____
Student's Host Professor

University of Puerto Rico
Mayagüez Campus

College of Arts and Sciences
DEPARTMENT OF CHEMISTRY

http://www.uprm.edu/wqim

Acceptance for
Internship ("Practicum")
Department of Chemistry

Date:_____

Dear Graduate Program Coordinator,

It is with much enthusiasm that I, _____, _____, accept the participation of: _____as our graduate intern for the period of _____ to _____at our research laboratories. The objectives of this internship are:

I am confident that this research experience will significantly contribute to enhance the student research and dissertation research experience.

Cordially,

_____

Student's Host Professor

_____

Vo. Bo.

UPRM Student's Major Professor

Internship ("Practicum") Evaluation from Host Institution

Date:_____

Dear Graduate Program Coordinator,

It is with much enthusiasm that I,_____, at _____, certify that: _____ has completed his/her research internship experience for the period from _____.
The student submitted a formal report of his research activities which has been evaluated as follows:

1. Goals that where set out to accomplish during the internship period

Comments:

2. Goals that where accomplished

Comments:

3. Goals that were not accomplished. Why not?

Comments:

4. Additional objectives meet beyond the stated goals

Comments:

Evaluation Ratings					
	1 = Poor	2 = Fair	3 = Satisfactory	4 = Good	5 = Excellent
Job Knowledge	☐	☐	☐	☐	☐
Comments					
Work Quality	☐	☐	☐	☐	☐
Comments					
Attendance/Punctuality	☐	☐	☐	☐	☐
Comments					
Initiative	☐	☐	☐	☐	☐
Comments					
Communication/Listening Skills	☐	☐	☐	☐	☐
Comments					
Dependability	☐	☐	☐	☐	☐
Comments					
Overall Rating *(average the rating numbers above)*	☐ **1=Poor** ☐ **2= Fair** ☐ **3 = Satisfactory** ☐ **4 = Good** ☐ **5 = Excellent**				

Host Review		
By signing this form, you confirm that you the information assessment made above are correct.		
Student's Host Professor Name	Signature	Date

Confirmation of receipt		
By signing this form, you confirm that you have received this review. Signing this form does not necessarily indicate that you agree with this evaluation.		
UPRM Student's Major Professor Name	Signature	Date

A detailed report of the abovementioned activities will also be submitted by the student to his graduate committee upon his arrival to UPRM.

University of Puerto Rico
Mayagüez Campus

College of Arts and Sciences
DEPARTMENT OF CHEMISTRY

http://www.uprm.edu/wqim

Final-Internship
Report and Presentation
Department of Chemistry

By

A report submitted and defended in partial fulfillment of the Department of Chemistry requirements for the degree of
DOCTOR OF PHILOSOPHY
in
Applied Chemistry UNIVERSITY
OF PUERTO RICO MAYAGÜEZ
CAMPUS

Internship Period: _____ to _____
Place of Internship: _____
_____

The president and members of the abovementioned student graduate committee hereby certify that the student has completed his internship requirement and successfully summited and presented a report of the research activities conducted as part of the internship requirement. An abstract and copy of the approved report (in A.C.S. format), is attached with this form to be included in his record.

Internship Report and Presentation Approved by Committee:

_____	_____
	Date
_____	_____
	Date
_____	_____
	Date
_____	_____
	Date
_____	_____
	Date
_____	_____
	Date

University of Puerto Rico
Mayagüez Campus

College of Arts and Sciences
DEPARTMENT OF CHEMISTRY

http://www.uprm.edu/wqim

Student's Graduate Committee
Publications Compliance
Department of Chemistry

Evaluation to request oral examination (Ph.D.)

The president and members of the graduate committee of _____,
I.D.# _____, hereby certify that the student has completed all the requirements to request his dissertation oral exam. The committee have approved the following peer-reviewed articles to be considered in compliance with the Doctoral Program in Applied Chemistry requirement of two publications prior requesting his final examination:

Citations in ACS format:
1.
2.

Copies of these articles with the confirmation of the peer-review process (when needed) are included with this document.

☐ A list of additional articles approved by this committee and their corresponding copies are also included.

Approved by Committee:

_____ _____
Date

_____ _____
Date

_____ _____
Date

_____ _____
Date

_____ _____
Date

_____ _____
Date

_____ _____
Vo. Bo. Date

Director, Chemistry Department

Universidad de Puerto Rico Recinto
Universitario de Mayagüez OFICINA
DE ESTUDIOS GRADUADOS

FORMULARIO DAAEG-006
Rev. Marzo 2011

SOLICITUD DE ADMISIÓN AL EXAMEN ORAL DE DISERTACIÓN, TESIS O INFORME DE PROYECTO

1. APELLIDOS, NOMBRE	2. DEPARTAMENTO	3. GRADO: MA ME MS PHD MBA

4.DIRECCIÓN POSTAL: 5.TELÉFONOS: RESIDENCIA: EMPLEO/CELULAR: 6. CORREO ELECTRÓNICO: 7. NÚMERO DE ESTUDIANTE:	8. FECHA DEL EXAMEN DIA: HORA LUGAR:

9. TITULO DE LA DISERTACIÓN, TESIS, INFORME DE PROYECTO

10. Los miembros del comité graduado certifican mediante su firma que el documento está listo para presentarse a examen.

MIEMBROS DEL COMITÉ GRADUADO	FIRMAS	CORREO ELECTRÓNICO	FECHA
Presidente:			

11. Publicaciones Aceptadas. Sólo para estudiantes del programa doctoral de Química Aplicada. Certifico que el estudiante ha publicado un mínimo de dos artículos en revistas revisadas por Pares. En trabajo externo al RUM (Practicum) indique laboratorio y título de la presentación.

REVISTAS	LABORATORIO	TITULO/FECHA	FIRMA CONSEJERO

12. FIRMA DEL DIRECTOR DE DEPARTAMENTO Fecha:	13. FIRMA DEL ESTUDIANTE Fecha: