

# Graduate Student Handbook

Mathematics Department

2018/2019

This handbook belongs to:

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## INTRODUCTION

This handbook is designed to guide the progression of graduate students within the Mathematics Department of the University of California, Riverside. Through the experiences these programs offer, graduate students will extend their own understanding of mathematics and deepen their understanding of mathematical thinking.

Graduates of the UCR Mathematics Department find that a M.A., M.S., and Ph.D. degree is a strong start to an academic career. Many graduates have received offers from top departments around the world. Others have found stimulating careers in a variety of positions in private research, industry, and government jobs. In Fall 2008, U.S. News & World Report ranked UCR in the top 10 “Schools to Watch”. The magazine cited UCR’s growing reputation for research excellence, diversity and programs that enhance student success. The Graduate Department strives to provide close, detailed mentoring of each graduate student as an active member of the scholarly community devoted to encouraging excellent teaching, seasoned scholarship, and ongoing learning in the broadest and deepest sense.

The principal objective of the program is to train mathematicians with the broad perspectives, solid mathematical foundation, initiative and imagination that will lead to productive independent research careers in either academic or industrial settings.

*. . . to communicate, stimulate and advance the knowledge of mathematics across a broad academic front. This is accomplished by maintaining a diverse faculty of seasoned mathematicians who are not only skilled instructors, but aggressive researchers in the fields of pure and applied mathematics.*

—excerpt, Mission Statement, UCR Department of Mathematics

The Department also recognizes the practical services that enhance each student’s graduate experience:

- Coordinating financial support for graduate students in the form of Teaching Assistantships, Fellowships, and Research Assistantships.
- Locating offices for faculty, graduate students and staff conveniently in the same building.
- Providing computer facilities and library access for faculty and students.
- Offering research seminars and access to ongoing electronic journals.
- Maintaining a colloquium series which brings distinguished visitors to the campus to present, examine, and explain ongoing issues in mathematical science.

This handbook contains regulations, requirements, and general information for the various graduate programs in the Department of Mathematics. This supplements broader policies and procedures of the University. Please contact the Mathematics Department office with any questions.

## UCR PRINCIPLES OF COMMUNITY

The University of California Riverside is committed to equitable treatment of all students, faculty, and staff. UCR's faculty, staff, and students are committed to creating an environment in which each person has the opportunity to grow and develop, and is recognized for his or her contribution.

There are three objectives that our campus must strive toward in order to achieve these goals.

- First, we must ensure that we have an environment that nurtures the intellectual and personal growth of our students, faculty and staff.
- Second, we must ensure that our campus sets an example of respect for all people.
- Third, we must ensure that our campus is a safe and welcoming environment for everyone.

We take pride in the diversity of the campus community and in ourselves by using the campus environment as a place, committed to academic integrity, where all members are encouraged to use their unique talents to enrich the daily life of the community in which they live, work, teach and learn. Respect for differences and civil discourse must become the hallmark of how we live and work together to build our community of learners at UCR.

We as members of the University of California Riverside affirm our responsibility and commitment to creating and fostering a respectful, cooperative, professional and courteous campus environment. Implicit in this mutual respect is the right of each of us to live, study, teach, and work free from harassment or denigration on the basis of race/ethnicity, age, religious or political preference, gender, transgender, sexual orientation, nation of origin, or physical abilities. Any violation of this right by verbal or written abuse, threats, harassment, intimidation, or violence against person or property will be considered a violation of the principles of community that are an integral part of the University of California's focus, goals and mission (and subject to sanctions according to University policies and procedures).

The department recognizes that we will all need to continually work together to make our campus community a place where reason and mutual respect among individuals and groups prevail in all forms of expression and interaction.

# CAMPUS RESOURCES

## **Graduate Advisors**

Graduate Student Affairs are handled by two Graduate Advisors, one whose primary responsibility is recruitment and admissions of new students, and one who deals primarily with matters concerning enrolled students. The Graduate Advisors are nominated by the Chair of the Department and approved by the Graduate Dean annually.

**Dr. Jacob Greenstein**, Enrolled Students Advisor

Office: Sky Hall 250

E-mail: [Jacob.greenstein@ucr.edu](mailto:Jacob.greenstein@ucr.edu)

Phone: 951-827-5098

**Dr. Qi Zhang**, Recruitment & Admissions Advisor

Office: Sky Hall 249

E-mail: [qizhang@math.ucr.edu](mailto:qizhang@math.ucr.edu)

Phone: (951) 827-5014

## **Administrative Department**

**Melissa Gomez**

Financial & Administrative Officer (FAO)

Office: Sky Hall 215

E-mail: [Melissa.gomez@ucr.edu](mailto:Melissa.gomez@ucr.edu)

Phone: (951) 827-3021

**John Herring**

Graduate Student Services Advisor

Office: 1140 Batchelor Hall

E-mail: [john.herring@ucr.edu](mailto:john.herring@ucr.edu)

Phone: (951) 827-2441

## **Additional Campus Resources**

**Department of Mathematics**

<http://mathdept.ucr.edu>

208 Sky Hall Building

Riverside, CA 92521

Phone: (951) 827-3113

Fax: (951) 827-7314

**UCR Campus Store**

[www.ucrcampusstore.ucr.edu](http://www.ucrcampusstore.ucr.edu)

900 University Avenue, East

**RWEB**

<http://www.rweb.ucr.edu/>

**Graduate Division**

[www.graduate.ucr.edu](http://www.graduate.ucr.edu)

University Office Building, Room 141

Riverside, CA 92521

Phone: (951) 827-3313

**Teaching Assistant Development Program (TADP)**

<http://www.tadp.ucr.edu/>

**Student Business Office**

<http://www.sbs.ucr.edu/>

# ACADEMIC PROGRAMS

## **Ph.D. in Mathematics**

The Doctor of Philosophy degree is awarded in recognition of high scholarly attainment as evidenced by a period of successful advanced study, the satisfactory completion of prescribed examinations and the development of an acceptable dissertation covering a significant, original aspect of mathematics.

Ph.D. students are required to demonstrate proficiency in four of the six core sequences in Algebra, Complex Analysis, Real Analysis, Applied Math, Topology, and Partial/Ordinary Differential Equations.

## **M.A. and M.S. in Mathematics**

The Master of Science degree and the Master of Arts degree emphasizes a broad understanding of a major area of mathematics. Both degrees provide a fundamental grounding in both theory and methodology.

M.A. and M.S. students are required to complete two of the four pure math core sequences in Algebra, Complex Analysis, Real Analysis, and Topology, with a grade of “C” or better in each course and a GPA of at least 3.0 in each chosen sequence. As a substitute for one or more course sequence, passing the corresponding written qualifying exam fulfills that course sequence requirement. Students must complete 36 course units, with 18 units in graduate level (200+) courses.

## **M.S. in Applied Mathematics**

The Master of Science in Applied Mathematics degree emphasizes a broad understanding in applied mathematics, with a fundamental grounding in both theory and methodology.

M.S. Applied Math students are required to complete two out of three of the following core sequences in Real Analysis, Partial/Ordinary Differential Equations, and Applied Mathematics with a grade of “C” or better in each course and a GPA of at least 3.0 in each chosen sequence. As a substitute for one or more course sequence, passing the corresponding written qualifying exam fulfills that course sequence requirement. Students must complete 36 course units, with 18 units in graduate level (200+) courses.

## **ACADEMIC ADVISING**

Ph.D. students are advised by the Graduate Advisor quarterly until they have advanced to candidacy. Then, the major professor will be the faculty advisor for the student through graduation.

M.A. or M.S. students must meet with the **Graduate Advisor** quarterly to discuss and obtain approval of their proposed course plan.

Graduate students who are advanced to candidacy must make an appointment with their **faculty advisor**, obtain their degree audit from the Graduate Student Affairs Officer (GSAO) and have their faculty advisor sign off on their courses. The faculty advisor must approve all courses in writing and submit to the GSAO for course enrollment.



## DEGREE REQUIREMENTS

Only courses in which grades of "A," "B," "C," or "S" received are counted toward satisfying graduate degree requirements and considered passing grades.

### **Ph.D. in Mathematics**

The requirements for the Ph.D. degree are:

1. Pass the introductory course sequences in 2 of 6 core areas:

Algebra (201A-B-C)

Topology (205A-B-C)

Applied Math (206A-B-C)

Ordinary/Partial Differential Equations (207A-B-C)

Real Analysis (209A-B-C)

Complex Analysis (210A-B-C)

For two of the six chosen sequences in (1), a qualifying examination must be taken. Two qualifying examinations, which are associated with two of the year-long sequences, must be passed with a grade of "A". The third qualifying examination can be passed with a grade of "B" or better in any of the five sequences. A student is allowed to take the qualifying examination at most twice for each sequence.

2. Pass 4 quarter-courses in mathematics, numbered between MATH 211 and 259.
3. Completion of 2 units of Math 401, Professional Development in Mathematics
4. Pass the Oral Qualifying Examination (to advance to candidacy).
5. Complete research of the Ph.D. dissertation.
6. Pass the final oral defense of the dissertation.

The normative time for completion of the Ph.D. degree requirements is 15 quarters (5 years).

A sample **domestic** student timeline looks like this:

Year 1: Emphasis is on completing two (2) core sequences (MATH 201, 205, 206, 207, 209, 210)

Year 2: Emphasis is on completing (2) different core sequences and 2-3 written qualifying exams.

Year 3: Concentration is on completing the remaining written qualifying exam(s), if any, completing 4 advanced graduate courses, and finding a faculty advisor to work with.

Year 4: Focus is on any remaining advanced courses and reading/research in preparation for the oral qualifying examination, which should be completed by the end of the 4<sup>th</sup> year.

Year 5: Concentration is on dissertation research, final defense at the end of the year, participate in graduate seminars, and may take additional course work during this period.

A sample **international** student timeline looks like this:

Year 1: Emphasis is on completing two core sequences and two written qualifying exams.

Year 2: Emphasis is on completing the remaining core sequences, completing the remaining written qualifying exams, and finding a faculty advisor to work with, and reading/research in preparation for the oral qualifying examination, which should be completed by the end of the 4th year.

Year 3: Advanced graduate courses.

Year 4: Focus is on any remaining advanced courses.

Year 5: Concentration is on dissertation research, final defense at the end of the year, participate in graduate seminars, and may take additional course work during this period.

### **Written Qualifying Examinations**

The Ph.D. Written Qualifying Exams are the first requirements in the Ph.D. program. The qualifying exams will all be given in September. The dates for 2018 were:

- Complex Analysis (**Sept 24, 2018**)
- Partial/Ordinary Differential Equations (**September 26, 2018**)
- Algebra (**September 24, 2018**)
- Topology (**September 26, 2018**)
- Real Analysis (**September 25, 2018**)
- Beginning in 2019 there will be a new qualifying exam for **Applied Mathematics**

The written qualifying exams are written by a committee of three faculty members whose research falls within the subject area. Material covered on the exams is comprehensive and typically drawn from the material covered in the course sequence. Please note that exam material may not be the exact problems that are covered, but the general concepts may be similar.

The department encourages all students to prepare for the written qualifying exams by utilizing all study aids that the department offers (i.e. qualifying exam seminars, study guides/syllabi for core subjects and exam archives which are available online at:

<http://mathdept.ucr.edu/grad/grad-exams.html>

Students who plan to take an exam must sign-up for the exam in advance by the given deadline.

To sign-up for an exam, students must complete the online sign-up form:

<https://ucrmath.wufoo.com/forms/qualifying-exam-signup-form>

Exam results are distributed to the student in writing within 10 days of the exam date, along with a copy of the exam for the student's records. All original exams are filed in the student's academic record.

### **Qualifying Exam Seminars**

Qualifying exam seminars are offered to help graduate students prepare for the expected exams. Seminars are led by Ph.D. graduate students who have passed the exam on the first attempt with a Ph.D. level pass.

The seminar leaders excelled in the coursework and are highly prepared to teach the material to other graduate students. Qualifying Exam Seminars are offered during the Summer.

### **Oral Qualifying Examination and Advancement to Candidacy**

After all the Written Qualifying Exam requirements are met, and all required coursework (including the 4 required courses numbered between 211-259) has been completed, then the Ph.D. students can take the Oral Qualifying Exam. Before advancing to candidacy, the student must pass an oral examination conducted by an Oral Exam Committee.

This committee is officially nominated and approved by the Graduate Advisor in consultation with the student and prospective Chair of the Dissertation Committee (major professor). The committee is officially appointed and approved by the Graduate Dean. The Oral Exam Committee is comprised of five members, including the student's major professor, three tenure-track mathematics faculty and a faculty member from an outside department on campus (Academic Senate).

The oral examination is approximately 1 hour, and the graduate student presents their current research in the exam. Only two attempts are allowed for the oral exam.

It is the responsibility of the student to organize and set the date and location of the oral exam, and notify the GSAO of the upcoming oral exam appointment **at least three to four (3 to 4) weeks in advance** via the online form:

<https://ucrmath.wufoo.com/forms/Ph.D.-oral-exam-request-form>

The oral examination should be completed (by both domestic and international students) by the end of the twelfth quarter of residence (normally spring quarter of the fourth year). If a student has not advanced to candidacy by the end of their twelfth quarter, the student must speak with the Graduate Advisor for Enrolled Students to discuss their progress.

Following successful completion of the oral examination, the student is advanced to candidacy for the Ph.D. The Dissertation Chair (normally the major professor), and the Dissertation Committee should be formally appointed when the oral exam results are submitted to the Graduate Division. The Dissertation Committee consists of the major professor and two Mathematics faculty members who are selected on the basis of their ability to guide the research and writing of the dissertation. The oral exam results must be reported to the Graduate Division for approval from the Graduate Dean **within 48 hours** of the oral exam. Failure to report the results within the deadline can invalidate the oral exam results.

### **Completion of Dissertation**

The format of the dissertation is regulated by Graduate Division. Candidates can access the official format at <http://graduate.ucr.edu/dissertation.html>. A candidate must defend their dissertation, which includes a formal presentation (seminar) on the dissertation research. During the presentation, the candidate will be responsible for responding to questions from the dissertation committee, other faculty and students. A candidate may be requested to meet with the dissertation committee after the presentation to answer additional questions and discuss modifications of the dissertation.

The committee decides whether the candidate displays proficiency in the research area. The final defense results are approved by the Dissertation Committee, and must be reported to the Graduate Division for approval from the Graduate Dean **within 48 hours** of the final defense. The final written dissertation must be approved by the dissertation committee and submitted to the Graduate Division by the end of the quarter of the intended graduation.

Ph.D. candidates are expected to complete this process by the end of the fifteenth quarter of residence (normally spring quarter of the fifth year). Detailed dissertation guidelines are available at: <http://www.graduate.ucr.edu/dissertation.html>

### **M.A. and M.S. in Mathematics**

The M.A. or M.S. degree requires completion of 36 units of courses. Students matriculated in the Ph.D. program, may also earn an M.A. or M.S. along the way. Completion of the degree requirements and the advancement to candidacy form must be completed in order to be considered for a degree conferral.

The requirements for the M.A. or M.S. in Mathematics are:

1. Completion of two of the following sequences: MATH 201, MATH 205, MATH 206, MATH 207, MATH 209, MATH 210 with a grade of "C" or better in each course and a GPA of 3.00 in each chosen sequence.
2. As a substitute for one or more course sequences in (1), passing a Ph.D. qualifying examination fulfills the course requirement of the corresponding sequence
3. Taking 36 units of courses numbered between MATH 110 and MATH 189, or between MATH 200 and MATH 210. At least 18 must be from courses numbered between MATH 200 and MATH 210.
4. Completion of 2 units of Math 401, Professional Development in Mathematics.

The requirements of 1 and 2 above constitute the comprehensive final examination requirement for the degree.

### **M.S. in Applied Mathematics**

The M.S. Applied Math degree requires completion of 36 units of courses. Students matriculated in the Ph.D. program, may also earn an M.S. in Applied Math along the way. Completion of the degree requirements and the advancement to candidacy form must be completed in order to be considered for a degree conferral.

The requirements for the M.S. in Applied Mathematics are:

1. Completion of two sequences of courses numbered between MATH 206 and MATH 209 with a grade of "C" or better in each course and a GPA of at least 3.00 in each chosen sequence. A sequence consists of all courses with the same course number except for an alphabetical suffix. Any course without an alphabetical suffix is not part of a sequence.
2. As a substitute for one or more course sequences in (1), passing a Ph.D. qualifying examination fulfills the course requirement of the corresponding sequence.
3. Taking 36 units of courses numbered between MATH 110 and MATH 189, or between MATH 200 and MATH 210. At least 18 units must be from courses numbered between MATH 200 and MATH 210.
4. Completion of 2 units of Math 401, Professional Development in Mathematics.

The requirements of 1 and 2 above constitute the comprehensive final examination requirement for the degree.

### **Advancement to Candidacy**

M.A. and M.S. candidates must file a petition for advancement to candidacy by the first day of instruction of the quarter they plan to graduate. Please refer to Graduate Division graduation dates timeline for quarterly due dates. The petition form must be downloaded from the Graduate Division website, completed and submitted to the GSAO. The GSAO sends the petition for review to the Graduate Advisor for Enrolled Students. Petition deadlines are: 9/22/16 (Fall 2016), 1/4/17 (Winter 2017) and 3/27/16 (Spring 2017). The petition can be found here <http://graduate.ucr.edu/>

### **Continuing from the Master's to the Ph.D. Program**

Students who are enrolled in the M.A. or M.S. program may petition to pursue the Ph.D. degree. To do so, students must have the recommendation of the Graduate Advisor for Enrolled Students. Approval by the Graduate Advisor is not automatic; petitions are evaluated on a case-by-case basis whether a student has the academic potential to succeed in the Ph.D. program. The requirement for evaluating each student's academic potential to proceed toward the Ph.D. is enforced by the Graduate Division, regardless of the student's initial degree objective. For further information on a petition to pursue a Ph.D. degree, please see the GSAO. Master's to Ph.D. students do not receive new financial packages and TAsips are not always granted.

## ACADEMIC PROGRESS

Students are expected to show active, satisfactory progress towards a degree. Each student must maintain a minimum cumulative GPA of 3.0 and continue working toward completing qualifying exams in a timely manner. Teaching assistantships, fellowships and other financial benefits may be affected for those students with unsatisfactory academic progress.

### Satisfactory Academic Progress Reports

Evaluations of academic progress are provided to all graduate students in writing each spring by the Graduate Advisor for Enrolled Students. The evaluation provides feedback on academic performance, academic progress, teaching performance and incorporates suggestions for the upcoming year. Copies of the evaluation letters are forwarded to the Graduate Division for their records.

Normative time for the Ph.D. degree in Mathematics is **five years** (15 quarters). Normative time for the M.A. or M.S. degree in Mathematics is **two years** (six quarters). Normative time is defined as the period of full-time registration required to earn the degree. It is assumed that the student enters the program with no course deficiencies or requirements to take any remedial work. Because the Ph.D. is a research degree, the University gives programs considerable latitude in establishing degree requirements. After the student advances to candidacy, the dissertation committee oversees the student's progress in the final stages of the student's degree program.

### Unsatisfactory Academic Progress

It is expected that graduate students will make satisfactory progress in the degree programs. Failure to do so will have serious consequences. The Graduate Division will consider revoking fellowships, blocking registration and ultimately dismissing a student if:

- Student does not meet deadlines such as qualifying exams in a timely matter.
- Student's cumulative GPA drops below the minimum 3.0 requirement.
- Student has twelve or more units of "I" (incomplete) grades.
- Student's advisor feels that the student is not making satisfactory progress.

In addition, opportunities for receiving block grant money and other funding through the Department will be affected. Students with continued unsatisfactory academic progress may have their financial support and also their privileges to continue in the mathematics graduate program terminated.

# INTERNATIONAL STUDENT REQUIREMENTS

## ***Ph.D. Degree Deadlines***

Normative time to advance to candidacy for international Ph.D. students is **before the 13th quarter**. For example, if an international student arrives in **Fall 2016**, the student must complete all written and oral exams and have advanced to candidacy **before Fall 2020**. Failure to advance to candidacy within this time frame will result in the student having to pay their own Non-Resident Tuition fee until they have advanced.

International Ph.D. students are expected to start taking exams in the first quarter that they arrive. It is advisable to use the online resources located at <http://graduate.ucr.edu/>.

The exam information is located on the Math Department website: <http://mathdept.ucr.edu/>.

## ***International Student Resource Center (ISRC)***

The International Student Resource Center provides assistance to UCR's international students and their dependents. The ISRC advisors participate in national networks to provide UCR's international clients with up-to-date expertise on cultural adjustment and non-immigrant visa and travel issues. Information on maximizing opportunities and how to best meet obligations under each visa category is available online. ISRC offers international student orientations, provides intercultural programming on campus, manages international student records (F1/J1 visas), and facilitates employment opportunities and traveling guidelines.

<http://internationalcenter.ucr.edu>

## ***International Student Forms***

All forms for managing international student records are located here:

<http://internationalcenter.ucr.edu/InternationalStudents/Pages/CurrentStudents.aspx>

## ***International Peer Advisors (IPA)***

The IPA program is a great opportunity for new international students to meet other students on campus, gain additional resources and support in the international student community, learn valuable team-building skills, and learn about other cultures and people in the community.

## GRADUATE DIVISION REQUIREMENTS

For information on specific Graduate Division requirements, please refer to the UCR Graduate Student Handbook, published by the Graduate Division to the Graduate Studies section of the University of California, Riverside General Catalog and to the Graduate Division's website at <http://www.graduate.ucr.edu>.

### ***Tuition and Fees***

Fees for each quarter are due and payable in advance and within the deadlines published in the Schedule of Classes. A student will not be officially enrolled in classes or receive any University benefits until fees are paid in full. To avoid a \$100.00 late fee, all tuition and fees for the current quarter are due **about two weeks before classes start**. All tuition and fee balances are due **by the end of the third week** in the quarter to remain enrolled in classes.

**IMPORTANT:** If any outstanding tuition and fees are left unpaid after this deadline, the student will lapse in student status and will be dropped from the university.

Fee deadlines are: **9/15/18** (Fall 2018), **12/15/18** (Winter 2019) and **3/15/19** (Spring 2019).

Fee payments can be made through RWEB ([rweb.ucr.edu](http://rweb.ucr.edu)), by mail, or in person at Student Business Services (SBS)/Cashier's Office, at the Student Services Building.

### ***Graduate Student Health Insurance (GSHIP)***

Graduate students attending UCR are covered by a mandatory health insurance plan during the academic year. This insurance supplements the outpatient care available to all registered students through Campus Health Services.

Academic appointees serving at 25% time or more per quarter will have their premiums paid by their payroll funding sources. These positions include TA's, GSR's, Teaching Fellows, and Associate In's. Fellowship recipients whose awards pay all assessed registration fees will have their premiums paid by the fellowship.

Students who can demonstrate comparable insurance coverage from another source may apply to be exempted from the mandatory plan. Students awarded the exemption have the GSHIP fee removed from their bill but do not receive any monetary compensation. To obtain a waiver for Graduate Student Health Insurance (GSHIP), graduate students should visit the Graduate Student Health Insurance website for details: <http://studenthealth.ucr.edu/insurance/summary-1.html>



For additional information regarding policy benefits, comparable coverage exemptions and optional dependent coverage, please contact the Insurance Office at:

<http://www.campushealth.ucr.edu>

*Student Health Insurance  
Veitch Hall  
University of California  
Riverside, CA 92521  
(951) 827-5683*

**Residency Fee Information**

If you have questions regarding residency requirements for tuition purposes, please visit the Registrar's website:

<http://registrar.ucr.edu/registrar/tuition-and-fees/residency-for-tuition-purposes.aspx>

**Fee Table for Graduate Students**

<http://registrar.ucr.edu/registrar/tuition-and-fees/quarterly-fees.html>

*Campus fees are NOT optional; these include Student Center, Recreation Center Fee, Student Services Fee and GSA Fees.*

*If CA residency is not established by the beginning of the second year (4th Qtr.) then all Non Resident Tuition (NRT) fees are due by the student. The Mathematics Department does not cover NRT's after the 1st year.*

**International students do not have to pay NRT for 9 quarters after they advance to candidacy. After 9 quarters, the student will need to pay NRT.**

## FINANCIAL SUPPORT

Financial support in the form of teaching assistantships (TA) and research assistantships (GSR) is provided to attract excellent full-time students to our programs and to maintain them over a normal period of study.

The main sources of graduate student support in the Mathematics program are Teaching Assistantships (TA) and Graduate Student Research Assistantships (GSR), obtained through research grants awarded to the faculty. Students who enter the Ph.D. program with strong undergraduate records are automatically considered for admission fellowships. Support for continuing students is available through a variety of fellowships and grants from a number of university, state, and federal sources. Students in good academic standing making acceptable progress in the Ph.D. program are typically supported by the Mathematics Program as outlined in their financial package.

### **Departmental Financial Support**

**Teaching Assistantships (TA's):** This is usually a 50% time commitment, meaning that you theoretically work 20 hours per week on average. A 50% appointment equals approximately 4 hours in the classroom, 4 office hours and 12 hours for grading and prep.

Appointments are made for one quarter at a time, meaning that students will receive three monthly paychecks for each appointment. PFR & GSHIP is paid for as a benefit of employment for anyone with a 50% or more TA or GSR position.

**Graduate Student Research Assistantships (GSR's):** This cannot exceed a 49% position, with somewhat more flexible hours than Teaching Assistantships, and may be more than half-time during summer. These positions are usually supported by money from a particular professor's grant and arrangements must be made through the professor.

**NOTE:** TA's and GSR's must be making acceptable progress toward their degree objective; must be advanced to candidacy within normative time after entry, have fewer than eight units of incomplete grades and maintain a 3.00 cumulative GPA. Graduate students may not be employed more than 50% time or 20 hours per week during the academic year in any combination of appointments unless an exception is approved by Graduate Division. During quarter breaks and in the summer they may be employed full-time (100%).

### **Summer Support**

A limited number of positions are available for teaching Mathematics courses each summer. Priority for these assignments is generally given to students making satisfactory academic progress and is in good standing. The department arranges the summer teaching schedule but payment of summer teaching is through the Summer Sessions Office.

## **Graduate Division Financial Support**

### **Fellowships**

UCR offers a variety of multi-year fellowship packages for incoming students that may include stipends up to \$20,000 and full or partial payment of tuition and fees.

An applicant is judged on the basis of the quality of previous academic work, on the evidence of ability to do research and other creative accomplishments, and on promise of becoming a productive scholar. A contribution to the campus goal of achieving a diverse student body may also be a consideration.

Applications are made through the Mathematics Department by submitting the application for admission and the required supporting documents (letters of recommendation, transcripts, test scores, etc.) The deadline for consideration of fellowship awards is January 5.

### **Dissertation Research Grants**

These grants provide funds to doctoral candidates for research expenses associated with the dissertation. Applicants must be advanced to candidacy and plan to be registered during the period of the award. Proposals may be funded up to a maximum of \$1,000. These funds may not be used for preparing the dissertation copy or as a stipend for personal support. Applications for these grants can be found on Graduate Division website. [www.graduate.ucr.edu](http://www.graduate.ucr.edu).

### **Chancellor's Dissertation Grants**

These grants provide funds to doctoral candidates that are within one year of completing their dissertation. These grants are competitive and may award up to a full year's stipend and fees. Applicants must be advanced to candidacy and plan to be registered during the period of the award. Applications for these grants can be found on Graduate Division website. [www.graduate.ucr.edu](http://www.graduate.ucr.edu)

### **Graduate Research Mentorship Awards**

These grants are competitive and may award up to a full year's stipend and fees. Applicants must be continuing students, have a desire to enter academia and teach at the university level after graduation. Applicants must be advanced to candidacy and plan to be registered during the period of the award. Applications for these grants can be found on Graduate Division website.

### Graduate Student Association (GSA) Minigrants

These minigrants help pay the travel expenses of students who have been invited to present scholarly papers or posters at regional and national professional conferences. The program is administered by the Graduate Student Association and requires that departments agree to provide matching funds. Contact the GSA, at 827-3740 or [www.gsa.ucr.edu](http://www.gsa.ucr.edu), or the graduate student affairs officer for minigrant applications.

### **Extramural Support**

In addition to the fellowships, assistantships, grants, and loans administered by the University, graduate students may also be eligible for other types of support provided by federal agencies and private foundations. Organizations that have awarded fellowships and research support to UCR students include the National Science Foundation, National Institutes of Health, U.S. Public Health Service, U.S. Department of Education, Fulbright Program, Phi Beta Kappa Alumni Scholarships for International Scholars, and Sigma Xi. If students wish to explore these sources of support for study, they should consult the Annual Register of Grant Support and other similar directories either at the reference department of the library or through the Financial Support section in the Graduate Division.

# TEACHING ASSISTANTSHIPS

Teaching Assistantships are offered through the academic programs.

The requirements for TA's are:

- Must be making acceptable progress toward the degree.
- Must be advanced to candidacy within 12 quarters after entry.
- Must have fewer than 8 units of incomplete grades.
- Must maintain a 3.00 cumulative GPA.
- Any student whose native language is not English must pass a test of spoken English (SPEAK Test) before performing duties as a TA.

If the student has not advanced to candidacy within 12 quarters or is beyond time limits for acceptable progress, a timetable must be submitted along with a memo from the program stating that the student is continuing to make progress toward the degree.

Once appointed, TA's are expected to continue to adhere to the above requirements and to enroll in and complete 12 units of course work or research.

Graduate students may not be employed more than 50% time or 20 hours per week during the academic year in any combination of appointments, at UCR or elsewhere. During quarter breaks and in the summer they may be employed full-time (100%). The length of service for a TA is limited to 12 quarters. However, exceptions can be made by the Graduate Dean upon written request by the program. No one may serve in a teaching title for more than 18 quarters of service. No exceptions are made.

The Graduate Student Health Insurance (GSHIP) is paid for all employed 25 percent time (10 hours per week) or more. Additionally, they receive remission (PFR) of the Tuition and Student Services Fee. Students receiving PFR and GSHIP **must work the entire quarter** to be eligible for these benefits. If the entire quarter is not completed the GSHIP and PFR will be revoked. Contact the program in charge of the appointment or the Graduate Division for further information.

## **Teaching Assistant Development Program (TADP)**

UCR has a long history as a distinguished teaching campus and regards Teaching Assistant (TA) training as a crucial part of graduate instruction. The Teaching Assistant Development Program (TADP) sponsors activities designed to help TAs develop their teaching skills and to prepare them to be successful instructors.

A graduate student who earns an average evaluation score below 4.0 on any TA evaluation question must complete additional training through TADP. Students who score below 4.0 on the "overall effectiveness" question must successfully complete individual training with a Mentor TA, including classroom observation, during the next quarter of service as a TA (not including summer). Furthermore, students who score below 4.0 on any other question must successfully complete workshops and/or English language training for their specific weaknesses during the quarter immediately following the low evaluations (not including summer).

Students may serve as TA's while they complete their required training; however, students who fail to complete their training during the time frames described above will not be allowed to serve as TA's in subsequent quarters before successfully completing their training. Because training requires several weeks to complete, a student who postpones training likely will be ineligible to serve as a TA for an entire quarter.

To provide continued quality service and excellence in teaching, low TA evaluation scores can affect their eligibility for future TA employment. After three quarters of scores below 4.0 on the "overall effectiveness" on the TA evaluations, the graduate student will be not be allowed to continue TA employment for the remainder of their graduate program. The graduate student will be responsible for all tuition and GSHIP fees, since it will no longer be a benefit of the TA employment.

### **English Language Development Program (ELDP)**

The ELDP provides resources to support the development of UCR's large community of international graduate students. ELDP offers workshops on the culture of the American classroom for International TA's and features a Language Lounge. ELDP assists students in developing proficiency in English and works to prepare TA's to pass the Speak Test.

<http://eldp.ucr.edu/>

### **MATH 302—Teaching Apprenticeship**

In addition to the TADP training during orientation, the Department of Mathematics has developed a teaching development course, Math 302. In addition, the department appoints TA Mentors who serve as a valuable resource for new TAs. TA Mentors meet with their mentees on a regular basis and are available to answer questions and offer feedback. The TA Mentors observe their mentees and offer suggestions on improving techniques in the classroom, in preparation and adjusting to the graduate program.

TAs are exclusively represented by the United Auto Workers. Please see the Union website for information and the current contract. [www.uaw.com](http://www.uaw.com).

### **TA Office Hours**

The required number of office hours is equal to the amount of hours you teach each week. Office hours must be spread over at least two days and times should vary to allow your students to fit at least one office hour session into their schedules. Pierce office hours can start as early as 8:00 a.m. Sky Hall office hours cannot start before 5:00 p.m. and you must get consent from your office mates. No office hours can be scheduled to begin after 6:30 p.m.

To schedule office hours each quarter, please complete the “TA Office Hour Preference Form” on the UCR Math website (Office Hour changes can be requested using the “TA Office Hour Change Form”).

<http://mathdept.ucr.edu/forms/gradforms.html>

### **TA Substitutions**

If a TA is going to miss a scheduled class/discussion section, the TA is responsible for finding a substitute and informing the primary instructor and the Mathematics Department Office.

For all substitutions, please submit the “Teaching Substitution Form” on the Mathematics Department website. <http://mathdept.ucr.edu/forms/gradforms.html>

### **Textbook Desk Copy Library**

For TA’s, reference copies of textbooks for all courses are available for checkout at the Mathematics Department Office. All reference copies will be checked out to the TA’s and due to limited copies available, all copies must be returned at the end of the quarter. Textbooks can be checked out from the Academic Program Coordinator in the department.

### **Academic Dishonesty**

The following provides definitions of academic misconduct to assist students in developing an understanding of the University's expectations, recognizing that no set of written guidelines can anticipate all types and degrees of violations of academic integrity. To the extent that these definitions are not exhaustive, duly appointed representatives of the University will judge each case according to its merits.

Academic misconduct is any act that does or could improperly distort student grades or other student academic records.

### **Cheating**

Fraud, deceit, or dishonesty in an academic assignment, or using or attempting to use materials, or assisting others in using materials that are prohibited or inappropriate in the context of the academic assignment in question.

### **Fabrication**

Making up data or results and recording or reporting them, including laboratory or field research results. In the context of student academic integrity, this also includes falsifying academic or university documents and providing false information or testimony in connection with any investigation or hearing under this policy.

### **Plagiarism**

The appropriation of another person's ideas, processes, results, or words without giving appropriate credit. This includes the copying of language, structure, or ideas of another and attributing (explicitly or implicitly) the work to one's own efforts. Plagiarism means using another's work without giving credit.

### Facilitating Academic Dishonesty

Assisting another in violating the policy of Academic Integrity, such as taking an exam for another student or providing coursework for another student to turn in as his or her own effort.

### Unauthorized Collaboration

Working with others without the specific permission of the instructor on assignments that will be submitted for a grade. This applies to in-class or take-home tests, papers, labs, or homework assignments. Students may not collaborate without faculty authorization.

### Interference or Sabotage

Damaging, removing, or otherwise harming another student's work or University materials and systems to affect the academic performance of others.

### **TA Discipline Guide Regarding Cheating**

The maintenance of academic honesty and integrity is a vital concern of the University community. Any student found guilty of academic dishonesty shall be subject to both academic and disciplinary sanctions.

1. The final responsibility for monitoring of examinations rests with the instructor in charge of the course. A primary instructor should be present or immediately available if TAs are proctoring exams.
2. Proctors should attempt to minimize the opportunity (temptation) for cheating:
  - a. Clearly announce the expected disposition of books, papers, etc. (if they are allowed in the examination room). Make the consequences of violation of the announced procedure clear (see #3 below).
  - b. Space students as far apart as possible.
  - c. Use randomized seating arrangements, seating charts, or multiple versions of exams if appropriate.
3. If suspicious behavior is observed, it should be confirmed by another instructor or TA, if possible. Suspicious materials present at an examination (i.e., notes, open books not used or disposed of according to announced policy; see #2a) should be taken by the instructor (or by the TA and turned over to the instructor).

If suspected of cheating, a student should be notified that they are suspect of cheating by the instructor as soon as possible. It is up to the discretion of the **primary instructor** whether a student will be allowed to finish an examination if he/she is suspected of cheating. **TA'S ARE NOT PERMITTED TO MAKE SUCH A DECISION.**



## **STUDENT CONDUCT**

It is expected that all UCR Student Conduct policies are followed at all times. These policies and guidelines can be found by going to <http://deanofstudents.ucr.edu/policiesprocedures/index.html> . In addition to these policies, the department expects that all students maintain a modicum of professionalism and respect while in the department or representing the department. Faculty members should be treated with the utmost respect as authority figures and advisors. Staff members are also to be treated respectfully and any issues regarding interactions with the staff should be directed to the FAO.

# STUDENT INVOLVEMENT

## **Graduate Student Mentoring Program (GSMP)**

The GSMP offers curriculum, student, and faculty support that facilitates and transforms the graduate student experience, providing graduate students with the unique opportunity to mentor their peers. The GSMP has the resources to create mentoring teams that include both faculty and graduate students. In doing so, it has begun to foster relationships that build UCR's community and contribute to its success.

<http://gradmentors.ucr.edu/>

## **Department Service**

The department offers ways for graduate students to get more involved in the office. The benefits of being actively involved in the department include increased program satisfaction, increased community interactions with faculty, staff, and fellow graduate students, more community building, and group support in the department, additional resources for studying, preparing for exams, and tutoring, and more opportunities for networking in the office.

Throughout the year, the department seeks graduate students for help with recruitment fairs and conferences, AMC 8, 10, and 12 (middle school and high school math competitions), TA mentoring, Preview Days, and other types of events. Each year, the department rewards the top service volunteers who have provided outstanding service and commitment to the department.

## **UCR Math Club**

The department seeks graduate student advisors to volunteer their time to the UCR Math Club, an undergraduate academic club dedicated to mathematics majors and students passionate about math. The Math Club meets weekly each quarter, led by a faculty advisor and undergraduate student leaders in the club. Graduate student volunteers can gain more experience working with undergraduate students, build programming and event-planning skills, offer professional development opportunities to students, organize weekly speakers and visits, and become more involved in the department and the UCR community.

## PREPARING FOR GRADUATION

The Graduate Division offers many programs to help graduate students. The graduate student professional development program offered by Graduate Studies can help graduate students explore the various academic and nonacademic career paths available to them. The University works with each student to help them successfully pursue their post-graduate career choice. They work with UCR Career Services and faculty to provide resources and materials in:

- Basics of an effective cover letter.
- Cover letter dos and don'ts.
- Curriculum Vitae (CV).
- Effective interview strategies.
- Job search strategies.

### **GradSuccess**

GradSuccess provides a variety of services to meet the needs of UCR's diverse graduate student population. Housed in Graduate Division, GradSuccess offers programs and workshops, drop-in consultations, appointments, and other resources. The members of the GradSuccess team look forward to working with the graduate student community to develop writing, teaching, and speaking and to promote professional development.

<http://graduate.ucr.edu/success.html>

### **Graduate Student Resource Center (GSRC)**

The GSRC works to organize and publicize research and teaching opportunities for graduate students. GSRC assists graduate students in their searches and applications for fellowships, post-docs, campus-based funding opportunities, and academic and non-academic jobs. GSRC collaborates with resources both on and off campus to prepare graduate students for professional success.

<http://gsrc.ucr.edu/>

### **Graduate Writing Resource Center (GWRC)**

The GWRC offers all graduate students support in developing their work in the many writing genres required by academic disciplines and departments. Drop-in hours and appointments are available for individual consultations, while the Center's workshop series will present broader structural and stylistic topics, all with the goal of promoting excellence in graduate writing at UCR.

<http://gwrc.ucr.edu/>

### **University Teaching Certificate Program (UTC)**

The UTC Program provides graduate students with intensive pedagogical training to prepare them for success as university-level instructors. Graduate students enrolled in UTC attend weekly seminars led by faculty members, complete projects designed to develop instructional strategies, and draft teaching philosophies. Students who complete the program receive a certificate from the Dean of the Graduate Division.

<http://utc.ucr.edu/>

## ORIENTATIONS

Graduate Division and other offices on campus offer new student orientations and trainings to prepare incoming graduate students. The department holds **mandatory** orientations and meetings in the two weeks leading up to the start of the Fall quarter. New graduate students must receive approval from the Department Chair BEFORE any scheduled department orientation meetings to be excused from events. The orientation schedule will be sent to the department faculty and students in early September. All incoming new students must be physically present and in the office by the first week in September.

### **Department & Room Keys**

Graduate students are responsible for all department and room keys issued to them during their time in the department. These keys must not be duplicated in any form. For security reasons, any lost, stolen, or misplaced key(s) must be reported to the Department Administrative Office in Sky Hall 202. Lost keys may result in a lockset change and a new key issued. A charge of **\$10.00** for a lost key will be assessed to the student. Keys may not be lent or transferred to anyone else at any time.

## CONCLUSION

The Department of Mathematics is proud of its faculty, staff, and students. We hope this document is helpful and that you enjoy your graduate studies in the Mathematics Department at University of California, Riverside.

# IMPORTANT SOURCES OF INFORMATION

## Graduate Division - [www.graduate.ucr.edu](http://www.graduate.ucr.edu)

- Student Handbook
- Financial Information
- Student Forms (click on "Current Students")

## Office of the Registrar - <http://www.registrar.ucr.edu>

- Schedule of Classes
- General Catalog
- Transcripts

## RWEB – <http://rweb.ucr.edu>

- Address changes
- Degree check
- Enrollment
- Financial Aid Application Status
- View your grades
- View your Statement
- View your Current Bill
- Course confirmations
- View/Accept your Financial Aid Award
- View your Student ID
- Update your Privacy Restrictions
- Change your PERMPIN

## The Library - <http://library.ucr.edu>

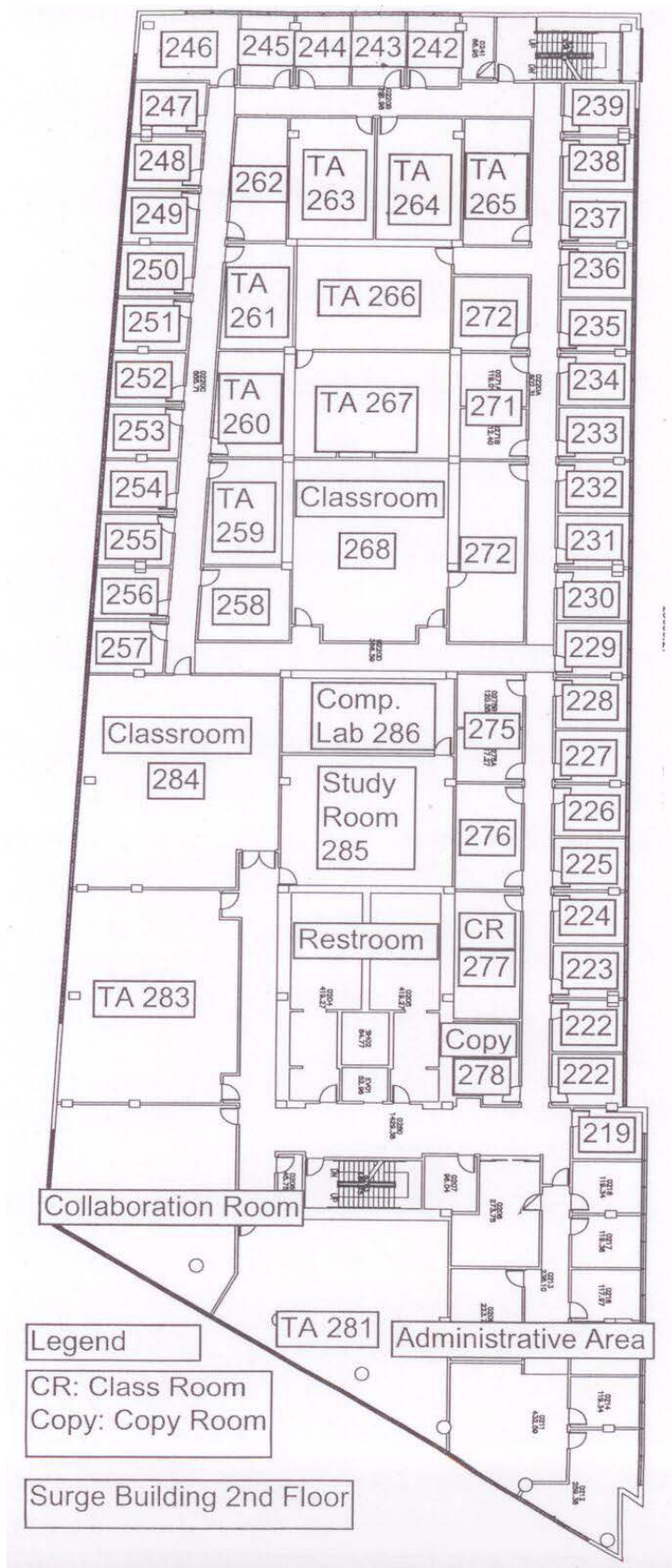
- Melvyl Catalog
- Infomine (Scholarly Internet Resources)
- Renew Books online
- Electronic Journals

## Student Business Office - <http://www.sbs.ucr.edu>

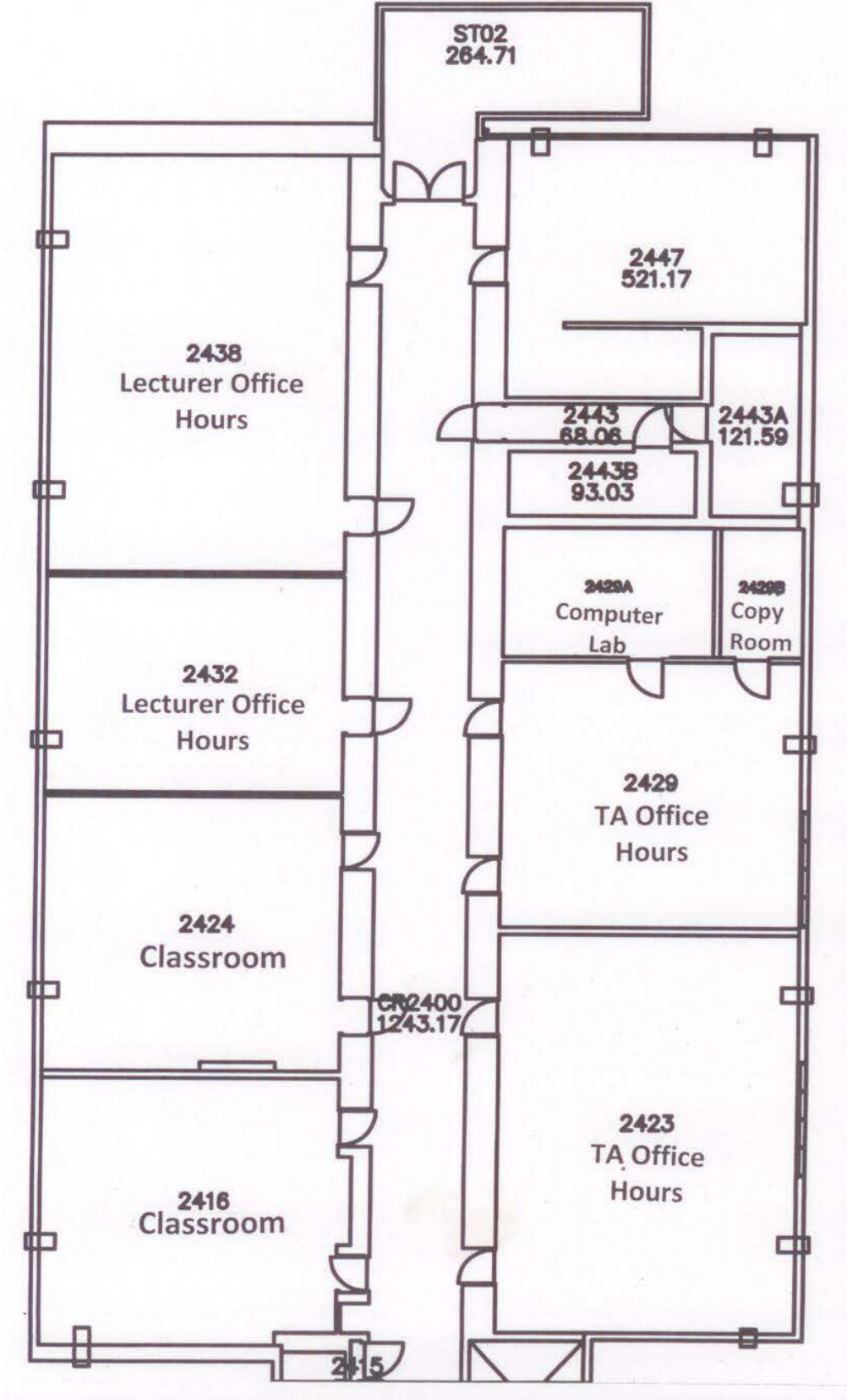
- Deferred Payment Plan
- Direct Deposit

**IMPORTANT**

**SKY HALL BUILDING FLOOR PLAN - 2<sup>nd</sup> Floor**



**PIERCE BUILDING FLOOR PLAN – 2<sup>nd</sup> Floor North Wing**





# CAMPUS MAP

