

UNIVERSITY OF CENTRAL FLORIDA

# Biomedical Sciences MS Graduate Program Handbook

Last updated April 28, 2017

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# **Biomedical Sciences MS**

Together, the <u>Graduate Student Handbook</u> and your graduate program handbook should serve as your main guide throughout your graduate career. The Graduate Student Handbook includes university information, policies, requirements and guidance for all graduate students. Your program handbook describes the details about graduate study and requirements in your specific program. While both of these handbooks are wonderful resources, know that you are always welcome to talk with faculty and staff in your program and in the Graduate College.

The central activities and missions of a university rest upon the fundamental assumption that all members of the university community conduct themselves in accordance with a strict adherence to academic and scholarly integrity. As a graduate student and member of the university community, you are expected to display the highest standards of academic and personal integrity.

Here are some resources to help you better understand your responsibilities:

- Academic Honesty
- Academic Integrity Training Open to all graduate students at no cost
- Plagiarism

# Introduction

### **MS Biomedical Sciences Program**

The Master of Science in Biomedical Sciences program is for students who wish to further their knowledge in the field and prepare for professional careers in medical fields. This program also addresses the need of applicants who wish to pursue a teaching career in secondary schools, two-year and four-year colleges or other careers without an active research role.

The Biomedical Sciences (Non-Thesis) program requires a minimum of 33 credit hours of courses that includes 18 credit hours of required courses, 12 credit hours of electives, and 3 credit hours of capstone.

# **Cancer Biology Track**

The Master of Science in Biomedical Sciences Program Cancer Biology Track is a non-thesis option for students wanting to further their knowledge in the in the area of Cancer Biology and applications in related disciplines like pharmacology, immunology, metabolism, stem cell biology, or informatics and who may pursue doctoral training or pursue professional education focused on medicine and cancer research.

#### **Infectious Disease Track**

The Masters of Science in Biomedical Sciences Program Infectious Disease Track is a non-thesis option for students wanting to further their knowledge in the area of infectious diseases and who may pursue doctoral training or professional education focused on medicine and research in infectious diseases.

#### Metabolic and Cardiovascular Sciences Track

The Master of Science in Biomedical Sciences Program Metabolic and Cardiovascular Sciences Track is a non-thesis option for students wanting to further their knowledge in the Metabolic and Cardiovascular Sciences field and who may pursue doctoral training or pursue professional education focused on medicine and cardiovascular and metabolic syndromes.

#### **Neuroscience Track**

The Neuroscience Track in the Master of Science in Biomedical Sciences Program is a non-thesis option for students who want to further their knowledge in the neuroscience field and who may pursue doctoral training or professional education focused on medicine and neuroscience.

Note: Students interested in research and thesis work should apply to the Master of Science in Biotechnology program.

# **Teaching Requirement**

Students without significant prior teaching experience, such as, but not limited to, a minimum of a year in secondary schools or colleges, are required to serve as Graduate Teaching Assistants for a minimum two semesters (one semester in at least one lab section). <a href="mailto:ehs.ucf.edu/">ehs.ucf.edu/</a>

### Lab and Safety Training

All Graduate Students are required to complete the following Lab and Safety Training Courses below. If you missed the scheduled training sessions during Orientation week, you must contact the Environmental Health and Training Office to schedule.

- Laboratory Safety
- Radiation Safety
- Bloodborne Pathogens
- Biosafety/Biomedical Waste

# Curriculum

Please visit the **Graduate Catalog** to see the current curriculum for our program.

# **Timeline for Completion**

Students must meet with MS Program Coordinator to review Plan of Study.

# **Workshop Requirements**

Burnett School of Biomedical Sciences MS students must take at least one CORE workshop in ethics and at least one other CORE or ELECTIVE workshop, for a total of two workshops while in the program.

# **Capstone Requirements**

# **Capstone Report**

Evaluation of the capstone project requires a written report (in a format of a mini-review manuscript), and a presentation (project defense) in front of the capstone committee. Students may ask for advice and guidance from the project mentor/chair. The average capstone report ranges from 10-15 single-space page in a manuscript format with proper citations. The capstone report must be checked using <u>iThenticate.com</u> by the committee chair before the report is shared with the committee.

The committee must receive the capstone report one week before scheduled presentation date. The defense (presentation) must be held no later than one week before final exam week. No visitors are allowed during the capstone defense.

# **Capstone Defense/Comprehensive Examination**

Non-thesis students must pass an oral comprehensive exam to qualify for the Master of Science degree. The capstone defense and comprehensive exam evaluation is designed to evaluate the student knowledge and understanding of the project and other relevant subjects in the field. Questions asked by the capstone committee to evaluate the student competent in the field will satisfy the requirement of the comprehensive exam. The oral presentation in a form of 30-40 min seminar should be followed by questions and discussion. The student will be evaluated on performance in all three sections (written report, oral presentation and ability to answer questions).

Should the student fail, a second opportunity will be provided within 2 weeks of the first attempt. A second failure will result in "U" in the course and dismissal from the program.

# Report Requirements

# **Policy Statement on Academic Integrity**

Since integrity is such a critical part of science and scientific training, any incident of cheating or other forms of academic misconduct by biomedical sciences graduate students may result in dismissal from the MS Program. The MS program in Biomedical Sciences, as well as all the graduate programs organized in the Burnett School of Biomedical Science, holds students to the highest standards of academic conduct and scientific conduct.

There are many forms of misconduct, both in academics and in science. In science these primarily include the falsification or fabrication of data during one's research project, or the plagiarism of text, figures or data from another's work (such as a published paper). All are misconduct, and other examples of misconduct will be discussed during the ethics portion of the course required of all students (Practice in Biomedical Science).

In academics, the unauthorized use of electronic devices during exams, or any other means to gain an advantage during an examination would also be considered an example of academic misconduct. The use of another student's work who previously took a course would also be considered academic misconduct. Both the student who supplied such material and the student who attempts to use such material are both in violation of the standards.

Many other examples exist and common sense should dictate to the student what is and is not permissible. If you question whether an action could be considered misconduct (academic or scientific) – ask the MS program coordinator or BSBS director. Ignorance of what constitutes misconduct is not an excuse.

### **Disciplinary Actions**

The MS program reserves the right to carry out full disciplinary action against student misconduct. Any documented case of scientific or academic misconduct represents immediate grounds for removal from the program. The incident will be reported to the student's PI, the Graduate Committee, and the UCF Office of Student Misconduct. The Graduate Committee will have the authority to dismiss the student from the MS Program after reviewing the case.

# **Graduate Research**

UCF has three fundamental responsibilities with regard to graduate student research. They are to (1) support an academic environment that stimulates the spirit of inquiry, (2) develop the intellectual property stemming from research, and (3) disseminate the intellectual property to the general public. Students are responsible for being informed of rules, regulations and policies pertaining to research. Below are some general policies and resources.

Research Policies and Ethics Information: UCF's Office of Research & Commercialization ensures the UCF community complies with local, state and federal regulations that relate to research. For polices including required Institutional Review Board (IRB) approval when conducting research involving human subjects (e.g. surveys), animal research, conflict of interest and general responsible conduct of research, please see their website: research.ucf.edu/ > Compliance.

**UCF's Patent and Invention Policy:** In most cases, UCF owns the intellectual property developed using university resources. The graduate student as inventor will according to this policy share in the proceeds of the invention. Please see the current UCF Graduate Catalog for details: <a href="mailto:catalog.ucf.edu/index.php?catoid=4">catalog.ucf.edu/index.php?catoid=4</a> > Policies > General Graduate Policies.

To learn more about the Burnett School of Biomedical Sciences visit med.ucf.edu/biomed/.

# **Financial Support**

Non-thesis master's students in this program are not eligible to receive a Graduate Teaching Assistantship (GTA) or tuition remission from the program.

If you are interested in applying for loans or externally funded need-based awards, visit the Office of Student Financial Assistance website at <a href="mailto:finaid.ucf.edu/">finaid.ucf.edu/</a> and complete the Free Application for Federal Student Aid (FAFSA), which is available January 1 each year.

Classroom Lab Assistant positions may be available.

• It is required that personal contact information be updated regularly with the Graduate Coordinator: a local mailing address, a local telephone number, and an e-mail address.

The Policies and Procedures of the Master of Science Program of the Department of Molecular Biology and Microbiology are subject to future changes approved by the Program Faculty. These changes may take immediate effect as appropriate.

For additional information about funding for graduate school, please visit Funding for Graduate School.

# **Graduate Student Associations**

The Graduate Student Association (GSA) is UCF's graduate organization committed to enrich graduate students' personal, educational and professional experience. To learn more or get involved, please visit <a href="mailto:facebook.com/groups/UCFgsa/">facebook.com/groups/UCFgsa/</a>. For individual department or graduate program organizations, please see program advisor.

# **Professional Development**

# **Teaching and Learning**

The Faculty Center for Teaching and Learning (FCTL) promotes excellence in all levels of teaching at the University of Central Florida. They offer several programs for the professional development of Graduate Teaching Assistants at UCF.

### **Preparing Tomorrow's Faculty Program**

This certificate program (12-weeks for domestic students, 16-weeks for international students) consists of group and individualized instruction by Faculty Center staff and experienced UCF professors. Textbooks and materials are provided, and a stipend is offered to current UCF students who complete the certificate. International students are provided the same training as well as information regarding language immersion and tricks and cultural awareness as a way of knowing what to expect from American students.

For more information: fctl.ucf.edu/ > Events > GTA Programs or call 407-823-3544.

### **Pathways to Success Workshops**

Coordinated by the College of Graduate Studies, the Pathways to Success program offers free development opportunities for graduate students including workshops in Academic Integrity, Graduate Grantsmanship, Graduate Teaching, Personal Development, Professional Development, and Research. For more information and how to register, please visit <a href="mailto:graduate.ucf.edu/pathways-to-success/">graduate.ucf.edu/pathways-to-success/</a>.

#### **Graduate Research Forum**

The Graduate Research Forum will feature poster displays representing UCF's diverse colleges and disciplines. It is an opportunity for students to showcase their research and creative projects and to receive valuable feedback from faculty judges. Awards for best poster presentation in each category will be given and all participants will receive recognition.

The College of Graduate Studies and the Graduate Student Association invite all UCF students, community, and employers to attend the Graduate Research Forum. For more information, contact <a href="mailto:researchweek@ucf.edu">researchweek@ucf.edu</a>.

#### **Graduate Excellence Awards**

Each year, the College of Graduate Studies offers graduate students who strive for academic and professional excellence the opportunity to be recognized for their work. The award categories include the following:

**Award for Excellence by a Graduate Teaching Assistant** – This award is for students who provide teaching support and assistance under the direction of a lead teacher. This award focuses on the extent and quality of the assistance provided by the student to the lead instructor and the students in the class. (Not intended for students who are instructor of record)

**Award for Excellence in Graduate Student Teaching** – This award is for students who serve as instructors of record and have independent classroom responsibilities. The focus of this award is on the quality of the student's

For the nomination process and eligibility criteria, see the College of Graduate Studies website graduate.ucf.edu/awards-and-recognition/.

#### Other

Students should take opportunities to present a poster or a topic of research at a conference. To obtain financial support to present at a conference (other than through your program) or to engage in comparable creative activity at a professional meeting, visit the Graduate Travel Fellowship section at <a href="mailto:graduate.ucf.edu/">graduate.ucf.edu/</a>.

For information about the Council of Southern Graduate Schools (CSGS) thesis and dissertation awards, see their website: csgs.org/ > Awards.

# Job Search

UCF's Career Services department offers a wide range of programs and services designed to assist graduate students. These services include evaluation and exploration of career goals, preparation for the job search and job search resources. To learn more, visit their website at career.ucf.edu/.

For specific services or resources provided by the academic program, please contact the graduate program director or academic advisor.

### **Forms**

- College of Graduate Studies Forms and References
  - A complete listing of general forms and references for graduate students, with direct links, may be found here.
- Graduate Petition Form
  - When unusual situations arise, petitions for exceptions to policy may be requested by the student. Depending on the type of appeal, the student should contact his/her program adviser to begin the petition process.
- Traveling Scholar Form
  - If a student would like to take advantage of special resources available on another campus but not available on the home campus; for example, special course offerings, research opportunities, unique laboratories and library collections, this form must be completed and approved.

# **Useful Links**

- Biomedical Sciences MS
- Burnett School of Biomedical Sciences
- College of Graduate Studies
- Academic Calendar
- Bookstore
- Campus Map
- Computer Labs
- Counseling Center
- Financial Assistance
- Golden Rule Student Handbook
- Graduate Catalog
- Graduate Student Association
- Graduate Student Center
- Housing and Residence Life
- Housing, off campus
- Knights Email
- Learning Online
- Library
- NID Help
- Pathways to Success

- Recreation and Wellness Center
- Register for Classes
- Shuttles Parking Services
- Student Health Services
- Thesis and Dissertation (ETD)
- UCF Global
- UCF IT
- University Writing Center

# **Grad Faculty**

Asterisk = has previous committee experience, which qualifies the person to serve as vice chair

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