

UNIVERSITY OF CENTRAL FLORIDA

Graduate Program Handbook – 2024/2025

MS Biotechnology Program

Reference this handbook to learn about the unique policies, requirements, procedures, resources, and norms for graduate students in the MS Biotechnology Program.

February 2024 • Burnett School of Biomedical Sciences



Welcome to the Burnett School of Biomedical Sciences, Master of Science in Biotechnology 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.

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Program Coordinator Introduction & Welcome

Welcome to the Burnett School of Biomedical Sciences Master of Science in 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, teamwork, 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 Master of Science in 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!



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The MS Biotechnology Thesis program reserves the right to make any changes or amendments to the Program/Handbook information, rules, or policies within the students' period of study upon majority approval of the program faculty, director and coordinator.

Navigating Policy and Resources at the University of Central Florida

This handbook is one of many sources to consult as you become familiar with the policies, procedures, requirements, resources, and norms of graduate education at the University of Central Florida.



How to Use This Handbook

Together, the <u>Graduate Student Handbook</u> and your **MS Biotechnology 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 handbooks are wonderful resources, 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 standardsof academic and personal integrity.

Who to Contact for Questions

Many of your questions about how to meet expectations and thrive as a graduate student will be answered by the various sources of policies, procedures, requirements, resources, and norms listed in this document. Several key positions in this department listed in the handbook and on campus are ready to answer your remaining questions. The BSBS Graduate Program Associate Director, Dr. Saleh Naser will serve as your point of contact to answer specific program policy questions that may extend beyond the information posted in the handbook.

Graduate Program Staff

Our Graduate Program Office will assist graduate students with general program questions and will likely be your first stop for questions and answers related to anything in this handbook. The Program Office will also assist graduate students with course registration, organizing seminars, symposiums, thesis defenses, and tracking student achievements throughout their time in the program(s). Moreover, the Program Office is also a critical link of communication between the students and the program directors and coordinators, keeping all parties up to date on the latest protocols and information for the department. Graduate students may email questions to BSBSGradInformation@ucf.edu.

Program Director

Each graduate program has designated faculty member(s) to direct its educational vision and structure. Names and contact information of your Graduate Program Director and Program Coordinators can be found on your program's webpage at https://med.ucf.edu/biomed/graduate-program.

Graduate School Services

For general graduate inquiries and graduate student services from the Graduate School, please review the <u>College of Graduate Studies</u> website as an additional resource.

Onboarding

Burnett School of Biomedical Sciences Program Orientation

All new graduate students are required to attend our New Graduate Student Orientation, which is held one week before Fall classes begin. Graduate students will meet with program leaders who will give an overview of the program choreography, guidelines, and expectations for the BSBS graduate program. New graduate students will also attend our Welcome Colloquium, financial/contract information session and complete all program orientation requirements including lab & safety and animal safety training.

Introduction/Overview Section

Degree

Master of Science in Biotechnology

College

College of Medicine

Department

Biomedical Sciences

Program Type

MS Biotechnology Program

Program Website

https://med.ucf.edu/biomed/graduate-programs/ms-biotechnology/

Year of Program Inception

2008

Program Overview Narrative

Introduction

Mission Statement and Overview

The MS Biotechnology 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 Program is enriched with graduate faculty with diverse investigative biomedical research interest and highly qualified students who are pursuing top education and cutting-edge discoveries.

Visit: https://med.ucf.edu/biomed/graduate-programs/ms-biotechnology/

The Graduate Faculty includes over 100 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. Visit: <u>https://med.ucf.edu/biomed/graduate-programs/graduate-faculty/</u>.

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.

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

MS Biotechnology Degree

MS Biotechnology students will graduate with a Master of Science in Biotechnology Degree.

MS Biotechnology Program 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 online 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 work from another student who is currently taking the same course or previously took the same 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 program director. **Ignorance of what constitutes misconduct is not an excuse.**

Required - All first-year graduate students are required to sign the Burnett School of Biomedical Sciences Academic Integrity Program form and FERPA waiver form before the 1st day of Fall classes. This form addresses academic integrity and the consequences to students for academic misconduct.

Required Training for Academic Honesty and Responsible Research Conduct

Academic Integrity / CITI Training

Note: You must complete this requirement by the end of Spring (1st year).

Responsible Conduct of Research/CITI Training

All MS Biotechnology students must complete training designed to inculcate an awareness and understanding of the fundamental issues of academic integrity, and the responsible conduct of research (RCR) in a manner that is consistent with federal regulations.

This required training includes:

(1) the online Collaborative Institutional Training Initiative (CITI) "Responsible Conduct of Research" training module in the appropriate disciplinary area; and

(2) Two Ethics Academic Integrity workshops coordinated by the College of Graduate Studies. One "Core" Academic Integrity workshops and one other CORE or ELECTIVE workshop for a total of 2 workshops required.

CORE and ELECTIVE workshops are offered every Fall and Spring semester. There will be a limited offering of sessions during the summer semesters. The ethics/responsible conduct of research (RCR) workshops are provided at no cost and are open to all UCF graduate students and postdoctoral associates.

CITI - Responsible Conduct of Research (RCR) Training

All students must complete the Collaborative Institutional Training Initiative (CITI) Program

- Creating Your CITI Account Go to <u>citiprogram.org</u>
- Follow the instructions on the CITI Main Menu to create a user account for yourself, giving special attention to these fields
- Select "University of Central Florida" as your institution
- For your name, enter the same First Name and Last Name that displays in your myUCF Student Center (<u>my.ucf.edu</u>)
- On the second registration page, provide the information requested by UCF, giving special attention to these fields
- Institutional email address Enter your Knights email address, which is your official UCF student email address
- UCF Employee Number Enter your UCF ID, example: a1234567)
- On the Select Curriculum page, scroll down to **Question 3**, **Responsible Conduct of Research (RCR)**, and select the course in the appropriate disciplinary area for you. *Please note that your mentor may require you to complete several courses.*
- On the next registration page, you may also affiliate yourself with another institution, if you wish. Otherwise, select No.
- You have now completed CITI registration.
- To access the course, go to the **My Courses section of the CITI Main Menu** and you should see the Responsible Conduct of Research course.
- To start the course, click the red Enter link in the Status column.
- Program Note: You are required to submit a copy of your RCR Completion Certificate to our Program Office at <u>BSBSGradForms@ucf.edu</u>.
 We will submit your certificate to the Graduate Office on your behalf to have this requirement updated on your degree audit. *Please do <u>not</u> send your certificate to* gradworkshops@ucf.edu.

If you completed your CITI RCR training at another institution recently, you must have your CITI account affiliated with UCF before submitting your training completion certificate by contacting the UCF Office of Research at <u>rcr-ucf@ucf.edu</u>.

Visit <u>https://graduate.ucf.edu/pathways-to-success/</u> or <u>www.citiprogram.org</u> to learn more.

UCF Golden Rule

The University of Central Florida is a community brought together by the tenets of the UCF Creed: Integrity, Scholarship, Community, Creativity, and Excellence. These are the values that guide our conduct, performance, and decisions. To be successful at UCF, there is an expectation that we embrace and promote these core values in everything we do as a sign of our membership in the UCF community.

Whether you are a new or continuing undergraduate, graduate or professional student at UCF, there are certain responsibilities that students must uphold as members of our community. The <u>Golden Rule Student Handbook</u> is a compilation of policies and procedures from different university areas intended to define the rights and responsibilities afforded to students and provide a better understanding of each student's role as a member of the UCF community. For more information or further clarification, please contact OSRR at 407-823-4638, visit their website, <u>http://osrr.sdes.ucf.edu</u> for the most current version of The Golden Rule or email them at <u>osrr@ucf.edu</u>.

Graduate Student Guide to Success

Plagiarism

Plagiarism Training Module

The UCF Plagiarism Training Module is required for all new/incoming students. Students will be automatically enrolled in this Webcourse.

All new graduate students will receive a request to complete the College of Graduate Studies webcourse: "Pressures to Plagiarize. Graduate students must complete the entire module and earn a score of 80% or higher on the quiz to avoid a registration hold. If not completed by the stated deadline, a hold that prevents future registration will be placed on the student's myUCF account.

Plagiarism is the act of taking someone else's work and presenting it as your own. Any ideas, data, text, media or materials taken from another source (either written or verbal) must be fully acknowledged. a) A student must not adopt or reproduce ideas, opinions, theories, formulas, graphics, or pictures of another person without acknowledgment. b) A student must give credit to the originality of others whenever:

- 1. Directly quoting another person's actual words, whether oral or written;
- 2. Using another person's ideas, opinions, or theories;
- 3. Paraphrasing the words, ideas, opinions, or theories of others, whether oral or written;
- 4. Borrowing facts, statistics, or illustrative material; or
- 5. Offering materials assembled or collected by others in the form of projects or collections without acknowledgment.

When using the ideas, opinions, theories, formulas, graphics, or pictures of another, students must give credit to the original source at the location or place in the document where that source's material is found as well as provide bibliographic information at the end of the document. When students are verbally discussing the ideas, opinions, theories, formulas, graphics, or pictures of another, they must give credit to the original source at the time they speak about that source. In this manner, students must make clear (so there is no doubt) within their written or verbal materials, which parts are gained from other sources, and which are their own original ideas, theories, formulas, graphics, and pictures.

The Office of Student Conduct has a set of criteria that determines if students are in violation of plagiarism. This set of criteria may be set to a higher standard in graduate programs. Therefore, a student may not be found in violation of plagiarism by the Office of Student Conduct, but a professor or program requiring higher standards of attribution and citation may find a student in violation of plagiarism and administer program level sanctions. The standard in doctoral programs should be the highest as students earning these degrees are expected to be experts in their fields and producing independent work that contributes knowledge to their discipline.

Example of Material that has been appropriately cited:

Paraphrased Material

Source: Osborne, Richard, ed. How to Grow Annuals. 2nd ed. Menlo Park: Lane, 1974. Print. Page 24: As a recent authority has pointed out, for a dependable long-blooming swatch of soft blue in your garden, ageratum is a fine choice. From early summer until frost, ageratum is continuously covered with clustered heads of fine, silky, fringed flowers in dusty shades of lavender-blue, lavender-pink or white. The popular dwarf varieties grow in mounds six to twelve inches high and twelve inches across; they make fine container plants. Larger types grow up to three feet tall. Ageratum makes an excellent edging.

Use and Adaptation of the Material:

You can depend on ageratum if you want some soft blue in your garden. It blooms through the summer and the flowers, soft, small, and fringed, come in various shades of lavender. The small varieties which grow in mounds are very popular, especially when planted in containers. There are also larger varieties. Ageratum is good as a border plant (Osborne 24).

Explanation:

The writer has done a good job of paraphrasing what could be considered common knowledge (available in a number of sources), but because the structure and progression of detail is someone else's, the writer has acknowledged the source. This the writer can do at the end of the paragraph since he or she has not used the author's words.

The above example was provided by Northwestern University.

Northwestern University, Sept. 2016. <u>"Academic Integrity: A Basic Guide."</u> Accessed 20 September 2017.

Visit the College of Graduate Studies website to learn more.

HIPAA Training Module

Required every year - Each year BSBS Graduate Students are required to complete the COM Annual HIPAA Training (Health Insurance Portability and Accountability Act) in maintaining the privacy and confidentiality of protected health information. This training will take approximately 30 minutes to complete and at the end of the module, you will be prompted to complete a quiz. A score of 80% or higher is required in order to successfully pass and complete the training.

MS Biotechnology Graduate 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 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 and may be subjected to dismissal from the program. All official communications regarding probation must include the Biomedical Sciences Program Associate Director and the Associate Dean of Graduate Studies.

MS Biotechnology Graduate 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.

Dismissal of the student may occur for the following:

- Any student who receives **two consecutive "U" grades**, will automatically be dismissed from the program.
- Any student found guilty of **research or academic misconduct** will be immediately dismissed from the program.
- If the student fails to maintain the standards of academic and professional integrity, meet or exceed the professional competencies of the discipline, or maintain the competence necessary for the welfare of faculty, fellow students, staff, patients, clients, or others encountered in internships, externships, or other classes required by the degree program.
- A student may be immediately terminated from a clinical assignment and/or <u>graduate</u> <u>program</u> when, in the professional judgment of a qualified clinician, faculty supervisor or instructor of record, client/patient welfare could be at risk.
- Student misconduct associated with research or misconduct in laboratory assignments may result in immediate termination from the assignment and/or the graduate program when the misconduct places clients, researchers, subjects or the university at risk.

MS Biotechnology Graduate 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 thesis 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 thesis committee member and not the mentor. If sought by the student, this meeting should also include the MS Biotechnology coordinator. The MS Biotechnology program director and all coordinators should also be informed of the meeting and have the right to attend to help resolve the issue(s). Visit the <u>Academic Grievance</u> section in the UCF Graduate Catalog General Graduate Policies.

Research Divisions

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.

Our collaborative approach harnesses expertise in cutting edge sciences to bring us closer to finding a cure for cancers that cause human mortality — like the metastatic forms of breast and prostate cancer — and the rapidly progressing types of pancreatic, lung, ovarian and head and neck cancers. https://med.ucf.edu/biomed/burnett-school-of-biomedical-sciences-research/divisions/cancer-research/

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 (*Mycobacterium tuberculosis*, non-tuberculous mycobacteria, influenza, parainfluenza, respiratory syncytial virus, and asthma)
- Sexually transmitted diseases (Chlamydia trachomatis, human papilloma virus and Zika virus)
- Vector-borne diseases (Lyme disease and emerging vector borne viruses)
- Inflammatory diseases (Inflammatory bowel disease, peritonitis, autoimmune arthritis, and hypersensitivity)

https://med.ucf.edu/biomed/burnett-school-of-biomedical-sciences-research/divisions/immunity-and-pathogenesis/

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, evolution of bacterial pathogens, genomic epidemiology, enteric diseases, toxins, and diagnostics. Student training anddevelopment are integral components of faculty research.

https://med.ucf.edu/biomed/burnett-school-of-biomedical-sciences-research/divisions/molecularmicrobiology/

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. Ultimately, we seek to bring translational research into the clinical environment to serve our community, working from bench to bedside.

Faculty members have made significant contributions in the fields of myocardial infarction, atherosclerosis, lipid metabolism and lipoproteins, diabetes, inflammation in atherosclerosis, aging, mitochondrial roles in disease pathogenesis, energy metabolism, oxidative stress, stem cells, and genetic disease models in aging.

We are employing cutting-edge technologies such as single-cell sequencing, genetically-engineered human cell and mouse models and 3D/4D bio-printing to investigate underlying causes of metabolic and cardiovascular diseases.

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
- Cardiovascular epidemiology and public health

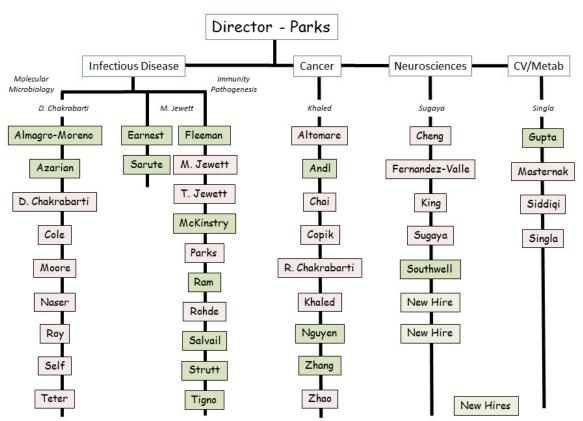
https://med.ucf.edu/biomed/burnett-school-of-biomedical-sciences-research/divisions/cardiovascular/

Division of Neuroscience

The mission of the Neuroscience Division is to discover cellular and molecular mechanisms that govern function of the nervous system. This knowledge is then applied to expand understanding of how neurological disorders arise and may be treated. The division's researchers are conducting cutting-edge research on:

- Neurodegenerative diseases (Amyotrophic lateral sclerosis (ALS), Huntington's, Parkinson's andAlzheimer's Diseases)
- Cerebrovascular diseases (Stroke and cerebral ischemia)
- Traumatic brain injury and chronic traumatic encephalopathy (CTE) caused by concussion
- Axonal transportation dysfunctions (Charcot-Marie-Tooth disease (CMT), Perry syndrome, distal spinaland bulbar muscular atrophy)
- Sleep apnea
- Diabetes and aging-induced cardiac neuropathy
- Brain cancer such as glioblastoma multiforme (GBM) and neuroblastoma
- Optic nerve damage
- Neurofibromatosis Type 2 and schwannomatosis
- Cancers of the head and neck including oral cancer
- Regenerative medicine and stem cell therapies & Induced pluripotent stem (iPS) cells
- Brain machine interface

Faculty work in a collaborative environment together with partners within UCF and in the community to translate this knowledge into new therapies for neurological disorders. Faculty collaborate with UCF researchers in Mechanical Engineering and the Prosthetic Interface Initiative, Nanoscience Technology Center, College of Optics and Photonics, and Psychology. Working together with scientists and physicians from the Veterans Affairs Medical Center, Nemours Children's Hospital, Sanford Burnham Prebys Medical Discovery Institute, and Florida Hospital's Translational Research Institute enrich the clinical and translational research environment in the Neuroscience Division.<u>https://med.ucf.edu/biomed/burnett-school-of-biomedical-sciences-research/divisions/neuroscience/</u>



Burnett School of Biomedical Sciences

Student Learning Outcomes/Expectations

Student Expectations

Before day one of first year, all the students must sign the Burnett School of Biomedical Sciences Academic Integrity Program form and FERPA waiver form, followed by the required training that addresses academic integrity, research ethics, professional conduct and the consequences to students for academic misconduct.

- <u>First year students</u> must demonstrate satisfactory progress during a three week "handson" laboratory rotation experience and must select a mentor and obtain a position in a lab at the end of the rotation period.
- First Year students must select a thesis committee by the beginning of the Spring semester first year.
- If a first-year student has already joined a research laboratory and is not rotating, the student is required to achieve a "satisfactory" annual review evaluation.
- <u>First year and second year students</u> must develop problem-solving abilities and use critical thinking in the lab and classroom setting, must master knowledge in specific topic areas of biotechnology and division-based fields by achieving at least a passing performance on the core course topics including biochemical principles, metabolism, nucleic acid structure and function, and gene regulation as well as division-specific course topics.
- Students must demonstrate sustained overall progress in program academic excellence consistent with academic requirements to prevent probationary status.
- The students must demonstrate effective oral presentation skills in a classroom setting by performing at a "satisfactory" level in the seminar course MCB 6314 based on a peer evaluation of an oral presentation of current research publication, class attendance and classroom participation.
- The students must receive a "Pass" evaluation from their thesis committee on the written and oral presentation of the thesis proposal by the end of the summer semester, first year. A one-page document outlining the hypothesis and specific aims for their thesis project must be submitted to the program office.
- To graduate with the master's in biotechnology degree, the students must successfully
 defend their thesis work by writing it and orally presenting it to the audience including both
 the general public and the thesis advisory committee as judged by their performance on
 presenting their research work, fielding questions from the audience and displaying their
 thorough knowledge of the subject matter.

Student Learning Outcomes/Competencies

- <u>First and second year MS Biotechnology students</u> will acquire advanced knowledge in biotechnology in division-based fields.
- Students who maintain good academic standing in the program will demonstrate proficient oral and written skills and the capacity to develop an independent research program.
- <u>Second year and Third year students who maintain satisfactory progress in the program</u> will demonstrate the ability to execute an independent research project and will have obtained professional employment in research or industry or receive an offer to a PhD program, at the time of their thesis defense or shortly thereafter.

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.

Program Professional Conduct/Ethics Statement

Expectations for Professional Conduct

Students are expected to adhere to the rules and regulations as stipulated by the University of Central Florida and the MS Biotechnology Program handbook. Professionalism encompasses behaviors and qualities that are expected of graduate both in the academic setting and laboratory setting. University of Central Florida MS Biotechnology degrees begin at the time of program application; therefore, professional conduct is assessed from that point forward.

Attendance, timeliness, and attire are all reflections of professionalism. In the assessment of professionalism, instructors and program administrators will consider each student's conduct; the quality of interactions; tone of oral and written communication; language; meaningful engagement in all aspects of the program; and substantive contribution to class discussions. Students who are in violation of these behaviors will be counseled and reminded of UCF expectations. In such events, the faculty or program administrators may conclude that the student is not able or willing to demonstrate an acceptable standard of professionalism. Repeated disregard or violation of these behaviors will lead to dismissal from the program. Some of the criteria by which a student's professional demeanor is measured are below.

- <u>Civility:</u> Students are expected to behave in a respectful and courteous manner to instructors, fellow students, guest speakers, college and university administrators, and UCF Staff. Examples of respectful behavior include but are not limited to modulated tone of voice; professional language that avoids inappropriate, vulgar, or foul expressions; maintaining control of emotions and avoiding threatening or bullying behaviors; respect for others' personal space; respect for BSBS property and UCF property; refraining from distracting and disruptive behaviors while on UCF campus, laboratories, hallways and in classrooms; and a generally civil demeanor.
- <u>Attendance</u>: It is required for students to attend each lecture and comply with the instructor's attendance policy as stated in the course syllabus.
- <u>Timeliness</u>: Students are expected to regularly arrive in class on time and to comply with each instructor's tardiness policy as stated in the course syllabus.
- <u>Use of Technology:</u> The use of computers, cell phones, or electronic devices during class that are unrelated to course activities or not permitted by instructors (i.e., web searches, IMs, etc.) is considered unprofessional.
- <u>Use of Electronic Media:</u> As per Florida Law (§ 934.03) it is illegal to audio or video record any interaction with another individual without their explicit consent. This includes lectures, meetings with instructors, meetings with fellow students, or any situation involving UCF staff or other personnel.
- <u>Appropriate Attire</u>: If working in a laboratory, students are required to wear the necessary
 personal protective equipment (PPE), included but not limited to laboratory coats, closed-toed
 shoes, gloves, safety glasses etc. Additionally, in accordance with UCF's Environmental
 Health & Safety Laboratory Safety Manual, PPE should be removed before leaving the work
 area. This includes removing safety glasses, gloves, lab coats, etc.

 <u>Guest Speakers / Presentations:</u> The Program often invites guest speakers to give presentations at seminars, and in the classroom. Students in the program must demonstrate professional conduct, respect, and appreciation for these professionals' donation of their time to enrich students' educational experiences. Students are expected to arrive to class on time and be attentive as a sign of appreciation for their time.

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

Every semester IDS 6513, a voluntary face-to-face course on teaching at the college level that is open to all UCF Graduate Students. This course can serve as a replacement to the GTA Training if completed the semester prior to your appointment. GTAs in the Preparing Tomorrow's Faculty (PTF) course meet weekly and engage in a learning community facilitated by Faculty Center staff. Texts will be provided, and the course is free to all graduate students who are registered in at least one credit hour of coursework at UCF. By the end of the semester, you will have assembled a first draft of your teaching portfolio. Email: <u>fctl@ucf.edu</u> for additional information.

Pathways to Success Workshops

Coordinated by the College of Graduate Studies, the <u>Pathways to Success</u> program offers free development opportunities for graduate students including workshops in academic integrity, graduate grantsmanship, graduate teaching, personal development, professional development, and research. Students are encouraged to use the Pathways to Success portal to register for workshops, cancel their attendance, or download a Training Summary. The Pathways to Success portal is located in <u>myUCF</u> **Student Center** under **Graduate Students** then **Pathways to Success**. Visit the <u>Pathways to Success</u> Workshop Registration Instructions for additional details.

Graduate Research Forum/Student Scholar Symposium

In 2021 the **Student Scholar Symposium** was created to combine two signature events, the **Graduate Research Forum** and the Showcase of Undergraduate Research Excellence. The Symposium is held during <u>Student Research Week</u> and features poster sessions representing UCF's diverse colleges and disciplines. The Student Scholar Symposium 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. Student Scholar Symposium applicant criteria is available on the Eligibility page. For more information, contact researchweek@ucf.edu.

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.

Award for Excellence by a Graduate Teaching Assistant

The Award for Graduate Teaching Assistant recognizes excellence by graduate teaching assistants (GTAs) who are not instructors of record, but 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. Excellence in serving as a GTA may be demonstrated by evidence such as (but not limited to): lead teacher evaluations, student letters attesting to teaching excellence (limited to no more than five pages), a typical lab syllabus, a sample project/assignment for which the GTA was responsible for grading. For the nomination process and eligibility criteria, see the College of Graduate Studies website graduate.ucf.edu/awards-and-recognition/.

Award for Excellence in Graduate Student Teaching

The Award for Graduate Student Teaching recognizes excellence in teaching by graduate teaching assistants who serve as instructors of record and have independent classroom responsibilities. The focus of this award is on the quality of the student's teaching and the academic contributions of those activities. Excellence in teaching may be demonstrated by evidence such as (but not limited to): awards or honors received in recognition of teaching excellence, outstanding evaluations of teaching, presentations or publications related to teaching, comments and/or evaluations from students or faculty regarding the outstanding nature of the student's teaching. For the nomination process and eligibility criteria, see the College of Graduate Studies website graduate.ucf.edu/awards-and-recognition/.

MS Biotechnology Program Leaders

The MS Biotechnology Program Director, the Associate Director/Coordinator, the Faculty and Staff are all available to help you succeed in the program.

- Dr. Griffith Parks Associate Dean, Research, Director of the Burnett School of Biomedical Sciences Graduate Program (<u>Griffith.Parks@ucf.edu</u>)
- Dr. Saleh Naser Associate Director and Program Coordinator Main Campus (<u>Saleh.Naser@ucf.edu</u>)
- Program Office (<u>BSBSGradInfo@ucf.edu</u>)

Degree Requirements

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.

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 19-20 credit hours minimum of required courses, 4-5 credits of restricted electives, and 6 credit hours of thesis research. This program is designed to give students broad knowledge and training in the scientific and practical aspects of biotechnology.

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.

Total credit hours required: 30 credit hours minimum beyond the bachelor's degree.

Required Courses

19 - 20 Total Credits

- Complete all of the following.
 - Core Complete the following.
 - Complete at least 1 of the following:
 - MCB5722C Methods in Biotechnology (4)
 - <u>BSC6407C</u> Laboratory Methods in Molecular Biology (3) For students who have already taken MCB 5722C.

Complete the following courses:

- BSC6432 Biomedical Sciences I (5)
- <u>BSC6431</u> Practice of Biomedical Sciences (3)

Must complete two of the following courses (6 Credit Hours):

- <u>PCB5815</u> Molecular Aspects of Obesity, Diabetes and Metabolism (3)
- <u>PCB5837</u> Cellular and Molecular Neuroscience (3)
- PCB5236 Cancer Biology (3)
- MCB 6273 Advanced Topics in Infectious Processes: Host-Pathogen Interactions (3)
- <u>GMS 6860</u> Statistics for Biomedical Scientists (3)

Must complete one of the following courses:

- <u>PCB5527</u> Genetic Engineering and Biotechnology (3)
- <u>BSC5418</u> Tissue Engineering (3)
- <u>MCB6417C</u> Microbial Metabolism (3)

<u>PCB5025</u> - Molecular and Cellular Pharmacology (3)

Graduate Seminars

Earn at least 2 credits from the following types of courses:

Students will participate in at least two graduate seminar courses that will prepare them for making professional presentations with an emphasis in biotechnology. The courses will involve the participation of speakers from the biotechnology industry with emphasis on an industrial perspective on biotechnology applications and product development.

<u>MCB 6314</u> - Industrial Perspectives Seminar 1 Credit Hours OR <u>MCB 6938</u> 1 Credit Hour (1 semester only)

Elective Courses

4 – 5 Total Credits

- Complete 4-5 credits of the following
 - Complete at least 1 of the following:
 - BSC5418 Tissue Engineering (3)
 - BSC5436 Biomedical Informatics: Structure Analysis (3)
 - <u>BSC6407C</u> Laboratory Methods in Molecular Biology (3)
 - <u>IDS5127</u> Foundation of Bio-Imaging Science (3)
 - MCB5205 Infectious Processes (3)
 - MCB5208 Cellular Microbiology: Host-Pathogen Interactions (3)
 - <u>MCB5209</u> Microbial Stress Response (3)
 - MCB5225 Molecular Biology of Disease (3)
 - MCB5415 Cellular Metabolism (3)
 - <u>MCB5505</u> Molecular Virology (3)
 - MCB5722C Methods in Biotechnology (4)
 - MCB6226 Molecular Diagnostics (3)
 - <u>MCB6417C</u> Microbial Metabolism (3)
 - <u>PCB5527</u> Genetic Engineering and Biotechnology (3)
 - <u>PCB5025</u> Molecular and Cellular Pharmacology (3)
 - <u>PCB5236</u> Cancer Biology (3)
 - <u>PCB5238</u> Immunobiology (3)
 - <u>PCB5596</u> Biomedical Informatics: Sequence Analysis (3)
 - <u>PCB5709C</u> Laboratory Virtual Simulations in Physiology (3)
 - <u>PCB5834C</u> Advanced Human Physiology (4)
 - <u>PCB6528</u> Plant Molecular Biology (3)
 - <u>PCB6595</u> Regulation of Gene Expression (3)
 - <u>PCB5838</u> Cellular and Molecular Basis of Brain Functions (3)
 - <u>PCB5265</u> Stem Cell Biology (3)
 - <u>PCB5815</u> Molecular Aspects of Obesity, Diabetes and Metabolism (3)

- <u>ZOO5745C</u> Neuroanatomical Pathways and their Neurotransmitters (4)
- <u>ZOO5745C</u> Neuroanatomical Pathways and their Neurotransmitters (4)
- <u>GEB5516</u> Technological Entrepreneurship (3)
- MCB 6908 Independent Study (3) Syllabus and Report required.
- Others must be approved by the mentor and the program coordinator.

Thesis 6 Total Credits

• Earn at least 6 credits from the following types of courses:

MCB 6971 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 0 Total Credits
- Comprehensive Examination 0 Total Credits

Independent Learning

OTotal Credits

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

Grand Total Credits: 30 - 32

Description of Core Courses

• BSC 6432 Biomedical Sciences I (5 Credit Hours)

First semester of a multi-disciplinary course. Topics discussed include genome biology and gene expression, cell structure and function, and other key fundamental biological processes. This course is based on seminal works and the current scientific literature in the context of biomedical applications.

• <u>GMS 6860</u> Statistics for Biomedical Scientists (3 Credit Hours)

An introductory course tailored to the interests of biomedical scientists and the course will answer questions like how to calculate the odds of catching the flu? When does a Binomial model make sense? We will also learn how to correctly test scientific claims and make inferences. This knowledge is the foundation for sound scientific reasoning and data analysis.

• <u>MCB5722C</u> - Methods in Biotechnology (4)

A laboratory course that will train graduate students in fluorescence and luminescencebased assays used in biopharmaceutical industry for target validation.

- <u>BSC6407C</u> Laboratory Methods in Molecular Biology (3) Description and practice of commonly used methods in molecular biology.
- <u>BSC6431</u> The Practice of Biomedical Sciences (3 Credit Hours) Introduces both MS and PhD students to aspects of the practice of biomedical sciences that are relevant to careers in biomedical research such as manuscript writing, grant writing, peer review and ethics in research and publication.
- <u>PCB 5815</u> Molecular Aspects of Obesity, Diabetes and Metabolism (3 Credit Hours) Biochemical, molecular and physiological aspects of obesity, diabetes and metabolic diseases and how scientific findings can be translated towards prevention and treatment.
- <u>PCB5837</u> Cellular and Molecular Neuroscience (3 Credit Hours) Designed to provide graduate students the concepts required to understand the physiological basis of brain functions at the molecular, cellular and system levels.
- <u>PCB 5236</u> Cancer Biology (3 Credit Hours) Current knowledge and research on molecular mechanism of tumor development, tumor progression, metastasis and therapy of cancer.
- <u>MCB 6273</u> Advanced Topics in Infectious Processes: Host-Pathogen Interactions (3 Credit Hours) Examination of the molecular details of host-pathogen interactions. Key areas of cell biology will be considered in relation to microbial pathogenesis.

<u>MCB 6314 & MCB 6938</u> Seminar Biotechnology and Biomolecular research seminars

Sample Plan of Study/Completion Timeline

Suggested Timeline for Completion

<u>Year 1:</u>

Fall Semester:

- Core Course: Structure and Function of Biomedical Sciences (BSC 6432) 5 cr
- Methods in Biotechnology (MCB 5722C) 4 cr or * Lab Methods BSC 6407C (3cr) for students who have already taken MCB 5722C.
 Mentor Selection: 9 credit hours Transfer Credit Review

Spring Semester:

- Select 2 Division Core Courses from the list below (6 cr)
 - > PCB5815, PCB5837, PCB5236, MCB6273, GMS 6860
- Seminar Course (1 cr)
- Directed Research (2 cr) Description of Assignments and Expectations (to be completed by the faculty mentor
 Committee Selection- Beginning of Spring: 9 credit hours

Summer Semester:

- Seminar Course (MCB 6314) 1 cr Must be taken by all
- Elective (3 cr) or
- Directed Research or Independent Study (5 cr)

Thesis Proposal/Comprehensive Examination: 6 credit hours

<u>Year 2:</u>

Fall Semester:

- Practice in Biomedical Sciences (BSC 6431) 3cr
- Required Selection (3)
 - PCB5527, BSC5418, MCB6417C, PCB5025
- Thesis MCB 6971 (3 cr) 9 credit hours

Spring Semester:

• Thesis Research MCB 6971 until graduation 3 credit hours

Summer Semester:

• Thesis Research MCB 6971 until graduation 3 credit hours

*Students approved to select BSC 6407C must meet with the program during the 1st Fall semester to create a program plan.

Note: The faculty mentor will provide guidance on graduate student course selections and timeline.

Key Programmatic Deadlines

Selection of a Mentor:

Submit your Rotation form by August 28th Selection of mentor after second rotation

Transfer Credits:

By the end of the Fall semester, 1st year

Selection of Thesis Advisory Committee:

By the beginning of Spring 1st Year

Program of Study Plan: By the beginning of the Spring Semester, 1st Year

Committee Meeting Thesis Proposal Defense/Comprehensive Exam:

The thesis proposal defense and the comprehensive exam requirement should be completed by the official end of Summer C, 1st Year.

CITI & Academic Integrity Workshops:

By the end of Spring Semester 1st year

IRB Form By the end of Summer Semester 1st year

Annual Thesis Meeting:

By the end of Summer Semester 2nd year.

Pre-Defense

The student will present their thesis work at a pre-defense meeting with the full thesis committee at least one semester prior to defending.

Defense

All pre-defense and MS Biotechnology program requirements must be met.

Selecting Your Thesis Advisor

Advising/Mentoring

Your advisor has two main roles: **1)** To assist you in acquiring the highest possible level of knowledge and competence in the field, and **2)** to chair the committee that will determine whether you have performed at an acceptable level in each of your degree milestones. Other roles of your advisor may include tracking your progress in completing your degree, assisting with course selection and planning your academic path, and helping you identify possible research mentors, committee members, and research opportunities.

Both the student and advisor are responsible for making their expectations clear to each other. Be sure to discuss this with your advisor.

Finding and Selecting an Advisor

Thesis 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. Please review process below:

- First year students are required to complete two rotations before selecting a thesis mentor.
- Students are expected to have an in-depth discussion with at least three faculty members before choosing a laboratory for thesis research.
- Each rotation is 3 weeks long and both rotations should be concluded by the stated deadline.
- Students must submit their signed mentor selection form electronically to the Program Office.

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

Students should meet with faculty of their interest for further discussion about research to help them select their lab rotations. Students are required to identify their thesis mentor as soon as possible after completing the second rotation.

If no suitable lab can be found at the end of the second rotation, the student may be dismissed from the program. Program approval is required for an additional rotation, if necessary.

- > **1st Rotation** September 3 through Friday, September 20
- > 2nd Rotation September 23 through Friday, October 11
- If necessary, 3rd Rotation September 14th November 1st

Submit your rotation form to the program by August 2.

Note: No faculty member is obligated to accept a student's request to serve as advisor, though invitations are often accepted unless the faculty member judges that a different advisor would serve your needs better.

Exemptions from laboratory rotations (Direct admit to the lab)

The program may grant exemptions from laboratory rotations if the student had already worked for a minimum of one year in the laboratory of one of the program faculty prior to the start of the graduate study, or in cases where a student is coming to the program to join a specific research lab.

If approved, the mentor will immediately assume full financial responsibility for the student unless the student has not fulfilled the GTA requirement. The program will then provide GTA support for one year.

Possible discussion and questions to Ask of Prospective Advisors

You should first spend some time identifying what is most important to you in your graduate training and ask questions accordingly. Below are some questions to consider asking your prospective advisor in this discussion, though it is not a complete list.

- Ask about the mentor's philosophy of mentoring and the level of interaction you will have with the mentor. Inquire about the expectation of rotation students and projects you could possibly be working on.
- What are the expectations or requirements a student must spend each day/week in your group/lab?
- Find out the mentor's record of graduating students/time to graduate. You may inquire about the mentor and lab's publication record/quality of the publication journals.
- What projects would be available to me if I were to join your group and how long do you think it should take me to get my degree?
- What is your philosophy regarding the amount of guidance the advisor should provide to a student during preparation of the thesis proposal, literature seminars, thesis writing, etc.? Also, how available will the advisor be to answer questions you might have?
- What regularly scheduled activities (e.g., group meetings, joint group meetings, research clubs) does your group participate in that provide an opportunity to get outside input on my research project and to hear about the work of other students and postdocs?
- Do you encourage your students to attend seminars and journal clubs, including those that may be outside of their narrow field of interest/research?
- Are students in your group/lab given the opportunity to attend professional meetings where they can interact with colleagues/researchers from other institutions?
- It is important that you ask about funding availability for the lab
- Ask about the whereabouts of the mentor's past trainees including students and postdocs and the reasons why if any student failed to graduate from the lab.
- What is your general philosophy of graduate training and what goals do you have for your graduate students?
- Does the mentor support your career goal(s)?

Lab Visit/Lab Rotation

- Ask for permission to visit the lab and observe the culture of the lab while visiting or during rotation. Consider lab space, lab resources
- Survey students, postdocs in the perspective lab and others who have rotated through the lab about their experiences. Ask if students in the lab are encouraged to 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.

Written lab rotation evaluations

During rotations faculty will be evaluating your attendance, level of commitment, your laboratory skills, intellectual curiosity, communication skills, achievements, and areas in which you can improve. Written rotation evaluations (signed form or official e-mail notification from PI) must be submitted to the program coordinator by the PI for each student. The evaluations will be graded S/U.

If the student receives a "U" for a rotation, the PI should briefly indicate the reasons in writing. This information should be made available to the student and should also be accessible to any other Program faculty with whom that student is considering rotating. Students that receive 2 "U" marks during their rotations will be automatically dismissed from the program.

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 complaint of unacceptable behavior or misconduct. This may end in placing students on probation, termination of GTA/GRA financial support, or dismissal from the program.

Changing Your Advisor

As the advisor-student relationship is one of mutual agreement, it may be terminated by either party. Occasionally significant issues may arise between a student and their mentor that cannot be resolved amicably. Graduate students must first request a thesis committee meeting to attempt to resolve the issues, then secondly the Program Coordinator and/or the Program Director if needed to resolve the issue.

There are situations where it may be necessary for the student to choose a different advisor. The student must first have approval from the Program Coordinator and Director before reaching out to a prospective advisor to seek the change. If approved to look for a new mentor, the student is given three weeks since leaving current mentor and lab to find a new mentor. Failing to identify a new mentor within the timeline may lead to dismissal from the program.

UCF EHS Lab Coat Dispensing Program

The Environmental Health and Safety Department (EHS) has teamed up with CINTAS to bring the lab coat dispensing program to the University of Central Florida. Students, Staff and Faculty working on labs will be able to check out a lab coat from a lab coat dispenser using their UCFID card and return them at a drop off machine at 4 locations on main campus and Lake Nona. Individuals will have to be designated to a research lab and be up-to-date with all their <u>EHS safety training (EHS201, EHS202, EHS203 if needed)</u>. Lab coats can only be checked out 1 at time but may be checked out after an hour once returned and they should not be checked out for longer than 2 weeks. There are 7 lab coat sizes available (XS, S, M, L, XL, 2XL).

Locations:

Physical Sciences Building Physical Sciences Location Map

Research 1 Building Research 1 Location Map

Engineering 2 Engineering 2 Location Map

Burnett School of Biomedical Sciences at Lake Nona BSBS Location Map

Tutorial - https://ehs.ucf.edu/lab-coat-dispensing-program

Thesis Committee/Proposal/Comprehensive

Thesis Advisory Committee Selection

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 Coordinator. Note: **You are required to select your committee by the beginning of the Spring semester**, **1**st **Year**.

- The student and the advisor should work together to on the composition of the Advising Committee.
- Thesis Committee selection form must be submitted electronically to the Program Office for Program approval. The Program Office will submit your approved form to the College of Graduate Studies.
- 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 with a sound-thesis proposal.
- The Advisory Committee must meet once a year for the student's annual review meeting.

A.1: College of Graduate Studies Faculty Roles in Graduate Education

- Chair of a thesis or dissertation committee: In the vast majority of cases, the chair is the adviser of the scholarly activities of the student. A chair of a thesis or dissertation committee also oversees all of the administrative functions of the committee. A Graduate Faculty Scholar is not eligible to serve as a chair of a thesis or dissertation committee.
- Vice-chair of a thesis or dissertation committee: A vice-chair serves as a voice of experience in thesis and dissertation committees. A vice-chair must be appointed to committees in which the chair has no prior experience serving on thesis or dissertation committees. To be appointed as a vice-chair, the committee member must have prior experience serving on at least one thesis or dissertation committee that has successfully graduated a student.
- Co-chair of a thesis or dissertation committee: A co-chair is a member of a thesis or dissertation committee who shares with the chair in the scholarly advisory activities of the student. In cases in which a Graduate Faculty Scholar oversees the day-to-day scholarly activities of the student, the Graduate Faculty Scholar may be appointed as a co-chair of the thesis or dissertation committee.

Graduate Committee Process

Students are required to obtain and complete the MS Biotechnology Program "Internal" Committee Selection form and submit it electronically to the Program Office at <u>BSBSGradForms@ucf.edu</u>. Approved students will then be instructed to log into the College of Graduate Studies "Dynamic Forms" system to process their committee request for final approval.

<u>Step 1</u>

Graduate students are required to obtain and complete the MS Program <u>"Internal" Committee</u> <u>Selection form</u> and submit it electronically to the Program Office for approval.

<u>Step 2</u>

The Program Office will then notify students that their committee selection is approved/denied.

<u>Step 3</u>

Approved students will then be instructed to log into the **College of Graduate Studies "Dynamic Forms" system** to process their committee request. *See instructions below:*

College of Graduate Studies Online Form Instructions for approved students:

- Please initiate the process by logging into the College of Graduate Studies "<u>Doctoral and</u> <u>Thesis Advisory Committee Form</u> Dynamic Forms" system with your NID and password to create your committee.
- 2. Complete the form with the names of your committee members. You are required to fill out the information with the names and email addresses of the committee members and sign the document electronically and submit. Please make sure the information (spelling and addresses) you enter is correct.
- 3. The form will automatically route via e-mail to each committee member before it is routed to the program director for review and approval.
- 4. The College of Graduate Students will email the student, program office and faculty Chair once your committee is approved.

Note: The process is the same for Committee revisions.

If you have any issues processing your online Dynamic Form, please contact the College of Graduate Studies at <u>gradrcrd@ucf.edu</u> for assistance.

Thesis Proposal and Comprehensive Exam

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. Note: All committee members must be present for the exam.

The thesis proposal requirement includes three sections:

- 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). This is due to the committee at least one week before committee meeting. Check with your Mentor for example and guidance.
- A thesis proposal defense in front of the thesis committee (40 min. seminar).
- Comprehensive Exam 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. Student must pass comprehensive exam to qualify for the Master of Science degree.

The Oral Thesis Proposal Defense is required:

The Thesis Proposal Defense 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 student will be evaluated on performance in all three sections.

The defense will be in the format of a 40-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.

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

Comprehensive Exam

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

Comprehensive exam 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. Student must pass 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, a second opportunity will be provided within 2 weeks of the first attempt. A second failure will result in dismissal from the program.

Note: Graduate students are not eligible to register in thesis credit hours until the thesis proposal defense requirement is met.

Proposal and Comprehensive Exam Form

Students are required to submit a copy of the written Thesis Proposal and a copy of the Thesis Proposal/Comprehensive Exam Form electronically to <u>BSBSGradForms@ucf.edu</u> no later than 1 week after the exam.

Annual Review

Student Evaluations: Annual Review

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

After the 1st Year, MS Biotechnology students will be evaluated on the progress in thesis research by the thesis advisory committee for Fall and Spring semesters.

The mentor and committee members will complete the student's Annual Evaluation Form after the student's presentation of research and the student will submit the form to the program office.

Students will be evaluated on the following:

- Quality Research work in Progress or Completed
- Quality of Journal and/or Conference Papers
- Potential to pursue Doctoral work
- Self-Motivation
- Overall knowledge needed for field of study
- Course work performance
- Dependability
- Overall assessment of performance (required)
- Academic Performance
- Research Potential
- Current Publications (submitted or published)
- Presentations / Other professional achievements of note

Two consecutive unsatisfactory evaluations will result in reversion to non-degree status.

Unsatisfactory Laboratory Performance Review

If the student received unsatisfactory grade in lab courses including thesis or unsatisfactory evaluation by the committee in the annual thesis review committee meeting, the program coordinator will give the student a written statement advising the student of a probation period during which specific improvements are expected. The time limit for improvement can't excel one semester. However, If the committee finds lack of satisfactory improvement following the probation, the student may be expelled from the MS Biotechnology Program.

Program Meeting Scheduling Policy

Proposal Defense / Annual Review/ Pre-Defense/ Defense/ etc.

- The student is responsible for scheduling the committee meeting date and time that will be amenable to all committee members.
- Once the committee meeting date is confirmed, the student is required to send the program an email on where the exam will be held (in person, virtual zoom, or hybrid) for approval <u>BSBSGradInfo@ucf.edu</u>.
- **Once the approval is given**, the student is responsible for contacting the program office to reserve the conference room for the "in person" meeting, no later than 3 weeks before the meeting. The program Office will assist with room reservations for the event.
 - Approved exam rooms for MS Thesis Defense: BBS 103 (Lake Nona) or HS II 345 (Main Campus)
 - Approved exam rooms for Committee Meetings and Annual Review: BBS conference or meeting rooms (Lake Nona)/ HS II 345 (Main Campus)/ BMS 136 (Main Campus)/ Research Annex Conf Room (Main Campus). Please email Program Office for permission to use other facilities, especially if the meeting is held totally or partially by virtual connection.

<u>For conference room reservations you may email:</u> BBS 103 (Lake Nona) – <u>hscwelcomedesk@ucf.edu</u> HSII 345 (main campus) – <u>HSIIReservations@ucf.edu</u> BMS 136A (main campus) –<u>BMSReservations@ucf.edu</u>

- If the meeting is to be held via zoom, it is the mentor responsibility to create a zoom link using UCF account. Please see the link to <u>UCF Zoom Guide here.</u>
- Thesis Defense Meeting If IT support is needed (In person, Zoom or Hybrid)
 The Program Office will submit a ticket to the UCF Health IT support Center requesting IT
 assistance for your thesis defense. Faculty mentors will be notified once the IT
 appointment is confirmed and will be instructed to contact the IT Support Center before
 the defense is held, if there are any questions.

All program forms must be signed and submitted by DocuSign or submitted to the Program Office electronically to <u>BSBSGradforms@ucf.edu</u> no later than 1 week after your meeting.

Graduate Research Policies

Research is such a vital part of the MS Biotechnology Graduate Program. The development of research skills and the practice of good research ethics begins when you accept the offer to join the program. Our Graduate Faculty serves a crucial role and are the primary source for teaching research skills and modeling research ethics.

Statement of Graduate Research

The Burnett School of Biomedical Sciences faculty are engaged in investigating research in cancer, cardiovascular, metabolic, molecular microbiology, neurodegenerative, and immunity & pathogenesis diseases. Our faculty research mentors are also committed to enhancing our graduate students' knowledge and graduate student experience.

Graduate students are expected to perform at a high level of professionalism, demonstrate collegiality while attending classes, fulfill GTA assignments, attend seminars and meetings, present data in meetings, be scientifically inquisitive, and contribute to the research to produce a publishable thesis to complete the program.

Research Ethics

The Office of Research offers a variety of teams and tools to assure research conducted at UCF adheres with regulatory guidelines and meets the highest standards of responsible conduct. To learn more go to https://www.research.ucf.edu/compliance.html

Research with animal subjects

The Animal Study Protocol or the IACUC protocol is a detailed description of the proposed use of animals prepared by the researcher for review and approval. Any activity that involves animal research, can only begin after an IACUC review. At UCF the IACUC is responsible for oversight and evaluation of the university animal care and use program, its procedures and facilities to ensure that they are consistent with the recommendations of the Guide, AWR, PHS Policy and IACUC Policies. Go to https://www.research.ucf.edu/IACUC/2021/Regulations.html

IRB - Institutional Review Board

The IRB is a committee established to protect the rights and welfare of human participants involved in research. All **Human Research** conducted by UCF faculty, staff, and students must be reviewed by the IRB and approved for compliance with regulatory and ethical requirements before it may be undertaken (unless the IRB determines that the activity is exempt from IRB review).

To ensure that thesis and dissertation research involving human subjects has been evaluated by the UCF Institutional Review Board (IRB) before data is collected, an IRB Checklist was placed on the GPS degree audit of <u>all</u> master's thesis and doctoral students for academic progress and degree certification purposes.

Graduate students are required to review the **UCF College of Graduate Studies IRB Requirements** in the Thesis and Dissertation Webcourse and review the IRB Office's "Human Research Determination" checklist on the IRB Policies and Procedures.

- <u>https://www.research.ucf.edu/compliance/irb/investigators/index.html</u>
- https://www.research.ucf.edu/compliance/irb.html

If you check yes for use of human subjects in your research on the IRB form, then you are required to submit your request through the Huron IRB system so you can obtain a formal determination letter to be included in your thesis.

You are also required to submit your form to **BSBSGradForms@ucf.edu**.

Contact the IRB Office at <u>irb@ucf.edu</u> with any questions about whether your activity meets the definition of Human Research subject to IRB oversight, or to obtain a memorandum letter.

• Huron IRB – Proposal Frequently Asked Questions

Required - Program IRB Policy - Graduate students are required to meet with the faculty mentor and submit the **MS Biotechnology Program Graduate Research IRB Notification form** to <u>BSBSGradForms@ucf.edu</u> before the beginning of the Fall semester, second year.

Research Ethics

The Office of Research offers a variety of teams and tools to assure research conducted at UCF adheres with regulatory guidelines and meets the highest standards of responsible conduct. To learn more, go to https://www.research.ucf.edu/compliance.html

UCF's Patent and Invention Policy

University policy and federal law requires that intellectual property resulting from federally funded research must be disclosed to the Office of Technology Transfer (OTT). To learn more, go to https://tt.research.ucf.edu/our-policies/

Thesis and Dissertation Webcourse

Thesis and Dissertation Webcourse - Required

All thesis and dissertation students planning to complete their thesis or dissertation in the 2023-2024 academic year must access the new <u>Graduate Thesis and Dissertation</u>

2023-2024 Webcourse

- UCF's Microsoft Word Template and other formatting resources
- The Format Review Assignment (required to meet format review deadline)
- Instructions for defending and the Thesis and Dissertation Approval Form
- Information on IRB, copyright, dissemination, and other policies
- Review for Original Work (iThenticate) instructions
- Instructions for the final submission process to UCF's institutional repository, STARS

Visit the UCF <u>College of Graduate Studies (ucf.edu)</u> Thesis and Dissertation webpage for additional information.

Thesis and Defense

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. The MS thesis research must generate sufficient quantity and quality data to support the submission of a minimum of one manuscript.

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.

Thesis Committee Pre-Defense Meeting Required

A pre-defense meeting with the full thesis committee is required and must occur at least one semester prior to defending.

After consultation with the mentor/thesis committee chair and approval from the program, students can proceed to hold a pre-defense committee meeting.

- A meeting with the full thesis committee must occur at least **one semester prior** to the actual thesis defense date.
- Program Coordinator approval is needed before a student can hold a pre-defense meeting.
- The student must request a copy of the Pre-defense meeting form from the Program Office at <u>BSBSGradForms@ucf.edu</u>. **Pre-defense form (part 1)** should be completed by student and mentor and emailed to the program office for approval before scheduling the pre-defense meeting. After the review the Program Coordinator will give the approval for the student to begin scheduling the pre-defense meeting with the committee.

Once approved, the student can hold the pre-defense meeting.

During this "pre-defense" meeting, the student will present their thesis work. The committee will critically evaluate if the student has fulfilled all program requirements and is ready to proceed to defense.

The student is expected to present to the committee a comprehensive new body of work in a form of a pre-defense seminar. The committee will critically evaluate whether or not the student has fulfilled all program requirements and is ready to proceed to defense.

Recommendations from the committee should be very specific, and indicate in writing which issues, if any, the student must complete or resolve prior to scheduling of the final defense date. The candidate will answer questions and defend conclusions about the subject matter. After

completion of this meeting, the student must submit a signed pre-defense meeting form electronically to the Program Office <u>that includes a statement that your advisor/committee agrees</u> that all requirements are met to schedule your defense.

The Pre-defense meeting form is now located on our website. Email <u>BSBSGradForms@ucf.edu</u> if you have any questions.

Thesis Defense

Students must seek approval from the program to hold their dissertation defense meeting. The program in consultation with mentor/thesis chair will confirm that the students have met all the recommendations provided from the pre-defense thesis meeting.

Writing of the thesis should be subjected to the General Guidelines for Alternative Organization in the <u>Thesis and Dissertation Manual</u> of the UCF College of Graduate Studies Thesis and Dissertation office.

The thesis must be submitted to the committee and the program at least two weeks prior to the defense date.

- Pre-defense-requirements met Students are required to address all pre-defense meeting thesis concerns given to you from your committee members.
- Endorsement by the PI and committee is required.
- Approval from the committee and the program must be given before you can schedule your final thesis defense meeting.
- The 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 prior to the thesis defense.

The MS thesis defense will consist of a seminar of the thesis outcome to the graduate program and the local scientific community, followed by questions from the audience.

- The seminar will be followed by a closed meeting with the thesis committee.
- Student's response to questions raised by present faculty, students and guests should be considered by the committee before voting.
- The majority of the thesis committee must vote positively for the student to pass.

Please follow the College of Graduate Studies abstract guidelines located in the Thesis and Dissertation Webcourse Modules. Please email <u>BSBSGradForms@ucf.edu</u> to request your template.

An oral thesis defense is required.

The thesis defense meeting 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 with all program faculty present.

Day of Your Defense and Approval Form

Please arrive early to prepare for your presentation and bring a copy of your MS Biotechnology Defense Program Approval Form, and your UCF College of Graduate Studies Thesis Defense Approval Form for signatures.

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

(1) MS Biotechnology Graduate Students are required to obtain the **MS Biotechnology Program Thesis Defense Approval Form** from the Program Office to bring to the defense. Email <u>BSBSGradForms@ucf.edu</u> to obtain your copy.

(2) MS Biotechnology Graduate Students are also required to bring the **College of Graduate Studies Dissertation Approval Form** to the defense.

- Bring your approval forms with you to your defense or email your pdf form to each committee member before the meeting. Note: It may take a few days for you to obtain your signatures if your meeting will be held by Zoom or Hybrid. If so, you are responsible for following up with your committee on the status of the signatures.
- After your defense, you will have 1 week to submit your approval forms electronically to the Program Office (<u>BSBSGradForms@ucf.edu</u>) who will then obtain the signatures from College of Medicine Dean, Program Director, and the Dean of the College of Graduate Studies. The student is required to notify the Program Office if there is a delay in collecting signatures.

Thesis Defense Announcement

The College of Graduate Studies requires all thesis/dissertation defense announcements to be distributed <u>two weeks before</u> your scheduled defense date. Graduate students are required to complete, submit and email the defense abstract/announcement to the Program Office at least 3 weeks prior to the defense for committee and program approval to the distribute and post the announcement.

Include the following with your abstract:

- Thesis title,
- Name of your Committee members
- Event Location (in person, virtual zoom, or hybrid)
- Abstract
- Publication Information List your publications in full citation format including authors, title, journal and year (as listed in any article).

Please email <u>BSBSGradForms@ucf.edu</u> to request your template.

iThenticate Report Required

Review for Original Work

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 chair is responsible for scheduling the submission of the dissertation to iThenticate and reviewing the results from iThenticate with the student's advisory committee (self-citation) should be excluded from the similarity score)
- The thesis chair is required to include a copy of the thesis iThenticate report when sending the written copy of the thesis to the committee members and the program office, <u>no later</u> <u>than 2 weeks</u> prior to the final defense. Members of the thesis committee may ask for a paper copy of the thesis or an electronic copy (PDF) file.
- Before the student may be approved for final submission to the university, the thesis chair must indicate completion of the Review for Original Work through iThenticate by signing the <u>Thesis Approval Form</u>.

For further information about or assistance with iThenticate, please refer to the Office of Research & Commercialization's <u>Responsible Conduct of Research</u>.

Thesis and Dissertation Manual

UCF's formatting and style standards are outlined in UCF's <u>Thesis and Dissertation</u> <u>Manual</u>, which is like the university's thesis and dissertation style guide. While we recommend reading the manual to learn more about UCF's formatting requirements, it does not provide instructions for correctly formatting a thesis or dissertation. To have a properly formatted ETD, you will need to use one of UCF's templates.

Dissemination (Release) Option Policy

Dissemination defines the availability of your UCF ETD. While human subjects research is governed by IRB requirements for data safety and anonymity, all theses and dissertations have the potential to contain sensitive or proprietary material. Your final thesis or dissertation will be made publicly available, so consider that you are not just writing for your committee, but ultimately a public audience.

Use the following explanations in conjunction with advisement by your thesis or dissertation chair about publishing within a particular discipline to choose the best dissemination (release) option for your ETD. You will declare your dissemination option when submitting the <u>Thesis and</u> <u>Dissertation Release Option eform</u>.

When to Submit the Release Option

The TD Release Option eform should be submitted as early in your final term as possible to allow time for processing but must be submitted prior to you submitting for format review. Your format review will not be completed until we receive this eform. If you need to change your release option, you can always resubmit another eform up until the Final Submission Deadline.

Choosing Your Release Option

- See the <u>Dissemination (Release) Option Policy</u> page in this course for an explanation of your release options
- Discuss your release option and final thesis or dissertation title with your thesis or dissertation chair
- You'll also need to know your defense date to complete this eform

Submitting the Release Option eForm

Submit the Thesis and Dissertation Release Option eform at <u>myUCF</u> by navigating to:

- 1. Student Self Service (Student Center)
- 2. Scroll down on the Student Center page to the **Graduate Students** section (see image below)
- 3. Find the choose Graduate Form drop down menu
- 4. Select **TD Release Option** from the drop down menu
- Once processed, you can also view the information submitted in your <u>myUCF</u> Thesis and Dissertation Status area

Creating an ETD

ETD stands for electronic thesis or dissertation. All theses and dissertations at UCF are cataloged and accessed online in the UCF Libraries <u>STARS</u> thesis and dissertation collection. Because your thesis or dissertation file will be viewed in digital format, it is important that it is created with certain features to make it easier to use. These elements also help with digital accessibility so people who use screen readers and other technologies can better access your work.

Submitting the Format Review Assignment

When you are ready to submit your bookmarked PDF thesis or dissertation file for format review, click Assignments in the course menu and select the assignment for your completion semester (e.g. <u>Format Review Fall 2023</u>).

Remember, you MUST submit your <u>Thesis and Dissertation Release Option eform</u> before submitting the format review assignment and you must submit a reviewable file by 5:00 p.m. (EST) on the Format Review deadline in your final semester.

- Your submission will be graded as "complete" or "incomplete"
- If incomplete, you will need to make corrections and resubmit the assignment until it is graded "complete"
- Format reviews can take five to seven business days to be graded
- Resubmissions can be after the review deadline as long as you make a reviewable submission prior to the deadline
- Once your formatting is approved, you will receive instructions for making your final, committee-approved submission to STARS

Assignment Resubmissions

The expectation for the format review is that your file will only need minor formatting edits and can be approved upon the initial review. However, if your thesis or dissertation formatting is not approved upon your initial review, we may require you to make <u>Formatting Help</u> appointment to repair your formatting then resubmit for another review. Remember, you must have format approval before you can make your final submission!

Thesis and Dissertation Approval Form

At least a week before your defense, download and fill out one of the Thesis and Dissertation Approval Forms listed below. Remember, you must list the same committee that is in your official records. Please see the <u>Review Your Thesis or Dissertation Committee Information</u> page to learn how to view your official committee information. See the next page for signature routing information. The size of a thesis or dissertation committee can vary. Either form listed below will be accepted, but you may want to use a form with fewer signature lines if you have a smaller committee.

Form for committees UNDER 6 members Download Form for committees UNDER 6 members

Form for committees OVER 6 members

Final thesis/dissertation submission

UCF's institutional repository - STARS

- You will submit your final thesis or dissertation to UCF's institutional repository and any supplemental files you have to include with your submission.
- Create your <u>STARS user account</u> once you receive format approval so you will be ready when you need to make your final submission.
- You will receive an email from STARS once your final thesis or dissertation file has been accepted (approved) and then another email when your work is posted in STARS. Final ETD submissions typically appear in STARS approximately one month after the end of each semester (pending any restrictions)

Degree Audit Update:

Your graduate program degree GPS (audit) will be updated once the approval process is completed, and all program requirements have been met.

University Thesis Requirements

The College of Graduate Studies Thesis and Dissertation page contains information on the university's requirements for dissertation formatting, format review, defenses, final submission, and more. A step-by-step completion guide is also available on Thesis and Dissertation Services Site. All university deadlines are listed in the Academic Calendar. Consult with graduate director or advisor for potential earlier deadlines.

The following requirements must be met by dissertation students in their final term:

- Submit a properly formatted file for initial format review by the format review deadline
- Submit the Thesis and Dissertation 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

Students must format their dissertation according to the standards outlined in Thesis and Dissertation Webcourse. Formatting questions or issues can be submitted to the Format Help page in the Thesis and Dissertation Services site. Format reviews and final submission must be completed in the Thesis and Dissertation Services site. The Dissertation Approval Form is also available in the Thesis and Dissertation Services site.

The College of Graduate Studies offers several thesis and dissertation Workshops each term. Students are highly encouraged to attend these workshops early in the dissertation process to fully understand the above policies and procedures. The College of Graduate Studies thesis and dissertation office is best reached by email at <u>editor@ucf.edu</u>. Format reviews and final submission must be completed in the <u>Thesis and Dissertation Services</u> site.

The Dissertation Approval Form is also available in the Thesis and Dissertation Services site. The College of Graduate Studies offers several thesis and dissertation <u>workshops</u> each term. Students are highly encouraged to attend these workshops early in the dissertation process to fully understand the above policies and procedures. The College of Graduate Studies thesis and dissertation office is best reached by email at <u>editor@ucf.edu</u>.

Note: Thesis Deadlines are posted in the <u>UCF Academic Calendar</u> every Semester.

Viewing Thesis Status and Release Options

Go to: myUCF Student Center > Graduate Students section > Thesis and Dissertation Status page / Thesis and Dissertation Services website > Homepage

While UCF respects the wishes of students who would like to publish their work and/or apply for patents, it is essential for scholarly research conducted at a university to be available for dissemination. While several options are available for the release of an ETD, it is the goal of the university that all dissertations be available through the UCF Libraries catalog. Students with potential patent concerns are required to discuss the following options with their dissertation adviser and indicate the availability choice on the **Thesis and Dissertation Release Option** electronic form, which the student submits in the myUCF Student Center.

For those who have patent issues, dissemination options must be discussed and agreed to with your adviser.

UCF Graduate Thesis and Dissertation (EDT): <u>https://graduate.ucf.edu/thesis-and-dissertation/</u>

UCF E-mail Requirement for Thesis

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

Program Grading, Transfer Credits and Other Requirements

<u>Grades</u>

Grades of every student will be evaluated after each semester. A Grade point average of 3.0 is required.

See Policy Below:

- The program will allow a maximum of two "C" grades in the program.
- Any student who receives a grade below a C grade in any course will automatically be dismissed from the program.
- If a student's GPA falls below a 3.0 but remains above a 2.0, the student will automatically be placed on academic probation by the College of Graduate Studies. Students will receive a notice of probation at the beginning of the probation period, and the notice of probation will be imprinted on the student's academic transcript.
- Thesis and Dissertation hours are graded Satisfactory/Unsatisfactory. Students can receive a **grade of "U"** for unsatisfactory laboratory work/performance, and no credit. Under such circumstances the program may elect to place the student on academic probation or dismiss the student if the unsatisfactory progress continues.
- Any student who receives **two consecutive "U" grades**, will automatically be dismissed from the program.
- Any student who receives a **GPA below 2.0**, will automatically be dismissed from the program by the College of Graduate Studies.
- Any student found guilty of **research or academic misconduct** will be immediately dismissed from the program.
- International students placed on probationary status will be sent to the UCF Global for advisement regarding the immigration status implications of this action.
- The program allows only one W grade per course and no more than 3 W grades per Program Plan of Study.

Please review the full academic policies found in the <u>Academic Progress and Performance</u> section in the UCF Graduate Catalog.

Transfer Credit Policy

Courses taken at an accredited institution BEFORE a student is given graduate status at UCF may be transferred into testudent's program of study.

1. 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.

2. Courses older than 7 years cannot be transferred.

Please email <u>BSBSGradAppts@ucf.edu</u> to meet with the program to review your courses.

All transfer credits to be used toward the master's degree should be finalized before the end of the Fall semester, 1st year.

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)

Satisfactory Progress

Graduate students are required to meet with their committee members annually and the student is required to present to the committee achievements and plans for the next academic year. The committee must evaluate and grade the student progress and provide feedback to go forward.

Time Limitation for Degree Completion

The student has seven years from the date of admission to the master's program to complete the degree. Students may transfer in coursework according to the Transfer of Credit policy, however, courses older than seven years at the time of admission will not be transferred into the student's Program of Study. Students who anticipate being out for an extended period of three consecutive semesters or longer should apply for a <u>Special Leave of Absence</u> no later than the end of the add/drop period of the third semester of absence. Students who do not maintain continuous enrollment without a Special Leave of Absence (see <u>Continuous Attendance</u> and <u>Special Leave of Absence</u> in the General Graduate Policies) must file for readmission to the university, although seven years is measured from when the student was first admitted to the program.

Program Plan

A Program of Study is a listing of course work agreed to by the student and the degree program specifying course degree requirements. A specific Program of Study, which may vary from student to student, must be formulated jointly by the student and the appropriate committee or adviser in the program area and approved by the college. All students must review their program plan of study with their faculty mentor and submit the MS Biotechnology Program Plan Form to the Program Office by the beginning of the Spring semester, 1st Year.

The Program of Study must comply with the student's relevant catalog. This form should be prepared and signed by the adviser and student, then submitted electronically to the graduate program office for review and filing in the student's permanent file. The Program Office will submit this form to the College of Graduate Studies for you. Email <u>BSBSGradForms@ucf.edu</u> to obtain your form and email <u>BSBSGradAppts@ucf.edu</u> if you need to schedule an appointment for advising.

Graduate Studies GPS Plan

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 <u>my.ucf.edu</u> 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.

Graduate Program Registration

Graduate students will work with the Program Graduate Service Office to register for courses each semester. The Program Office will send out the approved list of courses available at the beginning of each semester along with the procedures to register. **Graduate Students should review the program curriculum guide provided in this handbook before sending the registration request.**

- Department consent is required for many of our graduate program courses. Graduate students must send their **DocuSign Registration request form** to the Program Office for assistance.
- Graduate students must meet with their faculty mentor first before submitting their DocuSign registration request form electronically to the Program Office.
- All holds must be removed before we can assist you with registration. Please send us your registration request form <u>after</u> your hold has been removed.
- <u>MCB 6918 Directed Research or MCB 6971 Thesis Research</u> The Registration of these courses must include the mentors "Description of Assignments and Expectation" and signature before submission. You are required to review your thesis credits and also review the faculty advisor listed to ensure that your registration is correct. To view this information > Click on the course > "People" button in the menu on the left > view the instructor for the course.
- <u>MCB 6908</u> Independent Study (3) **Syllabus required for registration and 3–5**page report required for grade.

If you need to schedule an appointment to review your registration plan, please email <u>BSBSGradAppts@ucf.edu</u>.

Record Holds

A hold (negative service indicator) may be placed on a student's records, transcripts, grades, diplomas, or registration due to financial or other obligations to the University. Satisfaction and clearance of the hold is required before a release can be given. **Students may check for holds on the myUCF system at my.ucf.edu.** To obtain an immediate release for Student Accounts financial holds, you may make your credit card or e-check payment online from your student account. After making a successful payment, contact Student Account Services with the remit ID to confirm your payment and have your hold released.

Professional Seminars, Program Colloquium and Symposia

Program Seminars

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

College of Graduate Studies Presentation Fellowship

Students should take opportunities to present a poster or a topic of research at a conference. The Presentation Fellowship is a great opportunity for students who plan to present a research paper or comparable creative activity at a professional conference. This fellowship provides funding for enrolled master's, specialist, and doctoral students to share their research at a professional meeting. Students must be the primary author and presenter. 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 Fellowship website at <u>https://graduate.ucf.edu/thesis-and-dissertation/</u>.

Graduate Research Forum/Symposium

The College of Graduate Studies hosts an annual Research Forum to provide a conference setting for our own students to showcase their work either with poster presentations or a face-to-

face presentation. Graduate students are encouraged to participate in the <u>Graduate Research</u> <u>Forum.</u>

3MT

Int the Fall and Spring Semesters, the College of Graduate Studies hosts a Three Minute Thesis (<u>3MT</u>) Competition for graduate students. Doctoral students communicate their research in just three short minutes and with only one PowerPoint slide to non-expert judges while competing to win scholarship awards. Graduate students are encouraged to participate in this event. For questions about this event, please email gradworkshops@ucf.edu.

Posters and PowerPoint

The UCF College of Medicine's Educational Technology department offers **free printing of posters** and **PowerPoint** templates for COM faculty, staff and students that promote UCF and the college. Contact: <u>comedtech@ucf.edu</u>

Posters

The college has created several templates to be used for all poster presentations in accordance with new university-wide brand standards that reflect a modern, cohesive look for all materials that reflect the university. The purpose of these templates is to create professional posters that reflect the UCF brand and provide a consistent look. Additionally, the template should facilitate your efforts in creating posters.

- The templates provide a choice of either a black or yellow banner for your poster (links below) as well as the university-approved font Gotham.
- Since there is a fee associated with installing this font on your computer, please use another font and Ed Tech will change the font for you prior to printing.
- We don't want to restrict creativity, so feel free to design the body of your poster any way you feel appropriate, but we will enforce the following standards for the banner
- Must be either black or yellow background
- Must include the approved COM logo
- Title of poster must be either yellow or black

PowerPoint

These PowerPoint templates contain multiple slide designs and photo options you may use for your own presentations. We've included a 4:3 presentation format and a 16:9 format.

- These templates are set up with the font Helvetica.
- Arial may be used as a substitute font. If you have the font <u>Gotham</u> installed on your computer, please feel free to convert all text to that font.

(Note: If you are sharing your final PowerPoint with other users who do not have Gotham, the document fonts will not display correctly.) For more information please click <u>here</u>.

Absences

Students who anticipate that they may not be able to enroll continuously due to external circumstances should apply for <u>Special Leave of Absence</u>. Specifically, students who are taking courses should apply for a Special Leave of Absence when they cannot enroll in more than two consecutive semesters. Students who are in thesis/dissertation hours should apply for a Special Leave of Absence when they cannot enroll in every semester (including summer).

To qualify for a Special Leave of Absence, the student must demonstrate good cause (e.g., illness, family issues, financial difficulties, personal circumstances, recent maternity/paternity, employment issues). The specific reason for the Leave of Absence request must be indicated by the student on the Leave of Absence Form. Due to current U.S. government regulations, international students must be enrolled every fall and spring semester.

MS Biotechnology Graduate Program Leave Policy

Graduate students who are supported by GTA or GRA are considered UCF employees.

It is mandatory that all graduate students in the program who are supported by GTA or GRA must receive prior program approval for any leave of absence. Only UCF official holidays, as published in the UCF academic calendar each year, are recognized as paid holidays.

Student must discuss the leave with their mentor and/or GTA supervisor, then complete the MS Biotechnology Graduate Leave of absence form and receive program approval before going on leave. Failure to comply with the program leave of absence policy may lead to termination of employment/tuition waiver and/or dismissal from the program.

The MS Biotechnology Program Leave form must be approved two weeks in advance of requested date(s). Program forms are located on our website - <u>Link here</u>

Program 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.**

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.

UCF College of Graduate Studies Catalog / Handbook/ Policies

The UCF Graduate Catalog contains a description of the various policies, graduate programs, degree requirements, course offerings, and related matters intended to be in effect at the University of Central Florida during each academic year.

The Graduate Handbook is intended to familiarize graduate students with the procedures, policies, and expectations of the University of Central Florida Graduate program.

It is the student's responsibility to review and become familiar with all graduate policies. See links to the UCF Graduate Catalog and the UCF College of Graduate Studies Graduate Student Handbook below to review each policy.

Graduate Catalog

- Academic Progress
- Review of Academic Progress
- Program GPA
- Probationary Status and Dismissal
- Maximum Hours of Unsatisfactory Grades
- Incomplete Grades
- Transfer Credit
- Course Requirements
- 6000 and 7000 Graduate Level Courses

Student Handbook

- Student Handbook Intro
- Financial Matters
- Role of the College of Graduate Studies
- Commitment to Diversity
- Admissions
- Registration
- Standards of Conduct and Responsibility
- Academic Environment
- Expectations of Graduate Faculty
- Expectations of Graduate Students
- Expectations of Graduate Departments and Programs
- Expectations of the Graduate School
- Rights
- Academic Appeals
- Record Holds
- Withdrawals
- Florida Residency
- Graduate Assistantship

GRADUATION

File Your Intent to Graduate

You must first be approved to graduate by your Thesis Committee and the MS Biotechnology Program Coordinator before filing an intent to graduate for the semester you are approved.

Graduate students who plan to graduate are required to meet with the Program Office one semester prior to graduation to review their degree audit and program specific requirements. Email <u>BSBSGradAppts@ucf.edu</u> to schedule your appointment.

Once you are approved, graduate students will be instructed to log into their myUCF account (<u>https://my.ucf.edu/</u>) to apply for graduation. Go to: Student Self Service> Student Center> other academics (drop down menu) > Intent to Graduate> Apply.

Once you submit your Intent to Graduate, your initial status will be updated as "Applied" then moved to "Pending" after the Program and College of Graduate Studies review. Your status will change to "Awarded" and you will be certified to graduate by the Program Office and the College of Graduate Studies once all program and University requirements are met.

Commencement /Tickets/ Cap and Gown:

Graduate student must visit the <u>UCF Commencement Website</u> to learn about the following:

Commencement Location:

The University of Central Florida Commencement Ceremony will take place in the <u>Addition</u> <u>Financial Arena</u>.

IMPORTANT VENUE INFO

- Please anticipate a longer than expected travel time to the Addition Financial Arena due to traffic.
- Graduates should be at the Addition Financial Arena 90 minutes prior to their commencement ceremony.
- Graduates who arrive after the procession begins will not be guaranteed a seat.
- All graduates should park in Garage D. View a map of the location of Garage D .

Graduates must stay for the entire duration of the commencement ceremony.

Tickets:

Each guest entering the arena, which includes children and infants, is required to have a Commencement ticket for the ceremony. Family and friends who are unable to attend commencement can view the live-streamed ceremony online. The <u>UCF FAIRWINDS Alumni</u> <u>Center</u> will also be simulcasting the ceremonies. Additional guests can watch the ceremony at this location, and no ticket is required.

IMPORTANT TICKET INFO

- Please check to make sure all guest tickets have the correct commencement ceremony date and time listed on them.
- There is no ticket lottery for additional tickets.
- Graduation announcements cannot be used for admission.

Regalia:

Candidates participating in the commencement ceremonies are required to wear official UCF regalia available exclusively through the UCF Bookstore. Order online on the <u>Herff Jones website</u>. All rented items are due back by 5pm on Graduation Day.

Appropriate Attire

- Graduates should wear comfortable shoes.
- Temperature in the arena can be cold during the ceremony.
- Graduates participating in the commencement ceremonies are required to wear official UCF regalia available exclusively through the UCF Bookstore.
- Honor cords from various honor societies may be worn if they are the official designation of an officially recognized group.

GRAD CAP DECORATIONS

- Graduation cap decorations must lay flat against the cap and extend no higher than the cap button.
- Stagnant LED lights are permitted.
- Moving or flashing lights are not permitted.
- Language on decorated caps must be appropriate for a family-friendly event.

PROHIBITED ITEMS

- The use of cell phones, iPads or Go Pros is prohibited during the ceremony.
- Selfie sticks are not permitted.

The following items are prohibited to bring by both graduates and their guests: balloons, bottles, cans, containers, glass vases, alcoholic beverages, noisemakers, air horns, laser pens, silly string, confetti, banners, signs or post.

Diploma:

Your diploma 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 <u>graddegr@ucf.edu</u>. Questions can be directed to the College of Graduate Studies at 407-823-2766. Diplomas cannot be released if you have a nonacademic hold. It is your responsibility to resolve holds as quickly as possible.

UCF Transcripts

Your transcripts, showing the degree has been awarded, 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 <u>graddegr@ucf.edu</u>. Questions can be directed to the College of Graduate Studies at 407-823-2766. Diplomas cannot be released if you have a nonacademic hold. It is your responsibility to resolve holds as quickly as possible.

The <u>Registrar's Office</u> has an online site where you can order your final, official transcripts and you can request to have it held for delivery until it shows the degree has been earned.

In advance of your final transcripts being available, if you need an official letter showing that you have met all of the degree requirements, you can request this from the UCF Graduate College. Please <u>e-mail</u> or call (407/823-2766 ext. 0) for additional information.

<u>Student Account Services</u> and the <u>Registrar's Office</u> 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.

Job Search and Career Pathways

Our graduate students that have completed the programs are prepared to enter a career in fields related to biotechnology or continue their graduate/professional education at universities all over the country.

MS Graduates

Our graduate students that have completed the programs are prepared to enter a career in fields related to biomedical sciences or continue their graduate/professional education at universities all over the country.

Positions: Graduate school, Professional Health/Medical School, Scientists, Research Tech, Academics

- St. George University School of Medicine, Grenada, West Indies
- Department of Homeland Security
- Edgewell Personal Care
- United States Department of Agriculture (USDA)
- Roche Molecular Systems
- Noble International Incorporated
- University of Massachusetts Medical School
- University of Central Florida PhD Biomedical Sciences Program
- University of Central Florida MD Program
- Yale University MD Program
- University of North Carolina Chapel Hill-PhD Program
- Cornell University PhD Program
- University of Miami MD Program
- University of Florida MD Program
- University of Florida PhD Program
- Nova Southeastern University MD Program
- Brandeis University PhD Program
- University of Colorado Anschutz Medical Campus Lab Technician
- Adjunct Professor Valencia College
- Johnson & Johnson
- University of Miami's Miller School of Medicine
- Boehringer Ingelheim Regenerative Medicine Intern
- University of Central Florida Laboratory Technician

UCF Global

International Advising

UCF Global at the University of Central Florida functions as the primary international hub for students, faculty, and staff. Through strong partnerships UCF Global is committed to increasing international mobility and enhancing the university's global competency.

Considerations for International Students

All international students on F or J visas must maintain full-time, degree-seeking status regardless of financial support received from the university. F and J visa holders should contact UCF Global to ensure that their enrollment conforms to the full-time definition of their visa status. International students should not change their course schedule or drop classes without advisement from the UCF Global.

Reduce Course Load

While international students must maintain full-time enrollment for the duration of their program, immigration regulations allow exceptions to the full-time enrollment requirement. Prior to dropping below the full-time enrollment requirement students must receive approval from UCF Global by submitting a Reduced Course Load (RCL) form that explains the nature of the reduced hours.

- Visit <u>https://global.ucf.edu/maintaining-status/</u> to obtain a copy of the (RCL) form.
- To learn more please review How to Maintain F1 and J1 status.

Students receiving fellowships or assistantships should consult with the Graduate College's Financial Assistance Office before considering dropping a course if they will become part-time as a consequence.

Students should contact the following: gradfellowship@ucf.edu or gradassistantship@ucf.edu

Versant English Test Requirement for GTA

The Versant English Test is used to measure the communicative competence of non-native English-speaking graduate students under consideration for teaching assistant positions at the University.

The 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.

Test Dates and Registration - https://global.ucf.edu/english-test/

Students must register in advance for the Versant Test. Registration is an online process through the <u>myINTLportal</u>. Log in using your NID and NID password to submit your registration.

Please refer to the <u>IEP Student Handbook</u> on detailed information about the Intensive English Program and helpful information and tips about student life at the University of Central Florida. It will include detailed information on F-1/J-1 immigration regulations, attendance policies, academic progress, UCF Services, Housing, etc.

For additional information please contact UCF Global.

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

Address: 4356 Scorpius St, Building GB 139 Orlando, FL 32816-0130 Phone: (407)823-2337 | Fax: (407)823-2526

UCF Global provides expert advising services in the areas of a student's academic and immigration matters.

IMMIGRATION ADVISING

- Questions regarding your I-20 and Immigration status
- I-20 Travel Signature and Visa Renewal
- Request Annual Vacation (IEP)
- I-20 Extension

• Transfer out Procedure To schedule an appointment with an **Immigration Advisor** please visit <u>UCF Meet</u> with an Immigration Advisor.

ACADEMIC ADVISING - UCF GLOBAL PROGRAMS

- Questions regarding your classes and your academic performance/progression
- Course of Study Plan
- Graduation Advising
- Graduation Advising
- Academic Exploration
- Cultural adjustment support

To schedule an appointment to see an Academic Advisor, please visit the Front Desk on the 1st Floor of UCF Global.

ENROLLMENT SERVICES -UCF GLOBAL PROGRAMS

Pathway Program Information/Application

- Program overview and requirements
- Pathway Program Agreement
- Transcripts and
 Documents

Schedule an appointment with our Enrollment Services Team on the 1st Floor of UCF Global.

Accommodations

Student Accessibility Services

Student Accessibility Services (SAS) views disabilities as an integral part of the rich diversity at the University of Central Florida. To that end, we work collaboratively with students, faculty, and staff to create an inclusive educational environment for students. Graduate students with disabilities must contact the professor at the beginning/or prior to the semester to discuss the needed accommodations.

Students who need accommodations must be registered with the Student Accessibility Services office. For more information, please visit Student Accessibility Services website at <u>https://sas.sdes.ucf.edu/accommodations/.</u> Contact: <u>sas@ucf.edu</u> or (407) 823-2371

Communication

Each year the Program Director and Coordinators hold an annual meeting in an open forum with all graduate students. The College of Medicine Dean also attends the meeting to share the strategic plans for the college and the department and to speak with graduate students. Other guest speakers are also invited to speak to students about other topics important to students.

Program updates, successes, challenges, and assessments are shared during the meeting and a question and answer session is held to give students an opportunity to share their suggestions, concerns, and any feedback they may have. This meeting provides an open line of communication between the students and Program Leadership. New ideas and suggestions are welcomed to help improve graduate student overall experience.

Student Responsibility for University Communication

UCF uses email as the official means of notifying students of important university business and academic information concerning registration, deadlines, financial assistance, scholarships, student accounts (including tuition and fees), academic progress and problems, and many other critical items for satisfactory completion of a UCF degree program.

The university sends all business-related and academic messages to a student's @ucf.edu email address to ensure that there is one repository for that information. Every student must register for, and maintain a @ucf.edu email account at https://extranet.cst.ucf.edu/kmailselfsvc and check it regularly to avoid missing important and critical information from the university. Any difficulty with establishing an account or with accessing an established account must be resolved through the <u>UCF Computer Service Desk</u> so that a student receives all important messages.

Additionally, each student must have an up-to-date emergency e-mail address and cell phone number by which to be reached in case of a crisis on campus. This emergency contact information will be used only for emergency purposes. Also, both permanent and local mailing addresses must be on the record, so that any physical documents that must be mailed can be delivered.

It is critical that students maintain and regularly check their @ucf.edu email account for official announcements and notifications. Communications sent to the @ucf.edu email address on record

will be deemed adequate notice for all university communication, include issues related to academics, finances, registration, parking, and all other matters. The University does not accept responsibility if official communication fails to reach a student who has not registered for, or maintained and checked on a regular basis, their @ucf.edu email account. Please ensure that this information is current and that any changes in contact information are made online through the myUCF portal at <u>https://my.ucf.edu/</u>.

Disability Statement

ACCESS matters

Purpose: We envision UCF to be a fully accessible campus and inclusive environment for people with disabilities. We do this by:

- Acknowledging disability as an aspect of human diversity;
- Cultivating awareness of the environment's disabling barriers;
- Collaborating on and proactively facilitating accessible environments and experiences;
- Educating faculty and staff to create and maintain access in their spheres of influence;
- Shifting to an inclusive-minded attitude;
- Supplementing with reasonable accommodations as a last resort measure to ensure access.

Diversity Statement

The program invites guest speakers during the orientation events of new students to discuss topics related to Diversity, Equity, and Inclusion. The speakers discuss with the new students UCF policies on this topic and provide them with necessary information and available recourses.

The University of Central Florida considers the diversity of its students, faculty, and staff to be a strength and critical to its educational mission. UCF expects every member of the university community to contribute to an inclusive and respectful culture for all in its classrooms, work environments, and at campus events. Dimensions of diversity can include sex, race, age, national origin, ethnicity, gender identity and expression, intellectual and physical ability, sexual orientation, income, faith and non-faith perspectives, socio-economic class, political ideology, education, primary language, family status, military experience, cognitive style, and communication style. The individual intersection of these experiences and characteristics must be valued in our community.

Title IX prohibits sex discrimination, including sexual misconduct, sexual violence, sexual harassment, and retaliation. If you or someone you know has been harassed or assaulted, you can find resources available to support the victim, including confidential resources and information concerning reporting options at https://letsbeclear.ucf.edu and http://letsbeclear.ucf.edu and https://letsbeclear.ucf.edu and <a href="https://letsbeclear.ucf.ed

For more information on diversity and inclusion, Title IX, accessibility, or UCF's complaint processes contact:

- Title IX OIE http://oie.ucf.edu/ & askanadvocate@ucf.edu
- Disability Accommodation Student Accessibility Services <u>http://sas.sdes.ucf.edu/</u> & <u>sas@ucf.edu</u>
- Diversity and Inclusion Training and Events www.diversity.ucf.edu

- Student Bias Grievances Just Knights response team http://jkrt.sdes.ucf.edu/
- UCF Compliance and Ethics Office <u>http://compliance.ucf.edu/</u> & <u>complianceandethics@ucf.edu</u>
- Ombuds Office <u>http://www.ombuds.ucf.edu</u>

Harassment

The University of Central Florida values diversity in the campus community. Accordingly, discrimination on the basis of race, sex, national origin, religion, age, disability, marital status, parental status, veterans' status, sexual orientation, or genetic information is prohibited.

Sexual harassment, a form of sex discrimination, is defined as unwelcome sexual advances, requests for sexual favors, or verbal or physical conduct of a sexual nature including any of these three situations.

- 1. Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or enrollment.
- 2. Submission to or rejection of such conduct by an individual is used as the basis for employment or enrollment decisions affecting such individual.
- 3. Such conduct has the purpose or effect of substantially interfering with an individual's work performance or enrollment, or creating an intimidating, hostile, or offensive working or academic environment.

Sexual harassment is strictly prohibited. Occurrences will be dealt with in accordance with the guidelines above and university rules. Employees, students, or applicants for employment or admission may obtain further information on this policy, including grievance procedures, from the OIE Coordinator. The Director of the Office of Institutional Equity Programs is the campus Equity Coordinator responsible for concerns in all areas of discrimination. The office is located on the main campus, in Barbara Ying CMMS Building 81, Suite 101. The phone number is (407) 823-1336. Policies and guidelines are available online at http://www.eeo.ucf.edu.

Privacy – Data and Security

All members of the university community have a responsibility to protect the data generated, accessed, modified, transmitted, stored, or used by the university. Stay alert and treat university information responsibly. Please review reminders below:

Computers and electronic devices:

- Password protect or use another authorized form of authentication for your computer and electronic devices. Do not share your password and do not write it on a note that you leave on or around your desk area. IT Support can help reset your password if it is forgotten. No one needs to know your password. Do not let anyone watch you type in your password.
- Encrypt and password protect confidential or sensitive information provided via email or stored on a disk or an external drive. When providing a password for an attachment to an email, do not send the password and the encrypted message in the same message.
- Stay alert and avoid falling for phishing schemes. Do not trust unsolicited emails or click on suspicious links.
- Secure laptops and other electronic devices when not in use. Do not leave them in view and unattended. It is easy to smash a car window and grab a computer or cell phone left on a car seat. Put your laptop, mobile phone, and other electronic devices in the trunk of your car if you aren't taking them with you. Use similar precautions in airports, hotels, and

at home.

- If your university-owned computer or electronic device is lost or stolen, report the loss as soon as you are able to do so. It may be possible to disable the device or limit access to the information it contains or even trace the location of the equipment. Depending on the circumstances, and more specifically what was stored on the device, UCF may be under a legal obligation to quickly report the loss to a government agency or persons whose sensitive information has gone missing.
- Limit use of public WIFI and do not use it to send sensitive information.

Workspace security:

- Do not leave confidential or sensitive materials in view when visitors are present or when you leave your workspace. Turn document hard copies upside down or place them in a drawer or cabinet, particularly when leaving for an extended period. If locks have been supplied for your desk drawer, file cabinets or office, use them when you leave work for the day.
- Position your computer screen away from others. Share your work with people having a reason to see it, not with friends, uninvolved co-workers, or strangers dropping by your workspace.
- When visitors are permitted in the workplace, do not allow them to roam or wander through unattended. Report suspicious activity appropriately and rapidly.
- Limit copying of confidential and sensitive materials and avoid leaving printed copies on copy machines.

If you have questions about your data privacy and security obligations, please contact <u>privacy@ucf.edu</u> for assistance. To learn more about the importance of protecting restricted and related data at UCF visit: <u>University Compliance, Ethics, and Risk</u>.

Assistantships / Tuition Waivers & Additional Program Details

Graduate Assistantship Details

Students who have graduate teaching assignments are required to complete UCF GTA training before beginning their assistantships. International students who have graduate teaching associate or assistant positions will need to pass the Versant English Test administered by the UCF English Language Institute before beginning their assistantships. Graduate research assistants also have training requirements (for example, lab safety). **Please see important information below and links to the Graduate Teaching and Graduate Assistant Guide**.

MS Biotechnology Graduate Assistantship & Tuition Waivers

Students accepted in the program are eligible to receive financial support in the form of a Graduate Teaching Assistantship (GTA) or a Graduate Research Assistantship (GRA), and the accompanying of available tuition waiver for no more than a total of five semesters (i.e., Fall and Spring).

Stipends are currently \$16,000 to \$20,000 per year.

Students supported by GTA receive a standard annual stipend of \$16,000. If the student is supported on the mentor's grant by GRA, the stipend may be increased up to \$20,000 per year. The mentor must approve any increase above the standard annual stipend.

The latter requires approval from the mentor.

- 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.

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.

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
- Meet Program required deadlines

New graduate students will receive information on scholarships, fellowship and stipend payments during the Graduate Assistantship & Financial Award meeting scheduled during Orientation Week. Exceptionally qualified students may be eligible for university enhancement awards.

Tuition and Fee Payment

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.
- Graduate students should expect to pay about \$100 per credit hour in fees.

Note: Tuition Payments will be finalized after ADD/DROP of each semester you are in the program. Visit: <u>http://www.studentaccounts.ucf.edu/TuitionFees.cfm</u>.

Tuition Coverage

Full - The tuition coverage portion of this 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. Tuition covers the "Tuition" and "Out-of-State Fee" items in the Fee Schedule and not the local fees. Visit <u>Student Account Services</u> to view current graduate tuition rates. Note: *Tuition waivers are subject to availability of funding*. To learn more about UCF Funding, visit <u>https://graduate.ucf.edu/funding/</u>.

Full-time Enrollment

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. Graduate students are part-time if they do not enroll as above except for two special cases:

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

UCF Fee Policy - Financial Matters

All fees must be paid by the Fee Payment Deadline. Graduate assistantship and fellowship students must be enrolled full time by the end of Add/Drop. The College of Graduate Studies reviews all assistantship and fellowship students for full-time enrollment requirements after Add/Drop closes and before the Payment Deadline and sends notices via e-mail to students who are not in compliance with university full-time enrollment requirements. In addition, the College of Graduate Studies continues to review assistantship and fellowship students throughout the semester to ensure they remain in compliance with university requirements to receive their financial support.

Students are responsible for completing any required assistantship hiring documents and fellowship award documents in order to assist the university in processing payments. They are also responsible for reviewing their university records (e.g., fee invoice, enrollment record, financial aid record) and reporting any discrepancies to their academic program office or the appropriate student services office.

If tuition remission (e.g., department or project payment, tuition waiver) is not recorded on a student's Fee Invoice by the Payment Deadline, the student must pay all tuition and fees. If partial tuition remission is provided, the student must pay the remainder of the tuition owed by the Payment Deadline. Assistantship students who have questions about their tuition remission may e-mail <u>gradassistantship@ucf.edu</u> and inquire about the status of their tuition remission. University fellowship students should contact <u>gradfellowship@ucf.edu</u>.

Be sure to check the official UCF Academic Calendar and the Tuition and Fees Schedule for the current academic year fees and deadlines.

Financial Aid Funding

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. To learn about UCF financial assistance opportunities, visit <u>Funding</u>. For student loans and other funding sources, you should also visit the Office of Student Financial Assistance site at finaid.ucf.edu.

Visit the <u>College of Graduate Studies Funding Website</u> for information about specific funding, awards, and fellowships opportunities.

Student Account Services

The mission of the Student Account Services office is to serve the students who attend our university by billing fees, campus housing, and other university charges accurately and efficiently, and collecting and crediting tuition revenue. We are here to provide students with quality service and information by maintaining accurate financial records and communicating policies and information to students concerning their accounts. For more information, please visit: https://studentaccounts.ucf.edu/

Graduate Teaching Requirement (GTA)

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.

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.

Lab and Safety Training

All Graduate Students are required to complete the following Lab and Safety Training Courses below during Orientation week. Basic chemical safety, biological safety, and radiation safety awareness training is required for you to participate in laboratory research. The UCF Environmental Health and Safety Department offer these required safety training courses online and they are available at any time.

- EHS102 Biological Safety
- EHS140 Blood borne Pathogens
- EHS201 Laboratory Safety
- EHS301 Radiation Safety
- EHS116 Practical Session

Graduate Students will have the opportunity to complete these training courses during the Program required Orientation Week of events, held a week before Fall classes begin. Please note: The student is responsible to complete these safety training courses by the official end of the first Fall semester in the program.

Please contact the Office of Environmental Health & Safety at <u>ehs@ucf.edu</u> or visit their website at <u>UCF Environmental Health and Safety</u> if you have any questions.

How to Get Involved

As a graduate student at UCF, you have a multitude of opportunities to become involved on campus and in your academic discipline. This involvement often enhances your academic, professional, and personal growth through developing advanced leadership, communication, and collaboration skills. It also provides opportunity for professional networking.

In Our Discipline

In our discipline graduate students have the opportunity to attend seminars, present at program and university symposiums, colloquiums and other events, and can take an active role in our Burnett School of Biomedical Sciences Graduate Student Association.

Graduate Student Associations

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 affect our program. BSGSA also helps welcome incoming students and organizes meetings aimed to help students overcome the major milestones of the Master's and PhD programs.

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.

Check us out on our Facebook page!

- Like our Facebook Page: <u>https://www.facebook.com/bsgsaucf/?ref=br_rs</u>
- Join our Facebook Group: <u>https://www.facebook.com/groups/bsgsaucf/</u>
- Follow us on Instagram: https://www.instagram.com/bsbsgsa/
- Contact us at: <u>bsbsgsa@gmail.com</u>

UCF Graduate Student Association (GSA)

The Graduate Student Association (GSA) is UCF's graduate organization committed to enrich graduate students' personal, educational, and professional experience. The Purpose of GSA is to support a culture that continually seeks out and identifies needs common throughout the graduate community, increase visibility of graduate student excellence, expertise, and professionalism through collaboration with other university partners, and demonstrate initiative, vision, and leadership in the development and execution of programming and professional development opportunities.

To learn more or get involved, please visit <u>facebook.com/groups/UCFgsa/</u>or contact Information:<u>gsa@ucf.edu</u>

For the complete list of Registered Student Organizations (RSO) at UCF please visit the knights connect website at: <u>https://knightconnect.campuslabs.com/engage/organizations</u>.

For information about student organizations please visit: <u>http://osi.ucf.edu/student-orgs</u> .

The Office of Student Involvement (OSI)

The Office of Student Involvement supports student success and enhances the campus environment by focusing on our core principles – *Connect, Involve, Impact* -through quality programs, services, student leadership opportunities, and intentional environments. Visit the <u>Student Involvement</u> website to view the list of over 670+ Registered Student Organizations across all UCF Campuses.

Graduate Student Center

The UCF <u>Graduate Student Center</u> provides a space for graduate students to gather for professional development, workshops, rehearsal of presentations, defenses of their thesis or dissertation research, guest lectures and colloquia series, study, and collaborate. Located on the second floor in suite 213 of Trevor Colbourn Hall Building, the Graduate Student Center is just minutes from the Student Union, Bookstore, Library, and Millican Hall services. The Graduate Student Center contains four main areas: multipurpose study and collaboration area, presentation room, conference room, and study and data analysis rooms. To check availability call or email <u>gradcenter@ucf.edu</u>.

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*Eligible to serve on thesis/dissertation committees as external member

**Denotes BSBS program teaching faculty

Facilities

Faculty and staff in the School are located in five areas: The Biomedical Science Building, the Health Sciences II Building on Main Campus, the Biomedical Research Annex in Research Park, the Burnett Biomedical Sciences Facility adjacent to the College of Medicine, and the Lake Nona Cancer Center at the Lake Nona Medical City Campus.



Biomedical Sciences Building, Main Campus



Health Sciences II Building, Main Campus



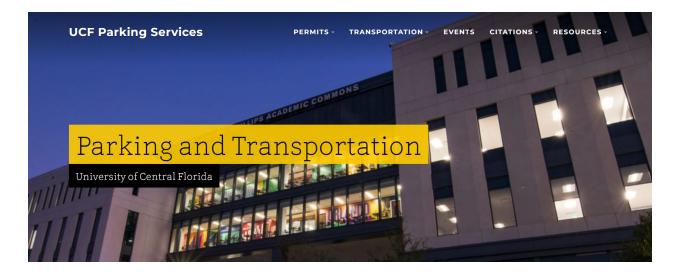
Burnett Biomedical Sciences Building, Health Science Campus



Biomedical ResearchAnnex, Research Park



UCF Lake Nona Health SciencesCampus



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/

Parking and Transportation https://parking.ucf.edu/

All students must register their vehicle online. The registered owner of the permit is responsible for all infractions and penalties attributed to the permit, even if expired. All vehicles on campus must park nose-in and plate out. No back-in or pull-through parking is allowed. Failure to park nose-in may result in a citation.

There are 15 regular off-campus, fixed shuttle routes between the UCF campus and the following 22 off-campus apartment complexes and Central Florida Research Park. Parking & Transportation Services also provides an on-campus shuttle system called Pegasus. The UCF Shuttles operate every class day excluding weekends.

Please visit <u>https://parking.ucf.edu/shuttles/</u> to learn more.

- Purchase a permit
- Parking FAQs

Forms/Useful Links/Resources

Program Forms

Program forms are available on our website.

- MS Biotechnology Committee Form
- MS Biotechnology Thesis Proposal/Comprehensive Exam Form
- MS Biotechnology Program Plan Form
- MS Biotechnology Annual Review Meeting Form
- MS Biotechnology Thesis Pre-Defense Form
- MS Biotechnology Program Thesis Defense Form
- MS Biotechnology CITI & Academica Integrity Workshops: You are required to send us a copy of your CITI certificates and Academic Integrity post-workshop email confirmations you will receive from the College of Graduate Studies after you complete each required workshop. We will use these documents to confirm your program requirement.

Useful Links/Resources

- Academic Calendar
- BSBS Program Website
- <u>Campus Map</u>
- Graduate Catalog
- <u>College of Graduate Studies</u>
- <u>Counseling Center</u>
- Bookstore
- Parking Services
- <u>Library</u>
- UCF Library Services for Grad Students
- Inter Library Loan
- Shuttles Parking Services
- <u>Recreation Center</u>
- Housing
- Housing, off campus

- <u>Student Health Services</u>
- Counseling Center
- Writing Center
- Thesis and Dissertation (ETD)
- Financial Assistance
- Golden Rule Student Handbook
- Graduate Student Association
- Graduate Student Center
- Email Account
- <u>NID Help</u>
- Pathways to Success
- <u>Traveling Scholar Form</u>
- <u>Student Union Food and Vendors</u>
- Dining Services
- Knights Pantry

Program Contact Info

Burnett School of Biomedical Sciences Graduate Office

The Biomedical Sciences Graduate Services Office is an integral part of ensuring our graduate students' success. We assist with admissions, orientation, course registration, and are heavily involved in making sure our graduate students complete their required milestones throughout their graduate student career.

We are here and ready to answer all your questions!

We are available to assist you by phone, email or by Zoom appointment.

Program Email Contact

- <u>BSBSGradInfo@ucf.edu</u> Send general inquiries to this account.
- <u>BSBSGradAppts@ucf.edu</u> Send your request to schedule an appointment to this account.
- <u>BSBSGradForms@ucf.edu</u> All forms must be submitted electronically to this account.
- <u>BSBSGradRegistration@ucf.edu</u> All registration request's must be submitted electronically to this account.

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 MS Biotechnology Thesis program reserves the right to make any changes or amendments to the Program/Handbook information, rules, or policies within the students' period of study upon majority approval of the program faculty, director and coordinator.