

# Graduate Student Handbook

# University of Florida Department of Chemistry Graduate Student Handbook

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#### 1. INTRODUCTION

This handbook is a compilation of policies and procedures of the chemistry graduate program at the University of Florida. It is meant to serve as a guide to help students as you make your way through the program. Note that this handbook does not cover all of the policies of the University of Florida Graduate School. Those policies are compiled in the University of Florida Graduate Catalog which is available at the Graduate School web site. You must follow both the chemistry department guidelines and the graduate school catalog as you pursue your advanced chemistry degree. It is also critically important for you to confirm division requirements with the division offices.

Your progress in the chemistry graduate program at the University of Florida is administered by a graduate committee consisting of (usually) five faculty members, with one chairperson and four committee members. The Chemistry Graduate Program staff consists of:

Dr. Aaron Aponick, Director of Graduate Studies Lori Clark, Academic Assistant, III

Usually, the first point of contact for students in the graduate program is the academic assistant listed above. That person will handle the processing of all forms relating to the program, and can answer most questions about program policies and procedures. Students should feel free to contact the academic assistant, the graduate coordinator or any member of the graduate committee regarding questions or other issues relevant to the program.

Note that this handbook summarizes the policies and procedures that were in effect on the date on the front cover. Students will be notified of changes as they occur, but this handbook is not a contract and if policies change in minor ways during a student's course of study, then the student may be asked to work toward a degree under the new policies in place of policies that were in effect when the student was admitted.

## 2. PROFICIENCY REQUIREMENTS

## 2.1. Chemistry Proficiency/Placement Examinations

Entering students who plan to qualify in either organic or physical chemistry will take a placement examination during orientation. The exam is strictly diagnostic, and will serve to illuminate the student's strengths and weaknesses as they relate to the fundamental core concepts in these fields of specialization. Your performance on the exam will help to guide your approach to your first organic or physical core courses.

## 2.2. English Language Speaking Proficiency

Newly-admitted graduate students who are not native English speakers are required by Florida state law to present a score of 23 or higher on the speaking portion of the TOEFL or to pass the UF SPEAK test (score of 45 or higher) at the University of Florida. A student must pass this exam before they can be appointed as a teaching assistant. If you are conditionally enrolled in your first semester without the required TOEFL score, it will be expected that you will pass the exam before

the end of your first semester of study. If a student does not pass the exam by the end of the first semester, then that student will not receive any further departmental support. Obtaining a score of 55 or 60 on the UF Speak Test or a 28 or higher on the TOEFL speak test will exempt you from taking English courses. Please visit the Academic Spoken English website for more information (ase.ufl.edu).

#### 3. ADVISEMENT

#### 3.1. Initial advisement

Entering students will be advised by a member of the graduate faculty during orientation. The main purpose of the initial advisement session is to select coursework for the first semester of study. Students should come to the advisement session prepared to discuss what courses they would like to take in the first semester. Advisement for subsequent semesters will usually be undertaken with the research advisor or in consultation with the graduate coordinator.

#### 3.2. Registration Guidelines

Student supported by teaching or research assistantships must register for exactly 9 credits in the fall and spring semester, unless special circumstances dictate otherwise (early departure, fellowship requirements, etc.). Registration guidelines for the summer semester will be distributed by the Graduate Office before the start of the term.

We expect that each student will pay careful attention to registration instructions, timelines, etc. Students are encouraged to consult with their advisors and the graduate office with any and all questions that they may have. Early registration is strongly recommended because missing the deadline (late registration) will result in a \$100 late fee.

#### **Drop-Add Procedure**

The normal drop-add period only extends about one week into the semester and less for the summer term. Changes in registration after the normal drop-add period must have exceptional justification and require Graduate School, College and/or University approval, which is given only on the basis of strong justification. By default, the tuition for any courses which are dropped after the formal drop-add period will be billed to the student. Please note that, if you change your registration without consulting the graduate coordinator's office, you will be responsible for any fees incurred.

#### 3.3. Selection of a Research Advisor

Your selection of a research advisor is a very important decision to which you should give much thought. It will strongly affect the course of your graduate studies and your professional life. Each research group in the department is unique, and it is to your benefit to be as open-minded as possible at the start of your program of study as you consider your interests and options. The following paragraphs specify the procedures followed at the University of Florida Chemistry Department for student selection of a major research advisor.

At the beginning of the fall semester every faculty member will present a 20 minute talk about their research. New students are required to attend at least 50% of these talks. This is intended to introduce you to as many faculty as possible in the most efficient manner. During your first semester, it is expected that you will interview at least six faculty members (in person or via Zoom), independent of divisional affiliation. All six interviews are required even for those students who already think they know which faculty member they wish to choose as their adviser. The interviews are required to ensure that each student has an opportunity to get to know about several different research projects and to get to know the faculty. It is also important for the selection of the members of your graduate committee.

Students beginning study in the spring semester will receive individual orientation and may begin their faculty interviews as soon as they are enrolled. Spring students should plan to choose an advisor before the start of the summer semester. Spring students must also participate in the subsequent fall orientation in order to receive required safety training.

After the faculty interviews are completed, students will submit their top 3 ranked choices for advisor to the graduate coordinator by October 15. Advisor assignments will be issued before the first week of November, after all faculty have agreed to their new students. This process should be completed by early November for students entering in the fall and by early March for students entering in the spring. Any faculty member may direct a student in any field of specialization by mutual agreement. There is no requirement regarding the choice of an advisor and the area in which a student qualifies. You should consult your division and advisor for any special considerations regarding specific requirements for the lab you are joining, your graduate program, and the composition of your PhD committee.

## 3.4.1 Selection of a Supervisory Committee

By March 1 (July 1 for those beginning the program in the spring) of your first year, a Supervisory Committee must be selected (chosen with the help and guidance of your research advisor). The supervisory committee form can be found <a href="here">here</a> or in the graduate resource links on the Chemistry website.

For the Ph.D. degree, the chemistry department requires that the committee consist of at least four members. At least one member must be from a department other than Chemistry (the "external" member). This outside member may be from any program in the university and does not need to have particular expertise in the area of research. At least one member must be selected from a division other than that in which the student is qualifying.

Additional Division Specific Rules are as Follows:

## **Inorganic Division**

The Inorganic Division requires that the committee consist of at least five members. At least one member must be from a department other than Chemistry (the "external" member). This outside member may be from any program in the university and does not need to have particular expertise in the area of research. Three members of the committee must be members of the inorganic division. At least one member must be selected from a different division in the department. With prior approval, this member may also be out of the department, giving you 2 external members.

## **Organic Division**

- 1) Ph.D. committees for Organic-qualifying students with a **Ph.D. Advisor from outside the Organic Division** must, at a minimum, be comprised of four members and include:
  - a) Ph.D. Advisor (out-of-Division)
  - b) Two Organic Division faculty members
  - c) One External (out-of-Department) member
- 2) Committees with more than four members:

Additional member(s) may be added to the thesis committee at the discretion of the advisor. The committee must meet the criteria described above for a committee of four before further members (indivision, out-of-division, out-of-department) can be added.

3) Regardless of Ph.D. committee size, in no cases can an Organic oral qualifying exam or Ph.D. defense be held with fewer than four members **in attendance**. The Ph.D. advisor and student must be physically together for these events, but the remaining committee members can participate in real time using video or other acceptable forms of telecommunication (provided full committee consensus). In the case of a five person committee, a maximum of one member (other than the Ph.D. Advisor and out-of-Department member) can meet with the candidate separately if necessary (e.g., an irremediable scheduling conflict).

#### 3.4.2 Selection of an M.S. Supervisory Committee

For the M.S. degree, the committee consists of three faculty members. If a student wishes to have a formal minor outside the Chemistry Department, one member of the supervisory committee must be a representative of the outside department.

# 3.5. Substitutions of Committee Members During Examinations

If a supervisory committee member cannot be present at the student's oral qualifying examination or final defense, a graduate faculty member in the same academic area may substitute for the absent committee member. The substitute should sign the examination form noting the name of the absent member.

No substitutions may be made for the committee chair or the external member of the committee. Both must be physically present at the examination. Other members may participate by video internet connection with prior approval. Formal changes to a supervisory committee are made in the chemistry graduate office.

Should you require a substitute during the final exam, the substitute should not sign the signature page of the thesis or dissertation. They may only sign the examination form. The original committee member must sign the thesis or dissertation pages.

#### 4. PROGRAMS OF STUDY

#### 4.1. Overview

The University of Florida chemistry department offers programs of study leading to the MS (thesis and non-thesis), Masters of Science in Teaching (MST) and Ph.D. degrees. Each degree program has specific requirements in terms of coursework, student seminars, qualifying examinations (Ph.D. only) and a thesis (MS) or dissertation (Ph.D.) that presents the results of an original research project. We offer a direct Ph.D. track without the intermediate MS degree. However, for those students who wish to earn an MS, the conventional MS – Ph.D. track is available.

The following sections summarize chemistry department policies as they relate to the programs of study for the MS (thesis and non-thesis), MST and Ph.D. degrees. The University of Florida Graduate School also has policies that relate to programs of study for these degrees. Graduate School policies are summarized in the Graduate Catalog. Students should always confirm detailed requirements with the qualifying division program assistant.

#### 4.2. Student Evaluations

Graduate student progress is monitored by the graduate coordinator every semester. You will be notified in writing at the conclusion of every semester if you are deficient in any basic standard of performance. The faculty will carry out a formal evaluation of the progress of all chemistry graduate students at annual intervals. For first year students, good academic standing is defined by the chemistry department as a minimum GPA of 3.25 in all graded chemistry course work (excluding teaching grades). In addition, all first year students are formally evaluated by the Graduate Standards Committee with respect to teaching performance, progress in research and work ethic. This evaluation will take place in September of the second year. Students who are found deficient in this review may be asked to leave the program. Each first and second year graduate student will be notified in writing of their status, as determined by the faculty reviews.

Beyond the first year, each graduate student's progress will be evaluated on grades, research, teaching and written qualifying exam status. This evaluation will be conducted by the student's committee which will recommend to the faculty (by the middle of the student's sixth semester) that the student continue towards the Ph.D.; work towards a MS; or be terminated. If the student is asked to complete

a conclusive MS degree, departmental support will terminate at the end of the student's seventh semester.

IMPORTANT: The graduate school requires a minimum GPA of 3.00 for a student to receive an assistantship and tuition waiver. One cannot receive a graduate degree at the University of Florida with a GPA below 3.00.

Additional student evaluations are also carried out annual by several of the divisions. You will be informed by the division head of any deficiencies which are noted. The nature of this evaluation process will vary from division to division.

# 4.3. Department Course Requirements

#### MS coursework.

The minimum course work required for a master's degree with thesis is 30 credits including up to 6 credits of the research course, CHM 6971. Students seeking a master's degree with thesis must register for a total of six credit hours in CHM 6971 and must be registered for CHM 6971 in their final semester. No accumulated credits of CHM 7979 will be counted toward the MS degree.

At least half of the required credits, exclusive of CHM 6971, must be in a field of study designated as the major. As for the Ph.D., 18 course credits are required, 9 from the area of specialization and 9 from outside the area of specialization. Students should inquire with their advisor and refer to the detailed course requirements specified in the sections below for the doctorate degree. One or two minors of at least six credits each may be taken, but a minor is not required by the Graduate School.

Students entering the program with a previous MS degree are eligible for transfer of credit. A maximum of 15 transfer credits is allowed. These can include no more than 9 credits from institution/s approved by UF, with the balance obtained from postbaccalaureate work at the University of Florida.

#### MST coursework.

The MST degree requires 36 total hours of credit distributed as follows.

18 hours of CHM at the graduate level, excluding 6943, 6971, 7979, 7980. This can include 6905 (Advanced Individual Problems), 6910 (Supervised Master's Research) and seminars.

6 hours of CHM 6943, Internship in College Teaching

9 hours in the College of Education: of from each of three areas:

Community College Curriculum: Choose from:

EDH 6053, EDH 6066, EDH 6305, EDH 6945, EDH 7225, EVT 6170, EME 6606; EDF6401

Psychological Foundations: Choose from:

EDF 6938, EDF 6113, EDF 6211, EDF 6215, EDF 6355, EDF 3210 (EDF 3210 is available as a

Correspondence course, if needed)

Sociological and Historical Foundations: Choose from: EDF 4542, EDF 6520, EDF 6544, EDF 6606, EDF 6608, EDF 6630, EDF 7573

Plus 3 hours of other course work, 3000, 4000 or graduate level in any area besides chemistry. A chemistry graduate course may be substituted. Variations in these course requirements are possible with the approval of the graduate coordinator.

#### Ph.D. coursework.

A minimum of 90 credits beyond the bachelor's degree is required for the Ph.D. degree in all fields. All master's degrees counted in the minimum must have been earned in the last seven years.

No more than 30 semester credits of a master's degree from another institution will be transferred to a doctoral program. If a student holds a master's degree in a discipline different from chemistry, the master's work will not be counted in the program unless the department petitions the Dean of the Graduate School. All courses beyond the master's degree taken at another university, to be applied to the Ph.D. degree, must be taken at an institution offering the doctoral degree and must be approved for graduate credit by the Graduate School of the University of Florida. All courses to be transferred must be letter graded with a grade of B or better and must be demonstrated to relate directly to the degree being sought. The total number of credits (including 30 for a prior master's degree) that may be transferred cannot exceed 45, and in all cases the student must complete the Ph.D. qualifying examination at the University of Florida. In addition, any prior graduate-level credits earned at the University of Florida (e.g., a master's degree in the same or a different discipline) may be transferred into the doctoral program at the discretion of the supervisory committee and the graduate coordinator and by petition to the Graduate School. In such cases, it is essential that the petition demonstrate the relevance of the prior course work to the degree presently being sought.

# 4.4. Chemistry "Core" Courses

The chemistry department has specific coursework requirements for graduate students in addition to those given above. As part of the coursework required for the graduate degree, each chemistry graduate student (MS and Ph.D.) is required to complete 18 credits of 5000-6000 level core courses with no less than 9 credit hours in the major division and at least 9 credit hours of elective chemistry courses. To remain in good standing, a chemistry student must maintain a minimum 3.25 GPA in all coursework.

Students will normally be expected to complete the course sequence within the first five semesters of study. For entering Ph.D. students who have already earned an MS degree in Chemistry or a closely related discipline, coursework from the MS may be used to satisfy core course requirements for the Ph.D. (colloquially referred to as waiving a course), subject to approval by the advisor and graduate coordinator. An approved course requirement waiver <u>form</u> must be submitted to the Graduate Office. A link to the form can be found in the Graduate Resource Links on our website. Please note that waiving a course does not transfer credit to your transcript. It only satisfies the departmental requirement.

Course requirements for the various divisions are summarized below.

## **Analytical**

IN DIVISION COURSES: THREE REQUIRED

Analytical students must take three analytical courses selected from CHM 6153 (Electrochemistry), CHM 6154 (Separations), CHM 6155 (Spectroscopy), CHM 6165 (Chemometrics) and CHM 6159 (Mass Spectrometry). One analytical special topics course may be counted for in-division credit.

OUT OF DIVISION COURSES: THREE REQUIRED

The electronics/computer interfacing course, CHM 6158C counts as out-of-division and is strongly recommended. EMA6518 (Transmission Electron Microscopy) may be counted as an out-of-division course with prior approval. Scientific Writing is optional and does not count towards the 18 credit hour requirement.

## **Chemical Biology**

#### IN DIVISION COURSES: FOUR REQUIRED

All Chemical Biology students are required to take CHM 5305 (Chemistry of Biological Molecules) and any THREE of the divisional courses, including:

CHM 6036 (Chemical Biology)

CHM 6301 (Introduction to Enzyme Mechanisms)

CHM 6302 (Chemistry and Biology of Nucleic Acids)

CHM 6303 (Methods in Computational Biochemistry)

CHM 6304 (Special Topics in Biochemical Mechanisms)

PHA 6435 (Biosynthetic Logic of Medicinal Natural Products)

CHM 6306 (Special topics in Chemical Biology)

#### OUT OF DIVISION COURSES: TWO REQUIRED

TWO out-of-division courses are chosen with advisement from the committee chair. Recommended courses include:

CHM 6670 (Bioinorganic Chemistry)

CHM 6225 (Adv. Principles of Organic Chemistry)

CHM 6226 (Adv. Synthetic Organic Chemistry)

CHM 6270 (Chemical Dynamics) CHM 6470 (Chemical Bonding and Spectra)

CHM 6430 (Chemical Thermodynamics)

CHM 6381 (Special Topics in Organic Chemistry)

PHA 6356 (Structure Determination of Complex Natural Products)

BCH 6415 (Advanced Molecular and Cell Biology)

GMS 6140 (Principles of Immunology)

GMS 6152 (Molecular Genetics)

CHM 5224 (Basic Principles of Organic Chemistry)

CHM 5235 (Organic Spectroscopy)

It is possible to petition to waive the requirement of CHM 5305 if advanced/graduate-level chemical biology courses have previously been taken. A waiver will only be granted in extraordinary cases

and requires presentation of detailed syllabi.

## Inorganic

IN DIVISION COURSES: FOUR REQUIRED

All inorganic students are required to take any four courses from the following: CHM 6620 (Advanced Inorganic Chemistry I), CHM 6621 (Advanced Inorganic Chemistry II), CHM 6626 (Application of Physical Methods in Inorganic Chemistry), CHM 6628 (Chemistry of Solid Materials), and CHM 6670 (Inorganic biochemistry)

#### OUT OF DIVISION COURSES: THREE REQUIRED

Three out of division courses are chosen with the advisement of the committee chair. Ordinarily these electives will comprise courses from outside of inorganic chemistry. The CHM 6680 courses offered (i.e., X-ray Crystallography, Characterization of Paramagnetic Molecules, or Materials & Molecules in Energy & Catalysis) are considered exceptions.

All inorganic division students will register for CHM 6690 (division seminar) every semester beyond the first year.

## **Organic**

IN DIVISION COURSES: THREE REQUIRED

All organic students are required to take CHM 5224 (Basic Principles for Organic Chemistry), CHM 6225 (Advanced Principles of Organic Chemistry), and CHM 6226 (Advanced Synthetic Organic Chemistry).

OUT OF DIVISION COURSES: THREE REQUIRED

Three out of division courses are chosen with the advisement of the committee chair. Ordinarily these electives will comprise courses from outside of organic chemistry. Typical exceptions include: CHM 5235 (Organic Spectroscopy), CHM 5275 (Organic Chemistry of Polymers), CHM 6271 (Chemistry of High Polymers), CHM 6251 (Organometallic Compounds), CHM 5511 (Physical Chemistry of Polymers) and CHM 6227 (Topics in Synthetic Organic Chemistry). With approval, electives may also be chosen from among courses offered in other departments on campus. Writing in the Sciences, CHM 6180, while strongly encouraged, does not count toward the elective requirement.

## **Physical**

IN DIVISION COURSES: THREE REQUIRED

Physical Chemistry students are required to take CHM 6470 (Chemical Bonding I), plus one chosen from CHM 6461 (Statistical Thermodynamics) and CHM 6586 (Computational Chemistry), and one chosen from CHM 6490 (Molecular Spectroscopy) and CHM 64xx (Advanced NMR).

OUT OF DIVISION COURSES: THREE REQUIRED

If students are exempted from any of the required courses above, they must fulfill the requirement of three in-division courses from the remaining course in the list above or from courses in the list below. Students who take any additional non-required chemistry courses are encouraged to follow the same procedure.

CHM 5511/5511L (Physical Polymers), CHM 6461 (Statistical Thermodynamics), CHM 6471 (Chemical Bonding II), CHM 6480 (Quantum Chemistry), CHM 6520 (Chemical Physics/Advanced Kinetics), CHM 6580 (Special Topics), CHM 6586 (Computational Chemistry), CHM 6710 (Applied Spectroscopy), and CHM 7485 (Theory of Atomic and Molecular Structure).

#### CHEMICAL PHYSICS OPTION

The Chemical Physics certificate is awarded to those students who have taken four courses listed in the Physical Chemistry requirement list, three credits from another division of Chemistry and nine credits from math or physics at the 5000 or 6000 level.

Note: A physical chemistry course (CHM) which is also listed as a physics course (PHY) with the same title/course content may not be counted as "Chemistry – out of division/department."

## 4.5. Non-Chemistry Courses

In most cases, the classes taken to satisfy the coursework requirements for a graduate chemistry degree will be those offered by the chemistry department. With prior approval, credit received for graduate-level courses taught by other departments may also be counted toward a chemistry graduate degree, provided those classes involve subject matter that is relevant to the student's degree program. The student should consult with and receive approval from their major research advisor and the graduate coordinator before taking such classes with the intention of having them count toward a graduate chemistry degree. Tuition waivers will not cover non-chemistry courses that are not approved in advance.

## 4.6. Divisional and Departmental Seminars

All chemistry graduate students must register for one credit hour of departmental seminar (CHM 6935) during the first two semesters of graduate studies. Beginning your second year, you must register for one credit hour of divisional seminar. Please follow the guidelines set by your qualifying division. Attendance at divisional seminars is always encouraged during the first year and required by some divisions. Seminars throughout the department are an important part of your graduate education. Fully engaged graduate students will often attend seminars in any division when the topics are of interest. Most divisions have detailed policies regarding student seminar presentations. Consult with the division program assistants for up-to-date details.

# Analytical

PhD candidates must present two seminars, one on a literature topic and one on their research. An additional seminar may be required based on the review of the analytical division faculty. All analytical graduate students beyond their first semester must register for Analytical Seminar, CHM 6190 every semester until graduation. First year students are encouraged to attend in their first semester and are required to attend in their second semester and thereafter. All students are graded, either on the quality of the presentation or on attendance. For attendance, the grading scale is:

- A 0-1 unexcused absences
- B 2 unexcused absences
- C 3 unexcused absences
- D 4 unexcused absences
- E 5 or more unexcused absences

To request approval of an excused absence, please contact the faculty member in charge of seminar in advance of the absence. The first 40-minute seminar (literature) must be given in the fall or spring semester of their second year. Students not complying with this deadline may be required to present an additional literature seminar prior to graduation. The 40-minute literature seminar must not be on a topic which the student's research group has worked on during the past 5 years, and must not be a critical review of a broad research area. The topic for the literature seminar must be approved by both the research advisor and the faculty member in charge of CHM 6190 for the respective semester. The second seminar must be on the PhD dissertation research. It must include substantial research results (or it will have to be repeated); thus it will typically be in the final semester; indeed, the final PhD defense may be scheduled to coincide with the seminar.

An MS candidate must give one 40-minute literature seminar, as defined above, before the MS defense. If the student continues on for a PhD, they must then present the research seminar as discussed above.

## **Chemical Biology**

All students qualifying in the Chemical Biology division must register for CHM 6037 each semester beyond the first year. Attendance of division seminars during the first year is strongly encouraged. In the third year of graduate study, students will present a 20 minute seminar in the division seminar series and a full 50 minute seminar in the fifth year. The topic of both seminars will be the student's

research toward a PhD.

## Inorganic

Beginning in the third year, each student is required to present a seminar each year during the Fall or Spring semester. The first required seminar will consist of an introduction that frames the project appropriately followed by research results obtained to date. The seminar will be 25 minutes in length followed by questions

In the *fourth* and *fifth* years, the student will present a full seminar on their research. The student is expected to provide an informative introduction that outlines the scope of the project and may relate current literature where appropriate, followed by significant research results. The full seminar will be fifty minutes in length followed by a question and answer period.

Members of the student's supervisory committee should be notified with a memorandum by the student of the date and time of the seminar. Helpful information on the presentation of seminars can be obtained from the CHM 6690 instructor or the divisional office. Each student will register for and attend CHM 6690 each semester. A letter grade will be assigned for each semester in which the student gives a seminar; S/U (satisfactory/unsatisfactory) grades will be given for other semesters. Seminar grades will be assigned by the CHM 6690 instructor. Only semesters in which a student receives a letter grade will be counted toward the department's 6000-level course requirements.

## **Organic**

Organic seminars come in two flavors, those offered by graduate students and those given by external (invited) speakers. The former give graduate students the opportunity to practice public speaking, to learn their research area in-depth (for literature seminars), or to present research results. The latter expose students to the exciting science that is going on elsewhere in the world. Students qualifying in the Organic Division must adhere to the following seminar guidelines.

Thursday seminar attendance is *mandatory* (attendance will be taken) for all graduate students qualifying in the Organic Division for years 1–4, unless prevented by teaching duties. Letter grades will only be given for students in years 2–4. Students will register for CHM6390 and grades will be based on the quality of the presentation, for those presenting, or on attendance for others. The attendance grading scale is A>80%, B: 60-80%, C: 40-59%, D: 20-39%, E: <19%. Detailed guidelines regarding the presentation requirements are available in the organic division office.

#### **Physical**

Physical Chemistry students must register for the divisional seminar, CHM 6590, every semester, starting in their second semester until they graduate. First year students are strongly encouraged to register for the seminar in their first semester if they are within the 9 credit limit. If a student is not able to register for CHM 6590 within the 9 credit hour registration limit, they are expected to attend seminars when it fits within their schedule. Students are required to present a total of two half-hour length seminars during their tenure; suggested times are in the spring semester of their second year and in the fall semester of their fourth year. Seminars given in a student's second year semesters are

intended to provide an introduction and motivation for their dissertation project, including any research results obtained to date. Seminars given in the student's fourth year are expected to provide an introduction that outlines the scope/significance other project and may relate to current literature where appropriate, followed by their research results.

Please block out the physical chemistry seminar course time on your departmental schedule to aid in avoiding a teaching assignment that overlaps with the seminar.

Proposed Schedule for Student presentations:

| Semester     | Fall     | Spring   |
|--------------|----------|----------|
| Student Year | 4th year | 2nd year |

## 4.7. The Qualifying Exams; Becoming a Ph.D. Candidate

A major step on the way to earning a Ph.D. degree is the qualifying exam. This exam marks a transition from the more formal phase of the degree program involving coursework and the beginnings of a research project to the more informal but in many ways more important phase involving intensive pursuit of an independent research project, eventually leading to a dissertation.

Qualifying examinations vary in details among the chemistry divisions. There is a written portion to the exam, normally given over many months *via* a series of cumulative examinations. The written portion of the candidacy exam may also be based upon a written research proposal. There is also an oral component to the qualifying exam, which consists of a meeting of the Ph.D. committee at which the student makes a presentation relating to their research. Since the details of the qualifying exams vary so much by division, we present below the procedures that have been adopted by each division in the department. Students will be expected to follow the procedures which have been adopted by their qualifying division. Most divisions have excellent detailed guidelines regarding formats, content and style. You should also note that there are specific rules regarding substitutions of committee members during the oral exams (Please see the Supervisory Committee section).

It is the responsibility of the student to arrange a suitable meeting time for holding their oral qualifying exams. Students are advised to use freely available online meeting planning applications (such as when2meet.com or doodle.com) to determine mutually agreeable times for your committee examinations. Be sure to set up your time windows to use appropriate class periods as defined by the university.

## Analytical

You should contact the divisional office regarding specific proposal and formatting rules or other requirements that might apply.

#### **CUMULATIVE EXAMINATIONS**

Monthly cumulative exams on announced topics are intended to expose second-year graduate students to material not covered in courses, often focusing on recent literature topics. Ph.D.

candidates who enter with BS or MS degrees must begin their written cumulative examinations as shown on the table below. Approval of any variation from this sequence must be requested by writing a letter to the Division Head. When the student has the equivalent of 4 full passes, no further cumulative examinations are necessary. Each examination is worth a Pass (P), Half Pass (1/2P), or Fail (F). Cumes will be given in the months of July, Aug., Sept., Oct., Nov., Jan., Feb., and Mar. No cumes will be given in the months of Dec., May, and June. Graduate students can, of course, always begin cumes earlier than the above designated times. The maximum number of cumulative examinations any given student can take is 8. Once cumes are begun, students must take all given (unless excused from specific exams) until 4 passes are obtained. If a student cannot attend a cume, arrangements must be made in advance with the cume proctor and the Division Head.

| Starting Cumulative Exams       |                   |  |  |  |
|---------------------------------|-------------------|--|--|--|
| Month Entered                   | Must Begin By     |  |  |  |
| Students Entering with BS or MS |                   |  |  |  |
| August (Fall semester)          | Following July    |  |  |  |
| May (Summer semester)           | Following July    |  |  |  |
| January (Spring semester)       | Following January |  |  |  |

If a student does not pass 4/8 or if they drop out of the cumulative examination sequence, then that student can still obtain an MS degree. After the completion of a thesis-MS degree, the student may petition the Analytical Division to be allowed to continue on to the Ph.D. If the petition is approved, the student must start cumulative examinations immediately and must pass 4 out of the next 8 cumes.

Students pursuing the non-thesis MS must pass a minimum of 2 out of the first 6 cumulative exams, plus give a literature seminar (registered for CHM 6190). The thesis MS does not require any cumulative exams in the analytical division.

## Ph.D. ORAL QUALIFYING EXAMINATION

Ph.D. candidates are required to take the oral qualifying examination in their fifth or sixth semester or first half of their seventh semester after entering graduate school. Any student not complying with this deadline must pass ½ additional cumulative exam for each month past the deadline. Any exceptions must be approved by the division head.

## **Chemical Biology**

#### **CUMULATIVE EXAMINATIONS**

A primary purpose of the cumulative exams is to train students to understand, interpret, and apply information gained independently from the broad range of sources in modern chemical biology. The format and content are intended to assess critical thinking and problem-solving skills in chemical biology concepts and research techniques. Students will be tested on their understanding and ability to apply fundamental knowledge from coursework and primary sources including the primary literature, laboratory manuals, and research seminars.

## Timing and Format

A series of 8 exams are given in two groups of 4, the first beginning in August and with

approximately one exam every four weeks. The second block begins in January of the following Spring semester with the same approximate schedule. The exams must be taken in succession and a total of 4 passes out of the consecutive 8 exams are required to pass the cumulative exams.

At the beginning of the fall semester, second year students will receive a yearly exam schedule by email. The exam schedule will include the date of each exam, the faculty member responsible for each exam. Exams are typically administered during the last week of each month. The literature or other resources that are specific to each exam will be provided no less than two weeks prior to the scheduled exam date.

Petitions to take an exam at a time other than the posted date is the discretion of the faculty member conducting that specific exam. Under significant extenuating circumstances petition to skip an exam may be granted by the division office.

Students usually start taking cumulative exams in the beginning of year 2, when core coursework is largely complete, but can start earlier if desired; however, students wanting to begin earlier should consult with their advisor before make this decision. Students are allowed one practice cumulative exam that will not count toward the 8 consecutive. This can only be taken during the student's first semester. A pass or half-pass will count toward the 4 total passes needed to qualify, but a fail will have no effect.

One exam may be taken from a division outside of the chemical biology division and count as one of the 8 consecutive exams as a pass, half pass or fail. If you are planning to do this, you must arrange this with the division office in advance.

## Scoring and Passing Requirements

The results of each exam (pass, half-pass or fail) will be communicated to the student and their thesis advisor by email within ~two weeks of the exam. Grading criteria and cutoffs will be determined by the faculty member responsible for each exam. Exams will be graded anonymously, where each student is assigned a numerical identifier on the written exam.

Students finishing with 3.5 exam passes out of 8 must complete a master's degree, typically by the end of the subsequent semester, the student has the option to then petition the division for readmission to the Ph.D. program (upon recommendations from for their advisor and the M.S. committee members). With approval from the division, the student can return into the PhD program with the written qualifying portion of the PhD degree complete. Students with fewer than 3.5 passes will receive a terminal master's degree.

A total of 2 passes out of a consecutive 8 exams is required to qualify for the M.S. degree (thesis or non-thesis) in the Chemical Biology division.

Previous exam keys and assigned study resources will be kept on file in the division office and copies can be obtained upon request.

#### Non-Thesis MS Requirements:

Chemical Biology: Students must pass a minimum of 2 out of 8 division cumulative exams.

#### ORAL QUALIFYING EXAMINATION

The written and oral qualifying examinations are normally taken early in the fall semester of year three. The qualifying exam consists of two components:

- 1. An original research proposal describing the candidate's thesis project; and
- 2. An oral defense of the proposed research plan.

The following general factors are considered in assessing whether the students possess the knowledge and research skills required for a successful Ph.D. thesis:

- breadth and depth of knowledge in thesis research areas
- effective use of modern principles of experimental design
- consideration of alternative hypotheses and experimental approaches
- innovation in the design of the research plan
- effort toward accumulation of preliminary data to support experimental aims

Students must submit a research proposal that outlines their proposed Ph.D. research to their thesis committee at least **two weeks** before the exam date. A detailed guide for the content and formatting of the written research proposal is available from the division office.

The oral defense of the research proposal typically includes a brief (20-30 minute) slide presentation that describes the research plan, followed by an examination by the committee members. The slide presentation should concisely outline the significance, specific aims, and any key preliminary data for the project. Questions from the committee are primarily related to the student's research and objectives, however, any area that the committee wishes to explore are allowed.

# Inorganic

You should contact the divisional office regarding specific proposal and formatting rules or other requirements that might apply.

#### **CUMULATIVE EXAMINATIONS**

The inorganic division bases the written examination upon an evaluation of the written qualifying proposal document. There is no separate qualifying exam or cumulative exams.

#### ORAL QUALIFYING EXAMINATION

Prior to completion of seven semesters of graduate study, the student will take the oral qualifying exam. This requirement will typically be met prior to the end of the first semester of the third year if the student has been continuously registered following entry in the Fall semester. Students who enter with a Master's Degree must complete their oral exam by the end of their fifth semester. No fewer than seven days prior to the exam date, the student must give the members of the supervisory committee the written portion of the qualifying exam (typed, double spaced). The purpose of the Oral Qualifying Exam is to evaluate the student's chemistry background and research skills to determine if the student will be able to complete a Ph.D. dissertation. The exam consists of a written component and an oral component. Two options are available for the content of the written material and the accompanying oral exam, as described below:

(Option 1) Research report/proposal. The written material consists of a research report on the progress of the student in his/her research and a proposal for future work on the project. The research report section will summarize the background of the project, describe the procedures used and the results obtained by the student, and discuss the results. The format of the report should adhere to the American-chemical Society style recommendations for manuscripts submitted to ACS journals (see the "ACS Style Guide"). The proposal will be a separate document suggesting future research directions related to the project. The proposal should reflect the student's view of important extensions of the research. More importantly, the proposed work should not be a simple derivative of the current research project or the next logical step in the project. It is expected for the research report that the student will initiate the first draft of the document and will be substantially responsible for its content. Although general discussions concerning future research may occur between the student and the research director prior to the preparation of the proposal, the proposal section should be written entirely by the student with no direct assistance or review by the research director. In the oral portion of the exam, the student will give a brief presentation on the research report and proposal. The oral examination will involve questions from the committee to determine the competence of the student in research and in the background needed to complete the proposed research.

(Option 2) Research report/original proposal. The research report requirement is the same as in option 1 above. The research proposal will be an original contribution different from the students' immediate area of research, on a topic chosen by the student and approved by the student's research advisor.

In all cases it is required by the division to list all committee members on the cover of the proposal.

#### **Organic**

#### **CUMULATIVE EXAMINATIONS**

The main goal of the UF Organic Division is to provide an education that takes professional students and transforms them into independent professional chemists. Cumulative exams are taken when the majority of the required coursework is complete and are designed to test the knowledge you have accumulated throughout your career. This is in contrast to coursework exams that are designed to test a specific set of assigned materials. You should expect to be tested on the fundamental knowledge that you have learned in your courses and to apply the concepts you have learned to new and often unfamiliar material found in the recent chemical literature. These exams will assess how well your critical thinking and problem-solving skills are developing with regard to organic chemistry.

Continuous critical reading of the primary literature is vital to your success for cumes!

Actively reading the literature on a daily basis will be excellent practice for encountering unfamiliar material, as you will when taking cumulative exams. You will also need to do this throughout your career, so starting these habits early will help you to excel. Additionally, this will help you to deepen your understanding of chemistry, increase your understanding at seminars, and help you to find subjects that you are personally interested in and may like to pursue in the future. You should also use this as a tool do identify areas where you are deficient and to explore them and teach yourself about them and constantly expand your knowledge base.

#### Cume Content

The organic faculty member giving the cume will select questions from two sources, the first source being the current literature (as assigned by the faculty member responsible for the cume) and the second source being the core first year organic curriculum (e.g., CHM 5224, CHM 6225, and CHM 6226) and fundamental organic chemistry concepts.

Students will be provided with a list of broad topics as a guide to help study the literature and prepare for each upcoming cume. *We do not expect that you will memorize all the information in the materials provided.* This is in fact discouraged as you will not be expected to recite obscure facts. It is instead suggested that you critically read and understand the material.

#### Here is a list of broad topics:

| 1. Kinetics             | 7. Reactive Intermediates | 13. Organometallics &      |
|-------------------------|---------------------------|----------------------------|
| 2. Thermodynamics       | 8. Total Synthesis        | Metal-Mediated             |
| 3. Stereochemistry      | 9. Organic Materials      | Reactions                  |
| 4. Pericyclic Reactions | 10. Polymerization        | 14. Structure and Bonding  |
| 5. Photochemistry       | 11. Bio-organic           | 15. Heterocyclic Chemistry |
| 6. Reaction Mechanisms  | 12. Spectroscopy          | 16. Free Radicals          |
| and arrow pushing       |                           | 17. Synthetic Methods      |

## Regulations and Timing

- 1. All graduate students qualifying in the Organic Division, regardless of terminal degree expectations (non-thesis M.S., thesis M.S., Ph.D.) must take the cumulative exams.
- 2. At the beginning of the Fall semester, you will receive a schedule by email indicating the faculty responsible for the cumulative exams in the coming months.
- 3. Exams are on the first Wednesday of the month from 7:30–9:30 PM *except*: a) September, when the exam will be given on the second Wednesday; b) if the first Wednesday falls on a university holiday (including Spring Break), in which case the exam will be given the following Wednesday. Exams are administered in 340 Sisler Hall.
- 4. Exams are given in September, October, November, December (Fall semester) and February, March, April and May (Spring semester).
- 5. Grades of Pass, Half-Pass and Fail will be recommended to the cume committee, who will make final grade assignments.
- 6. A total of 4 passes out of a consecutive 8 exams are required to pass the written qualifying portion of the Ph.D degree in organic chemistry. Students with 3.5 cume passes must complete a Master's degree, typically by the end of the subsequent semester, but may then petition the division for readmission to the UF Chemistry Ph.D. program (upon recommendation of their advisor and the M.S. committee). Students with fewer than 3.5 passes will receive a terminal Master's degree.
- 7. A total of 2 passes out of a consecutive 8 exams is required to pass the written qualifying portion of the M.S. degree (thesis or non-thesis) in organic chemistry. Students who do not meet the cume requirement must petition the Division for exemption from the policy. In these rare cases, an additional written requirement may be imposed. *Note:* Terminal M.S. students, in principle, can stop taking cumes after meeting their two cume pass requirement; however, cumes may only be taken by students within their first four semesters. Prematurely terminating cumes is therefore not recommended and may preclude students from later entry to the Ph.D. track.
- 8. Students admitted in the fall must begin the consecutive 8 cumes no later than February of their 1st year. Spring admits must begin no later than September of their 1st year, although starting sooner is encouraged. Some students will enter our program with a master's degree or some previous graduate level coursework. If the student is well-prepared (regardless of admission semester) they can start right away upon consultation with their research director. The student must also inform the graduate coordinator so that it may be recorded in their file.
- 9. A student is eligible to take one free <u>organic</u> cume **before** officially beginning the cume sequence to "sample" the cume system. If passed (half or full pass), the grade will count toward the total of 4 passes needed to complete the written qualifying exams. If failed, no

penalty is applied. For fall admits, the sample cume must be taken in the fall of the first year; the next cume, taken no later than February of the first year (in accordance with Regulation 8), initiates the formal cume sequence of 8 consecutive exams. For spring admits, the sample cume must be taken in the spring of the first year; the next cume, taken no later than September of the first year (in accordance with Regulation 8), initiates the formal cume sequence of 8 consecutive exams.

- 10. One cume can be taken from a division outside of organic as one of the 8 consecutive tests (i.e., after the cume sequence is initiated). This "out-of-division" cume (regardless of the student's result) will count as one of the 8 possible cume attempts. A student cannot take more than 8 cumes total (outside of the free organic cume). If a student admitted in the fall takes the "out-of-division" cume and an organic cume during the same month (this is neither possible in the month of the final possible cume attempt nor recommended) OR the "out-of-division" cume in a month (e.g., January) that no organic cume is offered, the student's cume sequence will end in November rather than December of his/her second year. This rule will be similarly applied to students admitted in the spring and those who initiate their cume sequence early.
- 11. Each exam will include questions from literature assigned by the professor responsible for the examination and related to the broad topic announced two weeks prior to the examination date.
- 12. A list of examiners and their exam months will be given to the students at the beginning of the school year (see above).
- 13. Students will use a code, instead of their name on the top of the cume. This code should in no way be traceable to the student (i.e., it should not be a social security number, student ID, birth date, etc.). The students will put their name and the code into a sealed envelope, give it to the faculty member and it should be turned into the cume committee later **unopened**.
- 14. Any new or further information from individual faculty about any upcoming cumes will be e-mailed to the organic students as it becomes available. It will also be posted outside of 429 Sisler Hall.
- 15. Results will be distributed by the Organic Division's Administrative Assistant.

#### ORAL QUALIFYING EXAMINATION

#### OBJECTIVES AND PHILOSOPHY

The oral qualifying examination must be taken no later than the  $7^{th}$  semester of residence (i.e., the fall semester of the third year for a student who began studies in August), but may be taken at any earlier time provided that the student (a) is in good academic standing (GPA > 3.0) and (b) has successfully completed the written qualifying examinations (cumes). In cases where the oral

must be scheduled late, students must petition the Division (with a supporting letter from their research advisor) for an extension; denial of the petition means that they will be eligible only for an M.S. degree.

The qualifying examination will consist of two parts: (a) an original research proposal and (b) an up-to-date research progress report.

The objectives of the oral qualifying examination include:

- 1. To assess the student's progress on his/her independent research project.
- 2. To evaluate the student's ability to prepare and defend an independent research proposal in the area of organic chemistry.
- 3. To evaluate a student's understanding of the fundamental principles of organic chemistry, e.g. reaction mechanisms, common synthetic methods, theoretical principles of structure and bonding, etc.
- 4. To assess a student's ability to document their experimental (or theoretical) results in a manner consistent with publication in a peer-reviewed organic chemistry journal (e.g. *J. Org. Chem.* or *Org. Lett.*).
- 5. To assess the student's ability to think creatively "on their feet", answer questions, and defend their point of view.

## Eligibility and Scheduling

Once a student has passed the written qualifying examinations and remains in good academic standing, they are eligible and encouraged to start planning for the oral qualifying exam. Typically, a discussion with the student's Ph.D. mentor is sufficient to identify a time frame for when the event should occur, and again this should be no later than the 7<sup>th</sup> semester of residence (i.e., the fall semester of the third year for a student who began studies in August). In most cases the specific date will first vary depending on the student's research progress, Ph.D. mentor's travel schedule, and acceptance of the candidate's proposed research topic (see Section 2.5.3). Again, in cases where the oral must be scheduled late, *students must petition the Division (with a supporting letter from their research advisor) for an extension; denial of the petition means that they will be eligible only for an M.S. degree.* 

Once a candidate's proposed research topic is approved, they should identify a date and time where all members of the supervisory committee can be present. The candidate should allow *two hours* for the examination and is responsible for booking the examination room (e.g. Sisler 340) and a projector/computer. There are several ways to approach the committee members to decide on a date/time, and here are two that are generally appreciated:

- 1. Visit the committee member *directly* to obtain his/her schedule for no more than a two week period surrounding the planned date for the exam.
- 2. Use a scheduling website (e.g. www.when2meet.com) in conjunction with e-mail contact. In this case the student would propose a two-week period and reasonable time slots (e.g. starting no earlier than 9 a.m. and ending no later than 5 p.m.).

The student should not send an e-mail to a committee member simply asking them to relay their

daily schedules for a particular time period!

**NOTE**: The Organic Division provides a highly detailed set of guidelines and formats for the preparation of the oral proposal document. It is very important that you obtain the latest version from the division office before you begin preparations.

## **Physical**

#### **CUMULATIVE EXAMINATIONS**

During the first two years of residence, Physical Chemistry students must pass four cumulative exams to qualify for the PhD degree. Two cumulative exams must be passed to qualify for the MS degree with thesis and three cumulative exams must be passed to qualify for the MS degree without thesis. Cumulative exams will be offered at least six times a year.

One full pass (or two one-half passes) can be earned from exams outside the division.

Students earning an average GPA of 3.70 or higher in their first three division courses will be awarded one full pass.

Students must make at least two tries to pass the cumulative exams in the first year, and can make a maximum of six tries in the second year.

#### ORAL QUALIFYING EXAMINATION

A student must take the oral qualifying exam within three months after passing the written exam or by the end of the fourth term of residence including the summer as one term, whichever is longer. The topic of the oral proposal may be of the student's own choosing and may be in the area of the student's doctoral research.

## 4.8. The Final Exam and Dissertation, Thesis or Report

#### MS THESIS, PH.D. DISSERTATION

Both the MS and Ph.D. degrees in chemistry at the University of Florida are research-based, which means that the central feature of the program of study is pursuit of an independent research project under the direction of a chemistry faculty member. For both degree programs, this project culminates in the preparation and defense of a thesis (MS) or dissertation (Ph.D.) to be written by the student which provides background material and summarizes the research project. Successful completion of the writing of this thesis or dissertation, and defense of the thesis or dissertation before the degree committee, is the capstone feature of both degree programs.

Some notable facts regarding the thesis or dissertation preparation and defense are given below:

A. The research advisor will determine the amount of work required for the thesis or dissertation.

B. A final corrected version of the thesis or dissertation will be given to each member serving on the degree committee at least two weeks before the oral defense.

C. An oral defense of the final version of the thesis or dissertation must be presented to the members of the student's committee.

#### MS (NON-THESIS)

The requirements for the non-thesis MS degree vary by division as outlined below:

Analytical: Students must pass 2 out of a maximum of 6 cumulative exams, plus give a literature seminar (registered for CHM 6190).

Chemical Biology: Students must pass a minimum of 2 out of 8 Chemical Biology cumulative exams.

*Inorganic:* The completion of the seven courses required of inorganic Ph.D. students concludes the degree in this division.

Organic: Students must also pass a minimum of 2 out of the 8 cumulative exams.

*Physical:* Students must pass 3 out of a maximum of 6 cumulative exams.

# 4.9. Time Limits for Degree Programs

For students working toward an MS degree, the degree requirements must be completed by the end of the sixth semester of enrollment. For students working toward a Ph.D. degree, the final defense must be completed within five years. Support for enrollment beyond these limits may be provided for students in good academic standing upon petition to the graduate coordinator.

#### 4.10 Overview of some relevant forms from the Graduate School.

Graduate School Forms need to be filled out by all graduate students as a way of keeping a record of the student's progress. Forms can be obtained from the academic assistant in the Chemistry Graduate Office.

#### ADMISSION TO CANDIDACY FORM

This form should be filled out prior to the Ph.D. oral qualifying exam. This is for Ph.D. students only. You should see the academic assistant in the graduate office to obtain this form one week prior to the oral exam.

#### FINAL DEFENSE FORM

This form must be prepared prior to the oral defense of the thesis (MS) or dissertation (Ph.D.). You should see the academic assistant in the graduate office to obtain this form one week prior to the final exam.

# 5. Safety

The University of Florida Chemistry Department commits itself to ensuring that its students, staff, faculty members, visiting professors, and other researchers can perform their tasks in the safest environment and that all individuals have the proper safety equipment, sufficient training, and important information they need. To facilitate a safe working environment, everyone needs to take their responsibilities seriously. As a graduate student, your responsibilities include:

- taking safety classes (offered in the fall every year)
- wearing appropriate protective equipment (e.g. goggles, lab coats, closed shoes)
- disposing of chemicals in an appropriate way and leaving a clean lab space for others
- knowing how to act in an emergency (e.g. fire, burn)

If you have questions about safety procedures, please visit the UF Chemistry safety website: http://www.chem.ufl.edu/facilities/safety.shtml



accidents!

#### 6. WORKING AT THE UNIVERSITY OF FLORIDA

Graduate students in good standing in the University of Florida chemistry program are normally supported as either teaching assistants or graders (TAs) or research assistants (RAs). Students supported on assistantships receive a stipend which provides for living expenses while the student pursues their degree. Funds for teaching assistantships and graders normally come from the University of Florida. Funds for research assistantships normally come from faculty research grants.

## **6.1 Florida Residency**

The Department of Chemistry requires that non-international students apply for Florida residency. Immediately upon your arrival to the university, you should file your domicile form with the Alachua County Courthouse. One month prior to the start of your second year, you should submit your application for residency, along with supporting documents [e.g., apartment lease, employment contracts, utility and phone bills], to the University of Florida Registrar. The residency packet is available at 222 Criser Hall. Florida residency will not be granted until the packet has been submitted and approved.

## 6.2. Teaching Assistantships/Graders

Students supported as teaching assistants or graders will be assigned specific duties which may include one or more of the following: teaching laboratory sections, grading papers, maintain office hours and proctoring exams. It is important that these considerable responsibilities be taken seriously. If illness, accident, or an emergency prevents you from meeting your commitment, you must inform your teaching supervisor and help make arrangements to cover that duty. For anticipated absences from your teaching duties (e.g., a talk at a conference), you must complete a leave of absence form (available on the departmental website) and submit it to the graduate coordinator. In the event of extraordinary circumstances (e.g., serious health problems, pregnancy) the Department will make every effort to provide a suitable TA assignment. However, it may not be possible to do so in every situation.

Teaching assistantships are always provided contingent upon satisfactory performance. Teaching evaluations are made each semester. A poor teaching evaluation will result in a letter of reprimand. Students with two letters of reprimand will no longer be provided teaching assistantships.

## 6.3. Research Assistantships

Through mutual agreement, a student may work for a professor on a research problem and while doing so be supported as a research assistant. The duties of such an assignment are given to the student by the supervising professor.

# **6.4. Summer Support**

Graduate students at the University of Florida Chemistry Department are supported in the summer as either teaching assistants, graders or research assistants, as in the academic year. Graduate education in chemistry is considered to be a full time, 12 month per year engagement.

## **6.5. Time Limit on TA Support**

Teaching assistantship support is normally made available to graduate students for only a limited time. A student pursuing a Ph.D. degree may be supported from departmental funds for no more than 5 calendar years (15 academic semesters), and a student pursuing an M.S. degree may be supported for no more than 3 years (9 academic semesters).

It should be noted that while most chemistry graduate students are supported as either teaching or research assistants, no student is ever guaranteed financial support. Unsatisfactory performance of teaching duties, poor academic performance in course work or research work can be cause for termination of financial support at any time.

Finally, graduate education is primarily a research experience and as such, it is impossible to predict the outcome and time required to complete a degree. Situations arise in which the research demands more than the average time and for students in good standing, support will be provided beyond these limits whenever possible.

## 6.6. Payroll

All the University of Florida employees receive bi-weekly paychecks on alternate Fridays (26 installments every two weeks throughout the year). The departmental human resource office can inform you of the payday schedule. Direct deposit is required of all University employees.

## 6.7. Holidays

Graduate students are entitled to take as holidays the days on which the University is officially closed. In addition graduate students are allowed 5 sick days during the year. Any leave beyond the allotment requires approval of the research advisor and notification of the Graduate Coordinator. Students will not normally receive a departmental stipend for extended leave beyond that indicated above.

| University Holidays    | # of Days |
|------------------------|-----------|
| New Year's Day         | 1         |
| Martin Luther King Day | 1         |
| Spring Break           | 5         |
| Memorial Day           | 1         |
| Labor Day              | 1         |
| Independence Day       | 1         |
| Homecoming             | 1         |
| Veterans Day           | 1         |
| Thanksgiving           | 3         |
| Christmas              | 1         |

#### 6.8 Leave

Of Critical Importance: The chemistry department does understand that it is sometimes necessary for students to be away from campus. It is important that these be scheduled appropriately to minimize conflicts with your teaching or research obligations. Students holding a research assistantship should discuss any leave in advance with their advisors. Students holding teaching assistantships must adhere to the departmental policies regarding absences. You are expected to be on campus for the entire semester in which you teach. You must be present on the day before classes begin and present for any training sessions and TA meetings held by your teaching supervisor. You must also be present for all grading and proctoring activities at the conclusion of the semester. If you cannot be here at any time during a semester, there is a strict protocol to follow. You must complete a "Leave of absence approval" form in advance which summarizes your travel and who will be covering your teaching duties while you are absent. The form must be signed in advance by your teaching supervisor, your research advisor and the director of graduate studies. Teaching assistants who neglect this procedure will automatically receive a letter of reprimand, and students with repeated offenses may become ineligible to hold a teaching assistantship.

# 6.8.1 Leave of Absence (Sick Days, Family Leave, Maternity Leave, etc.)

The department follows the university's policies when graduate students need a leave of absence.

Please see the official policies here: https://hr.ufl.edu/manager-resources/recruitment-staffing/hiring-center/current-employees-status-changes/graduate-assistant-leave-of-absence-process/

Three types of leave are defined as:

- 1. Personal time with pay: Graduate assistants are eligible for personal time with pay for up to five (5) days per semester appointment.
- 2. Paid Family Leave of Absence: Graduate assistants are entitled to eight (8) weeks of paid family leave during any 12-month period for a variety of reasons defined at the link above.
- 3. Research Leave of Absence: A graduate assistant may request an unpaid leave of absence for a semester or a year to pursue research related to their academic program, subject to university approval.

Students planning leave should advise their research director and coordinate with the graduate studies office.

## 6.9. Outside Employment

The graduate assistantship (research or teaching) is expected to support the student during graduate studies. Therefore, it is the policy of the chemistry department to not permit students to hold outside employment. Exceptions to this policy include temporary consulting and tutoring. Graduate students may not be compensated for tutoring any student for whom they have a grading responsibility.

## 6.10 Sexual Harassment Training

The University of Florida is committed to providing a workplace and academic environment which is free of harassing behavior. Completion of harassment prevention training is an expectation of employment for **all employees** at the University. New graduate students are expected to complete harassment prevention training within the first 30 days of employment and provide their certificate of training completion to the department HR office. Training is expected of all faculty and staff every two years. Details are available at the UF website:

http://hr.ufl.edu/manager-resources/policies-2/sexual-harassment/

All chemistry graduate students should review the University of Florida *Teaching Assistant Handbook*. It states, in part:

Since UF does not tolerate sexual harassment, the University strongly discourages employee-student interactions (including TAs in either role) which may lead to amorous relationships. A conflict of interest is created when an individual evaluates or supervises another individual with whom he or she has an amorous or sexual relationship. Such relationships, even though consensual, are likely to be exploitative, and they imperil the integrity of the education process and work environment. They also may lead to charges of sexual harassment. Thus, the University requires the resolution of any conflict of interest created by these relationships.

In regard to consensual relationships, the University of Florida Human Resources Services sexual harassment policy states, in part:

"Participation of a supervisor, faculty member, advisor, or coach in a consensual romantic or sexual relationship with a subordinate employee or student always creates a prohibited conflict of interest that must be reported to the appropriate hiring authority for proper disposition. A conflict of interest is created when an individual evaluates or supervises or has decision making power affecting another individual with whom they have an amorous or sexual relationship. Moreover, such relationships, even when consensual, may be exploitative and imperil the integrity of the work or education environment."

In addition to these university policies, the Department of Chemistry requires that there be no dating between a graduate teaching assistant and any student who is taking a class in which they are an instructor.

#### 7. DEPARTMENTAL OPERATIONS AND GENERAL INFORMATION

#### 7.1. Student Offices

For the first semester, graduate students are normally assigned a desk in a research laboratory on the basis of available space. After the student has chosen a research advisor then they should move to office space in that professor's laboratory. Students should not move from their assigned desk until their selection of a research advisor has been approved by the graduate coordinator.

## 7.2. Building Security and Keys

An administrator in the department's Central Receiving will issue you the keys that you will need. Usually you will receive two keys, one that unlocks the external building doors and another that unlocks your office / lab. It shall be clearly understood by all those receiving keys that they shall:

- Exercise great care to prevent loss. Report any losses of keys immediately to the Chemistry Department Central Receiving.
- Not loan a key to anyone.
- See that the outside door used is locked when entering or leaving the building after regular hours.
- Under no circumstances allow anyone into the building after hours who is not a holder of a building key.
- Report to the University Police and to the Department chair any unusual or suspicious occurrence or persons found in the Chemistry building complex after the buildings are normally closed.

## 7.3. Mail, E-mail, IT services and FERPA

#### 7.3.1 Mail

Graduate student mailboxes are located on the second floor of Leigh Hall. Delivery of US mail and University of Florida campus mail is made to these boxes. Although most official communications are made by email, you should check your box occasionally for departmental and university memoranda and notices. Note that most students will share a box with another student so please be respectful of each other's mail.

## 7.3.2 E-Mail

Each graduate student is required to have a departmental @chem.ufl.edu e-mail account which everyone generally forwards to their Gatorlink account (@ufl.edu). Check these frequently. The Chemistry department has designated e-mail as an official form of communication within the department. It is important that you check your e-mail frequently to stay informed.

## 7.3.3 Student Privacy

The University of Florida follows strict guidelines with respect to student privacy as dictated by the 1974 Family Educational Rights and Privacy Act (FERPA). Full details are available at the University web site: http://www.registrar.ufl.edu/ferpa.html

## 7.3.4. Chemistry IT Services

The departmental IT services shop is your source for all things related to computer, internet, software, poster printing.

## What the IT Shop Provides:

- ·Network Access
- ·UF E-mail Support
- ·Research Group Web Space
- ·File Storage & Backup
- ·Helpdesk Support
- ·Purchase Consulting
- ·Security Oversight
- ·PC Repair & Installations
- ·Poster Printing Services
- ·Software License Management

See the IT Shop website for the latest information:

https://itshop.chem.ufl.edu

#### **Need Assistance? Have a Question?**

- ·Send e-mail to support@chem.ufl.edu
- ·Stop by the IT Shop (LEI 116-D) between 8am 5pm
- -Or call 352-392-7885

#### **Policy Review**

## **University of Florida's Acceptable Use Policy:**

http://www.it.ufl.edu/policies/aupolicy.html

·A must read! Covers Your Rights & Responsibilities, General Rules,

Enforcement, Security & Privacy, Commercial Use, E-mail Use, Web pages, etc.

## **Departmental Policies**

## **Network Access:**

https://itshop.chem.ufl.edu/policies-and-guidelines/network-access

## **Personally Owned Computers:**

https://itshop.chem.ufl.edu/policies-and-guidelines/non-university-computer

·A must read! Network Usage, Personal Computer Responsibility.

# For Your Personal Devices (includes laptops, phones, tablets, etc...) Network Registration:

·If you own a desktop or laptop computer that you plan to use on the Department's network using an Ethernet connection, you need to register that computer with the IT Shop.

## **Security:**

- ·All personal computers, in use on our network, need to run a current and self-updating antivirus scanning utility. All Operating Systems should be configured to auto-update to ensure that all patches are installed in a timely manner.
- ·McAfee Virus Scan Enterprise is available FREE to all UF faculty, staff, and students for both business and personal use.

#### Software:

Lists of software that UF and the Department of Chemistry license for you use can be found here: https://itshop.chem.ufl.edu/services/software

## 7.4. The Chemistry Department Stockroom

Many of the chemicals, supplies, gases and equipment needed in research labs may be purchased from the Department Stockroom. Stockroom purchases are recorded at checkout and are charged to a teaching or research grant account. Reports of purchases by each research group will be furnished to faculty members directing the research groups. Your research advisor will provide guidance on the account number to use for stockroom purchases.

## 7.5. Procedure for Work Injury

Worker's Compensation 433A Stadium West Box 115008 workcomp@ufl.edu

Phone: (352) 392-4940

Fax: 392-8329

TDD: 1-800-955-8771

#### REPORTING A WORK-RELATED INJURY

If you are injured while performing your job you must:

- 1. Notify your supervisor immediately. You/your supervisor must then contact the UF Workers' Compensation Office (UFWC) at 392-4940. UFWC will complete a First Report of Injury or Illness form for you. Even if you do not think you need medical care, you should contact UFWC to discuss your injury.
- 2. If you require medical attention, contact UFWC prior to going to a medical care provider. UFWC staff will assist you in selecting an authorized medical care provider to treat your injury, thereby insuring that you do not incur any expenses.
- 3. Remember to seek treatment only from an authorized medical provider as set forth in the Workers' Compensation Employee Handbook. If you are uncertain as to what procedures to follow, please contact the UF Workers' Compensation office for assistance.
- 4. When you arrive at the authorized medical provider's facility, show the provider your copy of your First Report of Injury or Illness form.
- 5. Provide your supervisor and the UFWC office with medical documentation of your work status, and inform your supervisor and the Workers' Compensation office of any subsequent changes. The authorized medical provider must support all requests for time off due to an injury in writing.
- 6. Contact your supervisor daily or according to a schedule established by your supervisor in order to keep him or her informed about your treatment and recovery.
- 7. You must attend all of your scheduled medical appointments. Failure to do so may result in disciplinary action up to and including termination. 8. Read the modified duty program statement. Once your medical provider has released you to return to work (regardless of the limitations or restrictions the medical provider assigns), you must be willing and available to return to the workplace.