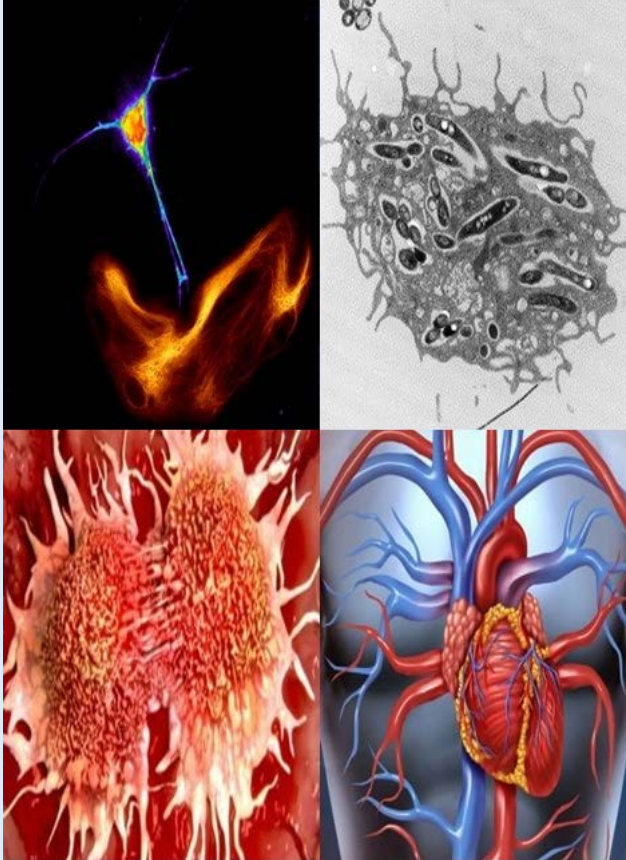




**UCF**

**2018-2019**

**Master of Science in Biotechnology  
(Thesis)  
Policies and Procedures Handbook**



**Burnett School of Biomedical Sciences**

**College of Medicine**

**University of Central Florida**

Website: <https://med.ucf.edu/biomed/>  
Updated: May 2018

## Program Checklist

Requirement	Date Completed
Mentor selection – September 30 <sup>th</sup>	
Thesis Committee selection – by end of Fall of first year	
Program of Study – by beginning of Spring of first year	
Met 6000 level course requirement - POS	
Work with your Faculty and Committee on your Thesis Proposal	
Schedule your Thesis Proposal/Comprehensive Exam Meeting and notify the Program Office of your scheduled date – by the end of Summer First Year	
Ethics/Responsible Conduct of Research Workshops – Completed by the end of the first year	
Annual Review Committee Meeting – November 30 <sup>th</sup> of each year	
Year 2	
Year 3	
Pre-Defense Meeting – must be held 1 semester prior to actual thesis defense	
Submit Pre-Defense meeting form to program office	
File Intent to Graduate on your myUCF	
Schedule Conference room reservations for Thesis Defense with program office	
Submit Thesis to Committee – Must be submitted two weeks prior to defense	
Submit Thesis Abstract for program announcement for distribution to program office - Must be submitted <b>two weeks</b> prior to defense	
Thesis Defense	
First Author publication	
Second Author publication	
Submit Thesis Approval Form and PDF of final thesis to program office	
Graduate	

## TABLE OF CONTENTS

Welcome from the Director.....	4
Program Coordinator Introduction & Welcome.....	5
Graduate Services Office.....	6
Mission Statement .....	7
Academic Integrity .....	8
Research Divisions .....	11
Program Curriculum & Requirements .....	14
MS Biotechnology Thesis Programmatic Guidelines.....	18
BSBS Spring Graduate Research Symposium.....	23
Thesis & Thesis Defense.....	23
Graduation Guidelines & Intent to Graduate.....	24
Other Program Requirements .....	29
Fellowship and Research Assistantships .....	31
College of Graduate Studies Research Symposium.....	35
General Graduate Policies .....	36
Graduate Faculty .....	38
MS Program Graduate Committee .....	40
Biomedical Sciences Graduate Student Association .....	41
Program Facilities .....	42
UCF Creed .....	43

**The Policies and Procedures of the Master of Science Program of the Department of Biomedical Sciences are subject to future changes approved by the program faculty, coordinator and director. These changes may take immediate effect as appropriate within the students' period of study.**

## WELCOME MESSAGE FROM THE DIRECTOR



Welcome to the Biomedical Sciences Graduate Program at UCF!  
We are excited that you have chosen UCF and our Graduate Program to continue your training and education in Biomedical Sciences. We offer a wide range of training opportunities in important areas of biomedical research including Cancer Biology, Cardiovascular Disease, Neurosciences and Infectious Disease and Immunology. In the past years, the Program has grown in the numbers of both students and faculty mentors. Our researchers have also experienced a rapid rise in our funding for impactful research projects, as well as in our reputation for outstanding training of the next generation of Biomedical Scientists. We look forward to having you as an important part of our Graduate Student Community.

Griff Parks, PhD  
Interim Associate Dean for Research  
Director, Burnett School of Biomedical Sciences  
Director, UCF Biomedical Sciences Graduate Program  
Professor of Medicine  
University of Central Florida College of Medicine  
6900 Lake Nona Blvd  
Orlando, FL 32827  
Office : (407) 266-7011  
Cell: (336) 970-1598  
[Griffith.Parks@ucf.edu](mailto:Griffith.Parks@ucf.edu)

## **Program Coordinator Introduction & Welcome**

Welcome to the Burnett School of Biomedical Sciences Masters of Biotechnology Program. This program is designed to give you broad knowledge and training in the scientific and practical aspects of biotechnology. It involves innovative, hands-on and multidisciplinary learning approaches to give you the necessary education and training in scientific aspects of biotechnology. The courses and research training required in this program are also designed to develop independent thinking, team work and communication skills, which are highly desirable in the biotechnology industry.

As a new master's student, you will face many new experiences that can be both rewarding and challenging. Your studies will involve foundational coursework and laboratory research. You will have the opportunity to work closely with faculty members from the Burnett School of Biomedical Sciences (BSBS) as well as other schools and colleges within UCF and affiliated partners in the Orlando area.

The Biomedical Sciences Masters of Biotechnology Program will prepare you for a career in academic research, higher education or biotechnology. Course work will provide a basic grounding in relevant topics, while hands-on research experience will be the cornerstone of your masters training. Expectations are for you to go beyond the assigned classroom readings and use your curiosity to explore new research trends, building a knowledgebase to support your career as an independent scientist. Oral presentations and writing assignments will teach you the skills needed to effectively communicate your discoveries to the scientific community.

In the first year of the program you will choose an advisor and form a thesis committee that will guide your studies and prepare you to conduct your own research. Careful selection of a supportive advisor and appropriate thesis committee members cannot be overstated. The process of achieving a masters (Thesis) degree will demand dedication and effort that go far beyond your undergraduate experience. The expectations are high but also are the achievements and rewards.

The program director, program coordinators, faculty and staff are available to help you succeed in the program. You are encouraged to interact with your peers and to participate in the intellectual life of the university. You have already made the decision to enter a graduate degree program. This decision commits you to uphold the academic and ethical standards of UCF and the discipline of Biomedical Sciences. If you have any questions or problems, please ask for advice. We are here to help.

We wish you all the best of success during your graduate experience at UCF!



**Dr. Saleh Naser,  
Associate Director &  
Program Coordinator**

Office 407.823.0955 | Lab407.823.0950

Burnett School of Biomedical Sciences  
Building 20, BMS 136  
4110 Libra Drive  
Orlando, FL 32816  
Saleh.Naser@ucf.edu

<http://med.ucf.edu/biomed/directory/profile/dr-saleh-a-naser/>

Editor-in-Chief  
World Journal of Gastroenterology

## **Burnett School of Biomedical Sciences Graduate Services Office**

Welcome New Graduate Students,

We are here and ready to answer all of your questions! Please read important information below and let us know how we can help.

The Biomedical Sciences Graduate Services Office is an integral part of ensuring your success in the graduate program. We are heavily involved in making sure you complete your required milestones throughout your graduate student career.

Beginning with orientation, we will assist you with course registration, program of study, seminars, committees, symposiums, thesis defenses, and tracking your achievements throughout your time in the program.

Moreover, we are a critical link of communication between you and our program directors and coordinators, keeping all parties up to date on the latest protocols and information for the department. We are available to assist you by phone, email or in person (by appointment).

**<https://med.ucf.edu/biomed/>**

Please review contact information below:

**Lisa Vaughn**  
Sr. Admissions Specialist

**Program Emails below for your reference:**

Graduate Information – [BSBSGradInfo@ucf.edu](mailto:BSBSGradInfo@ucf.edu)

Graduate Registration – [BSBSGradRegistration@ucf.edu](mailto:BSBSGradRegistration@ucf.edu)

Graduate Forms – [BSBSGradForms@ucf.edu](mailto:BSBSGradForms@ucf.edu)

Graduate Appointments – [BSBSGradAppts@ucf.edu](mailto:BSBSGradAppts@ucf.edu)

**Shannon Connally**  
Administrative Assistant

**Office Location Main Orlando Campus:**

Biological Sciences Building (BMS)

Suite 136, 1<sup>st</sup> Floor (Ph.: 407-823-4677)

**Office Location Lake Nona Health Sciences Campus:**

Thursday - By Appointment Only

Burnett Building (BBS)

1<sup>st</sup> Floor – Front Desk Check in with Photo ID

**FACEBOOK**

**Like us on Facebook!**

[https://www.facebook.com/BurnettSchool  
GraduatePrograms/](https://www.facebook.com/BurnettSchoolGraduatePrograms/)

### **Mission Statement and Overview:**

Mission: The Biomedical Sciences graduate program at the University of Central Florida College of Medicine provides the highest quality education and research opportunities for training the next generation of biomedical scientists.

The MS Biotechnology program enriched with graduate faculty with diverse investigative biomedical research interest and highly qualified students who are pursuing top education and cutting edge discoveries <https://med.ucf.edu/biomed/graduate-programs/ms-biotechnology/ms-biotechnology-thesis/>.

The Graduate Faculty includes more than 80 reputable scientists with established achievements in diverse aspects of biomedical sciences including metabolic disorders, cardiovascular sciences, infectious disease, neuroscience, cancer, nanoscience, biomedical engineering, drug discovery, and much more <https://med.ucf.edu/biomed/graduate-programs/graduate-faculty/>.

Our students are recruited from outstanding programs from all over the United States and over 18 other countries. They are supported by competitive scholarships and prestigious fellowships. Our students receive top tier education, rigorous training in basic and clinical research, outstanding mentoring, and lifelong professional development. They become well trained in research and regulations while conducting experiments involving the use of human subjects and animals. They learn, retain, and apply fundamental knowledge in biomedical sciences. They graduate from the program as scientists with excellent education, research training, and focused career goals. Many go on as postdoctoral fellows, academics, scientists, and researchers.

Visit: <https://med.ucf.edu/biomed/graduate-programs/wherearetheynow/>

The curriculum of the MS Biotechnology program is continuously adapting to rapid changes in technology, science, ongoing research, public health, and evolving microbiome and genetic discoveries. All students must successfully complete core courses with a focus on fundamental knowledge in molecular and cell biology, microbiology, biochemistry, immunology, neuroscience, bioinformatics, stem cell, metabolic, cancer, drug discovery and delivery, and more.

All students are required to complete the online Collaborative Institutional Training Initiative (CITI), Responsible Conduct of Research training and four face-to-face ethics/RCR workshops coordinated by the UCF College of Graduate Studies and the Office of Research and Commercialization. First year students are required to complete

laboratory safety, radiation safety, biosafety, and blood borne pathogen courses. Students are also required to attend Pathways to Success seminar series including Academic Integrity, Graduate Grantsmanship, Graduate Teaching, Personal Development, Professional Development, and Research.

The program administrators, faculty and staff are dedicated to educate, train, and mentor tomorrow's scientists and future colleagues and collaborators. Our Graduate Student Association plays the big brother/sister role to complement the role of our faculty to help our students feel at home and succeed.

**Policy Statement on Academic Integrity:**

Integrity is a critical foundation of science and scientific training. As such, any incident of cheating, plagiarism, or other forms of academic misconduct at any time by any student in the programs, may result in dismissal from the program. All graduate programs organized in the Burnett School of Biomedical Sciences hold students to the highest standards of academic conduct and scientific conduct.

There are many forms of misconduct, both in academics and in science. In research, these primarily include the falsification or fabrication of data during one's research project, or the plagiarism of text, figures or data from someone else's work (such as a published or on-line paper). These examples of misconduct, as well as other examples will be discussed in the Practice in Biomedical Science course or other courses.

In academics, the unauthorized use of electronic devices during exams, or any other means to gain an advantage during an examination will be considered academic misconduct. Copying another student's work who is currently taking a course or previously took a course will 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 of misconduct 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 program coordinator or BSBS director. **Ignorance of what constitutes misconduct is not an excuse.**

**Disciplinary Policy:**

The graduate program reserves the right to carry out full disciplinary action against student misconduct. Any documented case of scientific or academic misconduct is the basis for immediate dismissal from the program. The incident(s) will be reported to the student's advisor, the graduate committee, and the UCF Office of Student Conduct. After



reviewing the case, the Director of the Biomedical Sciences Graduate program will have the authority to recommend dismissal of the student from the graduate program.

**Policy Statement on enforcement of programmatic requirements**

Students who fail to complete programmatic requirements (e.g., thesis proposal defense, annual thesis committee review) by the specified deadlines\* may be placed on academic probation. If this occurs, the student will be given specific written notice of the terms of the probation and will have one semester to correct the deficiency. In most cases, the student's dissertation committee will be responsible for evaluating the student's progress. If a thesis committee has not been formed, then evaluation will be performed by the Program Coordinator in conjunction with the sponsoring PI. The evaluation body will meet with the student and spell out the terms of the probation, and then will meet with that student again within one semester to determine if the terms of the probation have been satisfactorily met. If the deficiency is corrected, then the probation will be lifted. If the student fails to correct the deficiencies within the specified time period (1 semester), then the student will not be permitted to register for classes or receive financial support from the program and may be subjected to dismissal from the program.

All official communications regarding probation must include the Program Associate Director and the Associate Dean of Graduate Studies.

**Grievance Procedures**

If significant issues arise between a student and their mentor that cannot be resolved amicably, the student should first consult with the Program Coordinator and secondly with the Program Director to resolve the issues. If these first steps do not resolve the conflict, the student has the right to request a dissertation committee meeting to attempt to resolve such issues. This request for a meeting of the full committee cannot be overruled by the Chair (Mentor) and the meeting should be chaired by a dissertation committee member and not the mentor. If sought by the student this meeting should also include the MS Program coordinator. The program director, associate director and all coordinators should also be informed of the meeting and have the right to attend to help resolve the issue(s).

**Student Responsibility to Keep Informed**

It is the student's responsibility to keep informed of all rules, regulations, and procedures required for graduate studies. Graduate program regulations will not be waived or exceptions granted because students plead ignorance of the regulations or claim failure of the adviser to keep them informed.

### **Changing Your E-mail, Address or Phone Number**

It is important to remember that all official university communication will be sent to your e-mail address or physical address on file. Students are responsible for updating their e-mail, physical address, and phone number. This can be done online through myUCF or by submitting a written request to the Student Services office (see form below).

### **Fall 2018 Academic Calendar**

<http://calendar.ucf.edu/2018/fall>

The Registrar's Office manages the official Academic Calendar, which contains the dates and times for all registration periods, application deadlines, holidays, special events, and more. You can filter the calendar, save it, or subscribe to it!



# Graduate Programs

## RESEARCH DIVISIONS

### **I. Division of Cancer Research**

Researchers in the Division of Cancer Research are on the vanguard of cancer biology, investigating:

- How patients' genes play a role in their cancer risk.
- What causes cancer and cancer metastasis.
- How cancer cells communicate with the neighboring normal cells.
- The epigenetic changes that play a role in developing drug resistance.
- Discovering new ways to harness the immune system to fight cancer.
- Identifying new targets for companion diagnostics with treatments that reduce side effects

<https://med.ucf.edu/biomed/divisions/cancer-research/>

### **II. Division of Immunity and Pathogenesis**

The mission of the Immunity and Pathogenesis Division is elucidation of the cellular and molecular mechanisms at the interface of infection, inflammation and immunity. Our group has broad interest and expertise in microbial pathogenesis, innate immunity, inflammatory signaling pathways and immunological memory.

Discoveries are being translated into innovative diagnostics, vaccines, and therapeutic strategies to improve human health.

Projects are related to:

- Respiratory diseases (Influenza, Parainfluenza, Respiratory Syncytial Virus)
- Asthma and Tuberculosis
- Sexually transmitted diseases (*Chlamydia trachomatis*)
- Human papilloma virus and Zika virus
- Vector-borne diseases (Lyme disease and emerging vector borne viruses) and inflammatory diseases (Inflammatory bowel disease).

<https://med.ucf.edu/biomed/divisions/infectious-disease/>

### III. Division of Metabolic and Cardiovascular Sciences

The Metabolic and Cardiovascular Research Division focuses on understanding the pathogenesis, molecular mechanisms and cell signaling of metabolic and heart diseases and to bring translational research into the clinical environment to serve our community.

#### **Major Areas of Research**

- Metabolic Syndrome in Diabetes and Aging
- Interactions of lipids and lipoproteins in Atherosclerosis
- Inflammation in Cardiac Diseases (Myocardial infarction, Heart failure, Atherosclerosis)
- Vascular and Angiogenesis in Cardiac Diseases
- Biological Energy metabolism
- Oxidative Stress, Free Radical and Reactive oxygen species
- Mitochondrial Alterations Pathophysiology of Cardiac Diseases
- Molecular and Cellular Cardiology
- Regenerative Medicine (Stem cells) in Heart Diseases
- Cardiac Genetic and Non-Genetic Disease Modeling using 3D Printing
- Tissue Engineering and Drug Toxicity with 3D Printed Scaffolds
- Peripheral Arterial Diseases
- Developmental Biology
- Cardiovascular Epidemiology and Public Health

<https://med.ucf.edu/biomed/divisions/cardiovascular/>

### IV. Division of Neuroscience

The mission of the Neuroscience Division is to discover cellular and molecular mechanisms that govern normal development and function of the nervous system. This knowledge is then applied to expand understanding of how neurological disorders arise and may be treated. Current focus is on movement disorders such as Parkinson's, ALS, peripheral neuropathies that damage neurons and myelin, as well as Neurofibromatosis, a genetic disorder that promotes tumorigenesis in the nervous system.

The division's researchers are conducting cutting-edge research on:

- Schwann cell biology and development of peripheral myelin
- Non-myelinating glia
- Axonal transport mechanisms
- Oxidative and nitrate stress in neurons and nervous system tumors

- Cell metabolism related to neuronal death and tumor formation
- Autonomic innervation of the heart in diabetes and aging
- Mitochondrial biogenesis and bioenergetics
- Neurofibromatosis Type 2 and Schwannomatosis
- ALS, Parkinsons, Alzheimers Diseases
- Stem cells therapies, Nerve injury and regeneration

<https://med.ucf.edu/biomed/divisions/neuroscience/>

## V. Division of Molecular Microbiology

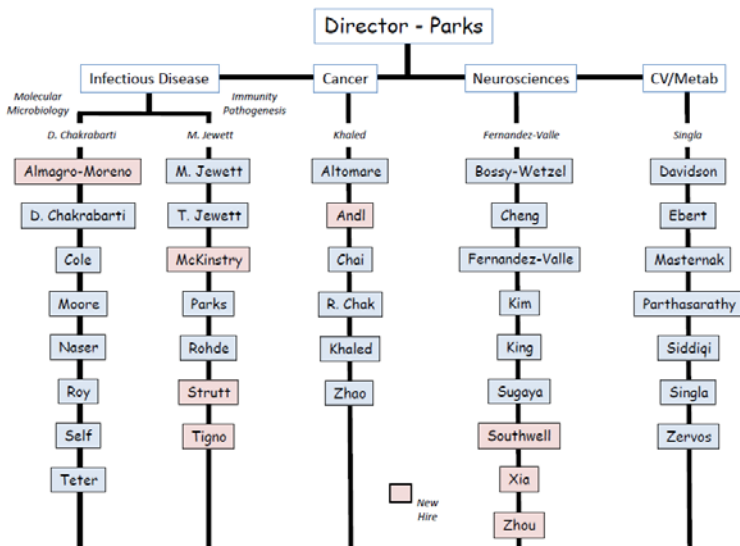
**The Division of Molecular Microbiology conducts basic and applied research related to bacterial, parasitic, and viral diseases that are of major public health concern. Research is focused in two broad areas:**

- Understanding the fundamental principles of microbial pathogenesis.
- Development of next-generation antimicrobial drugs.

**Topics of interest include HIV, tuberculosis, malaria, mechanisms of antimicrobial resistance, enteric diseases, toxins, and diagnostics. Student training and development are integral components of faculty research.**

<https://med.ucf.edu/biomed/divisions/molecular-microbiology/>

## Burnett School of Biomedical Sciences



## **MS Biotechnology (thesis) Program Curriculum & Requirements**

### **Program Description**

The Master of Science in Biotechnology program in the College of Medicine will prepare students to function in the industrial biotechnology environment. This program is designed to give students broad knowledge and training in the scientific and practical aspects of biotechnology.

### **Curriculum**

The Master of Science in Biotechnology program consists of a minimum of 30 semester credit hours of graduate courses offered by the Burnett School of Biomedical Sciences in the College of Medicine that includes 21 credit hours minimum of required courses, 3 credits of restricted electives, and 6 credit hours of thesis research as detailed below.

### **Total Credit Hours Required:**

30 Credit Hours Minimum beyond the Bachelor's Degree

What makes this program unique is the focus on practical training offered to graduate students through master's thesis research in molecular biotechnology to perform jobs in laboratory environment that require scientific talent.

### **Required Courses—21 Credit Hours Minimum**

#### **Core—19 Credit Hours Minimum**

Students must take the following courses plus at least two credit hours of graduate seminar.

- MCB 5722C Methods in Biotechnology (4 credit hours) or BSC 6407C Laboratory Methods in Molecular Biology (3 credit hours)
- BSC 6432 Structure-Function-Relationships of Biomedical Sciences I (5 credit hours)
- BSC 6433 Structure-Function-Relationships of Biomedical Sciences II (5 credit hours)
- BSC 6431 Practice of Biomedical Sciences (3 credit hours)
- PCB 5527 Genetic Engineering and Biotechnology (3 credit hours) or one of the following: BSC 5418 Tissue Engineering (3 credit hours),
- MCB 6417C Microbial Metabolism (3 credit hours), PCB 5025 Molecular and Cellular Pharmacology (3 credit hours)

#### **Graduate Seminars—2 Credit Hours**

Students will participate in at least two graduate seminar courses that will prepare them for making professional presentations with emphasis in

biotechnology. The courses will involve participation of speakers from the biotechnology industry with emphasis on an industrial perspective on biotechnology applications and product development.

- MCB 6314 Industrial Perspectives Seminar (1 credit hour) or MCB 6938 (1 credit hour, 1 semester only)

### **Elective Courses—3 Credit Hours**

Students will select three credit hours of restricted electives from the list below.

- BSC 5418 Tissue Engineering (3 credit hours)
- BSC 5436 Biomedical Informatics: Structure Analysis (3 credit hours)
- BSC 6407C Laboratory Methods in Molecular Biology (3 credit hours)
- IDS 5127 Foundation of Bio-Imaging Science (3 credit hours)
- MCB 5205 Infectious Processes (3 credit hours)
- MCB 5208 Cellular Microbiology: Host-Pathogen Interactions (3 credit hours)
- MCB 5209 Microbial Stress Response (3 credit hours)
- MCB 5225 Molecular Biology of Disease (3 credit hours)
- MCB 5415 Cellular Metabolism (3 credit hours)
- MCB 5505 Molecular Virology (3 credit hours)
- MCB 5654 Applied Microbiology (3 credit hours)
- MCB 5722C Methods in Biotechnology (4 credit hours)
- MCB 5932 Current Topics in Molecular Biology (3 credit hours)
- MCB 6226 Molecular Diagnostics (3 credit hours)
- MCB 6417C Microbial Metabolism (3 credit hours)
- PCB 5527 Genetic Engineering and Biotechnology (3 credit hours)
- PCB 5025 Molecular and Cellular Pharmacology (3 credit hours)
- PCB 5236 Tumor Biology (3 credit hours)
- PCB 5238 Immunobiology (3 credit hours)
- PCB 5596 Biomedical Informatics: Sequence Analysis (3 credit hours)
- PCB 5709C Laboratory Virtual Simulations in Physiology (2 credit hours)
- PCB 5834C Advanced Human Physiology (4 credit hours)
- PCB 5937 Special Topics: Human Endocrinology (3 credit hours)
- PCB 6528 Plant Molecular Biology (3 credit hours)
- PCB 6595 Regulation of Gene Expression (3 credit hours)
- PCB 5838 Cellular and Molecular Basis of Brain Functions (3 credit hours)

- PCB 5265 Stem Cell Biology (3 credit hours)
- PCB 5025 Molecular and Cellular Pharmacology (3 credit hours)
- PCB 5815 Molecular Aspects of Obesity, Diabetes and Metabolism (3 credit hours)
- ZOO 5745C Essentials of Neuroanatomy (4 credit hours)
- ZOO 5748C Clinical Neuroanatomy (5 credit hours)
- BSC 5665 Clinical Embryology & Congenital Malformations (3 credit hours)
- ZOO 5758C Vertebrate Histology (3 credits)
- GEB 5516 Technological Entrepreneurship (3 credit hours)
- ZOO 6737 – Clinically Oriented Human Anatomy (4 credit hours)
- MCB 6226 - Molecular Diagnostics (3 credit hours)
- PCB 6595 - Gene Expression (3 credit hours)
- GMS 6860 - Statistics for Biomedical Scientists (3 credit hours)

Others: If approved by the Graduate Committee

### **Thesis—6 Credit Hours**

Students will take a minimum of six credits of thesis research (MCB 6971) to complete their research and submit their thesis specializing in biotechnology research. Students are expected to have an in-depth discussion with at least three faculty members before choosing a laboratory for thesis research.

The student and the Thesis Adviser/Major Professor will jointly recommend an advisory committee comprised of at least three members. The committee composition must reflect expertise relevant to the student's thesis research and must be approved by the Graduate Committee. Students switching to change the composition of the Thesis Advisory Committee must also obtain approval from the Graduate Committee.

### **Thesis Proposal**

The thesis proposal defense requirement should be met and passed successfully no later than the end of the summer of the first year in the program. Students will not be allowed to register for courses for the Fall semester of their second year until this requirement is fulfilled.

The Thesis Proposal requirement includes the following:

- A written 5-page thesis proposal;
- A thesis proposal defense in front of the thesis committee;



- The thesis committee will ask questions to test the student's understanding of the basic concepts in the field and relevant applications.
- The student will be evaluated on performance in all three sections. Should the student fail, a second opportunity will be provided within 2 weeks of the first attempt. A second failure will result in dismissal from the program.

### **Thesis Defense**

An oral thesis defense is required. The defense will be in the format of:

- A 50-minute presentation of the thesis work, including a 5-minute introduction
- A 10-minute free period for the general audience to ask questions
- A 1-hour closed-door examination by the Thesis Advisory Committee and the program faculty present.
- The thesis should be of significant scope and depth such that the work has made advances in the area of biotechnology and should lead to a publishable thesis. Approval of the final thesis will require consent from the majority of the Program Faculty who choose to review the thesis, inclusive of the Thesis Advisory Committee. Faculty members with dissenting vote on the thesis must provide written justification. Scientific journal review criteria will be used as guidelines by the faculty to evaluate the final thesis for its appropriateness for publication in the target journal.

Students will be evaluated on the progress in thesis research by the thesis advisory committee for fall and spring. Two consecutive unsatisfactory evaluations will result in dismissal from the program.

### **Comprehensive Examination**

Students must pass a comprehensive exam to qualify for the Master of Science degree.

Students must successfully pass an oral comprehensive examination to test the understanding of the basic concepts in the field and relevant applications.

The Comprehensive Examination will be conducted during the thesis proposal defense. The exam will be administered by the thesis committee. Should the student fail this exam, a second opportunity will be provided within 2 weeks of the first attempt. A second failure will result in dismissal from the program.

### **Independent Learning**

The required thesis allows the student to engage in independent learning.

### **Mentor Selection**

During orientation, new incoming students will attend short presentations by faculty who will highlight their research program. Students should meet with faculty of their interest for further discussion about research to help them select their lab rotations.

#### **Ideas to consider when are selecting a thesis mentor:**

- Ask for permission to visit the lab
- Observe the culture of the lab while visiting or during rotation. Consider lab space, lab resources
- Survey students, postdocs in the lab and others who have rotated through the lab about their experiences. Ask if students in the lab attend and present at scientific meetings. Ask about the mentor's strengths and weaknesses and consider their feedback
- Ask yourself if this is the right environment for you; does your personality fit the environment
- It is ok to ask a lot of questions so you can make the right decision.
- Analyze the Pros and Cons of your selection.
- By September 30<sup>th</sup>, the student must select a research advisor in the program. Your signed mentor selection form must be submitted to the Program Office.

### **MS Biotechnology Thesis Programmatic Guidelines**

- A student is eligible to receive financial support in the form of a Graduate Teaching
- Assistantship, or a Graduate Research Assistantship, and the accompanying of available tuition waiver for no more than a total of five semesters (i.e., Fall and Spring).
- For research assistantship recipients, absence in the sponsoring laboratory for a period of more than three weeks may result in temporary or permanent withholding of the assistantship.
- A student's eligibility to receive financial support will be reviewed at the end of each Fall and Spring semester.

- The review will be conducted by the student's Thesis Advisory Committee and the appropriate recommendation will be made to the Graduate Coordinator, who will provide the Chair with the final list of eligible students for the **following semester**. **This is review will also** serve as the student's evaluation of progress in the Program of Study, and a one-page written evaluation (Appendix 1) will be submitted to the Graduate Coordinator.
- It is required that the first Thesis Advisory Committee meeting be held no later than end of the first year in the program. In this meeting, the student is expected to show progress at expectation for course work and to present to the committee a sound-thesis proposal.
- You are required to submit all program forms to the Program Office by stated deadlines.

### **Overall Expectations:**

Expectations from students in each lab may vary from one mentor to another. However, all labs/mentors in the program expect the students to be at a high level of professionalism. This includes attending classes, fulfilling GTA assignments, working hard on research projects, attending seminars and meetings, presenting data in meetings, and demonstrating collegiality.

*The program will pursue to the fullest of our policy any complain of unacceptable behavior or misconduct. This may end in placing students on probation, termination of GTA/GRA financial support, or dismissal from the program.*

### **Professional Seminars, Colloquium and Symposia**

Students are strongly encouraged to attend departmental seminars including the weekly BSBS Friday seminar, the research divisions meetings, and guest seminars.

Presenting and attendance at the annual BSBS colloquium and symposia is required. Presentations at other settings including research divisions cannot substitute for this requirement.

### **Attendance Requirement**

Students are expected to attend all classes, lectures, seminars and complete all research and laboratory assignments by the deadlines specified. Supervisors must be notified if you are going to be absent from the research lab or the teaching lab.

**Policy Statement on enforcement of programmatic requirements:**

Students who fail to complete programmatic requirements (e.g., Thesis Selection Committee, Program of Study, Annual thesis committee review) by the specified deadlines\* may be placed on academic probation.

If this occurs, the student will be given specific written notice of the terms of the probation and will have one semester to correct the deficiency.

In most cases, the student's thesis committee will be responsible for evaluating the student's progress. If a thesis committee has not been formed, then evaluation will be performed by the Program Coordinator in conjunction with the sponsoring PI.

The evaluation body will meet with the student and spell out the terms of the probation, and then will meet with that student again within one semester to determine if the terms of the probation have been satisfactorily met. If the deficiency is corrected, then the probation will be lifted. If the student fails to correct the deficiencies within the specified time period (1 semester), then the student will not be permitted to register for classes or receive financial support from the program. All official communications regarding probation must include the Biomedical Sciences MS Program Coordinator and Director as well as the Associate Dean of Graduate Studies.

**Students receiving assistantships are expected to:**

- Complete the Environmental Health & Safety workshops.
- Meet graduate school regulation regarding the Versant test, etc.
- Demonstrate dedication to research and teaching responsibilities.
- Maintain satisfactory academic performance - Minimum 3.0 GPA.
- Complete Program Academic Integrity Requirements

**BSBS Graduate Program Leave Policy**

All Graduate Students supported by GTA or GRA:

It is mandatory that all graduate students in BSBS who are supported by GTA or GRA to receive prior program approval for any leave of absence request. Student must discuss the leave with mentor and/or GTA supervisor then complete the graduate leave of absence form, and collect all signatures before going on leave. Failure to comply with the program leave of absence policy may lead to termination of employment/tuition waiver or dismissal from the program. The form must be approved two weeks in advance of requested date(s).

### **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 reschedule. <http://www.ehs.ucf.edu/>

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

### **Thesis Advisory Committee Selection**

The student and the advisor should work together to on the composition of the Advising Committee. The Advisory Committee must meet once a year for the student's annual review meeting.

A research thesis is required for the degree of Master of Science in Biotechnology. The student and the Thesis Advisor/Major Professor will jointly recommend a thesis advisory committee composed of at least three members (including Thesis Mentor as Chair). The committee composition must reflect expertise relevant to the student's thesis research and must be approved by the Graduate Committee/Coordinator.

**Thesis Committee selection form must be submitted to the Program Office. The Program Office will submit your form to the College of Graduate Studies.**

### **Program of Study**

A Program of Study is a listing of course work agreed to by the student and the degree program specifying course degree requirements.

Students are required to complete a Program of Study to be approved by the mentor and the thesis committee. **The Program of Study must be completed, signed and submitted to the Program Office by the Spring Semester of the first year. The Program Office will submit your form to the College of Graduate Studies**

### **Thesis Proposal and Oral Comprehensive Examinations**

The thesis proposal defense and the comprehensive exam requirement should be met and passed successfully no later than the end of the summer of the first year in the program.

Students will not be allowed to register for courses for the fall semester of their second year until this requirement is fulfilled.

**The thesis proposal requirement includes three sections:**

- 1) A written 5-page (single space, without the references) thesis proposal similar to NIH style proposal format. The thesis proposal should include your introduction/hypothesis specific aims, research strategy, research approach, methods, timeline & potential outcomes (including figures & tables). **Check with your Mentor for example and guidance.**
- 2) A thesis proposal defense in front of the thesis committee (40 min. seminar).
- 3) Comprehensive Exam - 3 questions by the thesis committee (during the proposal defense) that test the student understanding of the basic concepts in the field and relevant applications. The student will be evaluated on performance in all three sections. Should the student fail, a second opportunity will be provided within 2 weeks of the first attempt. A second failure will result in dismissal from the program.

**This requirement must be fulfilled before the beginning of the Fall semester of the second year in the program. The Thesis Proposal/Comprehensive Exam form must be submitted to the Program Office.**

**Student Evaluations: Laboratory Performance**

**You must meet with your Thesis Committee each year to complete your annual review of progress.**

Students will be evaluated on the progress in thesis research by the thesis advisory committee for Fall and Spring semesters. Two consecutive unsatisfactory evaluations will result in reversion to non-degree status.

**Thesis Annual review form must be submitted to the Program Office. Scan forms to [BSBSGradForms@ucf.edu](mailto:BSBSGradForms@ucf.edu)**

## **BSBS SPRING GRADUATE RESEARCH SYMPOSIUM**



### **Seminar Presentation**

MS Biotechnology (Thesis) students will give a program-wide seminar presentation of their own research during their second or third year. This will typically be done during the Graduate Research Symposium held in the Spring Semester each year.

### **Thesis**

The thesis should be of significant scope and depth such that the work has made advances in the area of biotechnology and should lead to a publishable thesis. Approval of the final thesis will require consent from the majority of the Program Faculty who choose to review the thesis, inclusive of the Thesis Advisory Committee. Faculty members with dissenting vote on the thesis must provide written justification. Scientific journal review criteria will be used as guidelines by the faculty to evaluate the final thesis for its appropriateness for publication in the target journal.

### **Thesis Requirement- Publication**

A pre-defense meeting with the full thesis committee must occur at least one semester prior to the actual thesis defense date. The committee will critically evaluate whether or not the student has fulfilled all program requirements and is ready to proceed to defense.

**The thesis should be of significant scope and depth such that the work has made advances in the area of biotechnology and should lead to a publishable thesis. Approval of the final thesis will require consent from the majority of the Thesis Advisory Committee.**

Scientific journal review criteria will be used as guidelines by the Committee to evaluate the final thesis for its appropriateness for publication in the target journal. This must be approved by one of the graduate coordinators or the director prior to posting of the defense announcement.

### **Thesis Committee Pre-Defense Meeting Required**

All Thesis students must request a meeting with their Thesis Committee to get approval to schedule their defense the semester prior to defending. During this “pre-defense” meeting, the student will present their thesis work. After completion of this meeting, you must submit a signed pre-defense meeting form to the Program Office that includes a statement that your advisor/committee agrees that you’ve met all requirements to defend.

**The Graduate coordinator is not required to attend the pre-defense meeting unless serving on the student’s thesis committee, but must be informed of the meeting at time of scheduling.**

### **The thesis defense will be in the format of:**

- A 50-minute presentation of the thesis work, including a 5-minute introduction
- A 10-minute free period for the general audience to ask questions
- A 1-hour close-door examination by the Thesis Advisory Committee

### **Thesis defense:**

- Will be held after feedback and comments from the Journal are available, and an approval from the thesis committee to defend the thesis.
- No review type articles can be used to fulfill the manuscript requirement.
- The thesis manuscript and the reviewers’ comments must be submitted to the thesis committee for review and approval must be given at least two weeks before the thesis defense.

## **CONGRATULATIONS YOU ARE NOW READY TO FILE YOUR INTENT TO GRADUATE**

### **MS Biotechnology Program (Thesis) Graduation Guidelines**

#### **Graduation Application**

You must submit your Online **Intent to Graduate** on your myUCF portal in the semester you are approved to graduate. Log onto <https://my.ucf.edu/> and follow this navigation: Student Self Service> Student Center> other academics (drop down menu) > Intent to Graduate> Apply.

#### **Schedule your Defense**

Upon approval to defend, you must obtain several possible defense dates from your advisor and Committee members for scheduling. All Committee members must attend your Defense.



### **Room Scheduling / IT Scheduling**

Once you've confirmed possible defense date(s) and time(s) with your Committee, you must send an email notification to Program Office to arrange Conference rooms and IT Department reservations.

Please indicate which campus your defense will be held "live".

The Program Office will then notify all parties of the confirmed defense date/time.

### **Thesis Defense Announcement**

You must send Program Director and Coordinator, Committee members and the Program Office a copy of your thesis **at least two weeks prior to your Defense.**

### **Program Survey**

Complete program survey by deadline.

### **Announcement Distribution**

You are required to email your Abstract to Program Office **at least 2 weeks prior to your defense** for announcement distribution and posting. Include the following with your abstract: Thesis title, name of your Committee members and your publication Information.

### **Graduate Student Thesis/Dissertation Information**

All thesis students must visit the Graduate Students Thesis and Dissertation website at <http://www.students.graduate.ucf.edu/ETD/> to access the timeliest thesis and dissertation information, including deadlines, step-by-step instructions for manuscript preparation and submission, and the current Thesis and Dissertation Manual.

### **Format Review**

You must pass your format review by the College of Graduate Studies Thesis and Dissertation office in order to receive permission to upload your final document by the final deadline. Most students require 2-3 submissions for format review before their dissertation PDF passes the format review requirements.

### **The following requirements must be met by thesis students in their final term:**

- **Submit a properly formatted file for initial format review by the format review deadline**
- **Submit the Thesis Release Option form well before the defense**
- **Defend by the defense deadline**

- **Receive format approval (if not granted upon initial review)**
- **Submit signed approval form by final submission deadline**
- **Submit final dissertation document by final submission deadline**

**Knights E-mail Requirement for thesis submission**

All official university student communication must be made through Knights E-mail. This requirement includes all thesis and dissertation communications, as well as documents submitted for format review. Documents not submitted from a Knights E-mail account will be returned to the student without being reviewed.

**Review of Thesis/Dissertations for Original Work through iThenticate**

**Have your committee chair complete the Review for Original Work (through iThenticate.com).**

The university requires all students submitting a thesis or dissertation as part of their graduate degree requirements to first submit their electronic documents through iThenticate for advisement purposes and for review of originality. The thesis or dissertation chair is responsible for scheduling this submission to iThenticate and for reviewing the results from iThenticate with the student's advisory committee. The advisory committee uses the results appropriately to assist the student in the preparation of their thesis or dissertation.

Before the student may be approved for final submission to the university, the thesis or dissertation chair must indicate completion of the Review for Original Work through iThenticate by signing the Thesis Approval Form or Dissertation Approval Form.

For information about iThenticate at UCF, see iThenticate on the Responsible Conduct of Research website, Office of Research and Commercialization.

The review for original work must be completed prior to the committee signing the Thesis Approval Form or Dissertation Approval Form.

**\*Upload your final approved thesis to the Thesis and Dissertation Services site.**

### **Dissertation Approval Form**

The Approval Form is available in the Thesis and Dissertation Services site at [https://ww2.graduate.ucf.edu/ETD\\_Student\\_Services/](https://ww2.graduate.ucf.edu/ETD_Student_Services/).

### **Thesis Release Option form at myUCF > Student Center > Graduate Students > Choose Graduate Student forms.**

Upon completion of the TD Release Option form, the title, defense date, and release option will be processed by the Graduate Office and updated in the Approval Form.

Students should also ensure that their committee information is indicated correctly on the Approval Form before printing. Please contact Program Office if the committee information is not listed correctly. You can review the Defense Approval Form page in the Thesis and Dissertation Services site then print the form for your defense.

Please Note: Processing can take a day or two, so please complete the TD Release Option form well before you defend. The Defense Approval Form will not be accepted by the College of Graduate Studies if the release option is not present. *Please contact Nathalia Bauer ([editor@ucf.edu](mailto:editor@ucf.edu) / 407-823-2739) if you need assistance with this process.*

### **Day of Defense**

Please arrive early to prepare for your presentation. Bring a copy of your Approval Form to your defense for Committee members/Program Coordinator signatures.

After your defense bring your approval form to the Program Office so signatures from College of Medicine Dean, Director, and the Dean of the College of Graduate Studies.

Your GPS (audit) will be updated once all signatures have been obtained.

### **Diploma**

You will receive your diploma at Commencement or it will be mailed approximately 6 to 10 weeks after the commencement ceremony to the address indicated on your Intent to Graduate form. Students who have changed their address should contact the College of Graduate Studies at [graddegr@ucf.edu](mailto:graddegr@ucf.edu). Questions can be directed to the College of Graduate Studies at 407-823-4132.

Diplomas cannot be released if you have a nonacademic hold. It is your responsibility to resolve holds as quickly as possible.

Student Account Services and the Registrar's Office will notify students of any outstanding financial obligations prior to the Commencement

ceremony. All financial obligations must be met in order to receive a diploma and official transcripts.

Transcripts that reflect the degree earned will be available approximately 4-6 weeks after the ceremony and requests may be made through the Registrar's Office.

**Commencement Ceremony Information**

Please visit the College of Graduate Studies website for Commencement information <http://www.students.graduate.ucf.edu/commencement/>.

**Please inform your faculty advisor of your Graduation Ceremony date and time so they can attend this event with you. Also, notify the Program Office if you will be attending.**

**Key Programmatic deadlines:**

<b>Selection of a Mentor:</b>	September 30th
<b>Selection of Thesis Advisory Committee:</b>	By the beginning of spring 1 <sup>st</sup> Yr.
<b>Program of study:</b>	By the beginning of spring 1 <sup>st</sup> Yr.
<b>Thesis proposal defense/Comprehensive exam:</b>	By the official end of summer C of 1 <sup>st</sup> yr.
<b>Annual thesis meeting:</b>	By the end of summer semester

**The following BSBS MS Program forms are now located on our website.**

- MS Annual Review
- MS Thesis Committee Selection
- MS Registration Forms
- MS First Committee Meeting
- MS Pre-Defense Committee Meeting
- Graduate Program Leave Request Form

## **Other Program Requirements**

### **Course Levels:**

#### **6000-Level Courses**

A minimum of fifteen credit hours (including thesis hours) of a Program of Study must be in 6000-level courses, which are designed for graduate students. The University Graduate Council must approve any exceptions to this requirement. (See Graduate Catalog)

•At least half of the credit hours used to meet program requirements must be at the 6000 level.

**New graduate students from UCF that completed Molecular Biotechnology and Biotech Lab methods & other program courses as undergraduates (4000 level) cannot register for these courses again at 5000 level. Graduate students are required to meet with the program office to review alternative course selection(s).**

### **Grades**

- Every student will be evaluated after each semester. Students must take required coursework, maintaining a minimum 3.0 GPA
- If the GPA is below 2.0 the student will be removed from the program.
- If the GPA is between 2.0-3.0 a probationary period of one semester (9 credit hours) will be granted to give the student an opportunity to achieve the required minimum GPA of 3.0.
- U Grade Policy - If the student receives two consecutive “U” grades, the student will be removed from the program.
- No “D” grade in any course
- No “C” grade in more than 2 courses

Students must develop a program of study in consultation with the faculty Advisor and Program Coordinator, Dr. Saleh Naser and must submit program forms to Program Office by required deadlines.

### **Directed Independent Study Courses**

A maximum of three courses may be taken as independent study, for a total of no more than six semester hours. (Program Approval is needed for Independent Study)

### **Transfer of Credits Taken Before Enrolling at UCF**

Work taken at an accredited institution BEFORE a student is given graduate status at UCF may be transferred into the student’s program of study.

No more than **9 semester hours** of graduate credit(s) (5000 level or more) may be transferred into the graduate program from UCF post-baccalaureate work or from other accredited institutions. The program accepts up to 9 hours of graduate course work taken at UCF while an undergraduate student as part of an undergraduate program of study. (Program approval needed to accept additional courses.)

Acceptance of such courses into a graduate program of study will be recommended by the Major Advisor, and must be approved by the Graduate Committee. This does not apply to undergraduate course work taken while an undergraduate student.

### **Graduate Studies GPS**

The Graduate Studies GPS is an advisement tool you can use to plan your academic career, check your progress and assist you in registering in upcoming semesters.

To access your report, navigate to the student portal at [my.ucf.edu](http://my.ucf.edu) enter your PID, then go down to Main Menu>Self Service>Student Center. At the drop down box, select “Graduate Plan of Study”, then hit the right-facing arrow to process your report.

### **BSBS Graduate Seminar Series**

Each Fall and Spring, graduate students have the opportunity to attend seminars given by distinguished speakers who lectures about their research. The seminars offer a wide variety of diverse topics and are an important part of your graduate experience. **Graduate students are expected to attend these events.**

### **Graduate Program Registration**

Graduate students will work with the Program Graduate Service Office to register for courses each semester. Students must email [BSBSGradAppts@ucf.edu](mailto:BSBSGradAppts@ucf.edu) to schedule an appointment or email [BSBSGradRegistraton@ucf.edu](mailto:BSBSGradRegistraton@ucf.edu) for registration assistance.

### **Graduate Assistantship & Tuition Waivers**

New graduate students will receive information on scholarships, fellowship and stipend payments during the Graduate Assistantship & Financial Award meeting scheduled during Orientation Week.

Graduate students must contact **Greg Norris** ([Greg.Norris@ucf.edu](mailto:Greg.Norris@ucf.edu)) or **Allison Connally** ([Allison.Connally@ucf.edu](mailto:Allison.Connally@ucf.edu)) for graduate funding questions.

**Exceptionally qualified students may be eligible for university enhancement awards.**

### **Fellowships and Research Assistantships**

Students accepted in the program are eligible for graduate assistantships (GA), graduate teaching assistantships (GTA), and graduate research assistantships (GRA). Stipends are currently \$16,000 per year.

These stipends support MS students for the full 12 months per year, and so students are expected to continue working in the laboratories when classes are not in session\*. Absence for more than 2 weeks per year, exclusive of UCF-approved work holidays, will result in the loss of stipend for the period of absence.

After the student has identified an advisor for thesis mentorship and that advisor assumes sponsorship of the student, then leave of absence from work must be approved by the advisor.

### **Tuition and Fee Payment**

<http://www.studentaccounts.ucf.edu/TuitionFees.cfm>.

Tuition support pays matriculation and nonresident fees (charges for course hours) and does not include local fees such as health fees, athletic fees, etc.

All funded students must complete their hiring paperwork to receive their biweekly paycheck. Stipend payments will occur every other Friday in the form of direct deposit. Students receiving scholarship/fellowships will receive a separate payment that will be deposited directly into your account. You should expect to pay about \$100 per credit hour in fees.

**Please Note: Tuition Payments will be finalized after ADD/DROP of each semester you are in the program.**

### **Tuition Coverage**

Tuition waivers are subject to availability of funding.

Full - The tuition coverage portion of your offer will pay for 100% of the tuition charges during the terms of your assistantship. This will cover full-time enrollment in required course work taken as part of your degree program. Please note that tuition covers the “Tuition” and “Out-of-State Fee” items in the Fee Schedule and not the local fees.

<http://www.studentaccounts.ucf.edu/TuitionFees.cfm>

### **Office of Student Financial Assistance**

The mission of the Office of Student Financial Assistance is to provide UCF students and the University Community comprehensive quality service by offering options for financial assistance and efficient delivery of aid. Financial aid counseling is available by appointment. Due to confidentiality, counseling by phone and email is limited. Student Financial Assistance, a unit of Student, Development and Enrollment Services, is dedicated to the attainment of UCF's mission and goals.

For more detailed information, visit the website at: <http://finaid.ucf.edu/> / <https://finaid.ucf.edu/receiving/>

### **Cashier's Office**

The Cashier's Office is responsible for the collection of all student payments that are due to the university.

Registration is not complete until all fees are paid in full on or before the published deadline (deadlines available on the Academic Calendar). Credit card payment may be made online through myUCF E-Pay (my.ucf.edu), or at any Cashier's Office.

For Fee Payment Policies, refer to the Student Accounts Information in the current Web Enrollment Guide:

[www.registrar.sdes.ucf.edu/weg/student\\_accounts\\_information/deferment\\_s](http://www.registrar.sdes.ucf.edu/weg/student_accounts_information/deferment_s).

To contact the Cashier's Office, visit <http://www.fa.ucf.edu/>.

### **Graduate Teaching Assistants**

GTAs may be assigned as instructors of record for undergraduate courses, as assistants to the faculty in their teaching responsibilities or in other roles directly related to credit-earning formal course instruction, or as tutors for students on specific course-related material or general skills. GTAs assisting members of the faculty may have responsibilities that include assisting in laboratory courses, grading, and preparation of course materials, or performing clerical tasks associated with course instruction.

### **Versant English Test Requirement for GTA**

Beginning with Spring 2018, UCF's English Language Institute will be offering the Versant English Test in place of the SPEAK Test. Students who are non-native speakers of English and do not have a degree from a U.S. institution must pass the English Speaking test before they will be permitted to teach as Graduate Teaching Associates (position code 9183) or Graduate Teaching Assistants (position code 9184). The SPEAK test is



not required for students who will be appointed as a Graduate Teaching Grader (position code 9187).

The English Speaking test is administered by the English Language Institute and takes about 20 minutes.

### **GTA Expectations**

- Professionalism with time, attire and interaction with students and staff.
- GTAs are evaluated after each semester (GTA is a privilege); poor performance will result in loss of future assistantship.
- GTAs can be terminated during or at the end of the semester if warranted.
- Communication is very important.
- Teaching labs rely on your assistance.
- Where appropriate, proper PPE (Personal Protective Equipment) must be worn in labs.
- Proper training on equipment is necessary before use.

### **Overall Expectations:**

Expectations from students in each lab may vary from one mentor to another. However, all labs/mentors in the program expect the students to be at a high level of professionalism. This includes attending classes, fulfilling GTA assignments, working hard on research projects, attending seminars and meetings, presenting data in meetings, and demonstrating collegiality.

### **Full Time Enrollment Status**

A full-time degree-seeking graduate student must take at least 9 credit hours in the fall and spring semesters. A half-time load is defined as enrolled in at least 4.5 credit hours in fall and spring terms. During the summer term, full-time is 6 credit hours and half-time is 3 credit hours. Masters students are part-time if they do not enroll as above except for the following case:

For master's students pursuing a thesis option and enrolled only in thesis course work (MCB 6971), full-time enrollment is defined as 3 hours per semester (including summers, without skipping a semester) of thesis course work (MCB 6971), after completion of all course work and until graduation. Students who wish to enroll in part-time hours should consult their adviser.

There are no other exceptions and this is very important for international students who may not meet compliance standards of Homeland Security if they drop a class and become part-time as a consequence. International

students should see the International Services Center if they are contemplating dropping a class.

Students receiving fellowships or assistantships should consult with the Graduate College's Financial Assistance Office before considering dropping courses. ([gradfellowship@ucf.edu](mailto:gradfellowship@ucf.edu) / [gradassistantship@ucf.edu](mailto:gradassistantship@ucf.edu)).

**International Advising**

International Affairs and Global Strategies (IAGS) serves as a source of information, advocacy, and support to prospective, new and current international students and scholars at the University of Central Florida. IAGS provides students and scholars with immigration advising and assistance in adjusting to new academic and cultural environments.

UCF Global

Website - <http://global.ucf.edu/>

Address: 4356 Scorpius St, Orlando, FL 32816

Building GB 139

Orlando, FL 32816-0130

Phone: (407)823-2337 | Fax: (407)823-2526

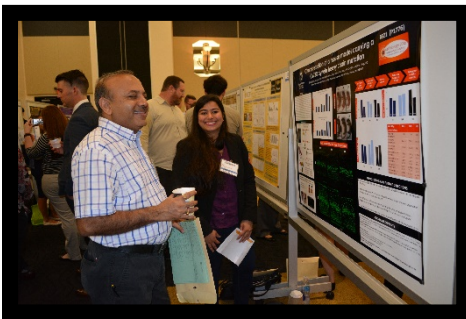
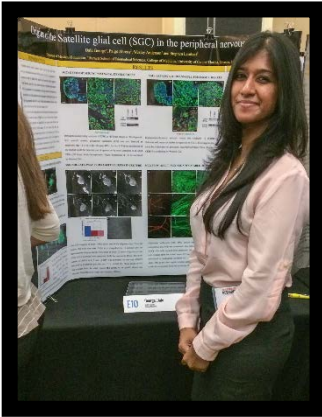
# COLLEGE OF GRADUATE RESEARCH SYMPOSIUM

# RESEARCH FORUM

TWELFTH ANNUAL SHOWCASE OF DIVERSE STUDENT RESEARCH



**The Graduate Research Forum features poster displays representing UCF's diverse colleges and disciplines. The Research Forum is an opportunity for graduate students to showcase their research and creative projects and to receive valuable feedback from faculty judges.**



## **General Graduate Policies**

### **Student Responsibility to Keep Informed**

It is the student's responsibility to keep informed of all rules, regulations, and procedures required for graduate studies. Graduate program regulations will not be waived or exceptions granted because students plead ignorance of the regulations or claim failure of the adviser to keep them informed.

Graduate Policies

<http://www.graduatecatalog.ucf.edu/content/Policies.aspx?id=5700>

### **UCF Golden Rule**

The Golden Rule Student Handbook is a compilation of various policies and procedures from 10 different UCF departments and was specifically created to provide the answers to many of your questions regarding University rules and regulations. This publication attempts to define your rights and responsibilities and give you a better understanding of your role as a member of the UCF community. Visit: <http://goldenrule.sdes.ucf.edu/>

### **Academic Progress and Performance**

#### **Review of Academic Performance**

The primary responsibility for monitoring academic performance standards rests with the degree or certificate program. However, the academic college and the UCF College of Graduate Studies will monitor a student's progress and may dismiss any student if performance standards or academic progress as specified by the program, college or university are not maintained. Satisfactory academic performance in a program includes maintaining at least a 3.0 graduate status GPA (defined below) in all graduate work taken since admission into the program. Satisfactory performance also involves maintaining the standards of academic progress and professional integrity expected in a particular discipline or program. Failure to maintain these standards may result in dismissal of the student from the program.

#### **Graduate Status GPA**

A graduate status GPA will be calculated based on the graduate courses taken at UCF since admission into each degree or certificate program. The graduate status GPA is used to monitor the student's progress in the program.

The university requires that students must maintain a graduate status GPA of at least 3.0 or higher in order to maintain regular graduate student status, receive financial assistance, and qualify for graduation. This GPA requirement cannot be waived.

Please note that the graduate status GPA does not carry forward from one program to another or from non-degree status into a degree or certificate program.

Please review graduate policy:

<http://www.graduatecatalog.ucf.edu/content/policies.aspx?id=5700>

**Maximum Hours of Unsatisfactory Grades**

“C” grades (C, C+, C-), as well as D, D+, D-, F and U grades, are all considered unsatisfactory grades. A student may apply a maximum total of six semester credit hours of “C” grades, or the “C” grade credits associated with at most two classes, whichever is greater, to satisfy degree program requirements. Exceeding six semester credit hours of unsatisfactory grades is grounds for dismissal for all degree-seeking and non-degree students. A course in which a student has received an unsatisfactory grade may be repeated, however, both grades will be used in computing the GPA. There is no forgiveness policy for any course taken while in graduate status.

## Graduate Program Faculty Members

Salvador Almagro-Moreno, PhD	Burnett School of Biomedical Sciences
Deborah Altomare, PhD	Burnett School of Biomedical Sciences
Claudia Andl, PhD	Burnett School of Biomedical Sciences
Jack Ballantyne, PhD	Chemistry
Shazia Beg, PhD	Internal Medicine at UCF Health
Ella Bossy-Wetzel, PhD	Burnett School of Biomedical Sciences
Elizabeth Brisbois, PhD	Materials Science & Engineering
Jonathan Caranto, PhD	Chemistry
Analia Castiglioni, PhD	Medical Education
Karl Chai, PhD	Burnett School of Biomedical Sciences
Debopam Chakrabarti, PhD	Burnett School of Biomedical Sciences
Ratna Chakrabarti, PhD	Burnett School of Biomedical Sciences
Bo Chen, PhD	Physics
Zixi (Jack) Cheng, PhD	Burnett School of Biomedical Sciences
Karin Chumbimuni-Torres, PhD	Chemistry
Melanie Coathup, PhD	Internal Medicine
Alexander Cole, PhD	Burnett School of Biomedical Sciences
Kaitlyn Crawford, PhD	Materials Science & Engineering
Victor Davidson, PhD	Burnett School of Biomedical Sciences
Nyla Dil, PhD	Medical Education
Steven Ebert, PhD	Burnett School of Biomedical Sciences
Cristina Fernandez-Valle, PhD	Burnett School of Biomedical Sciences
Stephen Florczyk, PhD	Engineering
Anna Forsman, PhD	Biology
Jane Gibson, PhD	Medical Education
Timothy Gilbertson, PhD	Burnett School of Biomedical Sciences
Xiufang Guo, PhD	Nanoscience
James Hickman, PhD	Nanoscience
Robert Hines, PhD	Internal Medicine
Qun Huo, PhD	Nanoscience
Mollie Jewett, PhD	Burnett School of Biomedical Sciences
Travis Jewett, PhD	Burnett School of Biomedical Sciences
Hyeran Kang, PhD	Nanoscience
Annette Khaled, PhD	Burnett School of Biomedical Sciences
Brian Kim, PhD	Electrical and Computer Engineering
Yoon-Seong Kim, PhD	Burnett School of Biomedical Sciences
Stephen King, PhD	Burnett School of Biomedical Sciences
Dmitry Kolpashchikov, PhD	Chemistry
Stephen Lambert, PhD	Medical Education
Woo Hyoung Lee, PhD	Engineering & Computer Science
Shawn Li, PhD	Burnett School of Biomedical Sciences
Hansen Mansy, PhD	Mechanical and Aerospace Engineering
Michal Masternak, PhD	Burnett School of Biomedical Sciences
Kai McKinstry, PhD	Burnett School of Biomedical Sciences
Sean Moore, PhD	Burnett School of Biomedical Sciences
Saleh Naser, PhD	Burnett School of Biomedical Sciences
Griffith Parks, PhD	Burnett School of Biomedical Sciences
Sampath Parthasarathy, PhD	Burnett School of Biomedical Sciences
Otto Phanstiel, PhD	Medical Education
Kamal Pourmoghadam, PhD	Arnold Palmer

<b>Kyle Rohde, PhD</b>	<b>Burnett School of Biomedical Sciences</b>
<b>Edward Ross, PhD</b>	<b>Internal Medicine</b>
<b>Herve Roy, PhD</b>	<b>Burnett School of Biomedical Sciences</b>
<b>Suha Saleh, PhD</b>	<b>COHPA</b>
<b>Swadeshmukul Santra, PhD</b>	<b>Nanoscience</b>
<b>William Self, PhD</b>	<b>Burnett School of Biomedical Sciences</b>
<b>Shadab Siddiqi, PhD</b>	<b>Burnett School of Biomedical Sciences</b>
<b>Dinender Singla, PhD</b>	<b>Burnett School of Biomedical Sciences</b>
<b>Julia Soulakova, PhD</b>	<b>Burnett School of Biomedical Sciences</b>
<b>Amber Southwell, PhD</b>	<b>Burnett School of Biomedical Sciences</b>
<b>Robert Steward, PhD</b>	<b>Engineering</b>
<b>Tara Strutt, PhD</b>	<b>Burnett School of Biomedical Sciences</b>
<b>Kiminobu Sugaya, PhD</b>	<b>Burnett School of Biomedical Sciences</b>
<b>Lindsay Taliagerro, PhD</b>	<b>Internal Medicine</b>
<b>Suren Tatulian, PhD</b>	<b>Physics</b>
<b>Ken Teter, PhD</b>	<b>Burnett School of Biomedical Sciences</b>
<b>Justine Tigno-Aranjuez, PhD</b>	<b>Burnett School of Biomedical Sciences</b>
<b>Laurence von Kalm, PhD</b>	<b>Biology</b>
<b>Bradley Willenberg, PhD</b>	<b>Internal Medicine</b>
<b>Xugang Xia, PhD</b>	<b>Burnett School of Biomedical Sciences</b>
<b>Shibu Yooseph, PhD</b>	<b>Computer Science</b>
<b>Yu Yuan, PhD</b>	<b>Chemistry</b>
<b>Antonis Zervos, PhD</b>	<b>Burnett School of Biomedical Sciences</b>
<b>Shaojie Zhang, PhD</b>	<b>Computer Science</b>
<b>Jihe Zhao, PhD</b>	<b>Burnett School of Biomedical Sciences</b>
<b>Hongxia Zhou, PhD</b>	<b>Burnett School of Biomedical Sciences</b>

**Participating Associate Program Faculty**

<b>Limei Chen, PhD</b>	<b>Burnett School of Biomedical Sciences</b>
<b>Amy Cole, PhD</b>	<b>Burnett School of Biomedical Sciences</b>
<b>Alicja Copik, PhD</b>	<b>Burnett School of Biomedical Sciences</b>

**Participating Courtesy Faculty**

<b>Kenneth Alexander, MD</b>	<b>Nemours</b>
<b>William Decampli, PhD</b>	<b>Orlando Health</b>
<b>Dennis Drehner, DO</b>	<b>Nemours</b>
<b>Terri Finkel, MD</b>	<b>Nemours</b>
<b>Muthu Periasamy, PhD</b>	<b>Burnham Institute</b>
<b>Peter Potrebko, PhD</b>	<b>Florida Hospital</b>
<b>Steven Smith, MD</b>	<b>Florida Hospital</b>
<b>William Warren, PhD</b>	<b>Sanofi- VaxDesign</b>

## **MS Graduate Committee**

**The Graduate Committee is composed of faculty members and a Graduate Coordinator:**

Dr. Saleh A. Naser: Chair  
Dr. Antonis Zervos  
Dr. Jihe Zhao  
Dr. Justine Tigno-Aranjuez  
Dr. Tara Strut  
Dr. Kimi Sugaya  
Dr. Mohtashem Samsam  
Dr. Shadab Siddiqi

**The Graduate Committee is responsible for the following programmatic affairs:**

- Review of applications and recommendation of admissions
- Review and recommendation of fellowships
- Review and recommendation on programmatic policies and procedures



## **BIOMEDICAL SCIENCES GRADUATE STUDENT ASSOCIATION**



BSGSA is a registered student organization at the University of Central Florida that serves as the official advocate and representative for graduate students in the Biomedical Sciences program. We provide a relaxing environment where graduate students can have fun while discussing relevant issues that directly impact our program. BSGSA also helps welcome incoming students and organizes meetings aimed to help students overcome the major milestones of the Masters and PhD programs. Recently BSGSA has been working closely with the Graduate Student Association and GSA Advisory Board to affect policy changes relating to graduate students as a whole.

*Parent Organization: Office of Student Involvement*

The goals of BSGSA include:

1. To provide a forum for discussion of issues relevant to graduate students within the Burnett School of Biomedical Science and others in the university community;
2. To organize, promote and conduct activities beneficial to Biomedical Sciences graduate students and enhance their graduate education at the University of Central Florida.

**Contact: [BSBSGSA@gmail.com](mailto:BSBSGSA@gmail.com)**

## **FACILITIES**

Faculty and staff in the School are located in four areas: The Biomedical Science and Health & Public Affairs Building on Main Campus; the Biomedical Research Annex in Research Park; and the Burnett Biomedical Sciences facility, adjacent to the College of Medicine at the Lake Nona Medical City Campus.



**Biomedical Sciences Building,  
Main Campus**



**Burnett Biomedical Sciences  
Building,  
Health Sciences Campus**



**Health & Public Affairs II  
Building, Main Campus**



**Biomedical Research Annex,  
Research Park**

### **Health Sciences Campus Shuttle**

UCF Shuttles travel between UCF's main campus and the Health Sciences Campus at Lake Nona Monday through Friday. For the latest schedule updates please visit the Parking Services website at <http://parking.ucf.edu/shuttles/health-sciences-schedule/>

## THE UCF CREED

Integrity, scholarship, community, creativity and excellence are the core values that guide our conduct, performance, and decisions. These values comprise the guiding principles that direct the actions of the university, and its students.

### **Integrity**

I will practice and defend academic and personal honesty.

### **Scholarship**

I will cherish and honor learning as a fundamental purpose of my membership in the UCF community.

### **Community**

I will promote an open and supportive campus environment by respecting the rights and contributions of every individual.

### **Creativity**

I will use my talents to enrich the human experience.

### **Excellence**

I will strive toward the highest standards of performance in any endeavor I undertake



**The Policies and Procedures of the Master of Science Program of the Department of Biomedical Sciences are subject to future changes approved by the program faculty, coordinator and director. These changes may take immediate effect as appropriate within the students' period of study.**