



PhD in Biomedical Science Handbook

2025 – 2026

Contents

Preamble	4
Message from the Dean.....	4
Message from the Associate Dean for Research.....	5
Message from the Director of the PhD Program in Biomedical Science.....	5
Introduction.....	6
Administrative Personnel	7
Ph.D. Curriculum Overview (Biomedical Science Major).....	8
Year 1: Courses and Laboratory Rotations	8
FIU Safety Training:	9
Year 2: Courses	10
Year 3: Dissertation Proposal	11
Years 4 and 5: Dissertation Research.....	11
Translational Medicine Major	12
Year 1: Courses	12
FIU Safety Training:	13
Year 2: Courses	14
Year 3: Dissertation Proposal	15
Years 4 and 5: Dissertation Research.....	15
Academic Policies - PhD Program in Biomedical Science	16
Registration for Classes.....	16
Course Syllabus and Teaching Learning Format.....	16
Conduct of Examinations	17
Exam Grades.....	17
Course Grades	17
Forgiveness Policy	17
Final Grades	18
Academic Warning	18
Probation	18
Dismissal	18
Laboratory Rotations for PhD in Biomedical Science Major (only).....	18
Choosing an Advisor	20
Selection of Dissertation Committee	20
Annual Performance Evaluation	21
Lectureship Seminar participation and Attendance to Seminars and Presentations	21
Student Effort	21
Doctoral Degree	22
<i>Completion of Mandatory and Elective Courses as required.</i>	22
Choosing a Dissertation Advisor.....	22
Qualifying Examination	22
Doctoral Dissertation Proposal	22
Dissertation Proposal Seminar	24
Admission to Candidacy	25
Dissertation and Dissertation Defense	25
Final Approval of Dissertation.....	26

Online Dissertation Milestones	27
Financial Assistance for PhD Students	28
Stipend and Tuition	28
Medical Insurance Contribution	29
Taxes	29
Conference Travel Funding	29
Outside Employment.....	30
Termination of Graduate Assistantship	30
Doctoral Evidence Acquisition Fellowship (DEA).....	31
Dissertation Year Fellowships (DYFs).....	31
Presidential Fellowship (PF)	31
Why Apply for External Funding?	31
Attendance Policies.....	32
Leave Policy	32
Leave of Absence.....	32
Excused Absence Policies.....	33
Technology Policies	34
E-mail Policy.....	34
Unacceptable Use of E-mail	34
Portable Computers and Mobile Devices Policy	35
Medical Library	35
Books.....	35
Journals	35
Articles	35
Databases	35
Self-instructional Materials.....	36
Access – Mobile Apps.....	36
Academic Misconduct	36
Code of Academic Integrity.....	36
Student Pledge of Honor.....	36
Definition of Academic Misconduct.....	36
Academic Grievance Procedure	37
Purpose	38
Scope of Policy.....	38
Informal Grievance Procedure.....	38
Formal Academic Grievance Procedure	39
Committees	48
PhD in Biomedical Sciences Executive Committee	48
Recruitment Subcommittee.....	48
Admissions Subcommittee.....	48
Curriculum Subcommittee.....	49
Student Affairs Subcommittee	49
Course Descriptions	50

Preamble

This Student Handbook has been compiled as an aid and resource for the students enrolled in the Extracurricular Research Program at the Herbert Wertheim College of Medicine (HWCOM) – Florida International University (FIU). It contains current information and requirements for the Program. This handbook does not supersede any policies and procedures established by the University Graduate School. It is the student's responsibility to understand and follow university policies and procedures. The student must ensure that all requirements have been met within the established deadlines. The general policies and procedures for research study at FIU can be found at the [University Graduate School Library](#).

Message from the Dean

I warmly welcome you to FIU. This is an exciting time to be a Ph.D. candidate in biomedical sciences at the FIU Herbert Wertheim College of Medicine! On behalf of the College of Medicine, I congratulate you on choosing to pursue your research education at our R1, the "highest research activity" ranked university. You are joining an esteemed legacy of renowned researchers who have earned FIU the distinction of being ranked among the world's top 50 U.S. patent producers.

As Dean of the College of Medicine, I have the pleasure of experiencing first-hand the remarkable talent of our faculty and students. They create the foundation for the rich and unique experiences that inspire novel research and launch the next generation of innovative scientific researchers. Our program is abundant with opportunities for all.

FIU's Ph.D. Program in Biomedical Science redefines excellence in healthcare by applying basic sciences to medicine and translating laboratory discoveries into new treatments and cures. Students may choose from a wide range of training opportunities, including drug discovery, nanomedicine, genetics, glycobiology, cancer biology, microbiology and infectious diseases, chronic and aging-associated diseases, environmental science and toxicology, pulmonary vascular disease, viral infections, neurobiology and therapeutics, as well as the translational medicine. As a Ph.D. candidate in biomedical sciences, you represent our future. You are the "why" driving what we do each and every day, and most importantly, I know you can and will change the world.

I welcome you to the Herbert Wertheim College of Medicine family. And I look forward to celebrating your research contributions as you develop your expertise in the groundbreaking world of biomedical sciences.

Juan C. Cendan, M.D.

Dean and Senior Vice President for Health Affairs FIU Herbert Wertheim College of Medicine

Message from the Associate Dean for Research

Welcome! I am pleased to welcome incoming and returning graduate students to the Biomedical Science Program at the Herbert Wertheim College of Medicine (HWCOCM). Above all, we are committed to your success. Your achievements and your experiences energize the culture of our one-of-a-kind program bridging biomedical research with clinical medicine.

I am exceptionally proud, and you can be as well, of our outstanding faculty and internationally recognized programs. As a Ph.D. candidate, what does this mean to you? In 2023, HWCOCM became the fastest-growing college of medicine in NIH funding, highlighting the growing opportunities in our program. This programmatic excellence translates into exciting research and training opportunities in cancer biology, drug discovery, drug delivery, immunology, lung biology, molecular genetics, neuroscience, regenerative medicine, structural biology, translational glycobiology, and viral biology therapeutics. Our research strengths and opportunities extend beyond these areas, and I invite you to explore each department, research institute, and center webpage to learn more.

It is my honor to lead the College's research programs. My mission is to connect you with talented Ph.D. faculty advisors and state-of-the-art resources that will develop your scientific expertise and prepare you to contribute to improving our nation's health. When asked what drives a scientist's life-long pursuit of biomedical research? My answer is simple - it is creativity! The ability to understand complex interactions, unravel what appears to be a mystery, and discover something new, something ground-breaking that can change the quality of life for individuals facing challenging medical conditions.

To this end, it is my pleasure to help you meet your experimental goals and foster the research environment that will maximize your scientific potential as you prepare for future opportunities in academia and industry. I look forward to meeting you in the days and months ahead!

Stephen M. Black, Ph.D.

Associate Dean for Research

Message from the Director of the PhD Program in Biomedical Science

Welcome to the exciting chapter of your academic and professional journey as a Biomedical Science PhD student at FIU HWCOCM! Embarking on a PhD is both a privilege and a profound responsibility – one that demands intellectual curiosity, persistence, creativity, and integrity. You are now part of a vibrant and growing community dedicated to advancing the frontiers of human health and understanding the biological complexities that shape life. The coming years will be filled with challenges and discoveries. The program recently incorporated a Translational Medicine major, aiming to prepare students to learn about the interface between basic science and the development of novel therapies. The program's outstanding group of graduate students and faculty will empower and support your vocation and motivation while you develop your scientific and professional skills. Our faculty will help the students to build a flexible and customized development plan with well-described milestones to achieve their scientific and professional goals in a timely manner. As you navigate your studies, I encourage you to balance the pursuit of knowledge with the well-being of both body and mind. The path of research is rigorous, but it should also be deeply fulfilling. Celebrate your milestones – both big and small – and never hesitate to seek support when needed. The program is committed to

providing the best environment for our students' growth and achieving excellence. The input of our students is and will continue to be a fundamental part of the program restructuring and improvement. Your accomplishments are how we measure the program's success. I wish you great success, growth, and fulfillment in your doctoral journey.

Hitendra S. Chand, PhD
Director of the PhD Program in Biomedical Science

Introduction

The Ph.D. The Program in Biomedical Science at the Herbert Wertheim College of Medicine (HWCOC) offers a curriculum distinct from that of other Florida International University (FIU) colleges. A distinctive feature of this program is the flexible and personalized curriculum designed to meet the specific learning needs of individual students. In addition, the PhD students interact annually with medical students and clinical faculty during presentations at the HWCOC Annual Research Symposium, which provides the graduate students with an appreciation of the medical aspects of modern biomedical sciences.

The participating faculty members come from the Department of Cellular and Molecular Medicine at the Herbert Wertheim College of Medicine, and the Center for Translational Science. These faculty members will empower students to be future leaders in the fields of biochemistry, cancer biology, computational sciences, genetics, immunology, microbiology and infectious diseases, molecular biology, medicinal chemistry, glycobiology, pharmacology, pulmonary biosciences, vascular pathobiology, redox biology and pathology, nanomedicine and nanodevices and other fields of modern biomedical sciences.

The program provides graduate students with an exceptional ability to apply their research skills to translate fundamental discoveries into new and efficient treatments for human diseases.

The advantages of a PhD degree in Biomedical Science from FIU include:

- Cutting edge research in biomedical sciences
- Flexible and personalized curriculum
- A time to graduation of less than 5 years
- Preparation for careers in academia, biomedical basic and translational research, and jobs in biomedical and biotechnology industries

Administrative Personnel

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Ph.D. Curriculum Overview

PhD in Biomedical Science Major

Graduate students in the PhD Program in Biomedical Science must enroll for a minimum of 9 credits each Fall and Spring term, and 6 credits for the summer term. Our program requires a minimum of 75 post-baccalaureate credits, with a minimum of 15 credit hours dedicated to dissertation research.

Proposed Timetable and Milestones*			
*Courses and activities highlighted in yellow take place at MMC			
Year	Fall	Spring	Summer
1	GMS6003c Introduction to Biomedical Research (6)	GMS6220 Molecular Genetics and Cellular Biology (6)	GMS 6910 Supervised Research (3)
	GMS6864 Principles of Clinical Epidemiology and Biostatistics (2)	GMS6930 Lectureship Seminar (1)	GMS6962 Formation of Dissertation Committee: Preliminary Proposal (1)
	GMS6930 Lectureship seminar (1)	GMS6097 Methods in Biomedical Research (2)	GMS6925 Graduate Student Presentations (2)
2	GMS 6910 Supervised Research (variable)	GMS 6910 Supervised Research (variable)	GMS 6910 Supervised Research (4)
	GMS6939 Graduate Seminar (1) or GMS6930 Lectureship seminar (1)	GMS6927 Scientific Oral Presentations (2)	GMS6925 Graduate Student Presentation (2)
	GMS6926 Research Symposium Presentations (2)	GMS6926 Research Symposium Presentation (2) or GMS6930 Lectureship Seminar (1)	
	GMS6927 Scientific Oral Presentations (2)	GMS6939 Graduate Seminar (1)	
	Elective		
3	GMS6961 Qualifying Examination (5)		
	GMS6963 Doctoral Dissertation Proposal (3)	GMS7980 Dissertation Research Credits (3*)	GMS7980 Dissertation Research Credits (3*)
	GMS 6964 Dissertation Proposal Seminar (1)		
4	GMS7980 Dissertation Research Credits (3*)	GMS7980 Dissertation Research Credits (3*)	GMS7980 Dissertation Research Credits (3*)
5	GMS7980 Dissertation Research Credits (2)		
	Dissertation Defense Seminar (1)		

* can enroll for more credits with additional fee payments

Year 1: Courses and Laboratory Rotations

Students are expected to take the following required courses in the indicated terms unless advised otherwise.

Course No.	Course Name	Credits
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Fall

GMS 6003C	Introduction to Biomedical Sciences Research	6
GMS 6864	Principles of Clinical Epidemiology and Biostatistics	2
GMS 6930	Lectureship seminar	1
TOTAL		credits

Spring

GMS 6220	Molecular Genetics and Cellular Biology	6
GMS 6930	Lectureship Seminar	1
GMS 6097	Methods in Biomedical Research	2
TOTAL		credits

Summer

GMS 6910	Supervised Research	2
GMS 6925	Graduate Student Presentations	2
GMS 6962	Formation of dissertation Committee	1
TOTAL		6 credits

In the **first year**, a student shall meet the following benchmarks:

- Complete the required coursework as indicated above. A student is required to maintain a cumulative GPA of 3.0 or higher, with no grade of less than “B” in all mandatory courses.
- May participate in laboratory rotations as needed and permitted
- Participate in the Graduate Student Presentations at the end of the Summer term.
- Attend Lectureship Seminar regularly as well as specialty lectures and seminars offered by the Department of Cellular and Molecular Medicine and the Center for Translational Science.
- Select a Dissertation Advisor and the Dissertation Committee.
- Decide on the elective courses in consultation with the Advisor and the Dissertation Committee. Students must submit the personalized developmental plan with the list of elective courses and milestones, with justification for the need of elective courses to Curriculum Subcommittee and Student Affairs Subcommittee for review and approval.
- Begin research and explore dissertation project opportunities.
- Students are expected to take the Responsible Conduct of Research Training and Professional Conduct Training.

FIU Safety Training:

Prior to joining a laboratory, students must satisfy safety training requirements associated as required by FIU Environmental Health and Safety for laboratory work.

Laboratory Hazard Awareness, HazCom: In Sync with GHS, and Fire Safety training are required for anyone working in a lab area. Additional training includes using biosafety cabinets or fume hoods needed to complete *Safe Use of Biosafety Cabinets or Safe Use of Fume Hoods* training, respectively. *Environmental Awareness Part 2* is also required.

All Students must complete *Bloodborne Pathogens* training. For all online safety trainings, please visit the [Department of Environmental Health & Safety and Risk Management Services website](#).

Students must participate in required training for human and animals research, and obtain relevant committee approvals prior to commencing any activities, i.e., approval from the Institutional Review Board for the use of human subjects (<http://research.fiu.edu/irb/>) or the Institutional Animal Care and Use Committee for animals (<http://research.fiu.edu/iacuc/>). Research with recombinant DNA requires approval from the Institutional Biosafety Committee (<http://research.fiu.edu/ibc/>).

Year 2: Courses

Students are expected to register for the following courses.

Course No.	Course Name	Credits
GMS 6939	Graduate Seminar Fall and/or Spring	1 credit
GMS 6930	Lectureship Seminar Fall and Spring	(1 credit x 2) = 2 credits
GMS 6961	Qualifying examination	5 credits
GMS 6910	Supervised Research (Fall)	Adjustable
GMS 6910	Supervised Research (Spring)	Adjustable
GMS 6910	Supervised Research (Summer)	Adjustable
GMS 6926	Research Symposium Presentations	2 credits
GMS 6927	Scientific Oral Presentations (Spring and Fall)	(2 credits x2) = 4 credits

Students also may complete elective courses as determined by the Advisor and the Dissertation Committee with the approval of the Curriculum Subcommittee and the Student Affairs Subcommittee in addition to the required courses indicated above. Examples of courses that qualify as electives are listed below. At their discretion, either the Advisor or the Dissertation Committee may suggest potential electives that are described in the [FIU Catalog](#). The proposed list will be reviewed by the Curriculum and the Student Affairs Subcommittees for approval. The subcommittees will inform the Program Director, who will inform the student and the Advisor of the evaluation results.

Course No.	Course Name	Credits
BME 6545	Biosensors & Nanobioelectronics	3
BSC 5459	Advanced Bioinformatics for Biologists	3
CGS 5166	Introduction to Bioinformatics Tools	2
CHM 5305	Graduate Biological Chemistry	3
CHM 6088	Environmental Chemistry of Trace Elements	3
CHM 6382	Advanced Biological Chemistry	3
GMS 6300	General Pathology	4
GMS 6500	Basic Pharmacology	4
GMS 6904	Introduction to Scientific Writing	3

GMS 6103	Molecular Microbiology and Infectious Diseases	3
GMS 6940	Supervised Teaching in Biomedical Science	1

In their **second year**, students are expected to meet the following requirements:

- Complete all required and elective courses.
- Regularly attend Lectureship seminar (Fall and Spring) as in Year 1
- Make progress in their research and define a dissertation project.
- Successfully complete the Qualifying Examination (GMS 6961) and submit for publication.

Year 3: Dissertation Proposal

Students are expected to submit their Doctoral Dissertation Proposal (GMS 6963) and present a Dissertation Proposal Seminar (GMS 6964). Upon successful completion of the above courses, they will be allowed to register for Dissertation Research Credits (GMS 7980). Students should also register for Lectureship Seminar Series participate during the fall and spring terms.

In the **third year**, students are expected to meet the following objectives:

- Communicate original research project as a Graduate Student Seminar in the form of a formal scientific presentation to peers and the scientific community of HWCOC, CTS, and FIU in general.
- Prepare a Doctoral Dissertation Proposal and successfully defend the content of the dissertation proposal as required for admission to PhD candidacy.
- Participate in the Responsible Conduct of Research training.
- Attend Lectureship Seminar Series (GMS 6939) as in Years 2 & 3.
- Present results at Graduate Research Day and HWCOC Research Symposium.
- Make substantial progress in research to achieve the aims in their dissertation project.
- Give research presentation at a national scientific meeting.

Years 4 and 5: Dissertation Research

Students will engage primarily in Dissertation Research and work towards the completion of their PhD degree. They may register for Graduate Seminar and Seminar Series (GMS 6939) during the fall and spring term each year.

During this phase, students are expected to achieve expert knowledge and skills in their specialty area, attain a broad knowledge in different aspects of biomedical science research, focus on developing research and communication skills, and present/publish their major research findings. The average time to get a PhD degree is about 5 years. However, if significant progress is made, students may be able to graduate in their **4th year**.

Students are expected to:

- Give research presentations at national conferences/symposiums.
- Publish original manuscripts including one first or last author manuscript.
- Participate in at least 3 professional development activities.
- Complete their dissertation research.
- Write and successfully defend their dissertation.

- Secure job positions in academia, government, medical research, biomedical and biotechnology industries

Translational Medicine Major

Graduate students in the Translational Medicine Major must enroll for a minimum of 9 credits each Fall and Spring term, and 6 credits for the Summer term. Our program

Proposed Timetable and Milestones*			
*Courses and activities highlighted in yellow take place at MMC			
Year	Fall	Spring	Summer
1	GMS6003c Introduction to Biomedical Research (6)	GMS6220 Molecular Genetics and Cellular Biology (6)	GMS6962 Formation of Dissertation Committee: Preliminary Proposal (1)
	GMS6864 Principles of Clinical Epidemiology and Biostatistics (2)	GMS6097 Methods in Biomedical research (2)	GMS6925 Graduate Student Presentation (2)
	GMS6930 Lectureship seminar (1)	GMS6930 Lectureship Seminar (1)	GMS6605 Basic Structure of the Human Body (3)
2	GMS6910 Supervised Research (variable)	GMS6910 Supervised Research (variable)	GMS6910 Supervised Research (4)
	GMS6939 Graduate Seminar (1)	GMS6927 Scientific Oral Presentations (2)	GMS6925 Graduate Student Presentation (2)
	GMS6930 Lectureship seminar (1)	GMS6926 Research Symposium Presentation (2) or	
	GMS6927 Scientific Oral Presentations (2)	GMS6930 Lectureship Seminar (1)	
	GMS6542 Translational Clinical Pharmacology (3)	GMS 6939 Graduate Seminar (1)	
	Elective		
3	GMS6961 Qualifying Examination (5)	GMS7980 Dissertation Research Credits (3*)	GMS7980 Dissertation Research Credits (3*)
	GMS6963 Doctoral Dissertation Proposal (3)		
	GMS 6964 Dissertation Proposal Seminar (1)		
4	GMS7980 Dissertation Research Credits (3*)	GMS7980 Dissertation Research Credits (3*)	GMS7980 Dissertation Research Credits (3*)
5	GMS7980 Dissertation Research Credits (2)		
	Dissertation Defense Seminar (1)		

requires a minimum of 75 post-baccalaureate credits, with a minimum of 15 credit hours dedicated to dissertation research.

* can enroll for more credits with additional fee payments

Year 1: Courses

Students are expected to take the following required courses in the indicated terms unless advised otherwise.

Course No.	Course Name	Credits
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Fall

GMS 6003C	Introduction to Biomedical Sciences Research	6
GMS 6864	Principles of Clinical Epidemiology and Biostatistics	2
GMS 6930	Lectureship seminar	1
TOTAL		9 credits

Spring

GMS 6220	Molecular Genetics and Cellular Biology	6
GMS 6097	Methods in Biomedical Research	2
GMS 6930	Lectureship seminar	1
TOTAL		9 credits

Summer

GMS 6925	Graduate Student Presentations	2
GMS 6962	Formation of dissertation Committee	1
GMS 6605	Basic Structure of the Human Body	3
TOTAL		6 credits

In the **first year**, a student shall meet the following benchmarks:

- Complete the required coursework as indicated above. A student is required to maintain a cumulative GPA of 3.5 or higher, with no grade of less than “B” in all mandatory courses.
- Participate in the Graduate Student Presentations at the end of the Summer term.
- Participate in Lectureship Seminar by attending regularly specialty lectures and seminars offered by the Department of Cellular and Molecular Medicine and the Center for Translational Science.
- Select a Dissertation Advisor and the Dissertation Committee.
- Decide on the elective courses in consultation with the Advisor and the Dissertation Committee. Students must submit a personalized developmental plan, including a list of elective courses and milestones, along with justification for the need for elective courses, to the Curriculum Subcommittee and Student Affairs Subcommittee for review and approval.
- Begin research and explore dissertation project opportunities.
- Students are expected to take the Responsible Conduct of Research Training and Professional Conduct Training.

FIU Safety Training:

Prior to joining a laboratory, students must satisfy safety training requirements associated as required by FIU Environmental Health and Safety for laboratory work. Laboratory Hazard Awareness, HazCom: In Sync with GHS, and Fire Safety training are required for anyone working in a lab area. Additional training includes using biosafety cabinets or fume hoods needed to complete *Safe Use of Biosafety Cabinets or Safe Use of Fume Hoods* training, respectively. *Environmental Awareness Part 2* is also required. All Students must complete *Bloodborne Pathogens* training. For all online safety trainings,

please visit the [Department of Environmental Health & Safety and Risk Management Services website](#).

Students must participate in required training for human and animals research, and obtain relevant committee approvals prior to commencing any activities, i.e., approval from the Institutional Review Board for the use of human subjects (<http://research.fiu.edu/irb/>) or the Institutional Animal Care and Use Committee for animals (<http://research.fiu.edu/iacuc/>). Research with recombinant DNA requires approval from the Institutional Biosafety Committee (<http://research.fiu.edu/ibc/>).

Year 2: Courses

Students are expected to register for the following courses.

Course No.	Course Name	Credits
GMS 6542	Translational Clinical Pharmacology	3
GMS 6939	Graduate Seminar Fall and/or Spring	1
GMS 6930	Lectureship Seminar Fall and Spring	(1 credit x 2) 2
GMS 6961	Qualifying examination	5
GMS 6910	Supervised Research (Fall)	Adjustable
GMS 6910	Supervised Research (Spring)	Adjustable
GMS 6910	Supervised Research (Summer)	Adjustable
GMS 6926	Research Symposium Presentations	2
GMS 6925	Graduate Student Presentation	2
GMS 6927	Scientific Oral Presentations (Spring and Fall)	(2 credits x2) 4

Students also may complete elective courses as determined by the Advisor and the Dissertation Committee with the approval of the Curriculum Subcommittee and the Student Affairs Subcommittee in addition to the required courses indicated above. Examples of courses that qualify as electives are listed below. At their discretion, either the Advisor or the Dissertation Committee may suggest potential electives that are described in the [FIU Catalog](#). The proposed list will be review by the Curriculum and the Student Affairs Subcommittees for approval. The subcommittees will inform the Program Director, who will inform the student and the Advisor of the evaluation results.

Course No.	Course Name	Credits
BME 6545	Biosensors & Nanobioelectronics	3
BSC 5459	Advanced Bioinformatics for Biologists	3
CGS 5166	Introduction to Bioinformatics Tools	2
CHM 5305	Graduate Biological Chemistry	3
CHM 6088	Environmental Chemistry of Trace Elements	3
CHM 6382	Advanced Biological Chemistry	3
GMS 6300	General Pathology	4
GMS 6500	Basic Pharmacology	4

GMS 6904	Introduction to Scientific Writing	3
GMS 6103	Molecular Microbiology and Infectious Diseases	3
GMS 6940	Supervised Teaching in Biomedical Science	1

In their **second year**, students are expected to meet the following requirements:

- Complete all required and elective courses.
- Regularly attend Lectureship seminar (Fall and Spring) as in Year 1
- Make progress in their research and define a dissertation project.
- Successfully complete the Qualifying Examination (GMS 6961) and submit for publication.

Year 3: Dissertation Proposal

Students are expected to submit their Doctoral Dissertation Proposal (GMS 6963) and present a Dissertation Proposal Seminar (GMS 6964). Upon successful completion of the above courses, they will be allowed to register for Dissertation Research Credits (GMS 7980). Students should also attend all conferences and lectures included in the Lectureship Seminar Series (GMS6990c) during the fall and spring terms, but they should not register.

In the **third year**, students are expected to meet the following objectives:

- The Graduate Student Seminar aims to enable students to communicate their original research in a formal scientific presentation aimed at peers, investigators of the Department of Cellular and Molecular Medicine, the Center for Translational Sciences, and the scientific community of the HWCOC and FIU in general.
- Prepare a Doctoral Dissertation Proposal and successfully defend the content of the dissertation proposal as required for admission to PhD candidacy.
- Participate in the Responsible Conduct of Research training
- Attend Lectureship Seminar Series (GMS 6939) as in Years 2 & 3
- Present results at Graduate Research Day and HWCOC Research Symposium
- Make substantial progress in research to achieve the aims in their dissertation project.
- Give research presentation at a national scientific meeting

Years 4 and 5: Dissertation Research

Students will primarily engage in Dissertation Research and work towards completing their PhD degree. They may register for Graduate Seminar and Seminar Series (GMS 6939) during the fall and spring terms each year.

During this phase, students are expected to achieve expert knowledge and skills in their specialty area, attain a broad knowledge in different aspects of biomedical science research, focus on developing research and communication skills, and present/publish their significant research findings. The average time to get a PhD degree is about 5 years. However, if significant progress is made, students may be able to graduate in their **4th year**.

Students are expected to:

- Give research presentations at national conferences/symposiums.
- Publish original manuscripts including one first or last author manuscript.
- Participate in at least 3 professional development activities.
- Complete their dissertation research.
- Write and successfully defend their dissertation.
- Secure job positions in academia, government, medical research, biomedical and biotechnology industries

Academic Policies - PhD Program in Biomedical Science

Registration for Classes

The Program Manager or the Program Coordinator will assist students in registering for their first-year courses. In subsequent years, the students are responsible for selecting the appropriate courses. Students must register for a minimum of 9-credits during the fall and spring term, and 6-credits during the summer term.

As a pre-requisite to registration, FIU requires all students to comply with the following immunization policy regulations from the Florida Board of Governors regarding immunity of:

- Measles, Mumps, Rubella
- Hepatitis B and Meningitis

Please fill out the [Immunization Documentation Form](#) and return it to University Health Services. If you fail to provide this information, a hold will be placed on your record preventing you from registering for classes. For more details, you may contact the Student Health Services via phone: (305) 348-2401; email: immune@fiu.edu (please include "immunization" in the subject line) or visit <https://studentaffairs.fiu.edu/health-and-fitness/student-health/>

International Students

All F-1/J-1 students admitted to FIU must report to the [International Student and Scholar Services \(ISSS\)](#) Student Academic Success Center (SACS) 230 upon arrival on campus, and before registering for classes. Additionally, international students must complete the following requirements:

- Attend the mandatory International Student Orientation
- Register as a full-time student (9 credits) for fall and spring term and 6 credits for summer term
- Obtain medical insurance (students without proof of medical insurance will not be able to register)
- Present an FIU I-20 or DS-2019, an I-94 card, and a valid passport to the ISSS office

Course Syllabus and Teaching Learning Format

The syllabus for each course contains the learning objectives, schedule of activities, topics to be presented, faculty involved, listing of course materials, evaluation system, grading policies, and all other course policies, including attendance expectations. A variety of learning formats may be used, including lectures, discussion groups, individual and group projects, and lab work.

Graduate students may access information about the course syllabi, content, announcements, documents, recordings of all lectures at Canvas or [CanvasMed](#). Students are expected to check the websites regularly for updates and changes.

Conduct of Examinations

A variety of assessment formats are used, including objective multiple-choice questions (MCQ), oral and written reports, exams, and essays. Course directors will review results with the class following an examination.

Exam Grades

Students may raise concerns about exam questions during the exam using a “challenge card.” Students can also raise concern about exams with the BMS Graduate Program Curriculum Subcommittee, the BMS Graduate Program Student Affairs Subcommittee, and the Program Director. Students will receive their exam results individually. General class performance on individual exams will be provided to students in the results report. High score, low score, mean, median and the standard deviation will ordinarily be in the reports for objective exams.

Course Grades

Performance in courses will be graded either numerically, letter grade, or pass/fail. Since the University Graduate School employs a letter grading system, all numerical grades will be converted to letter grades. The grading system for a given course will be clearly described in the course syllabus. Unless otherwise indicated, the following conversion between numerical and letter grades will be implemented.

% Marks	Grade conversion	Points per credit hour
≥90 - 100	A	4.00
≥80 - <90	A-	3.67
≥70 - <80	B+	3.33
≥60 - <70	B	3.00
≥50 - <59	C	2.00
<50	F	0

Forgiveness Policy

Graduate courses are not authorized for grade forgiveness.

Final Grades

Final grades are available through the PantherSoft web-based system (<http://my.fiu.edu>).

Academic Warning

A graduate student whose cumulative graduate GPA falls below a 3.0 will be placed on warning, indicating academic difficulty. The Director of the Program and the BMS Graduate

Program Student Affairs Subcommittee will work with the student to improve academic performance.

Probation

A graduate student on warning whose cumulative graduate GPA remains below 3.0 in the following term will be placed on probation, indicating serious academic difficulty.

Dismissal

A graduate student on probation who does not raise their term GPA to at least 3.0 by the following term will be dismissed from the PhD program. A graduate student will not be dismissed prior to attempting a minimum of 12 hours of coursework. The student has ten working days to appeal the dismissal decision. This appeal must be made in writing to the Dean of the University Graduate School. To appeal, a Petition for Exception to Graduate Requirements form (<http://gradschool.fiu.edu/student-forms.shtml>), which can be found at the University Graduate School (UGS) website, must be completed. The dismissal from the University for a minimum of one year prohibits students from registering for any courses. After one year, the student may apply for readmission to the University in the same or a different program.

Laboratory Rotations for PhD in Biomedical Science Major (only)

The purpose of the laboratory rotations is to give undecided students experience in some laboratories of the HWCOM and CTS graduate program faculty members that may eventually lead to the choice of a dissertation laboratory. Such an experience will be available to students who are interested in more than one mentor at HWCOM or CTS, and at the same time, more than one mentor at CTS or HWCOM is interested in accepting the students in their labs. Rotations are limited to one location, meaning that all three or more interested faculty must be at HWCOM or CTS. Rotations may not include faculty at HWCOM and CTS. Students may select a laboratory upon joining the program, in consultation with their advisor.

Structure of lab rotation

- Students must select three faculty members who are interested in incorporating the student into their lab at HWCOM or CTS during the interview process. Additionally, the HWCOM website features a listing of all research faculty members, along with links to their respective research areas. Students are encouraged to consult this information in planning their interviews.
- Students will meet one-on-one with graduate faculty who hold Graduate Status and request to the faculty of interest the consent to perform a rotation in their labs. Students will submit their rotation choices to the Graduate Program Director. The rotation schedule is as shown below:

Rotation

Timeline

First	May 4, 2026 – May 29, 2026
Second	June 1, 2026 – June 26, 2026
Third	June 29, 2026 – July 24, 2026

- Students are expected to devote as much time as possible to their laboratory rotations.
- Agreement forms for mentors and advisors to be reviewed at the end of the rotation and submitted to the Student Affairs Subcommittee.
- Before beginning a rotation, students should discuss with the faculty member the expectations of the rotation and evaluation procedures. A rotation in a particular laboratory does not constitute a commitment on the part of the student or research advisor regarding the ultimate choice of dissertation laboratory.
- Research rotations consist of mini projects carried out in the laboratory of and under the supervision of a faculty member. The rotations involve individual projects related to the general research interests of the students and the faculty mentors chosen.
- At the end of each rotation, the student and the faculty member will complete a lab rotation evaluation form (see attachment Annexure). They should have a forthright and frank discussion about the prospect of the student joining the lab. If the faculty member is not willing to have a student join their lab, this must be communicated explicitly to the student.
- At the end of each rotation, the student will give an oral presentation about their rotation experience. Presentations are approximately 15 minutes in length and should include – (i) the background of the project; (ii) the objective(s) of the experiments that were conducted; (iii) the experimental design that was followed; (iv) the actual results that were obtained; and (v) a discussion of the results. Each oral presentation will be evaluated by Graduate students and faculty.
- The rotation experience is an approved course with credit, and students will receive a pass or fail grade based on an average of the evaluations of the three participating faculty members. The form will be given to the Graduate Program Director and kept in the student's file for reference in assessing the student's progress as well as monitoring the rotation program in general. Students receiving three (3) "fail" grades during their rotations will be automatically dismissed from the program.
- After completing three rotations, the student chooses his or her dissertation advisor (see below) based upon agreement between the student and the faculty member.
- After the third rotation, if the student still cannot choose his/her dissertation advisor, or if none of the faculty members agree to be the student's supervisor, the student will be dismissed from the program.

Choosing an Advisor

The choice of an Advisor is the most important decision for a student. The Advisor is the principal advisor and mentor of a graduate student. A student's choice of Advisor has a considerable influence on his/her graduate training, research expertise and ultimate employment. In choosing an advisor, a student must consider the quality of the research projects, the influence of senior students and postdocs in the lab, research funding and lab resources, and the level of advisor's involvement. All of these, combined with the student's own initiative, intelligence, creativity, and determination, will determine the success of the student's graduate education. If the students have not selected an advisor at the time of joining the program, they must select their Advisor by the end of summer term (First Year). Selection of the Advisor follows primarily after a discussion between the student and faculty member. Final approval and acceptance in the prescribed Advisor Selection Form (see Annexure) must be obtained before beginning formal work with the agreed upon advisor.

Students have the right to change their Advisor in the event they believe there is irreconcilable disagreement or incompatibility. Students are advised to arrive at a decision promptly as any changes at a later stage may delay the completion of their PhD degree.

Selection of Dissertation Committee

The Dissertation Committee (DC) is initiated by mutual agreement between the student and the Advisor. The committee appointments are made by the Dean of the University Graduate School on the recommendation of the Graduate Program Director and the Dean of HWCOC. The Dean of the University Graduate School shall have the authority to appoint an additional Graduate Faculty member to any dissertation committee.

The DC consists of a minimum of 4 members, at least 2 from HWCOC (one chairperson), and at least 1 from another academic unit at FIU and another can be from outside FIU. Non-FIU Graduate Faculty committee members must submit a full CV and complete the Commitment Form for Non-FIU Committee Members. Additionally, these individuals must understand the time commitment required to read the doctoral student's proposal, participate in annual progress meetings, attend the dissertation defense, as well as the University's mandatory sign-offs on Data and Privacy attestation to access FIU online platforms

The chairperson must have a specialized academic competence in the student's major field of research, be tenured or tenure-earning and hold Graduate Faculty (GF) Status. The committee must be selected so that the relevant emphases of the dissertation and the student professional development are adequately represented and supported.

The HWCOC graduate committee may weigh in on the suitability of all the members. Although FIU faculty members of the DC must have Graduate Faculty (GF) status, members from outside FIU need not have GF status. Outside FIU faculty members should sign a commitment form, provide a current curriculum vitae, and be approved by the Associate Dean for Research.

The DC will oversee all aspects of dissertation research. They will meet with the student at least once a year to help plan research, review the student's progress, and provide written reports to the Graduate Program Director/Co-Director. The advisor will be the chairperson of the Dissertation Committee for all meetings progress report meetings, but not the qualifying examination and the Candidacy, for which the Advisor will transfer the responsibility of

overseeing these examinations to other member of the committee. The chairperson should also meet with the student after every meeting to discuss the outcome of the report.

Annual Performance Evaluation

The performance of graduate students will be reviewed annually to determine their continuation in the graduate program. The primary goal of the annual evaluation process is to facilitate the engagement of the student, dissertation advisor, and committee in the evaluation and mentoring processes. Assessment of each student is performed in accordance with the requirements of the PhD in Biomedical Program and University Graduate School policies. The Annual Student Evaluation and Mentoring Plan form must be submitted to the University Graduate School by May 30th. The Graduate Program Director performs the evaluation of a student's performance in the first year. Subsequent annual evaluations are performed by the student's Advisor and Dissertation Committee, in consultation with the Curriculum Subcommittee and the Student Affairs Subcommittee.

Lectureship Seminar participation and Attendance to Seminars and Presentations

Students are required to register for the Lectureship Seminar (GMS 6990c) course throughout their graduate training, during both the Fall and Spring terms. The students must attend to at least 80% the departmental seminars, CTS seminar series and presentations given by invited speakers in the HWCAM Distinguished Seminar Series as well as any other seminars available at the HWCAM and CTS.

Effective Scientific Oral Presentations

Students are required to register to Effective Scientific Oral Presentations (GMS 6XXX) the Summer of the first Year and the Fall and Spring terms of the second year. The students will design presentations based on their on their own project and results. The students will present multiple times during the course. At the end of each term each student will give a full presentation of their work during the term.

Student Effort

Students are expected to devote themselves to the full-time pursuit of the PhD degree. These include completing their coursework promptly, regular participation in seminars, and research. Students should be working in the laboratory and attend seminars even when classes are not in session. They should devote as much effort as possible to their laboratory work. Students must receive permission from the Director of the PhD In Biomedical Sciences (first year) or Advisor (subsequent years), if they are required to be away from the laboratories for any reason. The absence of the student must be informed to the program in advance, and if it is longer than 1 week must be justified and approved by the program.

Doctoral Degree

The graduation requirements for the program will be:

Completion of Mandatory and Elective Courses as required.

Students must maintain a cumulative graduate GPA 3.0

Choosing a Dissertation Advisor

Students must select their Advisor at the time of acceptance to the program or after rotations, under the conditions described previously. The selection of an advisor primarily follows a discussion between the student and a faculty member. Final approval and acceptance in the prescribed Advisor Selection Form must be obtained before beginning formal work with the agreed-upon Advisor.

Qualifying Examination

After successful completion of mandatory courses, students will be allowed to proceed with the Qualifying Examination (GMS 6961). This generally would occur after the students have completed all mandatory and elective academic courses, but no later than the end of the **5th term of study** (excluding the summer terms). The Qualifying Examination determines, in part, the student's eligibility for admission to candidacy for the PhD degree. The exam is designed to test the student's knowledge of biomedical sciences, as well as assess creativity and rationality of research design. The exam is composed of two parts:

- (i) A written exam. The student will submit a comprehensive review on a topic chosen by the Dissertation Committee. The review article will consist of an Abstract, Introduction, Scope (covered topics), Conclusions and References. The student will prepare a second version of no more of 5 pages for submission to the Graduate College.
- (ii) Oral defense of the review article before the DC.

Student will be provided two opportunities to take the qualifying exam. Under the extenuating circumstances another opportunity may be provided based on the standing committee's decision after which they could be dismissed from the program.

Doctoral Dissertation Proposal

After successfully passing the Qualifying Examination, the student will prepare a **Doctoral Dissertation Proposal** (GMS 6963). A dissertation is a formal and systematic discourse or treatise advancing an original point of view as a result of research. The dissertation proposal describes the student's progress in research and proposes the future direction of the student's doctoral research. It is understood that the dissertation may evolve in directions quite different from the dissertation proposal, and that the proposal is not intended to restrict the normal development of a research project. The dissertation proposal is in no way a contract between the University and the student. Depending on the outcome of the research, the dissertation may require substantially more work than anticipated at the stage of the dissertation proposal.

The dissertation proposal is to be written in the style of an AHA, NIH, or NSF predoctoral fellowship application and is limited to a maximum of 8 pages. Use standard paper size (8½" x 11"). Use at least one-half-inch margins (top, bottom, left, and right) for all pages. Use an Arial, Helvetica, Palatino Linotype, or Georgia typeface, a black font color, and a font size of 11 points or larger. A Symbol font may be used to insert Greek letters or special characters; the font size requirement still applies. Type density, including characters and spaces, must be no

more than 15 characters per inch. Type may be no more than six lines per inch. Figures, charts, tables, graphics, and legends may be smaller in size, but they must remain clear and legible. All relevant literature should be cited in a separate section (Bibliography & References Cited) and is not part of the 8-page limit.

The dissertation proposal should be typed following the outline given below and in the same sequence. The suggested lengths (in parentheses) are guidelines only; the entire dissertation proposal must not exceed the 8-page limit.

1. Specific Aims (limited to 1 page)

- State concisely the goals of the proposed research and summarize the expected outcome(s), including the impact that the results of the proposed research first involved.
- List succinctly the specific objectives of the research proposed, e.g., to test a stated hypothesis, create a novel design, solve a specific problem, challenge an existing paradigm or clinical practice, address a critical barrier to progress in the field, or develop a new technology.

2. Research Strategy (limited to 7 pages)

Organize the Research Strategy in the specified order using the instructions provided below. Start each section with the appropriate section heading – Background and Significance, Innovation, Approach.

Cite published experimental details in the Research Strategy section and provide the full reference in the Bibliography and References Cited section.

(a) Background and Significance

- Sketch the background leading to this proposal. Summarize important results outlined by others in the same field, critically evaluating existing knowledge.
- Identify gaps that this project is intended to fill. Explain the importance of the problem or critical barrier to progress in the field that the proposed project addresses.
- Explain how the proposed project will improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields.

(b) Innovation

- Explain how the proposal challenges and seeks to shift current research or clinical practice paradigms.
- Describe any novel theoretical concepts, approaches or methodologies, instrumentation, or intervention(s) to be developed or used, and any advantage over existing methodologies, instrumentation or intervention (s).
- Explain any refinements, improvements, or new applications of theoretical concepts, approaches, or methodologies, instrumentation, or interventions.

(c) Approach

- Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the proposal. Include how the data will be collected, analyzed, and interpreted as well as any resource sharing plans as appropriate.
- Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims.
- Point out any procedures, situations, or materials that may be hazardous to personnel and precautions to be exercised.

3. Bibliography & References Cited

List all literature cited. Each reference must include the title, names of all authors, the name of the book or journal, volume number, page numbers, and the year of publication. While there are no page limitations in this section, it is essential to be concise and to select only those literature references pertinent to the proposed research.

Briefly, the research plan should address the following questions: What do you intend to do? Why is the work important? What has already been done? How will you approach the work? The Dissertation Proposal must be submitted to the Dissertation Committee two weeks prior to the presentation. Before approval of the dissertation proposal, the student must complete a Responsible Conduct of Research Certification. As discussed earlier (pages 8 and 9), all graduate students must stay current with appropriate laboratory specific online safety trainings. Students participating in projects that involve research with recombinant DNA or human or animal research must participate in required trainings and have relevant committee approvals.

Dissertation Proposal Seminar

The student will present the research proposal in a public seminar. This is done in the context of a one-credit course (Dissertation Proposal Seminar (GMS 6964), which is graded as the pass or fail and is changed to letter grade upon completion of the degree. The student will give a PowerPoint presentation of the proposed research. For the Dissertation Proposal Seminar, the Advisor cannot be the chair of the Dissertation Committee. The Dissertation Committee will specifically evaluate the following:

- a) Has the student demonstrated the ability to design a feasible project?
- b) Has the student shown a reasonable knowledge of the literature regarding the project?
- c) Has the student presented the proposal (both written and oral) in a scholarly fashion?
- d) Has the student demonstrated competent scientific knowledge with respect to overall fundamental principles and applications in biomedical science?
- e) Does the proposed research constitute an acceptable and feasible dissertation project?

This will be achieved through an oral question and answer component within the scheduled time of the dissertation proposal seminar. The Dissertation Committee chairperson will (i) ensure that the proposal exam is held to a reasonable length of time; (ii) ensure that the student is evaluated fairly and rigorously; and (iii) see that a written evaluation is promptly prepared and sent to the student and to the Graduate Program Director. The oral presentation and examination will occur consecutively in a single session.

Admission to Candidacy

The formal admission to PhD candidacy occurs when the student successfully completes:

- The required courses with a GPA \geq 3.0
- Passes the Qualifying Examination
- Prepares a Doctoral Dissertation Proposal
- Successfully defends the content of the dissertation proposal before their Dissertation Committee

Immediately following the proposal defense, the student's DC will vote to admit the student to candidacy. Admission to candidacy requires unanimous agreement of the committee members that the student has passed the examination. A candidacy examination may not be passed conditionally. A "Pass" on the examination cannot be made contingent upon other factors such as the completion of additional coursework or the preparation of extra research projects. Students will be informed in writing of the results of their performance on the examinations within 5 days of the examination date.

If the student fails the candidacy examination, the DC, at its discretion, may provide for reexamination at a mutually satisfactory time, but no more than 6 months from the original date of the examination.

Passing the candidacy examination is requisite to continuing in the doctoral program. Students who fail the candidacy examination twice will be dismissed from the graduate program.

After a doctoral student is admitted to candidacy, continuous registration for at least 3 dissertation credit hours each term (including the summer term) is required until the dissertation requirements are fulfilled. During the academic year, international students must maintain full-time enrollment. Failure of a graduate student to comply with this requirement will result in dismissal from the program. A student who finds it necessary to be excused from registration must formally request a leave of absence from the graduate program.

Dissertation and Dissertation Defense

A dissertation is required of all candidates for the PhD degree and must conform to the standards of presentation as described in the [University Graduate School Manual for Electronic Theses and Dissertations](#). The written dissertation must conform to the standards of presentations as described in the University Graduate School manual for Electronic Theses and Dissertations. For the dissertation defense, the submission of peer-reviewed manuscript(s) or the publication(s) in peer-reviewed journals is anticipated. It is expected that the student will be the first or senior author of at least one of the peer-reviewed publications.

The Dissertation Defense Seminar (GMS 7981) will take place after the dissertation is submitted in a final form and approved by the DC. Changes recommended at the time of the defense may be incorporated subsequently. The dissertation should be submitted to the DC at least four weeks prior to the expected defense date to permit the members adequate opportunity for review.

After submission of the dissertation and completion of all other prescribed work for the PhD degree, the degree candidate will submit to the Dean of the University Graduate School a Request for Oral Defense (Form D-5). This request must be approved by the DC and the Dean of HWCOM. Form D-5 must be submitted to the University Graduate School at least 3 weeks before the date of the defense or by the deadline (whichever date is earlier). The University Graduate School publishes their deadlines for dissertation submission on their website.

If the student does not comply with these deadlines, then s/he may be forced to enroll for another term to be able to graduate. Students are encouraged to meet with their advisor to ensure that there are no delays in the graduation process. To apply for graduation, students must log into their MyFIU portal and select “Apply for Graduation” under the Academics drop down menu. Graduation application deadlines are available on the Academic Calendar.

The Dissertation Defense Seminar announcement is an invitation to members of the University community to observe and participate in the defense. The defense must be held on a business day during the regular term. The defense must occur at the time, date and place of the announcement and all committee members must be in attendance. The defense announcement must be posted at least two weeks prior to the defense and will include at least the following information:

- A concise one-page description of the dissertation
- Dissertation title
- Student’s name
- Dissertation committee chairperson’s name
- College and department
- Date, time, and place of the defense

The oral presentation is followed by defense of the dissertation to the DC in closed session. Following the examination, the DC evaluates the performance in the candidate’s absence and votes to pass or fail the candidate.

Final Approval of Dissertation

The vote is recorded on FIU University Graduate School - Final ETD Approval Form. Completed Final ETD Approval form must be submitted in accordance with the HWCOM and University Graduate School deadlines. Successful completion of all these steps will culminate in the granting of the PhD degree.

Online Dissertation Milestones

Dissertation milestones mark the progress of a doctoral candidate’s progress toward completing the dissertation and are major components that contribute to the completion of a doctoral program (PhD/EdD/DBA).

The submission of all online dissertation milestones must follow registration, good academic standing, and deadlines requirements. Hence, be sure to comply with all requirements such as guidelines, timelines and deadlines for all dissertation milestones. Furthermore, do make sure to

include all required documents, as instructed on each dissertation milestone. The Online Dissertation Milestone – Activity Guide is available at <https://my.fiu.edu/>, under your Student environment, in the Tasks tile.

General Dissertation Milestones described below:

Annual Student Evaluation and Mentoring Plan - Submit annual student evaluations to UGS by May 30.

Program for Doctoral Degree and Application for Candidacy – All coursework must be complete with the required number of credits.

- Pass all comprehensive and qualifying examinations
- Maintain a 3.0 or higher cumulative GPA
- Clear any incomplete grade (s)
- Any transfer of credits must be reflected in the FIU transcript prior to submission of this dissertation milestone
- In general, doctoral students advanced to candidacy with a minimum of 60 graduate credits
- Approved candidacy is required to commence dissertation credits enrollment
- Due to UGS five days prior to the first day of classes in the term in which dissertation credits enrollment will commence

Appointment of Dissertation Committee – Establish dissertation committee by mutual agreement with the student and major professor or co-major professors.

- Must meet the University’s minimum composition requirements, <https://policies.fiu.edu/files/780.pdf>.
- Include a 250-Word abstract of your proposed research project (Approximately a one-page, double-spaced document in a Word or PDF format attachment). *
- Include the expertise of your proposed dissertation committee in relation to your proposed research project (in the “Enter Expertise” fields you must state how their expertise will contribute to your proposed research project). *

**Please make sure to provide the 250-Word Abstract (one-page, double-spaced document) and in the “Enter Expertise” fields clearly explain how your proposed dissertation committee will contribute to your proposed research project. Otherwise, this online form will be returned. You will be able to submit a new Appointment of Dissertation Committee accordingly.*

Doctoral Dissertation Proposal – Completion of original research proposal.

- Complete original research proposal
- Complete required Responsible Conduct of Research Certification (RCR).
- If proposal project involves human or animal research, approval memos such as IRB/IACUC/IBC, respectively, are required.
- For all information about RCR, online research training, refer to <https://gradschool.fiu.edu/rcr/>.

Preliminary Approval of Dissertation and Request for Oral Defense – Written dissertation must conform to the standards of presentations as described in the University Graduate School manual for Electronic Theses and Dissertations.

- Public presentation of dissertation to the University Community to be held on a business day during the regular term
- Due at the UGS by no later than three weeks prior to the proposed date (whichever date is the earliest).

Click Here to Learn about the Request for Oral RequestProcess:
<https://gradschool.fiu.edu/oraldefensesubmission/>

Final Electronic Dissertation Approval – Final written dissertation for preservation in the University's Digital Commons.

- For SACS accreditation, a full version of the Curriculum Vitae must be provided (this is different from the 2-page VITA).
- For PhD candidates, a Certificate of Completion from Survey of Earned Doctorates is required. Complete this at <https://sed-ncses.org/login.aspx>.

Click Here to Learn about the Final ETD Process: <https://gradschool.fiu.edu/the-final-etd-process/>

Important – Please be advised that towards the end of the term (check academic calendar), you will receive an email from us with instructions to upload your final manuscript to Digital Commons. Hence, it is essential to submit your online Final ETD to us by no later than the due date.

Financial Assistance for PhD Students

Stipend and Tuition

The PhD Program in Biomedical Sciences in association with the University Graduate School offers a limited number of assistantships to support graduate students. These generally fall into three categories: Graduate Assistant (GA), Graduate Teaching Assistant (GTA), and Graduate Research Assistant (GRA). Guidelines for graduate assistantships are available at the University Graduate School site.

Students who receive graduate assistantships must register for a minimum of nine (9) credits during the fall and spring term and six (6) credits for the summer term. All students who receive graduate assistantships should expect the support to continue throughout their period of study provided they maintain a cumulative graduate GPA ≥ 3.0 .

- Year 1: Graduate Assistantship; Stipends and tuition waiver
- Year 2: Graduate Teaching Assistantship; Stipends and tuition waiver
- Year 3 and later: Graduate Research Assistantship; Stipends and tuition waiver from extramural research grants held by the Dissertation Advisor.

Students are also strongly encouraged to apply for extramural and intramural fellowships that they may qualify for (see below). If the Dissertation Advisor loses his/her grant, then HWCOR will provide support contingent on satisfactory student performance.

Students with graduate assistantships are responsible for the per credit tuition fees, term fees, and other miscellaneous fees as described [here](#).

Advisor granted bonuses.

Students that achieved excellence in their performance and have evaluations above expectations may receive a bonus from the advisor. The advisor must inform the Program Director/Co-Director and obtain authorization from the Associate Dean for Research to award the bonus, which must be funded by the Advisor funding sources.

Medical Insurance Contribution

All students enrolled in the PhD Program as GA, GTA or GRA will receive 75% contribution towards the student health insurance plan. The GA/GTA/GRA is responsible for 25% of the premium, which will be deducted from their biweekly paycheck. For more information on the plan and benefits, please click on [brochure of GA Health Insurance Benefits and Coverage](#).

Students may opt out of the University plan, if they have their own insurance plan, and the insurance company can verify their coverage. For more information, please visit the UGS website on [Graduate Assistant Insurance](#).

Taxes

Any portion of stipend or fellowship used for living expenses is subject to U.S. taxes. The interpretation and implementation of the tax laws is the domain of the [Internal Revenue Service](#). Students may consult a tax expert for advice.

For an international student, the University is required to withhold taxes on the portion of the fellowship used for living expenses unless there is a tax treaty between the student's country and the United States.

Conference Travel Funding

Graduate students are advised to attend and present their research findings at scientific conferences and meetings. For travel funds, students may check with the sponsors of the conference they wish to attend and professional associations in their field. Students may also apply for conference travel funds through FIU's [Graduate and Professional Student Committee](#). After approval by the Student's Affairs Subcommittee, the program may cover up to \$500 for conference participation.

Professional Development Travel Funding

Students must apply to the UGS for support. After approval by the Student's Affairs Subcommittee, the program may provide up to \$500 for student's support. The Advisor and other sources of funding must be demonstrated to qualify for program support.

Outside Employment

Students with graduate assistantships are considered to be fully engaged. They are held to a high degree of accountability and are not permitted to have other jobs while they are in the program.

Termination of Graduate Assistantship

Graduate Assistants with a cumulative graduate GPA below 3.0 or who fail to comply with university policies regarding graduate assistantships will have their assistantship cancelled by the University Graduate School. Graduate assistants who fail to maintain satisfactory academic progress may also have their assistantship cancelled by the University Graduate School. Cancellation of an assistantship within an active term will result in reversal of the tuition fee waiver, i.e., the student will become fee liable for all applicable resident or non-resident tuition. Cancellation of an assistantship may also result in termination of the subsidized health insurance. Employment may be terminated at any time if work performance is unsatisfactory.

Herbert Wertheim College of Medicine Fellowships

BMS Graduate Program Dean's Fellowship

The purpose of the Dean's Fellowship is to attract highly qualified graduate students into the PhD in Biomedical Sciences Program at the Herbert Wertheim College of Medicine. Students are awarded these Fellowships based on their qualifications and potential to become leaders in Biomedical Sciences Research and Translational Medicine. Applicants will be nominated by the Recruitment Subcommittee to the Graduate Program Committee.

BMS Graduate Program Dean's Scholarship

The purpose of the Dean's Scholarship is to motivate excellence in graduate students in the PhD in Biomedical Sciences Program at the Herbert Wertheim College of Medicine. Students are awarded these Scholarships based on their performance and potential to become leaders in Biomedical Sciences Research and Translational Medicine. Students are nominated by the advisor to the Student Affairs Subcommittee.

University Graduate School (UGS) Fellowships

The UGS is committed to excellence in graduate education and is proud to offer fellowship opportunities for new and continuing students. It is important to note that funding for the fellowships is limited and very competitive. To be considered for specific awards, it is critical to submit a complete application prior to the stated deadline.

Doctoral Evidence Acquisition Fellowship (DEA)

The Doctoral Evidence Acquisition Fellowship is specifically intended to support doctoral students who have no financial support for evidence acquisition activities or those students for whom their current means of financial support would significantly interfere with or preclude their ability to collect the evidence needed for their doctoral research.

Dissertation Year Fellowships (DYFs)

The Dissertation Year Fellowships provide support to highly-qualified FIU doctoral students during the data analysis and writing phase of their dissertation. It is intended to facilitate the timely completion of high-quality manuscripts and dissertations. Students who are conducting outstanding research in their discipline and have established a notable record of publication during their doctoral studies (in comparison to others in their discipline) are favored in the application process. Dissertation Fellows are expected to graduate within one (1) year after receiving the award.

Presidential Fellowship (PF)

The Presidential Fellowship is utilized for the recruitment of outstanding PhD-track students to graduate programs at FIU. Each fellowship provides a three-year award package to the fellow.

Why Apply for External Funding?

Even if a student is supported by an assistantship, there are a number of compelling reasons why they should consider applying for external funding:

- There are financial incentives to applying for a fellowship, as fellowship stipends are typically higher than departmental stipends and often cover fees that are not covered by assistantships.
- Receiving external funding allows students to get paid to work on their own research instead of having to perform duties associated with a teaching or research assistantship or having to pay their own way through graduate school.
- The prestige that comes with being awarded external funding conveys to potential employers that the student is someone who takes initiative, can synthesize, and explain difficult concepts, and is an excellent writer, all of which are highly sought characteristics in any job market.
- The FIU committee that awards the Doctoral Evidence Acquisition (DEA) Fellowship and Dissertation Year Fellowship (DYF) considers whether or not the student has applied for external funding. It is looked upon favorably if the student has previously applied for external funding, successfully or not.
- Applying for external funding is a great experience. It is a chance to improve the student's writing skills, and any work that the student puts towards a proposal will make writing their dissertation that much easier.
- For more information on fellowship opportunities, check this [link](#) at UGS website.

Attendance Policies

The PhD Program in Biomedical Sciences expects mandatory attendance from the students. The objective is to create an effective learning environment to master course content and satisfy performance objectives and learning outcomes.

Instructors may establish specific class attendance requirements and may consider attendance and participation in class in evaluating student performance. During the first week of class, instructors will inform the students of any special requirements and articulate any penalties, including a failing grade that may result for nonattendance.

In general, instructors will excuse students from classes due to their military obligations, jury duty, religious days, illness, serious family emergencies and/or participation in official university activities, i.e., athletic events, artistic performances, curricular activities. Instructors will also offer affected students a reasonable amount of time to complete course work and/or assignments missed during their approved absence.

Only registered students in the PhD program are allowed to attend a class at the university. Lapses in enrollment for two consecutive terms require that the student apply for readmission subject to the admission procedures, criteria, and policies in effect at the time the reapplication is made. Doctoral students who have an approved dissertation proposal on file at UGS are required to be continually enrolled in dissertation (3) credits. At the mid-point of each term, an audit will be conducted to identify graduate students who are active but not enrolled. Graduate students identified as non-enrolled, but with active program status during the term will be required to register for twice the minimum number of credits during the subsequent term. Students who wish to avoid this penalty need to have a request for a leave of absence approved by the UGS in advance.

Leave Policy

Students working as Graduate Assistants do not earn sick or vacation days. Any leave request is determined by the student's Dissertation Advisor or the Graduate Program Director.

Leave of Absence

A student should request a leave of absence any time they will not be enrolled, even for a single term. Any student wishing to file a leave of absence must do so prior to the start of the term in which they are seeking a leave of absence. A leave of absence request must be approved by the Dissertation Advisor, Graduate Program Director, Dean-HWCOM, and the Dean of the University Graduate School. International students must seek the guidance of the International Scholars and Student Services (ISSS) before submitting a request.

A leave of absence will generally be granted in cases involving personal hardship or family needs. Academic standing is not considered a reason for granting a leave of absence. A graduate student who returns from a leave of absence may be required to make changes to their research committee and/or research plan due to changes that have occurred during their absence.

Excused Absence Policies

Attendance Policy

Attendance policies differ by course and are specified in each course syllabus.

Excused Absences Policy

The excused absence policy is designed to provide graduate students the opportunity to attend to personal matters while minimizing disruptions to the educational setting and the program. Students do not need to request an excused absence to miss non-mandatory sessions. Excused absences are generally granted for many different planned and unplanned events as listed below. If there is a personal conflict with a mandatory session and a student is unsure of policy or believes an exception to policy is warranted, he or she should consult with the Program Director of the Graduate Program for guidance and assistance. Excused absence requests are generally granted for these unplanned events (submission of supportive documentation may be required):

1. Acute illnesses
2. Accidents
3. Death of an immediate family member
4. Other emergencies on a case-by-case basis may be granted for:
 - Routine healthcare (nonacute)
 - Religious observances
 - Weddings (of a student or immediate relative)
 - Maternity/paternity
 - Funerals
 - Military orders or officer training
 - Administrative matters
 - Jury duty or other legal matters
 - Scholarly activities (presentation of scholarly work at meetings)

Excused absence requests typically are not granted for:

1. Professional, scholarly, or academic activities occurring while a student is on academic probation
2. Weddings (other than that of a student or immediate relative)
3. Graduations
4. Social events
5. Family vacations and reunions

Excused Absences Process in Emergencies

In the event of unplanned absence, students must contact the Office of Research Administration, Graduate Programs, at 305-348-9124 as soon as possible.

An [Excused Absence Request Form](#) must be submitted to the Office of Research Administration. A student absent for 3 or more days due to illness must submit a note written by a health care provider documenting and attesting to the student's illness. A student may be placed on an involuntary leave of absence if an extended illness impairs the student's ability to meet the requirements of graduate school.

Planned Absences

All requests for excused absences due to planned activities must be submitted to the Office of Academic Affairs by completing and submitting an excused absence form to the office. These requests should be made at least 4 weeks in advance of the planned absence.

Technology Policies

FIU expects the graduate students to abide by the established policies on the use of information technology. To learn more about information technology policies at FIU, please visit the link: <http://security.fiu.edu>.

E-mail Policy

Only HWCAM faculty, staff students, and other persons who have received permission from the HWCAM Information Technology (IT) office are authorized users of the FIU e-mail systems and resources.

Use of e-mail is permitted and encouraged where such use supports the university's academic goals and facilitates communication between faculty and students. However, if a student uses e-mail in an unacceptable manner, he or she is subject to sanctions, including but not limited to having his or her campus e-mail account deactivated.

Unacceptable Use of E-mail

Unacceptable uses of e-mail include but are not limited to:

- Distributing, disseminating, or storing images, text or materials that might be considered discriminatory, offensive or abusive, in that the context is a personal attack, sexist or racist, or might be considered as harassment.
- Using e-mail systems for any purpose restricted or prohibited by laws or regulations.
- "Spoofing," i.e., constructing an e-mail communication so it appears to be from someone else.
- "Snooping," i.e., obtaining access to the files or e-mail of others for the purpose of satisfying idle curiosity, with no substantial academic purpose.
- Attempting unauthorized access to e-mail or attempting to breach any security measures on any email system or attempting to intercept any e-mail transmissions without proper authorization.
- Sending chain mail that misuses or disrupts resources: E-mail sent repeatedly from user to user, with requests to send to others.
- Introducing any form of computer virus or malware into the network.
- Sending copies of documents in violation of copyright laws.
- Including the work of others into e-mail communications in violation of copyright laws.

Portable Computers and Mobile Devices Policy

Students are required to have their own personal laptop computers and/or mobile devices. Students are responsible for purchasing the required software/hardware necessary to be able to access and complete their assignments. HWCAM-IT does not offer technical support for personal computers. At the time of an exam, students will be using only university computers

and not their personal laptops. Students will not be charged any usage fee for loaner laptops during their exams.

Medical Library

The HWCUM Medical library has the primary objective of providing collections and services for the medical and graduate curricula. The Medical Library is located on the third floor of the Green Library at Modesto Maidique Campus.

Books

The Medical Library acquires one print copy of all curriculum-required textbooks. The library also acquires one copy of recommended textbooks that are not available electronically. Each year, the Medical Library acquires new and updated editions to its list of titles. Over the years, the collection is supplemented with additional titles to provide depth.

Journals

The Medical Library has access to over 4,500 biomedical journals, including Cell and other important titles. Additional journals may be requested through departmental chairs.

Articles

Students may request journal articles that are not available online. An interlibrary loan link is located under “Services” at the top of the Medical Library web page. There is no charge for obtaining articles. Articles are delivered by email, usually in 1-3 days.

Databases

Databases are selected for their coverage of knowledge resources commonly used by biomedical researchers. Over 40 biomedical databases are available on the Medical Library webpage. Another 85 related science databases are available on the University Libraries webpage, such as *Biological Abstracts*.

Self-instructional Materials

Library self-instructional materials are available electronically on the webpage. They cover a broad array of information management skills on biomedical topics. They include tutorials on searching medical literature databases, finding, and evaluating evidence-based biomedicine research, copyright applications, and other useful topics.

Access – Mobile Apps

Physical access to the Medical Library is accomplished by swiping the Panther I.D. card on the door. If the card is left behind, a doorbell is available to alert the Help Desk staff.

Electronic access to databases, journals, books, and services is through the [Medical Library website](#). Links are also available for recommending book purchases, requesting articles, obtaining a literature search, and downloading mobile apps. Additional science databases are available at this University Libraries [webpage](#).

Academic Misconduct

Code of Academic Integrity

Students enrolled in the PhD Program in Biomedical Sciences must adhere to the principles of conduct and ethics as established in the [FIU Standards of Conduct](#). FIU is a community dedicated to generating and imparting knowledge through excellent teaching and research, the rigorous and respectful exchange of ideas, and community service. All students should respect the right of others to have an equitable opportunity to learn and honestly to demonstrate the quality of their learning. Therefore, all students are expected to adhere to a standard of academic conduct, which demonstrates respect for themselves, their fellow students, and the educational mission of FIU.

Student Pledge of Honor

As a student at this university:

- 1) I will be honest in my academic endeavors.
- 2) I will not represent someone else's work as my own.
- 3) I will not cheat, nor will I aid in another's cheating.

Definition of Academic Misconduct

Students at FIU are expected to adhere to the highest standards of integrity in every aspect of their lives. Honesty in academic matters is part of this obligation. Academic Integrity is the adherence to those special values regarding life and work in an academic community. Any act or omission by a student which violates this concept of academic integrity and undermines the academic mission of the University shall be defined as academic misconduct and shall be subject to the procedures and penalties that follow.

Academic misconduct is defined as the following intentional acts or omissions committed by any FIU student.

Cheating: The unauthorized use of books, notes, aids, electronic sources; or assistance from another person with respect to examinations, course assignments, field service reports, class recitations; or the unauthorized possession of examination papers or course materials. Any student helping another cheat may be found guilty of academic misconduct.

Plagiarism: The deliberate use and appropriation of another's work without any indication of the source and the representation of such work as the student's own. Any student, who fails to give credit for ideas, expressions or materials taken from another source, including internet sources, is guilty of plagiarism. Any student helping another to plagiarize may be found guilty of academic misconduct.

Misrepresentation: Intentionally lying to a member of the faculty, staff, administration, or an outside agency to gain academic advantage for oneself or another, or to misrepresent or in other ways interfere with the investigation of a charge of academic misconduct.

Misuse of Computer Services: The unauthorized use of any computer, computer resource or computer project number, or the alteration or destruction of computerized information or files or unauthorized appropriation of another's program(s).

Bribery: The offering of money or any item or service to a member of the faculty, staff, or administration by any student to commit academic misconduct.

Conspiracy and Collusion: The planning or acting with one or more fellow students, any member of the faculty, staff or administration, or any other person to commit any form of academic misconduct together.

Falsification of Records: The tampering with or altering in any way any academic record used or maintained by the University.

Academic Dishonesty: In general, by any act or omission not specifically mentioned above and which is outside the customary scope of preparing and completing academic assignments and/or contrary to the above stated policies concerning academic integrity.

Any violation of this section shall first require a determination as to whether the act or omission constitutes academic misconduct. More information related to academic misconduct and academic misconduct procedures are described in this link <https://dasa.fiu.edu/all-departments/academic-grievances/>

Academic Grievance Procedure

Quality graduate education, especially at the doctoral level, is most effective in an environment of informality, mutual respect, cooperation, and open communication. Since there is a unique relationship between graduate students and faculty members, students in graduate programs must not only satisfy university and departmental standards for their programs, but also the professional expectations of faculty members.

Often grievances grow out of misunderstandings or misperceptions about expectations. Faculty and advisors have an obligation to ensure that graduate students are aware of professional and academic expectations. Graduate students have a concomitant obligation to diligently pursue and satisfy these standards; they are bound to observe and respect the policies, rules and regulations of the University, of their respective departments and of their professors. Many of these grievances should be settled through open communications.

Occasionally, a rift develops that cannot be settled informally. Although graduate students have a right to seek redress for academic grievances, they often forgo their rights so as not to offend the professor. Students should be aware that bringing a formal grievance may have the consequence of damaging the working relationship with the professor, and that any straining of the relationship with the professor may interfere with learning. When all means of informal resolution have been exhausted, the parties must have a forum in which to seek review and resolution of an academic grievance.

Purpose

The purpose of this policy and procedure is to provide a means for graduate students to seek investigation and possible resolution of academic grievances, as defined below.

Scope of Policy

This policy and procedure cover graduate academic grievances which are defined as any complaint or controversy alleging:

- 2) unprofessional conduct by a professor which adversely affects either a student's ability to satisfy academic expectations, whether in the classroom, the field, or a lab, or the student's actual performance
- 3) improper admission counseling
- 4) improper counseling by an advisor
- 5) arbitrary grading for coursework, comprehensive examination, thesis or dissertation
- 6) arbitrary non-renewal of a graduate assistantship or arbitrary dismissal from a course or program

This policy does not address issues related to sexual harassment or discrimination based on age, sex, religion, race, marital status, national origin or disability. The Equal Opportunity Programs office is responsible for handling such issues in accordance with procedures developed to comply with the Florida Equity Act. If the graduate student alleges unauthorized utilization of thesis, dissertation or research materials by a professor, resolution of the issue must be sought using the University's policy: Protocols for Investigating Research Misconduct.

Informal Grievance Procedure

Graduate students must attempt to informally resolve an academic grievance as soon as possible; however, a student must initiate informal resolution by contacting the professor (or Assistant Dean for Graduate Programs) no later than ten (10) university days after classes begin in the term following that in which the complaint arose or the grievance will be deemed untimely. The student must first attempt to resolve the academic grievance through an informal meeting with the professor. If the matter cannot be resolved, or if the professor cannot be reached, the student must meet next with the chair and failing resolution, with the academic dean. If the student's grievance is against a committee, the students must meet with the committee chairperson and the academic dean to attempt informal resolution. A mutually agreeable resolution shall be formalized through a notation in the student's file/record which is initialed by the student and the professor.

If an informal resolution cannot be reached within thirty (30) university days after the initial contact with the professor, then the student has the right to seek a formal resolution of the academic grievance.

Formal Academic Grievance Procedure

The formal academic grievance procedure is initiated by filing a written complaint with the Dean of University Graduate School (http://gradschool.fiu.edu/documents/grievance_form.pdf). The complaint must be filed within fifteen (15) university days of the date the informal resolution process ends, or within twenty (20) university days after classes begin in the term following that in which the complaint arose, whichever is later.

After receipt, the Dean of University Graduate School, in consultation with the Chairperson of the Graduate Grievance Committee, will review the complaint to determine whether it falls within the scope of this policy and whether a formal hearing is wanted. When there are disputed issues of material fact which must be determined, a formal hearing is warranted. If the complaint does not fall within the scope of this policy, then the student shall be notified in writing by certified mail.

A. Graduate Student Academic Grievance Committee

Where a complaint falls within the scope of this policy and there are disputed issues of material fact to be determined, the Dean of University Graduate School will refer the matter to the Graduate Student Academic Grievance Committee. The grievance committee will be composed of five members, two of whom should be graduate students selected by the Dean of University Graduate School from a list of names supplied by the Graduate Student Association (GSA) and/or the academic deans. The other members of the Committee shall be three full-time faculty who have experience with graduate programs. They will be selected from lists supplied by the academic deans and/or the Faculty Senate. The faculty members of the committee will include two faculty members from academic units outside of the school/college where the student is enrolled and where the grievance has been filed. The chairperson of the committee will be jointly selected by the Dean of University Graduate School and the Chairperson of the Faculty Senate.

B. Procedures

A hearing shall be scheduled as soon as possible but no later than 45 university days after receipt of the grievance. The grieving student and the professor shall be notified by the Dean of University Graduate School by certified mail, of the date and time in which to appear for the formal hearing. The hearing shall be conducted with such formality as is necessary to ensure the proceeding is fair and in a manner that allows both sides of the dispute to be presented. The hearing shall be recorded. At the conclusion of the hearing, the members of the committee shall have the opportunity to deliberate outside the presence of the parties. A written report including findings of facts, conclusions and recommendations shall be prepared and forwarded to the Dean of University Graduate School. The Dean of University Graduate School shall issue a written decision within fifteen (15) university days of receipt of the Committee's report. The student and the professor will be sent copies of the Dean's determination by certified mail.

C. Appeals

Any decision of the Dean of University Graduate School may be appealed by either the grieving student or the professor where there is evidence that a significant impropriety in the review process occurred. The appeal must be in writing, specifying in detail the alleged procedural impropriety, and must be filed in the Office of the Provost within ten

(10) university days, of the date of receipt of the Dean's decision. The Provost or a designee, shall review the appeal and the record of the formal hearing and issue a decision within twenty (20) university days. The decision of the Office of the Provost is final.

Code of Conduct PhD in Biomedical Sciences

Learning Environment: Anti-Discrimination and Anti-Harassment Policy

FIU is committed to providing a learning and working environment free from any form of discrimination or harassment based on race, color, pregnancy, religion, age, disability, national origin, marital status, veteran status, and sex, including gender, gender expression, gender identity, and sexual orientation. FIU's Office of Civil Rights Compliance and Accessibility (CRCA) is responsible for administering FIU Regulations 105 and 106, which prohibit such discrimination and harassment and set forth procedures for responding to such allegations.

CRCA responds to and investigates allegations in accordance with University policies, procedures, and regulations as well as applicable federal laws, including Title VI, Title VII, Title IX, and the Americans with Disabilities Act.

FIU Regulation 105 and 106

Conduct that may violate FIU Regulations Regulation 105 (Sexual Harassment (Title IX) and Sexual Misconduct) and Regulation 106 (Nondiscrimination, Harassment, and Retaliation (Title VII)) should be reported directly to the Office of Civil Rights, Compliance, and Accessibility (CRCA).

Reports may be submitted online at <https://report.fiu.edu>, by mail or in-person at 11200 SW 8th Street, Primera Casa (PC) 220, Miami, FL 33199.

A student may also report mistreatment or seek guidance from the FIU Ombuds, HWCOC Ombuds, or Office of Student Affairs.

Professionalism Standards

Professionalism Standards at HWCOC are defined by the (1) Code of Professional Conduct, (2) Professional Attributes (behaviors and attitudes) that students are expected to develop, (3) Principles of Research Ethics, and the (4) Statement on Learning Environment.

Code of Professional Conduct

HWCOC is committed to promoting academic and professional success for graduate students, faculty, and staff, at all locations. An atmosphere of mutual respect, collegiality, fairness, integrity, and trust is essential. Students, faculty, staff, and clinical affiliates bear significant

responsibility in creating and maintaining this atmosphere. Violation of the Code of Professional Conduct by any member of the College can result in a [Professionalism Incident Report](#).

Students commit to:

- Treat all faculty, staff, and fellow learners with respect and fairness.
- Demonstrate adherence to high professional standards in all interactions.
- Demonstrate trustworthiness in all interactions with faculty, staff, and peers.
- Be conscientious in committing the effort necessary to achieve the goals and objectives of the curriculum and completing all requirements on time.
- Be fully prepared and on time for scheduled activities and inform instructors about absences or tardiness in advance whenever possible.
- Demonstrate discernment in self-study, as well as seeking guidance and assistance appropriately.
- Routinely reflect to identify personal strengths and weaknesses and to set personal learning goals.
- Willingly assist and contribute to the learning experience of their peers.
- Maintain high professional standards in all interactions with fellow students, faculty, and staff.
- Conscientiously support an effective learning environment and notify appropriate faculty and staff members in a timely manner of any problems that adversely affect the learning environment.
- Respond to email communication within 72 hours.
- Participate in the process of program evaluation and improvement.
- Pursue appropriate mental and physical support for any conditions that might compromise achievement of their educational goals.
- Adhere to all rules and responsibilities outlined in the FIU regulation and policies, and HWCOP PhD in Biomedical Sciences Student Handbook and curriculum policies.
- Work collaboratively and responsibly in team learning environments.
- Meet all deadlines for formal educational activities.

Faculty and Staff commit to:

- Treat all learners and colleagues with respect and fairness.
- Demonstrate adherence to high professional standards in all interactions.
- Provide effective formats (e.g., cases, laboratories, discussion groups) for learning.
- Manage the learning venue and the activity for optimal learning by assuring effective communication (e.g., repeating questions for the class, prohibiting disruptive activities).
- Plan teaching activities appropriate for the time and venue, coordinated within the overall curriculum longitudinally and vertically (ensure knowledge of the curriculum in relation to the session).

- Respect student preparedness and time commitment by avoiding redundancy and clearly identifying essential material.
- Provide guidance for students to adequately prepare in advance in a timely manner.
- Be present and start activities on time for didactic, investigational, and professional encounters, and end activities on time, respectful of others' time and responsibilities.
- Provide timely feedback with constructive suggestions and opportunities for improvement or remediation.
- Grade/assess performance based on learning objectives and level of achievement.
- Be available for contact and timely response through various means of communication—including official university email and phone—and have regular office hours during formal teaching periods.
- Respond to email communication within 72 hours.
- Abstain from requesting learners to perform personal services or errands unrelated to the didactic, investigational, or professional situation at hand.
- Nurture both the intellectual and professional development of learners.
- Pursue appropriate mental and physical support for any conditions that might compromise the learning environment and/or research activities.
- Abide by the values of the college outlined in the HWCOP PhD in Biomedical Sciences Student Handbook.
- Adhere to all rules and responsibilities outlined in the FIU regulation and policies, and HWCOP PhD in Biomedical Sciences Student Handbook and curriculum policies.
- Maintain strict confidentiality of all personal and academic information and privileged communications.
- Create a respectful and effective learning environment for all formal educational activities.

Professional Attributes

To be entrusted with laboratory work and project information, students must demonstrate professionalism at all levels of graduate education. At HWCOP, the following professional attributes are assessed:

- **Ability to Work with Others Collaboratively.** Student effectively works with others in the team. Student demonstrates a research-centered approach in working in the laboratory. Student demonstrates a respectful approach that includes creativity, openness, and flexibility.
- **Accountability.** Student demonstrates a willingness to accept responsibility for actions, admit error and is accountable to self, team, program, HWCOP and society. Accountability includes the ability to self-assess balance and emotional well-being and to seek help if unable to carry out duties.
- **Commitment to Continuous Self-Improvement.** Student is responsive to feedback and is willing to assess self and set personal learning goals. This includes assessing personal coping strategies, managing conflicts between personal and professional responsibilities, adjusting to change, and seeking help appropriately when needed.

- **Commitment to Ethical Principles.** Student demonstrates ethical behavior. Student is compliant with FIU and HWCOM policies, and regulations.
- **Conscientiousness.** Student demonstrates thoroughness in data gathering and dependability in following through with assigned tasks.
- **Critical Thinking.** Student uses an investigatory and analytic approach to research. Student is inquisitive, thoughtful, and able to work through a problem.
- **Discernment.** Student demonstrates awareness of the limits of their own knowledge or skills and applies knowledge and skills appropriately for their level of training.
- **Emotional Intelligence.** Student demonstrates awareness of emotions of self and others and uses this information to interact in a sensitive, respectful manner.
- **Respect.** Student demonstrates proper regard toward faculty, staff, and peers in diverse settings and interactions. Student uses the skill of active listening to encourage others to express themselves.
- **Truthfulness.** Student demonstrates truth telling and absence of deception in their interactions with supervisors and others.

Student Mistreatment

Students are encouraged to report all forms of mistreatment. Examples of mistreatment may include situations where a medical student is:

- Publicly embarrassed or humiliated.
- Subjected to offensive, racist, or sexist remarks or name calling.
- Threatened with physical harm.
- Physically harmed.
- Required to perform personal services.
- Subjected to unwanted sexual advances.
- Asked to exchange sexual favors for grades or other rewards.
- Grade or evaluation does not reflect student performance.

If the mistreatment involves sexual harassment or misconduct, the impacted student or anyone else that becomes aware of the mistreatment, should report the matter to CRCA via <https://report.fiu.edu>.

Professionalism Reporting

PhD students, faculty, and staff are required to adhere to FIU Regulations and Policies, and HWCOM's Policies, Technical and Professionalism Standards. Any graduate student, faculty member, or staff member who is aware of a potential breach of professionalism must provide notification of the alleged breach utilizing the incident reporting methods provided below.

Students, faculty, and staff can also be commended for positive, honorable, and notable behaviors or actions utilizing the Professionalism Advocacy Reporting System (PARS) defined below.

Select FIU Regulations

FIU Regulation 2501: Student Conduct and Honor Code. Student behavior that violates the FIU Regulation 2501 Student Conduct and Honor Code will be processed by the Office of Student Conduct and Academic Integrity (SCAI). Reports regarding violations of the Student Conduct and Honor Code can be made directly to SCAI through the [Incident Reporting Form](#) or by calling (305) 348-3939.

FIU Regulation 105: Sexual Harassment (Title IX) and Sexual Misconduct, and FIU Regulation 106: Discrimination, Harassment, and Retaliation. Any form of sexual harassment or sexual misconduct and as well as any form of discrimination or harassment based on race, color, sex, pregnancy, religion, age, disability, national origin, marital status, and veteran status, should be reported to FIU's Office of Civil Rights, Compliance, and Accessibility (CRCA). Reports may be submitted to CRCA online at <https://report.fiu.edu> or by mail or in-person at 11200 SW 8th Street, Primera Casa (PC) 220, Miami, FL 33199.

Student Professionalism Violations of HWCOP Policies and Standards

Student behavior that violates HWCOP's Policies and Standards and FIU regulations and policies will be processed by HWCOP following a final determination from SCAI and CRCA if such action does not result in expulsion.

Reports of student unprofessional behavior will be referred to Dean of Student Affairs and the Dean of Research following a final determination from SCAI or CRCA and for the overall evaluation of a student's professionalism in accordance with HWCOP policies and standards.

Students are required to participate in the evaluation of professionalism reports. Failure to comply is considered a professionalism violation and will result in further action. If the report states facts or circumstances that could, in the judgment of HWCOP result in harm to another person, HWCOP will consult with SCAI and/or the University Police Department. The student may be removed from laboratories and placed on administrative leave pending further investigation as an HWCOP interim measure.

If an initial determination is made that the report is credible, HWCOP will inform the student of the allegations and the student will be required to meet with the Senior Associate Dean for Student Affairs (or designee) and the Associate Dean for Research (or designee) in order to:

- Review the allegation(s).
- Provide the student with information gathered regarding the allegations.
- Give the charged student the opportunity to respond to the report before a determination about disposition is made.
- Provide the charged student with information about the resolution process including hearing rights and obligations.

If a student fails to attend the meeting, the meeting may proceed without the student's participation. After the initial meeting, one of the following resolution actions will be taken:

- **Dismissal.** The complaint is dismissed.

- **Consent Agreement.** If the alleged violation is not deemed to be egregious, the matter may be resolved as part of a consent agreement. Consent agreements may only be utilized twice. A student must agree to all terms of a consent agreement. If the student does not agree, the matter will be referred to the Student Affairs Committee. If the allegation is not resolved through a consent agreement within 20 business days of the date on which the student was notified of the allegations, the matter will be referred to the Student Affairs Committee unless both the student and HWCOM agree to extend the time to reach a consent agreement.
- **Referral to Student Affairs Committee.** If the student is not eligible to enter into a consent agreement or it is determined that the alleged unprofessional behavior is egregious, the matter will be referred to the Student Affairs Committee for consideration.

Faculty/Staff Professionalism Violations of HWCOM Policies and Standards

Students can report Faculty/Staff behavior that violates HWCOM's Policies and Standards through the Incident Reporting Form at <https://report.fiu.edu>.

Professionalism Commendation Reporting

The HWCOM [Professionalism Advocacy Reporting System \(PARS\)](#) is used for reporting and documenting positive professional attitudes or behaviors.

A professionalism commendation is a way to identify notable behaviors or actions. A commendation can be submitted by any person when exemplary professional behavior is demonstrated. When a student has received a commendation, it is maintained as a permanent education record and may be noted in the Student Performance Evaluation (SPE).

Office of the Ombudsperson

The Herbert Wertheim College of Medicine has an Ombudsperson to advise all students, including graduate students in the solution of conflicts and provide students with all options they have at their disposition. The Office of the Ombudsperson is independent of the graduate program, and all consultations are confidential. The Ombudsperson responsibilities are:

- Providing a neutral safe and confidential environment to talk.
- Listening to concerns and complaints and discussing appropriate options.
- Mediating conflicts and engaging in unbiased diplomacy.
- Providing information and referring students to appropriate resources.
- The Ombuds Office will not participate in existing academic processes or formal grievance processes. Our aim is to resolve issues before formal action is pursued.

The Ombudsperson (Dr. Heidi von Harscher, PhD) can be reached by phone at 305 348 1461 or by mail vonharsc@fiu.edu. Dr. Von Harscher's office is located at AHC2 379 (make appointment by phone or email).

The services provided by the Ombudsperson are in addition to the consultations to the Student Affairs Sub-Committee.

Program Role Descriptions

Graduate Program Director

- Chairs the PhD in Biomedical Sciences Program Committee.
- Updates graduate student Handbook and program website.
- Acts as the liaison between the program, the Associate Dean for Research in the HWCOR, and the University Graduate School.
- Enforces University graduate policies and processes of the University Graduate School, the HWCOR and graduate program.
- Supervises and coordinates the administration and governance of studies within the graduate program.
- Acts as the liaison between the program and the Office of Admissions for matters related to admission and enrollment. Administer the admission application process to the program. Receive, arrange for review of, and monitor the progress of student admissions applications.
- Acts as the liaison between the program faculty, the HWCOR and the University Graduate School.
- Oversees the maintenance of graduate student records such as any departmental internal evaluations, departmental requirements, transfer of credits with the Office of the Registrar, as well as milestones forms related to the progress of dissertation/thesis with the University Graduate School (i.e., annual student evaluation process).
- Provides reports on the program and data to the Associate Dean for Research, HWCOR, FIU Office of Academic Planning and Accountability, and University Graduate School as needed.
- Oversees preparation of program specific reporting and documentation for SACSCOC and any program specific accreditations. Assist the Dean's Office with graduate program review and Doctoral Annual Program Summary report.
- Maintains Graduate Catalog materials as pertains to program.
- Proposes program operational budget to the Associate Dean for Research.

Graduate Program Co-Director

- Vice-Chairs the PhD in Biomedical Sciences Program Committee
- Coordinates with the Graduate Program Director all aspects of program governance
- Takes over the responsibilities the Program Director as necessary.

Graduate Program Director and Co-Director

- Serves as a point of contact for graduate students in the program. Guide and counsel graduate students with respect to program and degree requirements.
- Ensures students comply with the Student Conduct and Honor Code and engage in conflict resolution when needed.
- Refers graduate education matters to the program committees; inform the program faculty of graduate education related policies, best practices, and deadlines; forward recommendations, nominations, and other information from the faculty to the HWCOR and University Graduate School.

- Works with graduate faculty and the Curriculum Subcommittee to develop and revise curriculum and courses.
- Enhances program by monitoring and improving time to degree, annual number of graduates, by working with advisors and the student affairs subcommittee.
- The Graduate Program Director and Co-Director will meet at least once every term with each graduate student to assure the student wellbeing and academic progress.
- Holds periodic meetings with all graduate students to receive feedback from the student about the program and provide actualization to the student on the different aspects of the program. Maintain the dialog with the student body open.
- Facilitates arrival of matriculating students by providing information regarding housing, registration, financial arrangements, I-9 forms, etc. Consider connecting incoming students with current students
- Provides orientation (both academic and social) for incoming students
- Serves as resource for academic advisement, especially before major professor assumes this role.
- Oversees constitution of students' advisory committees in collaboration with the Curriculum and Student Affairs Subcommittees
- Oversees administering of qualifying exams, and candidacy
- Oversees dissertation/thesis process in program
- Provides information regarding employment opportunities following graduation, maintain contact with graduates.
- Reviews and approve student leave from the lab.
- Serves as advocate for graduate students, individually and collectively, within program, assuring fairness of treatment; involves interaction with program's representative to the Graduate and Professional Student Committee
- Responsible for discipline/sanctioning of graduate students, according to university policies and procedures
- Works with graduate students to develop, maintain, and enhance a vibrant intellectual community.

Committees

PhD in Biomedical Sciences Executive Committee

- Oversees all aspects of the PhD in Biomedical Sciences program and the functioning of the Subcommittees.
- Reviews the charter of the program Subcommittees.
- Identify the membership for the program Subcommittees.
- Decides on admissions with the advice of the Admissions Subcommittee and graduate faculty.
- Supervises recruitment strategies with the advice of the Recruitment Subcommittee.
- Decides on curriculum changes and improvements with the advice of the Curriculum and the Student Affairs Subcommittees

- Evaluates the graduate program performance and propose actions to enhance the graduate student experience
- Encourages interaction among graduate students

The following committees oversee various aspects of the PhD Program in Biomedical Sciences.

Recruitment Subcommittee

- Implements best practices and develop strategic recruitment plans to attract highly qualified students to the program
- Employs all resources available through the University Graduate School (UGS)
- Joins UGS in their recruitment trips
- Identifies and participate in recruitment trips and attend career fairs
- Identifies and directly contact potential students
- Develops and distribute promotional materials, such as brochures, posters etc.
- Coordinates mailings and videoconferences
- Maintains the recruitment aspects of the program website
- Identifies and propose promotional materials to enhance the recruitment efforts
- Proposes award of Dean's fellowship to highly qualified applicants

Admissions Subcommittee

- Annually review admission requirements to the PhD program and provide advice to the Program Director/Co-Director on suggested changes to admission requirements and procedures.
- Prepares rubric based on the admission requirements for the evaluation of applicants to the program and review applications selecting applicants' interview.
- Interviews applicants for further consideration for the program faculty, with emphasis on the comments of faculty that has positions in their labs.
- Requests faculty feedback on the applicants.
- Invites domestic applicants to visit FIU. Organize the visit and ensure faculty access to applicant information.
- Prepares a report to the PhD in Biomedical Sciences Program Committee with the subcommittee conclusions on each applicant, summaries of applicant application and faculty feedback on the applicants.
- Tracks the success of the admissions process each year
- Provides a written report on the activities and recruitment outcome to the Director/Co-Director of the Graduate Program

Curriculum Subcommittee

- Continuously monitors the effectiveness of the curriculum and propose changes whenever necessary

- Considers requests for changes in the curriculum that may be related to course content, deletion and/or addition of courses.
- Interacts closely with faculty in the development of new courses
- Advises the Program Director/Co-Director on a uniform grading policy.
- Oversees that the graduate students have completed all necessary laboratory safety courses and inform the Program Director/Co-Director on failures to complete mandatory training.
- Ensures that the quality of graduate student training remains consistently high throughout the program
- Reviews, and when necessary, suggests changes to the curricular aspects of the individualized student development plan and report to the Advisor, and Graduate Program Director/Co-Director

Student Affairs Subcommittee

- Coordinates graduate student orientation with the Program Director/Co-Director
- Reviews and when necessary, suggests changes to the programmatic aspects of the individualized student developmental plan and report to the Advisor and Graduate Program Director/Co-Director yearly.
- Monitors and evaluates the progress of each graduate student. Identifies any problems and brings it to the attention of the student, the Advisor and the Program Director/Co-Director.
- Reviews dissertation committee membership for compliance with programmatic requirements, student personalize development plan and graduate school regulations. Provides feedback to the student, advisor and notify the Program Director/Co-Director.
- Advise on the request from the student to change advisor or membership of dissertation committee and informs the Program Director/Co-Director.
- Evaluates and advice the Program Director/Co-Director on recommendations by advisors or dissertation committees for student dismissal.
- Provides counseling to aide in the personal growth of the student.
- Assigns two members of the subcommittee as Faculty Counselors for graduate students at MMC and another at Port St Lucie to support students in solving grievances and other difficulties. The Counselors advise and support students in meetings with other faculty or in interactions with the administration.
- Advise the Program Director/Co-Director on student misconduct issues.
- Oversees extra-curricular activities of the graduate students and inform the Program Director/Co-Director.
- Evaluates the grades of graduate students and informs the Advisor and the Program Director/Co-Director about concerns.
- Provides mentoring when student performance is unsatisfactory and establishes a plan to help the student overcome any issues related to performance.

Course Descriptions

(GMS - Graduate Medical Sciences; Numbers in parenthesis indicate Credit Hours)

GMS 6003C Introduction to Biomedical Sciences Research (6). This course provides the students with an introduction to graduate education, experimental design, scientific methodologies, scientific communication, and critical thinking. Graduate students in biomedical sciences are exposed to the various aspects of scientific research. The students will learn how to formulate scientific hypotheses and develop experimental designs to investigate the hypotheses or answer scientific questions. The students will learn to analyze, present, and discuss scientific literature. The student will be introduced to the development of figures and graphics to clearly and objectively transmit experimental results and conclusions in biomedical sciences.

GMS 6097 Methods in Biomedical Research (3). This course is directed at graduate students in their 1st year of the Ph.D. in Biomedical Sciences. The course emphasizes the up-to-date methodologies and tools used to study cell structure and function, with a focus on signal transduction, cell metabolism, cell proliferation and movement, and the use of antibodies and immunoassays. The course is divided biweekly by topic (see schedule below). Within each topic (unit), the first week is dedicated to an introductory lecture to the topic by the instructor, followed on the second week by the discussion of a relevant research paper on the topic, selected and presented by one of the students (journal club style). For example, weeks 1 and 2 are dedicated to microscopy methodologies, with an introductory lecture on relevant microscopy techniques, followed by the discussion of a significant research paper in which different microscopy techniques are applied. The purpose of this format is to first provide the basic knowledge needed to understand the methodology in depth and reinforce this acquired knowledge by discussing the methodology in a real-life context through literature review. Through this format, students will learn how to select and apply methodologies and tools to study cellular processes in the context of a working hypothesis. Students will also work in groups to submit a biweekly worksheet including activities related to the methodologies studied in each topic (discussed in the group, submitted individually), and 2) select and present as a group a significant research paper related to a methodology of their choice not covered in depth during the course. During the last two weeks of the course, each group will present the methodology of their choice to the instructor and peers. For this presentation, the students will describe the methodology in detail, including figures from different research papers illustrating how the methodology is applied and how the results obtained using the methodology are analyzed. The presentations will be evaluated by the instructor, based on the presentation and Q&A, and feedback will be provided after the presentations.

GMS 6103 Molecular Microbiology and Infectious Diseases (3). This course introduces the general principles of infectious diseases and the host response to infection. An overview of microbes (bacteria, viruses, protozoans, prions, and fungi) important to human diseases and disease processes will be presented. Understanding microbial diseases will include discussion of virulence mechanisms, evasion strategies used by pathogens against the antimicrobial immune response, and antimicrobial therapies. Study methods for learning specific pathogens will be introduced in the lectures and through a guided self-learning approach in mentored journal clubs and assignments. Prerequisites: HWCOM Graduate School Enrollment and permission of the Course Director.

GMS 6220 Molecular Genetics and Cellular Biology (6). The course is designed to introduce fundamental concepts in biochemistry, cellular and molecular biology, and genetics. The topics will be presented as lectures, team-based learning activities, and

whole class discussions. In addition, students will evaluate current scientific literature related to course topics. Students will also be introduced to responsible research conduct (scientific ethics) as part of the curriculum. Prerequisites: HWCAM Graduate School Enrollment

GMS 6300 General Pathology (4). This course introduces the molecular and genetic basis of human diseases while emphasizing the basic pathologic processes and vocabulary. Areas covered in this course includes cellular adaptations, necrosis, apoptosis, inflammation, repair, hemodynamic disorders, neoplasia, and pathology as it relates to genetic, nutritional, environmental factors, and blood vessel disorders. Prerequisites: HWCAM Graduate School Enrollment and permission of the Course Director.

GMS 6481 Physiology and Immunology (4). In this course, graduate students will be introduced to the fundamental concepts of physiology and immunology from a biomedical perspective. The objective of this course is to develop a working knowledge of physiology/immunology that will assist the students in evaluating pathology and therapeutic target options. Using an organ-based approach, physiology will be presented by emphasizing the dynamic coordination of molecules, cells, tissues, and systems required to maintain essential processes within the human body. Additionally, students will be exposed to basic immunological concepts and how abnormal immune functions contribute to pathophysiology. Prerequisites: HWCAM Graduate School Enrollment and permission of the Course Director.

GMS 6500 Basic Pharmacology (4). This course is an introduction to the basic principles of pharmacology and looks at drugs mainly from a molecular, cellular, and basic science perspective. The course includes a systematic study of the effects of drugs on different organ systems and disease processes, the mechanisms by which drugs produce their therapeutic and toxic effects, and the factors influencing their absorption, distribution and biological actions. Prerequisites: HWCAM Graduate School Enrollment and permission of the Course Director.

GMS 6542 Translational Clinical Pharmacology (3). The objective of this course is to provide graduate students with an in-depth understanding of experimental, basic, and advanced modeling and simulation methodologies, including machine learning platforms and their application in translational drug development.

GMS 6605 Basic Structure of the Human Body (3-4). This course gives graduate students an introduction to basic concepts of human anatomy, including embryology, histology, gross anatomy and neuroanatomy. Essentials of early human development, composition of different tissues and organ morphology are taught as the foundation for an in-depth understanding of the physiology of the human body and of pharmacology. Course objectives will be delivered by lectures and different types of laboratory sessions. Prerequisites: HWCAM Graduate School Enrollment and permission of the Course Director.

GMS 6864 Principles of Clinical Epidemiology and Biostatistics (2). This course is an introduction to the elements and foundations of epidemiology and biostatistics. The main perspective is the use of these methods in the practice and research of medicine. Concepts from the sciences of clinical epidemiology and biostatistics will be presented to the student in theory and problem-based scenarios. The course will help the students to understand how clinical information is measured and translated into data for the purpose of research and

evaluation, the roles of bias and chance as sources of error, how to control them, and how these concepts constitute the backbone of a scholarly analysis of medical and public health literature and of good clinical practices. Prerequisites: HWCOM Graduate School Enrollment and permission of the Course Director.

GMS 6904 Introduction to Scientific Writing (3). This course is designed to introduce first year PhD students to plan, write, and present scientific materials both as poster and PowerPoint presentations. In addition, the students will write a comprehensive review in a topic of their interest (in consultation with their current/future mentors). The final phase would involve the students learning how to write a NIH-style proposal. Prerequisite: HWCOM Graduate School Enrollment.

GMS 6925 Graduate Student Presentations (2). Graduate students will analyze and organize the scientific results of their research and present to a specialized audience. This course is repeatable.

GMS 6926 Research Symposium Presentations (2). Graduate students will analyze and organize the results obtained during their scientific research and present at the HWCOM/FIU Research Symposiums. This course is repeatable. Graduate students within the program will present the results of their scientific research in the HWCOM Research Symposium and/or during the Graduate Research Day organized by the University Graduate School. The students will analyze and organize the results in a scientific talk or poster to be presented to the HWCOM and FIU scientific community. The abstract must be prepared and submitted following the requirements of the corresponding activity. Meetings at FIU give a unique opportunity to evaluate and provide constructive feedback on the presentation's abilities of the students. Feedback will be provided, and the presentations will be evaluated by selected PhD in Biomedical Sciences faculty following a rubric.

GMS 6927 Scientific Oral Presentations (2). The course prepares graduate students in the PhD in Biomedical Sciences to design, create, and present posters, short, and long oral scientific presentations. The students will use their own research for the presentations and will perform multiple presentations in several formats, including elevator talks, 10-minute chalk talk, 15-minute talk, 35-minute or longer seminars, as time allows.

GMS 6930 Lectureship Seminar (1). Graduate students are exposed to a range of different research fields in biomedical sciences as well as to different presentations styles. The students will be expected to summarize the more relevant results of the presentations in a short essay. This course involves an important aspect of scientific research, that is the ability to extract key information from lectures.

GMS 6939 Graduate Seminar (1). A weekly seminar/discussion course consisting of research presentations by students, faculty, and visiting scientists in the area of biomedical sciences will form part of a recurring credit. Prerequisite: HWCOM Graduate School Enrollment.

GMS 6940 Supervised Teaching in Biomedical Science (1). The purpose of the supervised teaching is to expose students to the effective teaching methods and tools, equip them with the skills needed to deliver high-quality instruction, and expose them to the broad scientific topics. Graduate students will assist the faculty members who teach either graduate or

medical students. Graduate students will perform such tasks as preparing materials for class lectures, preparing examinations, maintaining records, and tutoring students outside formal classes. Graduate students may be involved in making presentations in laboratories or classrooms, conducting lectures, and leading discussion groups, but not as the teacher of record. This position requires extended knowledge of the subject and should be tested by the teaching faculty, be under the direct supervision of a faculty member experienced in the teaching discipline, receive regular in-service training, and be regularly evaluated.

GMS 6942 Laboratory Rotations (1). Laboratory rotations in specific laboratories of the HWCUM graduate program faculty that will eventually lead to the choice of a dissertation laboratory. Prerequisite: HWCUM Graduate School Enrollment.

GMS 6961 Qualifying Examination (5). The Qualifying Examination determines, in part, the student's eligibility for admission to candidacy for the PhD degree. The examination is designed to test the student's basic knowledge of biomedical sciences, as well as assess creativity and rationality of research design. Prerequisite: HWCUM Graduate School Enrollment. Co-requisites: Completion of all mandatory courses with an overall GPA of 3.0 and no less than a grade of "B" in all mandatory courses.

GMS 6962 Formation of Committee: Appointment of Dissertation Committee: Preliminary Proposal (1). The purpose of the Preliminary Proposal is to select the dissertation committee and define the future research to be conducted, analyzed, and presented in the PhD dissertation. The student submits preliminary research proposal approved by each member of the dissertation committee. Prerequisite: HWCUM Graduate School Enrollment.

GMS 6963 Doctoral Dissertation Proposal (3). Doctoral Dissertation Proposal written in NIH style R01 grant application. The purpose of the proposal is to formulate the detailed plan of the PhD studies. Prerequisite: HWCUM Graduate School Enrollment. Co-requisites: Completion of GMS 6961, and permission of the advisor.

GMS 6964 Dissertation Proposal Seminar (1). After completion of the Qualifying Examination and Dissertation proposal approval, the student must present his proposal to the Dissertation Committee. The student will give a PowerPoint presentation of the proposed research to the members of the dissertation committee. Prerequisite: HWCUM Graduate School Enrollment. Co-requisites: Completion of GMS 6961, GMS 6963 and permission of the Dissertation Advisor.

GMS 6910 Supervised Research (1-10). The purpose of this course is to complete the high-quality research study leading to the dissertation proposal. Students will work in the PhD advisor's laboratory towards their future dissertation project. It is expected that they will devote most of their time free from lecture or seminar time to work in the laboratory. The purpose of these activities is to clearly define the area of future dissertation research, to learn the laboratory techniques, initiate experiments to obtain preliminary data, to develop a dissertation research outline, and prepare the Dissertation Proposal. The students and the Dissertation Advisor should discuss the work schedule of the students, the class time and course load. The Advisor will also recommend the elective courses. Prerequisite: HWCUM Graduate School Enrollment.

GMS 7980 Dissertation Research Credits (1-10). The purpose of Dissertation Research Credits is to complete the high-quality research study leading to the completion of a doctoral dissertation. The focal point of the graduate experience will be the dissertation research conducted under the supervision of the dissertation advisor. To help guide student through this process, s/he will meet every six months with the dissertation advisory committee, comprised of dissertation advisor plus four faculty members with related interests, to discuss the progress of the research, possible ideas for upcoming experiments and sort out what experiments will drive the student project forward. These discussions, which are intended to enhance student critical thinking, form an important part of the intellectual growth as an independent scientist. The students take, on average, 5 years to complete their dissertation from the first day of graduate school to the dissertation defense. The publication of peer-reviewed manuscripts and presentation of the research data in scientific seminars and meetings is expected. Prerequisite: HWCOM Graduate School Enrollment. Co-requisites: Completion of GMS 6964 and permission of the Dissertation Advisor.

GMS 7981 Dissertation Defense Seminar (1). The dissertation defense includes a public seminar followed by defense of the dissertation to the DAC in closed session. Prerequisite: HWCOM Graduate School Enrollment. Corequisites: Permission of Dissertation Advisor and dissertation committee.