

# Graduate Student Handbook

# 2023-2024

# Department of Electrical and Computer Engineering Florida International University

Disclaimer: This handbook contains pertinent information essential for graduate students in the Department of Electrical and Computer Engineering at Florida International University. It is intended to supplement and help clarify the guidelines and requirements for graduate study at the University and the specific policies, procedures and requirements within the Department. In no way is this handbook intended to override or substitute any of required policies and procedures established by the University Graduate School and the College of Engineering and Computing. It is the student's responsibility to understand and follow the University, the College and the Departmental policies and procedures, whether or not they are specifically mentioned in this document.

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# 1. Welcome

Welcome to the Department of Electrical and Computer Engineering at the Florida International University (FIU)! FIU programs ranked Top 50 globally among public universities, and Top 50 U.S. patent producers in the world in recent years.

The Department of Electrical and Computer Engineering (ECE) at Florida International University continues to lead transformation and innovation within the engineering community, both locally and nationwide. In 2022-2023, the department was awarded over \$12 million in sponsored research grants and contracts, and graduated 20 PhD students. The department is home to 114 PhD students for 2023-2024. The ECE department continues to grow in research and innovations.

New concentrations in Machine Learning and Cybersecurity studies serve to underscore the progress made within the department to educate well-rounded engineers. ECE is the first in the nation to offer a bachelor's degree in Internet of Things (IoT), placing FIU at the forefront of a technological shift as more devices become interconnected. This degree will be dedicated to training tomorrow's IoT workforce in four major areas: hardware, software, wireless communication, and cybersecurity. In Fall 2021 we launched our first cohort for the M.S. in IoT. CyberCorps, a recent NSF-funded grant, enables students to focus on their studies without having to simultaneously work to pay for their education.

As the Electrical and Computer Engineering Department Chair, along with the Graduate Program Directors, our ECE faculty and staff, we will work conscientiously to ensure you receive a world-class education in your chosen field of study. Please do not hesitate to contact us should you need our assistance and guidance at any time for any matters.

Sincerely,



Deidra Hodges, Ph.D. ECE Department Chair and Associate Professor



Nezih Pala, PhD Professor PhD Program Director



Kang K. Yen, PhD Professor MS Programs Director



Vladimir Pozdin, Ph.D. Assistant Professor MS Programs Director



Alexander Pons, PhD Associate Professor Director of Online MS Programs, M.S. in Computer Engineering: Network Security and M.S. in Internet of Things (IoT).

# 2. Overview

This handbook provides essential information about the graduate programs in the department of Electrical and Computer Engineering at Florida International University, from coursework, requirements for candidacy, important forms and resources to perform successfully in our programs. It also summarizes most important policies and procedures of our graduate program.

Note: this handbook supplements the UGS handbook and focuses on day-to-day aspects within the department. All terms, forms timelines of UGS still apply and are not repeated in the document.

Visit UGS website to know what forms to fill at what time and what deadlines need to be met.

# 2.1 FIU Official University Policies

According to the FIU Policy (policy # 380.0452):

"All graduate programs must conform to University Policies, including those for admission, degree requirements and program governance. Every academic graduate program must maintain and make available a manual that gives details of its policies and procedures and that, at a minimum, addresses the following issues: admission criteria and procedures, advisement policies, program requirements, graduation requirements and criteria for awarding financial assistance"

This manual addresses to the requirement set by the policy above. University policies supersede the departmental and UGS policies when there is a conflict. All FIU Policies are available online at the "*Policies and Procedures Library*" which can be reached at:

https://policies.fiu.edu/

# 2.2 Academic Integrity

Effective August 1st, 2019, Academic Misconduct is under the jurisdiction of the Student Conduct and Honor Code within the Office of Student Conduct & Conflict Resolution. You can review the Code in:

https://studentaffairs.fiu.edu/get-support/student-conduct-and-conflict-resolution/student-conductand-honor-code/ assets/student\_conduct\_and\_honor\_code.pdf

Specifically, you may be interested in the Academic Misconduct Violations (Section 6), Sanctions (Section 15), and Withdrawal from a course pending charges of Academic Misconduct (Section 16).

Undergraduate, Graduate, and Professional 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.

### What is Academic Misconduct?

Any act or omission by a student, which violates the concept of Academic Integrity and undermines the academic mission of the University in violation of the Code. Please review Section 6, Academic Misconduct Violations on the Code for more specific charges.

### Where can I report Academic Misconduct?

The online "Incident Reporting Form" needs to be used to report any behaviors of concern involving Florida International University students, whether these behaviors occur inside or outside of the

classroom setting. If you are a student, staff member, or community member, please use this Incident Reporting Form below.

https://cm.maxient.com/reportingform.php?FloridaIntlUniv&layout\_id=0

For a general information regarding the policies and procedures for Student Conduct and Conflict Resolution please visit:

https://studentaffairs.fiu.edu/get-support/student-conduct-and-conflict-resolution/index.php

# 2.3 University Graduate School (UGS)

The University Graduate School (UGS) sets the polices and oversees their implementation in graduate programs regarding admission, enrollment, graduation, financial assistance etc. Most of the deadlines that are important for your graduate study are set by the UGS. *In addition, forms that require College's approval are due 1 week before the UGS deadline, and the Department's deadline is 2 business days before the College's deadline*. The students are strongly recommended to check the UGS website for the policies, forms, and deadlines for their graduate study:

http://gradschool.fiu.edu/

# 2.4 List of Forms

The forms that graduate students need to file throughout their study can be found on the UGS website: <u>http://gradschool.fiu.edu/students/#studentforms</u>

### Forms for MS students:

- Graduate Packet for Thesis (PDF)
- Form M-1 (PDF) Appointment of Thesis Committee
- Non-FIU Commitment Form (PDF) (to be used with the M-1 where applicable)
- Form M-1r (PDF) Appointment of Revised Thesis Committee
- Form M-2 (PDF) Master's Thesis Proposal
- Responsible Conduct of Research
- Form M-3 (PDF) Preliminary Approval of Thesis and Request for Oral Defense
- Final ETD Approval Form (PDF) Approval of defense, thesis, and electronic submission of thesis

### Forms for PhD students:

- Graduate Packet for Dissertations
- Form D-1 (PDF) Appointment of Dissertation Committee
- Non-FIU Commitment Form (PDF) To be used with the D-1 where applicable
- Form D-1r (PDF) Appointment of Revised Dissertation Committee
- Form D-2 (PDF) Program for Doctoral Degree and Application for Candidacy

- Form D-3 (PDF) Doctoral Dissertation Proposal
- Form D-5 (PDF) Preliminary Approval of Dissertation and Request for Oral Defense
- Final ETD Approval Form (PDF) Approval of defense, dissertation, and electronic submission of dissertation.

### 2.5 Deadlines

The students are also strongly encouraged to check the deadlines regarding their respective graduate program to stay on the track for their timely graduation. Please note that, PhD program requires planning ahead for 3 semesters.

Please note that *forms that require College's approval are due 1 week before the UGS deadline, and the Department's deadline is 2 business days before the College's deadline* 

http://gradschool.fiu.edu/calendar-deadlines/

2023 – 2024 Graduation Related Deadlines			
	UGS Deadline	CEC Deadline	ECE Deadline
Application for Fall 2023 graduation for MS Non-Thesis	09/10/2023	09/03/2023	09/01/2023
Last day to hold defense for Fall 2023 – Doctoral and MS thesis	11/09/2023	11/09/2023	11/09/2023
Last day for Final ETD Approval for Fall 2023 graduation – Doctoral and MS Thesis	12/01/2023	11/24/23	11/22/23
Application for Spring 2024 graduation for MS Non-Thesis	01/28/2024	01/21/2024	01/19/2024
Last day to hold defense for Spring 2024 – Doctoral and MS Thesis	03/29/2024	03/29/2024	03/29/2024
Last day for Final ETD Approval for Spring 2024 graduation – Doctoral and MS Thesis	04/19/2024	04/12/2024	04/10/2024
Application for Summer 2024 graduation for MS Non-Thesis	05/26/2024	05/19/2024	05/17/2024
Last day to hold defense for Summer 2024 – Doctoral and MS Thesis	06/28/2024	06/28/2024	06/28/2024
Last day for Final ETD Approval for Summer 2024 graduation – Doctoral and MS Thesis	07/19/2024	07/12/2024	07/10/2024

# 2.6 Process to Transfer Credits from Other Programs

Policies regarding transfer credits from other programs is set by the FIU Policy #: 380.085. Accordingly:

There are two types of transfer of credits: 1) Internal Institution and 2) External Institution. The ECE PhD program may accept up to **20% of the required coursework** of graduate credit earned from another institution beyond a bachelor's degree. An exception to the 20% limitation is made for courses contained within an earned master's or doctoral degree. For such courses, the maximum is one credit fewer than half of the total credits required by the PhD program. To transfer courses from another program, students

must have an approved D-1 form. Exceptions to this requirement must be approved by the GPD. Waiver of any of the requirements for transfer of courses requires the approval of the GPD (or the chairperson), the Dean of the College and the Dean of the UGS.

Requirements to Transfer Courses:

- 1- The student has a grade of 3.0 or better (on a scale of 4.0)
- 2- The course was taken at an accredited institution
- 3- The course must be relevant (as judged by the dissertation committee)
- 4- The course must be listed in the official transcript sent to the "admission office" by the institution where the course was taken.
- 5- The date of completion of the courses to be transferred will be no longer than 9 years at the time of graduation with a doctoral degree. This requirement does not apply to credits earned as part of a completed graduate degree.

Waiver of the limit on the maximum number of credits that may be transferred requires the approval of the program director or chairperson of the degree granting program, the dean of the appropriate school or college and the Dean of the University Graduate School. Waiver of any of the requirements for transfer courses (listed above) requires the approval of the program director or chairperson of the degree granting program, the dean of the appropriate school or college and the Dean of the appropriate school or college and the Dean of the degree granting program, the dean of the appropriate school or college and the Dean of the University Graduate School.

To transfer credits from another institution, a memo must be prepared by the advisor (or GPD) with the rationale for the request and a table with the following information.

# 2.7 Removal of Holds

<u>Advising hold:</u> An advising hold on the student's Panthersoft interface is to be removed prior to registration of classes.

- For students who do not have the D-1 form on file, decision of enrollment in courses must be discussed with the advisor assigned on the offer letter. For these students, the final removal of the advisor hold will be approved by the GPD.
- If the student's offer letter does not declare a faculty advisor (e.g., students with scholarships/fellowships), courses must be discussed directly with the program GPD.
- For students with a filed D-1 form, the student's thesis advisor removes the hold.

**Insurance hold:** Students must contact the Program Manager (Mrs. Luisa Ruiz) in the ECE department for removal of the insurance hold on their account. In case of delays and special cases, students may contact the GPD and/or the University Graduate School (UGS), to facilitate resolving sues.

# 2.8 UM/FIU Exchange Program

The UM/FIU program enables doctoral students at FIU to enroll for up to 6 credits of pre-approved courses at UM.

Application Deadlines: Fall: July 1st, Spring: November 22nd, Summer: April 1st.

The Application Process: Student completes and signs Section A and the Student Agreement. Student's academic advisor completes, and signs Section B. Student submits form to the FIU UGS for approval. The FIU communicates with the University of Miami (UM) to process paperwork and evaluate for approval. Upon approval, UM enrolls the visiting student into the approved courses. The student receives UM information and instructions through the FIU contact. Students must have the approval of FIU UGS to officially participate in the program. International students (F-1 or J-1 status) will need to also submit a copy of their I-20 or DS-2019, written approval from the International Students and Scholar Services (ISSS) office to participate in the program and proof of insurance. The form can be found in the following link: http://gradschool.fiu.edu/documents/FIU-UM Exchange Application.pdf.

**IMPORTANT:** If you wish to DROP a course within the program, you must do so by the posted drop date for your home institution. As a participant in the FIU/UM Exchange program, you must DROP through the program coordinator for FIU.

Program Coordinators:

FIU Program Coordinator: Karla Ortega, Director of Academic Services, ortegak@fiu.edu (305) 348-2455

# 3. Master of Science (MS) in Electrical Engineering

The Department of Electrical and Computer Engineering offers both thesis and non-thesis options for the master's degree. The program provides a broad and multidisciplinary education, followed by in- depth studies of areas of interest. All work counted for the master's degree must be completed during the 5 years immediately following the date of admission.

# 3.1 Graduation Requirements

The MS degree will be conferred when the following conditions have been met:

- Recommendations of the advisor and faculty of the Department for graduation.
- Certification by the Dean of the College of Engineering and Computing (CEC) that all requirements of the degree being sought have been completed.
- A GPA of at least 3.0 has been earned for certain courses required by the program.
- The undergraduate deficiencies, if any existed in the student's graduate program, such as additional courses needed toward the degree, have been fully remedied.
- The required semester hours of graduate level credit have been completed (no more than 6 graduate semester hours with a grade of "B" or higher can be transferred from other accredited institutions).
- Successful defense of an acceptable graduate thesis if thesis option is selected.
- Students must maintain an overall GPA of at least 3.0. No grade below "C" will be accepted in a graduate program.
- The students have complied with all University policies and regulations.

# 3.2 Probation

In the event that a student is placed on a probationary status, he or she must obtain a directed program from his or her advisor and approved by the Dean prior to continuing further course work toward the degree. The student must satisfy the directed course of action within the prescribed time range; otherwise, he or she shall be academically dismissed from the program.

# 3.3 Thesis Option

A student must complete 24 semester credit hours of technical course work plus 6 semester credit hours of EEL6971 - Master's Thesis. The candidate's thesis committee shall approve an appropriate thesis topic.

The course requirements include a minimum of 12 hours of 6000 level course credit and a minimum of 9 hours at the 5000-6000 level in Electrical Engineering. Upon the successful completion of all course work, including thesis work, with approval of the student's thesis advisor that he or she has completed the objectives of the thesis research, the student must pass the final oral examination that is primarily for the defense of the thesis work.

### 3.4 Non-Thesis Option

Students may choose the non-thesis option for their master's degree. The degree requirements differ from the thesis option in two respects. Firstly, students must complete 30 credits of coursework. Secondly, the coursework must follow the plan outlined in the catalog and any deviations must be approved by his/her academic advisor.

# 3.5 Electives

Students may select elective courses from other Departments in CEC (up to 9 credits) with the approval of the Graduate Program Director or the academic advisor. No more than six (6) credit hours of Special Topics can count toward degree requirement. Non-thesis students may take EEL 6916 Graduate Project as a 3-credit elective course. EEL 6916 must be successfully completed with a grade of at least a 'B' to count toward degree requirement.

# 3.6 Combined BS/MS in Electrical Engineering

This five-year program seamlessly combines a baccalaureate degree in Electrical Engineering with the Master's in Electrical Engineering. To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75 but not more than 90 of the credits required for the bachelor's degree program at FIU, have earned at least a 3.2 GPA on both overall and upper division courses, and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program through myFIU portal.

A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Students enrolled in the program may count up to 9 hours of graduate level courses (i.e., 5000 level or higher) as credits for both the undergraduate and graduate degree programs. Only graduate courses with formal lectures can be counted for both degrees. The students are responsible for confirming the eligibility of each course with the undergraduate advisor. For each of the courses counted as credits for both BS and MS degree, a minimum grade of 'B' is required. Upon completion of the combined BS/MS program, students must have accumulated a minimum of 21 hours of credits (not counting the 9 hours from bachelor's) at the graduate (5000+) level. The suggested plan of study is to take 9 credits hours in the Fall and Spring semesters, and 3 credit hours in the Summer semester. Students enrolled in the program are encouraged to seek employment with a department faculty member to work as a student assistant on a sponsored research project. Students interested in the program should consult with the undergraduate advisor on their eligibility for admission to the program. Applicants will be notified by the department and the University Graduate School of the decision on their applications.

# 4. Master of Science in Computer Engineering

The Department of Electrical and Computer Engineering offers both thesis and non-thesis options for the master's degree. All work counted to the master's degree must be completed within 5 years immediately following the admission. The program provides a broad and multidisciplinary education, followed by indepth studies in the areas of interest.

# 4.1 Graduation Requirements

The degree will be conferred when the following conditions have been met:

- Recommendations of the advisor and faculty of the Department for graduation.
- Certification by the Dean of the college that all requirements of the degree being sought have been completed.
- A GPA of at least 3.0 has been earned for the core courses required by the program.
- The undergraduate deficiencies, if any existed in the student's graduate program, have been fully remedied.
- Successful completion of the required semester credit hours of course work at graduate levels (no more than 6 graduate semester hours with a grade of "B" or better can be transferred from other accredited institutions).
- Successful defense of graduate thesis for thesis-option students.
- Students must maintain an overall GPA of at least 3.0. Only course work with a grade of "C" or better will be accepted in a graduate program. In the event that a student is placed on a probationary status, he or she must obtain a directed program from his or her advisor and approved by the Dean prior to continuing further course work toward the degree. The student must satisfy the directed course of action within the prescribed time range; otherwise, he or she will be academically dismissed from the program.
- Complied with all University policies and regulations.

# 4.2 Thesis Option

A student must complete 24 semester credit hours of technical course work plus 6 semester credit hours of EEL6971 - Master's Thesis. The candidate's thesis committee shall approve an appropriate thesis topic. The course requirements include a minimum of 12 hours of 6000 level course credit and a minimum of 9 hours at the 5000-6000 level in Computer Engineering. Upon the successful completion of all course work, including thesis work, with approval of the student's advisor that he or she has completed the objectives of the thesis research, the student must pass a final oral examination that is primarily a defense of the thesis work.

# 4.3 Non-Thesis Option

Students may choose the non-thesis option for their master's degree. The degree requirements differ from the thesis option in two respects. Firstly, students must complete 30 credits of coursework. Secondly, the coursework must follow the plan outlined in the catalog and any deviations must be

approved by his/her academic advisor.

### 4.4 Electives

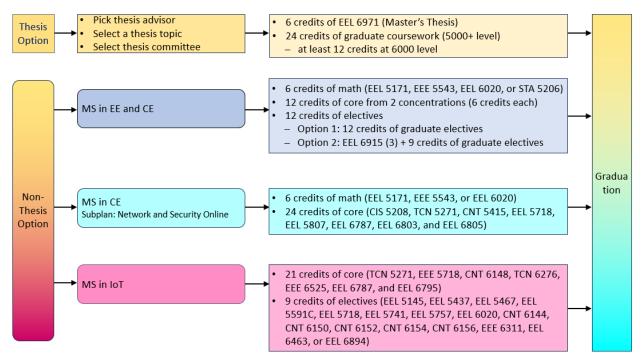
Students may select elective courses from other Departments in CEC (up to 9 credits) with the approval of the Graduate Program Director or the academic advisor. No more than six (6) credit hours of Special Topics can count toward degree requirement. Non-thesis students may take EEL 6916 Graduate Project as a 3-credit elective course. EEL 6916 must be successfully completed with a grade of at least a 'B' to count toward degree requirement.

# 4.5 Combined BS/MS in Computer Engineering

This five-year program seamlessly combines a baccalaureate degree in Computer Engineering with the Master's in Computer Engineering. To be considered for admission to the combined bachelor's/master's degree program, students must have completed at least 75 but not more than 90 of the credits required for the bachelor's degree program at FIU, have earned at least a 3.3 GPA on both overall and upper division courses, and meet the admissions criteria for the graduate degree program to which they are applying. Students need only apply once to the combined degree program, but the application must be submitted to Graduate Admissions before the student starts the last 30 credits of the bachelor's degree program through myFIU portal.

A student admitted to the combined degree program will be considered to have undergraduate status until the student applies for graduation from their bachelor's degree program. Upon conferral of the bachelor's degree, the student will be granted graduate status and be eligible for graduate assistantships. Students enrolled in the program may count up to 9 hours of graduate level courses (i.e., 5000 level or higher) as credits for both the undergraduate and graduate degree programs. Only graduate courses with formal lectures can be counted for both degrees. The students are responsible for confirming the eligibility of each course with the undergraduate advisor. For each of the courses counted as credits for both BS and MS degree, a minimum grade of 'B' is required. Upon completion of the combined BS/MS program, students must have accumulated a minimum of 21 hours of credits at the graduate (5000+) level, while enrolled as a graduate student. The suggested plan of study is to take 9 credits hours in the Fall and Spring semesters, and 3 credit hours in the Summer semester. Students enrolled in the program are encouraged to seek employment with a department faculty member to work as a student assistant on a sponsored research project. Students interested in the program should consult with the undergraduate advisor on their eligibility for admission to the program. Applicants will be notified by the department and the University Graduate School of the decision on their applications.

# 5. MS Graduation Flowchart



#### **Electrical Engineering Concentrations:**

#### **Digital Image Processing**

- EEL 5813 Neural Network
- EEL 5820 Digital Image Processing
- EEL 6812 Advances in Neural Networks
- EEL 6821 Computer Vision

#### Energy Cybersecurity

- EEL 5278 Smart Grid Cyber Security
- EEL 5718 Computer Comm Network
- EEL 6267 App of Intelligent Systems to Power Sys Op
- EEL 6787 Network Security
- EEL 6803 Advanced Digital Forensics

#### Nanotechnology

- EEE 5425 Intro to Nanotechnology
- EEE 5427 Advanced Nanofabrication of Electronic Devices
- EEE 6318 Semiconductor Material Characterization
- EEL 6332 Thin Film Engineering
- EEL 6399 Electronic Properties of Materials
- EEE 6466 Microsystems and MEMs

#### **Power and Energy**

- EEL 5270 Electrical Transients in Power Systems
- EEL 5285 Sustainable Renewable Energy Sources
- EEL 6020 Numerical Methods in Electronic Devices
- EEL 6254 Power Systems Reliability

#### **RF and Wireless Communication**

- EEL 5426 RF Circuit Design
- EEL 5437 Microwave Engineering
- EEL 5467 Antennas for Wireless Comm.
- EEL 5482 Field & Waves Engineering
- EEL 6439 RF System Design for Wireless Comm.

### **Computer Engineering Concentrations:**

#### Artificial Intelligence & Big Data Track

- CNT 6144 Advanced Analytics with Cloud Services in ECE
- CNT 6148 Advanced Big Data Analytics in ECE
- CNT 6150 Advanced Deep learning in ECE
- CNT 6152 Advanced Data Visualizations in ECE
- CNT 6154 Advanced Machine Learning in ECE
- CNT 6156 Advanced Python Programming in ECE

#### **Computing Systems and VLSI**

- EEL 5741 Advanced Microprocessor Systems
- EEL 5725 Hardware Description Languages (VHDL or Verilog)
- EEE 6167 VLSI Design
- EEE 6726 Advanced VLSI Design
- EEL 6758 Engineering Design of Microprocessor Based OS
- EEL 6795 Power Aware Computing
- EEL 6894 Realtime Computing and Applications

#### Machine Learning

- EEL 6825 Pattern Recognition
- EEL 5813 Neural Networks
- EEL 6812 Advances in Neural Networks
- EEL 6681 Fuzzy Systems Design

#### Robotics\*

- EEL 5669 Autonomous Systems and Controls
- EEE 6765 Advanced Embedded Design for IoT
- EEE 6767 Advanced Embedded Programming
- EEL 6821 Computer Vision

### Network Security

- TCN 5155 Wireless Communications with Multimedia Applications
- TCN 5271 Advanced IoT Communications and Networking
- CNT 5415 Practical Applied Security
- EEL 5807 Advance Ethical Hacking
- EEL 6787 Network Security

EEL 6803 Advance Digital Forensics

EEL 6805 Advance Malware Reverse Engineering

\*Students wishing to focus on exclusively on robotics are encouraged to follow the track outlined in the catalog. <sup>1</sup> Courses can be used to satisfy only one graduation requirement.

• TCN 5155 V

# 6. MS En-route to PhD

Students in the ECE PhD program may obtain an MS degree in Electrical Engineering or Computer Engineering provided that the following conditions are satisfied.

- Completed at least 30 credits of graduate course work in FIU. Only the letter-graded (i.e., not P/F) courses are counted towards this requirement.
- The courses have not been used for a previously earned master's degree.
- Met the MS degree requirements in the ECE department.
- In good academic standing and all courses are within the time limits to degree completion.
- All courses are B or better.
- No pending incomplete grades.
- Have approved D1, D2 and D3 on file with UGS. This is subject to approval by the GPD and UGS.

Eligible students are typically notified by UGS. If you think you are eligible but not received the notification, please contact the MS program director.

# 7. Doctor of Philosophy in Electrical and Computer Engineering

# 7.1 Admission Requirements

The first step of the admission to our department is to satisfy the requirements. The requirements for admission to the doctoral program in Electrical and Computer Engineering are:

- GPA score of 3.0 or higher out of 4.0 in upper-level undergraduate work or 3.3 or higher out of 4.0 in master's program. Please note that students can apply to our PhD program directly from BS, without MS degree.
- Three letters of recommendation.
- International graduate student applicants whose native language is not English are required to submit a score for the Test of English as a Foreign Language (TOEFL) or for the International English Language Testing System (IELTS). A total score of 80 on the iBT TOEFL or 6.5 overall on the IELTS is required. Students who have completed an MS program in a US university are considered as US graduate and not required to submit TOEFL or IELTS. English proficiency test (TOEFL or IELTS) is waived ONLY for the applicants form the countries in the following list: http://gradschool.fiu.edu/toefl-exempt-countries/
- Credentials of all other applicants will be examined by the Graduate Admission Committee on a case-by-case basis.
- In addition to the departmental requirements, all students must satisfy the University's Graduate Policies and Procedures.

Please note that although we require GRE, we do not have a minimum GRE score requirement. Our review process is holistic taking the applicants' whole file into account including the standardized test scores, GPAs, publications, research and work experience for both admission and financial support.

Students are expected to submit their application through FIU online portal following the link below. <u>https://admissions.fiu.edu/how-to-apply/graduate-applicant/index.html</u>

Once the application file is complete, it will be referred to the department to be reviewed by the admission committee for an admission decision. Applicants are recommended to check the status of their application and the "tasks to complete" list frequently in the online application portal to ensure that the file is completed and referred to the department in a timely manner. All the inquiries about the application process (required and accepted official documents etc.) should be directed to the admission office since the application-related documents are received and evaluated by the admission office. Please include your Panther ID number (PID) in all your communications. A list of the application requirements and deadlines are given in the "Graduate\_Student\_Checklist.pdf" file in the following link: https://gradschool.fiu.edu/documents/Graduate\_Student\_Checklist.pdf

Applicants do not need to apply for financial support (RA, TA, GA) separately. Financial support in any form is based on the merit of the applicants and are highly competitive. Therefore, satisfying the conditions for admission and being admitted may not qualify candidates for financial support.

# 7.2 PhD Study Overview

The students who enrolled to the ECE PhD program need to complete the following steps to successfully graduate from the program:

a. Complete a plan of study (see the Appendix).

- b. Determine the research area and major advisor.
- c. Complete the course requirements.
- d. Form the PhD Dissertation committee and file D-1 form to UGS.
- e. Pass the "Qualifying Exam".
- f. Complete at least 60 credits (including transfer credits if available) and submit D-2 form to UGS to reach "PhD Candidacy"
- g. Satisfy the residency requirements. (see Section 7.8)
- h. Defend "Dissertation Proposal" and file D-3 form.
- i. Complete dissertation credits (15 credits minimum) requirement.
- j. File D-5 form to UGS prior to dissertation defense.
- k. Complete oral defense of dissertation and file Final Electronic Thesis or Dissertation (ETD).

These steps are explained in detail below. Should you need any further information, please contact the GPD.

# 7.3 PhD Plan of Study

All new PhD students are expected to complete their "PhD Plan of Study" and get approved by their major advisors. If a major advisor has not been assigned yet, the PhD Graduate Program Director (GPD) approves the plan. The plan includes the tentative list of the courses that the student intends to take, indended times for the D-1, D-2, D-3, and D-5 forms to be filed. It is not binding and can be revised at the beginning of each year with the approval of the major advisor. The form is attached to this Handbook as an Appendix. Students can also obtain the form from the ECE website or from the GPD.

Student entered to the program with MS degree (can transfer 30 credits)					
Yr	Fall	Spring	Summer	Total credits	
1	6 CW + 3 IW + 30 TR	6 CW + 3 IW	6 IW, Qual Exam	48 CW, 54 T	
2	6 AR + 3 IW	6 AR + 3 IW, Prop Def	3 D	48 CW, 3 D, 75 T	
3	3 D	3 D	3 D	48 CW, 12 D, 84 T	
4	3 D			48 CW, 15 D, 87 T	

Followings are two examples:

Stud	Student entered to the program with BS degree				
Yr	Fall	Spring	Summer	Total credits	
1	9 CW	9 CW	6 IW,	24 CW, 24 T	
2	9 CW	9 CW	6 IW	42 CW, 48 T	
3	3 CW + 6 IW, Qual	6 AR + 3 IW	6 AR, Prop Def	45 CW, 72 T	
4	3 D	3 D	3 D	45 CW, 9 D, 81 T	
5	3 D	3D		45 CW, 15 D, 87 T	

CW: Coursework, IW: Individual Work (6905), AR: Advanced Research (7910), D: Dissertation, T: Total, TR: Transfer credits

# 7.4 Determining the Research Area and the Major Advisor

Within 12 months upon acceptance into the PhD program, the student must identify an area of research of his or her interest by contacting and being accepted by a professor willing to advise the dissertation research. If no such a professor can be found within one year after admission, the student shall be dismissed from the PhD program.

# 7.5 Course Requirements

The PhD in Electrical and Computer Engineering requires at least 75 credit hours beyond the bachelor's degree. A maximum of 30 credit hours of course work earned in a master's degree in Electrical or Computer Engineering, from FIU or another accredited institution, may be counted toward the PhD provided that a minimum grade of "B" is earned in each course.

- The student must have completed a minimum of 60 credits (including up to 30 transfer credits if available) of graduate course work toward the PhD before the student is *eligible for the candidacy*. Among the minimum of 60 credits requirement, *at least 45 credits are from letter graded courses*. Pass/Fail (P/F) courses (e.g., EEL 7910, EEL6905) can be used for the rest of the credit requirement.
- **PhD Course Depth Requirement:** Students must complete at least 9 credits of course in their major with a grade of "B" or better in each course. The appropriate areas of study and specific courses are determined by the dissertation advisor.
- PhD Course Breadth Requirement: All potential PhD candidates are required to take two courses for a total of 6 credits from two minor areas (one course or 3 credits from each) in addition to 9 credits in their major area and receive a grade of "B" or better in each course. The appropriate areas of study are determined by the dissertation advisor. The student must submit to the Graduate Coordinator the courses selected when he or she signs up for the PhD Qualifying Examination. List of the areas of specialization can be found on the ECE website: <a href="https://ece.fiu.edu/academics/graduate/index.html">https://ece.fiu.edu/academics/graduate/index.html</a>

Currently the *Major Areas of Specialization* list includes:

- o Artificial Intelligence and Machine Learning
- o Big Data
- o Robotics for Computer Engineers
- Wireless Technologies
- o Power and Smart Grid
- Digital Image Signal Processing
- Nanotechnology and Microelectronics
- Network/Cybersecurity
- Computing System and VLSI Design
- At least **15** credits of EEL **7980** PhD Dissertation are required. Registration for EEL **7980** PhD Dissertation is allowed only after the student's completion of qualification exam.
- Fifty percent of the total hours counted toward the doctoral degree have to be at the 6000 and 7000 level (including EEL 7980).

# 7.6 Graduate Supervisory and Research Committee (D-1 Form)

The student's PhD Graduate Supervisory and Research Committee should be appointed as soon as possible and not later than 15 months after being admitted to the PhD program. Appointment of Dissertation Committee (D-1) Form is to be completed at the time your committee is formed but no later than 4 semesters before the anticipated graduation semester. Deadlines for submission of subsequent forms to the UGS are available at the "Deadlines" page of the UGS website (please see Section 2.5 above). Please submit forms to our department well before the deadline to allow sufficient time for approval and signature. Ultimately, it is the student's responsibility to make sure forms are received by the University Graduate School on time and that all deadlines are met.

Doctoral students who have not advanced to candidacy are required to be enrolled in at least 1 graduate credit hour in the term in which they submit D-1. Doctoral candidates are required to be enrolled in at least 3 dissertation credits. D-1 form will not be processed without proof of current enrollment by the UGS. The form will be returned to the major professor. Further information regarding the UGS graduate active and full-time status policies is available at: <a href="https://policies.fu.edu/files/759.pdf">https://policies.fu.edu/files/759.pdf</a>

It should be understood that all dissertation committee members are appointed by the Dean of the University Graduate School on the recommendation of the department.

- The committee is comprised of at least four (4) members of the Graduate Faculty (GF).
- The major professor must be a member of the Graduate Faculty who holds Dissertation Advisor Status (DAS) and must be an expert in the subject of the dissertation. Note: A faculty member with DAS who is not tenured, or tenure-earning (NTE) cannot be sole major professor of a dissertation committee but may serve as co-major professor. Therefore, the other co-major professor must be tenured or tenure-earning (TE) with DAS.
- At least two members of the committee must be from the unit offering the graduate program and one must be from outside of the department or school but within FIU.
- Additional members may be appointed.

# 7.7 Qualifying Examination

To be eligible for the qualifying examination, the student *must have satisfied the PhD course breadth requirements* in his or her area of specialization and two other areas. Students *may pass the qualifying exam at any time after completing the PhD course breadth requirements (typically 45 credits of letter graded courses) and before completing the 60-credit coursework requirement.* `

A student must pass the qualifying exam by any option *no later than one semester after the semester in which all the required 60-credit coursework is completed*. Students have the following two options of passing the qualifying examination. Failing a second time with either of the options is the cause of being dismissed from the PhD program.

Students need to complete the appropriate **Qualifying Exam Application Form** at the end of this handbook.

### **Option 1: Written examination**

With this option, the student must pass the written examinations in his/her specialization area and two other areas. Failing in any of these areas implies the failure of the entire examination. The exams must be retaken the next time they are offered. Written exams are offered in the last week of each semester. Application forms along with the instructions are sent to graduate student via an email announcement.

### Option 2: Oral examination with research paper publication

To be eligible for taking the oral examination with research paper publication for the qualification examination, the student must have a minimum of one research paper published or accepted for publication in a high-impact journal or a conference proceeding with the student as the first author, and approved by the major professor. The student must inform the graduate program director of the selection of this option before the deadline set by the Department in each semester. The students will present their paperwork to a 3-faculty ad-hoc committee that is jointly selected by the student and his/her advisor. The members of the 3-faculty committee are preferably selected from the student's dissertation committee members if such a committee has already been formed. To successfully pass this option, the student must have his/her research paperwork unanimously approved by the 3-faculty committee. The oral examination must evaluate the depth and breadth of knowledge of the student in the field and it must evaluate the ability of the student to communicate this knowledge cogently.

# 7.8 Residency Requirements

The PhD student must spend at least one academic year in full-time residency after being admitted to candidacy. To satisfy the residency requirement for a PhD ECE degree, the candidate must complete a minimum of 18 credit hours within a period of 12 months in residency at the University.

# 7.9 Admission to the PhD Candidacy (D-2 Form)

The PhD candidacy status indicates that a doctoral student is ready to commence the dissertation research work. In our department, a student is admitted to candidacy upon successfully completing all required course work (*at least 60 credits*) and passing the qualifying examination. A student can pass the qualifying exam before completing 60 credits by presenting a research paper. In such cases the student should keep the records of qualifying exam and wait until complete 60 credit to apply for PhD Candidacy. *Students need to submit the D-2 form to UGS through myFIU to receive candidate status and send the Qualifying Exam records to GPD by email.* 

# 7.10 Proposal Defense (D-3 Form)

Doctoral Dissertation Proposal defense must be completed **at least 3 semesters before the anticipated graduation semester.** with the approval of dissertation advisor. Proposal briefly describes the prior research, current state of the art, preliminary results, hypotheses (if necessary), planned research work with anticipated contribution to the field. 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 termination of a line of research and the adoption of a substantially new dissertation project will require the oral defense of a new proposal and approval of the proposal by the UGS.

Students who passed the qualifying exam and started their research are strongly encouraged to defend their proposal as soon as possible. Per the FIU policy (<u>380.001</u>):

Doctoral Dissertation Proposal examinations shall be designed to ensure that the student understands and can evaluate all appropriate aspects of the chosen field of study. <u>The candidacy</u> <u>examination must evaluate the breadth of knowledge of the student in the field and it must</u> <u>evaluate the ability of the student to communicate this knowledge cogently.</u>

Upon successfully defending their proposal, students submit the Doctoral Dissertation Proposal (D-3) Form. UGS requires D-3 is to be completed at least **3** semesters before the anticipated graduation semester. Students are required to attach the abbreviated proposal (no more than 5 pages plus references) that clearly outlines background information related to the research topic, research question/hypotheses, methods, and statistics/analysis to be used. Refer to the Proposal Guidelines available at: http://gradschool.fiu.edu/documents/Proposal Guidelines.pdf.

Students who complete the qualification exam can enroll for EEL 7980 PhD Dissertation up to 12 credits per semester. Please note that, currently, UGS allows **tuition waiver for only 3 credits per semester** for the students in the candidacy. Please consult with your advisor and the GPD if you receive financial assistance and need to take more dissertation credits.

# 7.11 Oral Defense and Submission of Doctoral Dissertation (D-5 and ETD Forms)

A dissertation is required of all candidates for the doctoral degree. A student must enroll for dissertation credits in the semester in which he or she expects to be admitted to candidacy and must maintain continuous enrollment for not less than 3 credits of EEL 7980 every semester, including summers, until the semester in which the doctoral degree is awarded.

Upon completion of the dissertation, the degree candidate will submit Preliminary Approval of Dissertation and Request for Oral Defense (D-5) from to UGS with sufficient time to allow for publishing a notice in the monthly calendar of dissertation and theses defenses to invite members of the university community to attend the defense. D-5 must be submitted to UGS at least **3** *WEEKS BEFORE* the date of the defense or by the UGS deadline (whichever date is the earliest). The defense announcement must conform to the UGS format, and both a hard copy and an electronic version must be submitted to ensure full processing of your defense request.

Following the successful defense of the dissertation, as determined by a majority vote of the student's research committee, the dissertation must be forwarded to the Dean of the College of Engineering and computing as well as the Dean of the Graduate School for their approval. All dissertations submitted in fulfillment of the requirements for graduate degrees must conform to University guidelines (see "Regulations for Thesis and Dissertation Preparation"). Doctoral students must submit Final Electronic Thesis or Dissertation (ETD) Approval form to complete their dissertation requirements. The form includes:

- A non-exclusive license giving FIU permission to archive and distribute the electronic work.
- A section that allows doctoral students to allow the University Graduate School to post their dissertations to ProQuest's ETD and subject databases (free service).
- Embargo options.
- Review and Acceptance section with signatures of student, major professor(s), committee members, Graduate Program Director or Department Chair, Dean of College or School, and Dean of University Graduate School.

One final, approved copy of the dissertation must be delivered to the Chairperson of the Department of Electrical and Computer Engineering. Library copies must conform to University guidelines, also published

in "Regulations for Thesis and Dissertation Preparation".

International students may have other specific requirements regarding full-time enrollment. Please consult with International Student and Scholar Services (ISSS) for details.

# 7.12 Financial Aid

Applicants do not need to apply for financial support (RA, TA, GA) separately. Financial support in any form is based on the merit of the applicants and are highly competitive. Therefore, satisfying the conditions for admission and being admitted may not qualify candidates for financial support. An applicant might be offered TA support after their application is reviewed by the ECE faculty. But this support is limited and given only to highly qualified applicants. Also, a faculty member might offer an applicant RA support if s/he finds his/her skills & expertise is useful for his/her research after reviewing the application file. An applicant can find out if this is an option by contacting individual faculty members working in his/her anticipated research field by sending your CV and documents about his/her achievements (e.g., published research papers).

Applicants who have their own support (like a fellowship from school, government, employer, or own funds) may not need to seek financial support from our department.

Applicants may also consider applying for the merit-based fellowships of FIU Graduate School. For further information and the requirements, please follow the link below:

http://gradschool.fiu.edu/students/funding/fellowships/#prospectivestudents

# 7.13 Annual Evaluation

The annual evaluation is an important exercise for a PhD student to receive formal feedback from his/her dissertation committee members, set achievable goals for the coming year and plan for timely graduation. We strongly recommend our students to work on their annual evaluations with utmost diligence. The Annual evaluation needs to be completed by every student, on a yearly basis, by *May 31st.* 

For PhD students with a thesis committee (D-1) on file, the annual evaluation consists of three sequential steps:

- A dissertation committee meeting to discuss student progress and future plans. The student must mandatorily meet the dissertation committee in person, to discuss progress achieved during the year under evaluation and goals for the coming year. In cases of the committee member not being able to attend in person, teleconferencing facilitating discussion with the rest of the committee must be setup.
- A discussion with advisor about the annual evaluation. To optimize the annual evaluation process, the student and his/her advisor should formulate the listing of achievements and goals, in accordance with the suggestions by the committee (step 1).
- Complete the online annual evaluation form.

### **Quick Instructions**

**Step 1** – Log into your Student Portal to initiate your Annual Evaluation Form

- Log into your Student Portal at: https://my.fiu.edu/
- On your Student Center, under your To Do List, click hyperlink labeled Annual Evaluation –

Pending

• To initiate form, click on tab labeled Add a New Value

**Step 2** – Review populated information to ensure accuracy before completing required sections 1 and 2:

- If you do have a dissertation committee on file and it is not accurate, please do not complete the form until your committee is updated. To update your committee, you must first submit a revised committee (D-1r) form to the UGS. Once approved and your committee is updated, you can proceed to the completion of your form.
- If your committee is accurate, check Committee Member Box to confirm and continue with sections 1 and 2.
- If you do not have a committee on file, continue with sections 1 and 2.

**Step 3** – Click on Submit button in section 7 to route form to the next level of approver

**Step 4** – Once your form is reviewed and signed off by Major Advisor/GPD, complete section 5:

- Enter date of your evaluation meeting with your committee and/or GPD (if you do not have committee)
- Check box to confirm meeting and review of evaluation
- Click on the Submit button to route it to the next level of approval

In section 2, clearly list your accomplishments using a bullet format and identify multiple specific goals for your next evaluation period. These goals must be measurable outcomes and should be previously discussed either with the advisor/committee (D-1 on file) or potential-advisor/GPD (no D-1 on file). General statements including "being more productive" or "completing experimental setup for my dissertation" are not acceptable. Specific listing of goals is mandatory, for e.g., "will complete the simulation study about mechanical deformations of the knee under XYZ stress condition"; "will prepare a manuscript with recent results about propagation of electrical activity in the muscle and submit it to a peer reviewed journal." Section 3 (performance summary and future goals) is to be completed by the advisor, which should be in agreement with section 2.

Advisor must complete evaluation of core competences (section 4) according to student performance in the academic year, as per discussion in his/her committee. If the student falls into the category of "Occasionally does not meet expectation" or "Consistently does not meet expectations" for any of the core competencies, advisor must complete section 6 (Student Performance Improvement Plan). Section 5 is to be completed by the student after advisor feedbacks and must be used to indicate any comments/concerns.

Detailed instructions on the procedure can be found online at

http://gradschool.fiu.edu/documents/OnlineAnnualEvaluationProcess-%20FIU2017final.pdf

Recommendation: View video on the following link

http://gradschool.fiu.edu/students/doctoral-student-annual-evaluation/

# 8. General Information

# 8.1 Graduate Assistantships (GAs)

Research assistantships (RA) provide financial support for graduate students working toward their M.S. or Ph.D. degrees and give graduate students the opportunity to obtain university research experiences under the guidance of departmental faculty.

Teaching assistantships (TA) provide financial support for graduate students working toward their Ph.D. degrees and give graduate students the opportunity to obtain university teaching experience under the supervision of departmental faculty. Specific requirements and assignments for a TA will be determined by the department. Prior teaching evaluations are used for continuing TA appointments.

# 8.2 Duties of GraduateAssistants

The duties of research assistants are assigned and defined by their major professors. Teaching Assistants are typically assigned for 20 hours per week during the academic year. Students will be paid on a bi- weekly basis. Assigned TA duties may include supervision of 2-3 laboratory sections per week, grading of lecture-and/or laboratory-related quizzes, exams, reports, etc., attendance at weekly laboratory meetings and/or course-related lectures, preparation and organization of laboratories, consultation and office hours with students and providing assistance in other teaching-related activities.

# 8.3 Evaluation of GraduateAssistants

Research Assistants (RAs) are supervised by the major professors who sponsor their research activities through research funding. Teaching Assistants (TAs) will receive an evaluation from students in every laboratory that they teach. Copies of the student evaluations and any student comments are also added to the student's file and sent to the faculty member that supervised the TA within 60 days of the end of the semester. These evaluations are added to the student's file.

Performance expectations for TAs and Graduate Assistants (GAs) are articulated in offer letters. RAs are governed by the sponsorship agreements that are administered by the office of research and the PIs.

# 8.4 Assistantships/Fellowships

TAs and GAs are hired by the department, RAs by faculty members, and University Fellowships are awarded by UGS. The hiring authorities administer the appointments.

The department awards numerous TAs and GAs, and in some instances Fellowships to the students. The assistantships are for duties assigned to the student by the department. Continued support (contingent on availability of funds) is based on both acceptable performance of assigned duties and demonstrated progress towards degree completion.

Students are encouraged to talk to the graduate coordinator and/or the department chair for any concerns regarding the above. If the concerns are not satisfactorily resolved, the department chair may refer the issue to the advisory committee composed of both faculty and students, to explore resolution of the issue and make recommendations to the chair.

Please refer to the university graduate handbook on the continuation and cancellation policies of graduate fellowships.

# 8.5 Initial Selection of the Major Professor/Dissertation Advisor

<u>Self-supported Students</u>: Students who are self-supported or supported by anybody or any agency outside the university can select their major professor from one of the departmental graduate faculty based on mutual agreements within 12 months upon admission to the program.

Recipients of University Fellowships: If a student receives and accepts one of the university fellowships, the faculty member who nominated the student is presumptively his/her major professor/dissertation advisor.

**<u>Recipients of Research/Teaching Assistantships:</u>** If a student receives and accepts a research assistantship or a department-designated teaching assistantship from a faculty member, the faculty is presumptively his/her major professor. If students receive the offers of research/teaching assistantships from multiple faculty members prior to the admission to the program, they should select a faculty member among them to accept his/her assistantship. The selected faculty member is presumptively the student's major professor/dissertation advisor.

# 8.6 Change of Major Professor/Dissertation Advisor

If a student is self-supported or funded any source outside the university, he/she can change the major professor by notifying the current major professor, the department chair, and the departmental graduate advisor. The change is subject to the approval of the University Graduate School (UGS) if the student has been admitted to the PhD candidacy.

If a student is supported by the current major professor through a research or teaching assistantship and has been notified by the sponsor that the assistantship will be terminated after the current appointment expires, he/she is allowed to change the major professor upon the completion of the appointment.

If a student is supported by the current major professor through a research or teaching assistantship that is to be renewed, but intends to change the major professor, the student should notify the department chair, the departmental graduate advisor, and the major professor of his/her intention no later than three months prior to the current appointment expiration. After the student's notification, immediately ensues a two-week mediation period during which the major professor and the student can work out their differences or have the student's concerns addressed. After the mediation period, if the student still intends to change major professor, he/she is allowed to find a new major professor and sponsorship in the department. Presumptively, the student will lose the sponsorship from the previous major professor after the change. The student should not contact other faculty members for potential major professor change prior to the end of the mediation period.

# 8.7 Termination of Research/Teaching Assistantships

If a student is currently supported through a research assistantship by a faculty member and the research assistantship is set to be terminated after current appointment, the student shall receive a formal notification of the termination from the faculty and the department no later than 3 months prior to the current appointment expiration.

If a student is currently supported through a department-designated teaching assistantship by a faculty member and the teaching assistantship is set to be terminated by the faculty or the department after current appointment, the student shall receive a formal notification of the termination from the faculty and the department no later than one semester (excluding summer semesters) prior to the current

appointment expiration.

# 8.8 Leave of Absence

Departmental policy on vacation follows institutional policies and procedures. Any absence from campus that affects assigned duties of TAs/GAs/RAs needs to be pre-approved by the advisor/department chair/graduate program director.

Students are encouraged to talk to the advisor/ graduate program director and/or the department chair for any concerns regarding the above. If the concerns are not satisfactorily resolved, the department chair may refer the issue to the advisory committee composed of both faculty and students, to explore resolution of the issue.

# 8.9 ExtendedLeaveofAbsence

If a student finds it necessary to be excused from registration in the program for one or more consecutive semesters, he/she must formally request an extended leave of absence from the department. Such a leave may be granted only under exceptional circumstances, on a case-by-case basis. Graduate students who have not been registered for two consecutive semesters including the summer session without departmental approval will be dropped from the graduate program and must apply for re-admission through the University Admissions Office.

A granted extended leave of absence does not extend the amount of time allotted for degree completion. The six years for the MS and nine years for the PhD are calculated from the entry date to the program and do not take absence from the program into account. Note that, as per FIU policy, students who have been dismissed from the program may not be considered for re-admission to the program within a year of dismissal.

If a student is denied the request of an extended leave of absence by the department, he/she may appeal to the University Graduate School.

# *8.10 Major Professor and Dissertation Committee Members*

Graduate students are required to choose a major professor within the first year of enrollment in the program based on mutual agreement. PhD students, in consultation with major professor, choose his/her PhD dissertation committee members as soon as possible. It is recommended that students fill out the appropriate forms required by UGS at this stage. Once the selection is made, the department must be notified of the selection. If the student is under department support, he or she may not be offered renewal of the contract after the first year until an advisor/advisee relationship has been established.

Consistent with University policy, under exceptional circumstances, students may change the committee members or even switch advisors. However, this needs to be done after discussions with the graduate program director/chair.

# 8.11 Student Grievances

Student grievances are handled following FIU policy # 380.047. For further details please visit the "Grievances", section of the FIU Academic Integrity Committee website:

### http://integrity.fiu.edu/grievances.html

**Preamble:** Quality graduate education, especially at the doctoral level, is most likely to occur in academic environments that include the following elements: effective student mentoring, informal and accessible student-faculty relations, mutual respect and collegiality, cooperation, as well as open communication and transparency. Since working and supervisory relations between graduate students and faculty have many unique features, students in graduate programs not only must satisfy University and departmental standards for their programs of graduate study, but also the professional standards and expectations of faculty members.

Often grievances grow out of misunderstandings or misperceptions between faculty and students regarding expectations for performance or behavior. Faculty and advisors have an obligation to ensure that graduate students are aware of academic and professional expectations. Graduate students have a concomitant obligation to pursue diligently and to satisfy those 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 grievances related to student-faculty relations should be settled informally, via open and transparent processes of communication.

Occasionally, however, a disagreement develops and persists despite the application of informal procedures to resolve the matter. Although graduate students have the right to seek redress for academic grievances, they often forgo their rights so as not to offend professors involved in those disagreements. Students should be aware that bringing a formal grievance may have the consequence of changing working relationships with professors involved with the grievance, and that may impact the learning environment within the academic unit. When all means of informal resolution have been exhausted, the parties involved must have an impartial and transparent forum in which to seek review and resolution of the academic grievance.

**Scope of Guiding Principle:** This guideline and procedure addresses grievances by graduate students in which the complaint or controversy alleges: a) arbitrary and capricious awarding of grades; b) unprofessional conduct by a professor that affects adversely either the student's ability to satisfy academic expectations, whether in the classroom, a field setting, a laboratory or other setting, or the student's actual performance; c) inappropriate or inadequate academic advising concerning requirements not published in official University documents; d) arbitrary dismissal from a graduate course or program except as described below; and e) irregularities in the implementation of policies or procedures in grievance hearings at the college or school level.

This policy and procedure does not address:

- a) Issues related to sexual harassment, or discrimination based on age, sex, sexual orientation, religion, race, marital status, national origin, or disability. The Equal Opportunity Programs (EOP) Office is responsible for handling such issues in accordance with procedures developed to comply with the Florida Equity Act;
- b) Issues related to research misconduct. 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 Research Misconduct policy;
- c) Issues related to professional misconduct. If the student is dismissed from a course or program due to violation of a professional code of conduct, those decisions are addressed at the school or college level; and,
- d) Issues related to grading, except arbitrary and capricious awarding of grades. Students who dispute a grade received must follow the grade appeals process established by the applicable college. The student may request further discussion at a department conference with the instructor and the

department chair. The department chair issues a written "Statement of Action" within seven (7) calendar days from the date of the conference and delivers it to the student and the dean of the college involved. The student shall not proceed beyond the department chair's decision except when the department chair is the subject of the complaint in which case the grievance continues to the college or schooldean.

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

### **Informal Grievance Procedure**

Graduate students must attempt to resolve informally an academic grievance as soon as possible. A student must initiate informal resolution procedures by contacting the professor (or administrator as the instructor of record) no later than ten (10) business days\* after classes begin in the semester 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 department chair. If the student's grievance is against a committee, the student must meet with the department chair. The informal grievance process is terminated at the department level except when the department chair is the subject of the complaint in which case the grievance continues to the college or school dean. 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 or college or schooldean.

### Formal Academic Grievance Procedure

The academic grievance procedure within the University Graduate School is initiated by filing a written complaint with the Faculty Fellow for Academic Integrity. The complaint must be filed within fifteen (15) business days\* of the date the informal resolution process ends, or within twenty (20) business days\* after classes begin in the semester following that in which the complaint arose, whichever is later. After receipt, the Faculty Fellow for Academic Integrity, in consultation with the Chairperson of the Graduate Student Academic Grievance Committee, will review the complaint to determine whether it falls within the scope of this policy and whether a formal hearing is warranted. 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 so notified in writing.

- 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 Faculty Fellow for Academic Integrity 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 Faculty Fellow for Academic Integrity from a list of names supplied by the President of the Graduate Student Association (GSA) and/or deans of other colleges and schools. The other members of the Committee shall be three graduate faculty. They will be selected from lists supplied by deans of other colleges and schools and/or the Faculty Senate. The faculty members of the Committee will include two faculty 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 Faculty Fellow for Academic Integrity and the Chairperson of the Faculty Senate.
- **B. Procedures:** A hearing shall be scheduled as soon as possible but no later than 45 business days\* after receipt of the grievance. The grieving party and the professor shall be notified by the Faculty Fellow for Academic Integrity in writing, 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 Faculty Fellow for AcademicIntegrity.

The Faculty Fellow for Academic Integrity shall issue a written decision within fifteen (15) business days\* of receipt of the Committee's report. The student and the professor will be sent copies of the Fellow's determination by mail.

**C. Appeals:** Any decision of the Faculty Fellow for Academic Integrity may be appealed by either the grieving student or the professor where there is evidence that a significant impropriety occurred in the review process. The appeal must be in writing, specify in detail the alleged procedural impropriety, and must be filed in the Office of the Provost within ten (10) business days\*, of the date of receipt of the Fellows decision. The Provost, or a designee, shall review the appeal and the record of the formal hearing and issue a decision within twenty (20) business days\*. The decision of the Office of the Provost is final.

# 8.12 Special Requirements Regarding International Students

All non-immigrant international students must be registered full-time for each academic semester, which (as defined by USCIS) is at least 9 graduate-level credits during the Fall and Spring academic semesters. They are not required to be registered for classes during the summer **unless** admitted to FIU for the summer term or completing the degree at the end of that summer term. All immigration documents must be checked before leaving the U.S. (even for a brief trip) to ensure reentry into the U.S. Proper authorization must be obtained before engaging in any off-campus employment, **whether the employment is paid or non-paid**. (Working without proper authorization constitutes **illegal employment**, an offense that can lead to **deportation**.)

The International Student and Scholar Services (ISSS) can provide advice for specific questions.

# 8.13 Use of Departmental Research Equipment

Students are provided access to appropriate research equipment within reason and as deemed necessary by the faculty member who serves as principal investigator (PI). Users of the research equipment must comply with safety guidelines of the university.

Graduate students who are found to use departmental equipment without prior approval or for activities unrelated to the University could be barred from using the department resources for a certain period of time or even permanently.

# 8.14 ResearchandPatents

The results of a graduate student's research could lead to a patent and the payment of royalties. The University claims no rights to patent royalties if the research is performed in a laboratory outside of the University under close cooperation with an outside advisor. The University insists, however, that the student receive a fair share of any financial benefits from such a patent. If the patented work is done in a University laboratory with the frequent consultation of regular faculty, the University may claim a portion of the royalty. Negotiations on such claims will be conducted by the Division of Research.

# 8.15 Rights and Responsibilities

The University has developed policies and procedures on the rights and responsibilities of students and a code of conduct assuring that these rights may be freely exercised without interference or infringement by others. The code of conduct, academic misconduct policies, student grievance procedures and policies on student records are reported in detail in the University publication Rights and Responsibilities of Students. All administrative procedures and time deadlines must be met, whether or not they are specifically mentioned in this document. Students must operate within the rules and guidelines of the Graduate Policy and Procedures Manual, Graduate Catalog and the Regulations for Thesis and Dissertation Preparation Manual. Accordingly, graduate students should obtain copies of these publications from the Graduate Studies Office or visit the Graduate Division website (www.fiu.edu/~gradstud/) and be familiar with their contents.

# 9. Discrimination, Harassment, Sexual Misconduct & Title IX Compliance

Florida International University (FIU) complies with Title IX not just because it is the law, but because it is the right thing to do. FIU strives to create and maintain an education and employment environment that is fair and equitable to each member of the University community.

FIU is committed to the safety and well-being of all members of the university community, and encourages anyone who experiences or witness's discrimination, harassment or sexual misconduct in connection with academic, educational, extracurricular, athletic, and other programs of the school to report the incident, whether it takes place on or off campus. At FIU, such behaviors are not tolerated and are prohibited both by law and by University policy.

The Title IX Coordinator provides advice and oversight on policies, preventive educational programs, resources, and services required under Title IX, and in addition, oversees all complaints of sexual harassment and sexual violence, as well as identifies and addresses any patterns or systematic problems that arise during the review of complaints.

For further details please visit Title IX section of the FIU Diversity Office: <u>https://diversity.fiu.edu/services-view/title-ix/</u>

# 9.1 The Process

At Florida International University, all complaints related to harassment and discrimination are addressed and investigated in a fair and equitable manner. The investigation will include interviews of the person bringing the allegations (complainant), witnesses and the accused party, as well as analysis of documents and other relevant information.

After a review of the information and facts of a complaint, the individual who made the report and the accused individual will be advised of the results of the investigation. Any discipline issued to a student will be subject to procedures as outlined in the Code of Student Conduct. Any employee who is found to have engaged in conduct prohibited by University policy will be subject to appropriate disciplinary action, up to and including termination of employment.

In addition, appropriate corrective measures will be taken when a consultant, vendor, contractor, visitor, or other person is found to have engaged in conduct prohibited by this policy. In addition, individuals may be subject to criminal charges.

# 9.2 Sexual Harassment & Sexual Violence Defined

Gender discrimination is unequal or disadvantageous treatment of a group, or an individual based on gender. Sexual harassment is a form of gender discrimination.

Sexual Harassment is unwelcomed sexual advances, requests for sexual favors, and other verbal, non-verbal, or physical conduct of a sexual nature, including Sexual Misconduct or Exploitation when:

- submission to such conduct is a condition for employment, promotion, grades, or academics;
- submission to or rejection of such conduct is used as the basis for employment or academic or other decisions affecting an individual;
- such conduct is so severe or pervasive that it substantially interferes with the individual's

• employment, education or access to University programs, activities and opportunities.

**Sexual Violence** is a severe form of sexual harassment and refers to physical sexual acts perpetrated against a person's will or where a person is incapable of giving consent, including but not limited to rape, sexual assault, sexual battery, sexual coercion or similar acts in violation of state or federal law.

### **Examples of Sexual Harassment & Sexual Violence**

- Pressure for sexual activity
- Requests for sexual favors
- Unwelcome patting, hugging, or touching of a person's body, hair, or clothing
- Sexual innuendos, jokes, or comments
- Disparaging remarks to a person about her/his gender or body
- Sexual graffiti or Visuals
- Asking about a person's sexual fantasies, sexual preferences, or sexual activities
- Repeatedly asking for a date after the person has expressed disinterest
- Making sexual gestures with hands or through body movements
- Offensive letters, email, text messages, posts on social networking sites, internet images or transmissions or voicemail messages.
- Dating violence, sexual assault, sexual battery, and rape

These examples are not all in-inclusive of the types of conduct that may constitute sexual harassment and sexual violence. This behavior can occur regardless of the relationship, position, and respective sex of the parties. Same-gender harassment violates FIU's policy just as harassment by a subordinate employee of his/her supervisor.

### 9.3 Consent

Consent to sexual activity is informed, knowing and voluntary. Consent is active, not passive. Sexual activity with someone who you know or should know is mentally or physically incapacitated by alcohol or other drug use, unconsciousness, or blackout or otherwise unable to give consent is in violation of FIU policy.

# 9.4 Retaliation

Retaliation in any form against an individual who reports a violation of this policy or who provides information in the course of an investigation of a reported violation is strictly prohibited and will not be tolerated.

For more information on sexual harassment visit Inclusion, Diversity, Equity & Access (formerly Equal Opportunity Programs and Diversity) website at hr.fiu.edu

# 9.5 Reporting Discrimination, Harassment and Sexual Misconduct

FIU is committed to providing a campus climate free from illegal discrimination and/or harassment.

Anyone within our campus community that has witnessed, or experienced sexual harassment, discrimination, or any form of sexual violence can speak with any of the following Title IX coordinators.

The Title IX and Equal Opportunity Coordinator oversees all discrimination, harassment and sexual misconduct complaints made by employees, students, and visitors. The University's Title IX and Civil Rights Coordinator is **Ryan Kelley, J.D.** at the Office of Civil Rights Compliance and Accessibility.

# 9.6 How do I file a Title IX complaint?

You may file a complaint with one of the Title IX coordinators listed below. Alternatively, you may file an anonymous complaint using our Ethical Panther Reporting Line, Convergent by calling 305-348-2785 or online at:

https://report.fiu.edu/

Ryan Kelley Director & Title IX Coordinator Office of Civil Rights Compliance and Accessibility Phone: (305) 348-2785 E-Mail: rkelley@fiu.edu

For reports or inquiries of gender inequity or gender-based misconduct concerning faculty, staff, and outside contractors, visitors, or vendors

Student Conduct and Conflict Resolution GC311A Phone: (305) 348-3939 E-Mail: <u>conduct@fiu.edu</u>

For reports or inquiries of gender inequity or gender-based misconduct concerning students

Julie Berg Deputy Title IX Coordinator Senior Associate Athletic Director USCBA 202A Phone: (305) 348-2352 Email: julie.berg-Mc\_Graw@fiu.edu

# 9.7 Contexts In Which Title IX Applies

Title IX applies to all University services and academic programs both on and off campus including, but not limited to:

- Admissions
- Financial aid
- Class assignments & course offerings
- Academic advising & instruction
- Evaluation & grading
- Discipline

- Athletics
- Housing
- Health and counseling services
- Recreational, residential life & extracurricular services and programs
- Employment of faculty, staff, and graduate assistants, including the recruitment, consideration and selection processes.

# 10. The Graduate Faculty

- Malek Adjouadi, Ware Professor, Distinguished University Professor
- Elias Alwan, Associate Professor
- Jean Andrian, Associate Professor
- Ou Bai, Associate Professor
- Armando Barreto, Professor
- Shekhar Bhansali, Distinguished University Professor
- Mercedes Cabrerizo, Associate Professor
- Hai Deng, Associate Professor
- Stavros Georgakopoulos, Professor
- Deidra Hodges, Associate Professor and Department Chair
- Ahmed Ibrahim, Associate Professor
- Aleksandr Krasnok, Assistant Professor
- Grover Larkins, Professor
- Arjuna Madanayake, Associate Professor
- Osama Mohammed, Distinguished University Professor, Interim School Director
- Nezih Pala, Professor and Graduate Program Director for Ph.D. Program
- Sumit Paudyal, Associate Professor
- Alexander Pons, Associate Professor
- Vladmir Pozdin, Assistant Professor and Graduate Program Director for M.S Programs
- Gang Quan, Professor
- Md Tauhidur Rahman, Assistant Professor
- Mohammad Ashiqur Rahman, Associate Professor
- Gustavo Roig, Professor
- Arif Sarwat, Professor
- Mst Shamim Ara Shawkat, Assistant Professor
- Himanshu Upadhyay, Associate Professor
- Frank Urban, Associate Professor
- Satheesh Bojja Venkatakrishnan, Assistant Professor
- John Volakis, Professor
- Kang Yen, Professor, Assistant Provost, and Graduate Program Director for M.SPrograms
- Konstantinos Zekios, Assistant Professor

# 11. Appendix 1: PhD Plan of Study

All the new PhD students are expected to complete their "PhD Plan of Study" and get approved by their major advisors.

If a major advisor has not been assigned yet, the PhD Graduate Program Director (PhD) approves the plan. The plan includes the tentative list of the courses that the student intends to take, indented times for the D-1, D-2, D-3 and D-5 forms to be filed. It is not binding and can be revised at the beginning of each year with the approval of the major advisor. Students can obtain the form from ECE website or from the GPD.

Please printout (or extract the pages of) the "PhD Plan of Study" in the following pages, fill it out and discuss with your advisor.

You can also access it on our web site.

# 12. Appendix 2: Qualifying Exam Application Forms

Please complete the appropriate form and send to the GPD when you submit your D2 form online.