

HANDBOOK

Graduate Programs

Department Biomedical Engineering

Florida International University

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Table of Contents

Overview	3
List of Forms	3
Master's curriculum:	4
Master's Tracks and Credit Requirements	4
Coursework Requirements	5
Course Requirements for Graduate Studies in Biomedical Engineering for applicants with a Non-Engineering or Non-Biomedical Engineering Academic Background	9
Non-engineering academic background	9
Non-biomedical (engineering) academic background	9
Process to transfer credits from other programs:	10
Selection of Courses and Removal of Hold:	10
UM/FIU Exchange Program	11
Formation of the Dissertation Committee	12
Form M-1: Appointment of Thesis Committee	12
Form M-1r: Modifications to the Thesis Committee	13
Form M-2: Master's Thesis Proposal	14
Form M-3: Preliminary Approval of Thesis and Request for Oral Defense	15
Form ETD: Final Electronic Thesis or Dissertation (ETD) Approval	17
Students Contracts:	18
Department Administration:	20
Graduate Program Committee:	21
Qualifying Exam Committee	Error! Bookmark not defined.
Appendixes	

Overview

This handbook provides essential information about the master's graduate program in the department of Biomedical Engineering at Florida International University, including coursework, requirements for different master's tracks, important forms and resources to perform successfully in our programs. It also summarizes most important policies and procedures of our master's graduate program.

The Department of Biomedical Engineering at Florida International University offers Research and Professional tracks for the master's degree. In addition, the Department offers accelerated combined BS/MS pathways and certificate programs. These programs provide an interdisciplinary education intended to prepare the student for professional practice in Biomedical Engineering. All work counted for the master's degree must be completed during the six years immediately following the date of admission to the graduate program.

List of Forms

<https://gradschool.fiu.edu/students/#studentforms>

Graduate Students M forms checklist:

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

- 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
- 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 dissertation. See step-by-step process at:
<http://gradschool.fiu.edu/the-final-etd-process/>

Master's curriculum:

Master's Tracks and Credit Requirements

Research track is geared to prepare the graduate student for further graduate study or a career in biomedical research. A student shall complete a minimum of 30 credit hours. This includes a minimum of 24 hours of course work (15 credits of electives in specialty areas, 6 credits of Mathematics Engineering courses, 3 credits of Life Science Electives), one semester of the Biomedical Engineering Seminar and 6 semester credit hours of Master's Thesis or 3 credit hours of Master's Project. Students electing master's project will need to take one additional biomedical engineering elective course. Early in the program (before the end of the second semester) the student and advisor will complete a study plan that specifies the courses that will comprise the program. A maximum of three credits of independent studies other than the MS thesis may be included in a study plan. Students receiving support from the department are not permitted to choose the project option.

All students in the research track are required to complete a research project under the supervision of an advisor and a committee. When the research is completed, the student should schedule a defense with an examining committee consisting of a minimum of three graduate faculty members (at least two of whom have appointments in the Department). The candidate should prepare to summarize the thesis or the report in the manner of a technical paper using appropriate visual aids in 40 minutes or less. Following the presentation, the candidate will answer questions related to the work from the audience and/or the committee. At the conclusion of the defense, the committee will agree upon the outcome - pass or fail - and report the results to the Graduate School. Following the exam, student will implement the committee's suggestions for improving the draft document. Each committee member must sign the approval form in the final document. Copies of the approved thesis must be provided to the advisor, Department, and the University Graduate School. Students should become familiar with the University Graduate School's regulations and deadlines available online at <http://gradschool.fiu.edu>.

The graduate program committee and the academic adviser may also recommend that students take additional courses based on their research needs and deficiencies. Master's students from science and engineering areas other than biomedical engineering will be expected to complete undergraduate **remedial courses** selected to prepare them for graduate courses in their area of interest. Required remedial courses for each student are defined and approved by the GPD at the beginning of the first semester of enrollment. The FIU BME Master's graduate program requires the completion of these background courses with no grades below "C" and a grade point average of 3.0 or better. GPD and major adviser (if defined) must be consulted as to when the courses need to be taken. **The plan must be in written.** Completion of these remedial courses is required before submission of the M-2 form. International students are encouraged to contact the GPD early in the program to discuss eligibility to take undergraduate courses. The students will be required to provide a plan "*in writing*". *Official transcripts* are required to evaluate courses to be transferred and remedial requirements.

All students in the Research Track must take three courses in one specialty area, and one course in each of the other two specialty areas (total of 21 credits from Biomedical Engineering Core). The current specialty areas are: 1) Basic research in engineered tissue model systems; 2) Diagnostic bioimaging and sensor systems; and 3) Therapeutic and reparative neurotechnology. Furthermore, 6 credits from Mathematic Core and 3 credits from Approved Life Science Electives are required. Finally, the students should meet the requirements of Master's Thesis (BME6970, 6 credits) and Biomedical Engineering Seminar (BME6936, 0 credit).

Professional track is tailored primarily for engineers currently practicing in the biomedical industry and students interested in pursuing a management career in the biomedical industry. A student shall complete 27 credit hours of course work and a 3-credit-hour capstone project. The courses are organized into four core areas: Life Sciences (3 credits), Engineering Mathematics (3 credits), Engineering Management (6 credits), and Biomedical Engineering Electives (15 credits). The student will choose two courses from the Engineering Management core based on personal training requirements. While the degree is structured as a non-thesis program, students will be required to conduct an industrial project (3 credit hours). The project will include contemporary topics and trends in biomedical engineering technology development and will require a formal report and presentation upon completion. Students receiving financial support from the department are not eligible for the Professional Track option. Early in the program (before the end of the second semester) the student and advisor will complete a study plan that specifies the courses that will comprise the program. A maximum of three credits of independent studies beyond the MS project may be included in the study plan. Professional track students are required to take an oral final examination dealing with the objectives of their study plan. The student will briefly summarize the project report (20 minutes) as a part of the exam. The examining committee will include a minimum of three faculty members, at least two of whom have appointments in the Department.

Orthotics and Prosthetics Engineering track will provide comprehensive training for students in life-science areas, including anatomy, kinesiology, pathology, and normal pathological gait. In addition, it will provide extensive engineering training in biomechanics, material science, and the fabrication and evaluation processes of orthotic and prosthetic devices, as well as research skills. Completion of this track will prepare students to pursue a career in the field of orthotics and prosthetics as an engineer and innovator. This track is not accredited for pursuing professional certification for orthotics and prosthetics provided by the American Board for Certification (ABC).

Coursework Requirements

The program of study will require completion of courses (beyond the BS degree) in the following categories:

- *Engineering Mathematics*
- *Life Science*
- *BME Electives*

No. of credits for each course are in brackets. **Approval by the GPD, upon recommendation by the major adviser, is required to take any course not listed in this section as part of the 21 credits of coursework.**

Engineering Mathematics

Courses in this area must cover the broad areas of **statistics** and **theoretical/numerical modeling**. Master’s students in Research Track must take 1 course (3 credits) from the list of Statistics courses and 1 course (3 credits) from the list of theoretical/numerical modeling courses. Student in Professional Track must take just 1 course (3 credits) from the list of Statistics courses.

List of courses on Statistics

STA 5126	Fundamentals of Design of Experiments (3)	Fall	Regular
STA 6176	Biostatistics (3)	Spring	Regular
STA 5206	Design of Experiments I (3)	Fall	Regular
STA 6746	Multivariate Statistical Analysis (3)	Fall	Rarely offered
STA 6244	Data Analysis I (3)	Fall	Rarely offered

STA 7707	Multivariate Methods I (3)	Fall	Rarely offered
STA 7708	Multivariate Methods II (3)	Fall	Rarely offered
SAT 5676	Reliability Eng (3, only Professional Track)		

List of courses on Theoretical/ Numerical Modeling

BME 6705	Nonlinear Systems in Life Sciences (3)	Fall	Regular
BME 6716	Mathematical Model of Cells (3)	Fall/Spring	Rarely offered
BME 6715	Mathematical Model of Phys Sys (3)	Fall/Spring	Rarely offered

Life Science

The life science courses may be selected from the following approved list. FIU BME Master's program requires students in Research Track to take at least one of the two Physiology/Engineering courses (BME 5410/5411).

BME 5410	Physiology/Engineering I (3)	Fall	Regular
BME 5411	Physiology/Engineering II (3)	Spring	Regular
BME 6019	Clinical Research Experience	Fall/Spring	Regular
CHM 5506	Physical Biochemistry (3)	Fall	Rarely offered
PCB 5725	Membrane Signal Transduction (3)	Fall	Rarely offered
PCB 5835	Neurophysiology (3)	Fall	Rarely offered
PCB 5835L	Neurophysiology (1)	Fall	Rarely offered
PCB 6025	Molecular and Cellular Biology I (3)	Fall	Regular
PCB 6027	Molecular and Cellular Biology II (3)	Spring	Regular
PCB 6176C	Biological Electron Microscopy (5)	Fall	Rarely offered
PCB 6933	Trends in Neurobiology (2)	Fall	Rarely offered
PHY 6716	Advanced Biophysics (3)	Fall	Rarely offered
PHZ 5370	Nanoscience (3)	Fall	Rarely offered
PHZ 6255	Molecular Biophysics (3)	Fall	Rarely offered
ZOO 5745	Advanced Neuroanatomy (3)	Fall	Rarely offered
ZOO 5746	Comparative Neurobiology (4)	Fall	Rarely offered
ZOO 5785	Advanced Neurobiology (3)	Fall	Regular
ZOO 6782	Sensory systems in Neurobiology	Springs	Alt 2019/2021
BSC 6936	Motor systems in Neurobiology	Springs	Alt 2020/2022
CHM 6036	Advanced Biochemistry 1	Fall	Regular
CHM 6037	Advanced Biochemistry 2	Spring	Regular
BCH 6108	Biochemical Techniques	Fall	No Data

BME Electives – 15 credit hours or more

Courses in this area must cover the major and minor specialty areas of the student. The three current specialty areas within biomedical engineering are:

1. *Basic Research in Engineered Tissue Model Systems*
2. *Therapeutic and Reparative Neurotechnology*
3. *Diagnostic Bioimaging and Sensor Systems*

In order to prepare master's students to work in a variety of BME subjects, it is required that 3 courses (9 credit hours) are taken in the major specialty area and 1 course (3 credit hours) in each of the minor specialty areas. The major specialty area must be declared before M-1 is submitted. Exception must be approved by the major adviser and communicated in written to the GPD.

Basic Research in Engineered Tissue Model Systems

BME 5036	Biotransport Processes	Fall	Alt 2019/2021
BME 5105	Intermediate Biomaterials Science	Fall/Spring	Rarely offered
BME 5316	Molecular Bioprocess Eng	Fall/Spring	Rarely offered
BME 6266	Advanced Biofluid Mechanics	Spring	Regular
BME 5336	Cell/Tissue Eng I: Theory & Method	Fall	Regular
BME 6645	Drug Trans Modeling	Fall	Alt 2020/2022
BME 6715	Math Model Phys Sys	Fall	Rarely offered
BME 6716	Math Model of Cell Systems	Fall	Rarely offered
BME 6335	Artificial Organs	Fall/Spring	Rarely offered
BME 5993	Biomechanics of Cardiovascular Systems	Spring	Regular/Exp

Therapeutic and Reparative Neurotechnology

BME 6993	Orthopedic Biomechanics	Fall	Preparation
BME 5505C	Eng Foundations Med Imaging Instrument	Spring	Regular
BME 6421	Electrophys Phenomena in Biological Tissue	Spring	Regular
BME 6564	Optical Imaging Biomed	Spring	Alt 2019/2021
BME 6565	Quantitative Microscopy and Visualization	Fall	Regular
BME 6716	Math Model of Cell Systems	Fall	Rarely offered
EEE 6285	Biosignal Processing I	Fall	Regular
EEE 6286	Biosignal Processing II	Fall	Regular
EEL 5820	Digital Image Processing	Fall	Regular
EEL 6836	Computer Vis of Brain Electrical Activity	Fall	Regular
BME 6717	Comput Anal & Simul Physiol Proc	Spring	Regular
BME 5803	Biomedical Device Design	Fall	Regular

Diagnostic Bioimaging and Nanosensor Systems

BME 5560	BME Optics	Fall	Regular
BME 5573	Nanomed	Spring	Rarely offered
BME 5578	Bio & Commercialization of Nanomedicine	Spring	Rarely offered
BME 6532	Molecular Imaging	Spring	Regular
BME 6545	Biosensor and Nanobioelectronics	Fall	Rarely offered
BME 6563	Optical Spectroscopy	Spring	Alt 2020/2022
BME 6564	Optical Imaging Biomed	Spring	Alt 2019/2021
BME 6717	Comput Anal & Simul Physiol Proc	Spring	Regular
EEE 6285	Biosignal Processing I	Fall	Regular

EEE 6286	Biosignal Processing II	Fall	Regular
EEL 5820	Digital Image Processing	Fall	Regular
EEL 6821	Computer Vision	Fall	Regular
EEL 6836	Computer Vis of Brain Electrical Activity	Fall	Regular
BME 5505C	Eng Foundations Med Imaging Instrument	Spring	Regular

Approved Engineering Management Electives (for Professional Track)

EIN 5226	Total Quality Management for Engineers (3)		
EIN 5322	Engineering Management (3)		
EIN 5359	Industrial Financial Decisions (3)		
MAN 6167	Leadership in a Global Environment (3)		

Approved Life Science Electives (for Orthotics and Prosthetics Engineering Track)

PHT 5174	Analysis of Movement (4)		
PHT 6163	Neurological Diagnosis & Management I (3)		
PHT 5180	Kinesiology (3)		

Biomedical Electives (for Orthotics and Prosthetics Engineering Track)

BME 6212	Solid Mech App in Physio Systems (3)		
PHY 6125	Clinical Biomechanics (3)		
BME 5141L	Intro to Lab Skills & Mat in Pros & Ort (1)		
BME 5213L	Clinical Evaluation Tools (1)		
BME 5214L	Ortho Manage of the Lower Limb 1 (4)		
BME 5215L	Pros Manage of the Lower Limb 1 (4)		
BME 5105	Intermediate Biomaterials Science (3)		
BME 5941	Biomed Eng Internship (1)		
BME 6907	Master's Project (3)		

Biomedical Engineering Seminar (BME 6936 Master's BME Seminar 0 credit)

Master's students must attend at least 15 BME Wallace Coulter series seminars, during their master's study. Students need to sign in for these events when attending. The graduate student sign-in sheets are provided during the seminars.

Updated schedules and live videos of the seminars are provided at <https://bme.fiu.edu/seminars/>. Once the required number of seminars has been met, students need to mandatorily register for the BME 6936 course any semester before graduation. All students with 15 seminars attended will receive a "P" grade. The BME 6936 section will be opened under the GPD.

The schedules for all courses referred above may be subject to changes. Please consult the course instructor before planning the coursework for each semester.

Independent studies: A maximum of three credits of independent studies beyond the MS project may be included in a study plan for the Professional and Research tracks. As this is a graded activity, a rubric with information about the structure of the course and the assessment criteria must be clearly defined and

discussed with the student/instructor before the course begins. The amount of work must be in correspondence with the credits taken (1-3).

Supervised Research: Once the M-1 form is filed for a MS student in the Research track, up to 6 credit hours of Supervised Research (BME 6910) can be taken under a given faculty member (generally, the adviser). The structure of research, goals and assessment criteria must be clearly defined and discussed with the student before the course begins. The students can enroll in 3 more Supervised Research credits under an additional faculty member, if required. It is recommended that the student enroll in supervised research in a relevant field related to the dissertation topic. For students with no M-1 on file, Supervised Research must be approved by the GPD.

Dissertation credits: After submission of the M-2 form, to remain in full time status, the student must enroll in at least 1 credit each semester (covered by the tuition waiver offered by FIU if the student is on contract). Students must be continuously enrolled until graduation for at least one 1 semester before being eligible to graduate.

Sections for the independent study (BME 6905) and supervised research (BME 6910) should be opened by the respective faculty member.

Course Requirements for Graduate Studies in Biomedical Engineering for applicants with a Non-Engineering or Non-Biomedical Engineering Academic Background

Non-engineering academic background

In addition to the normal requirements for graduation, during your course of study at FIU you will be required to complete all the following courses (or show evidence of prior successful completion of an equivalent course):

MAC 2311 Calculus I
MAC 2312 Calculus II
MAC 2313 Multivariable Calculus
MAP 2302 Differential Equations
CHM 1045 General Chemistry I
CHM 1045L General Chemistry I Lab
PHY 2048/2049 Physics I/II w/Calculus
PHY 2048L/2049L Physics I/II Lab
BME 3632 Biomedical Engineering Transport
EEL 3110/L Circuit Analysis
EGM 3503 Applied Mechanics

Non-biomedical (engineering) academic background

In addition to the normal requirements for graduation, during your course of study at FIU you will be required to complete all the following undergraduate courses:

- BME 3403 Engineering Analysis of Biological Systems I
- BME 3404 Engineering Analysis of Biological Systems II

Or equivalent courses from the Department of Biological Science

- PCB 3703 Human Physiol. I
- PCB 3704 Human Physiol. II

Or show evidence of prior successful completion of at least two semesters of biology, physiology, or the equivalent biomedical related life science courses, examples:

PCB 3702 Interm Human Physiol

BMS 6501 Medical Physiology
 PCB 2099 Foundations of Human Physiology
 PCB 4733 Human Systemic Physiology I
 PCB 4734 Human Systemic Physiology II

Note: It is recommended to take the remedial courses within the first two semesters of the master's program.

Process to transfer credits from other programs:

There are two types of transfer of credits: 1) Internal Institution and 2) External Institution. The BME master's program may accept up to 20% of the required coursework (~ 6 credits) 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 master's program (i.e., ~12 credits). To transfer courses from another program, students must have an approved M-1 form. Exceptions to this requirement must be approved by the GPD. Waiver 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.

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

FIU Course	Transf. Course	University	Grade	% Overlap	Course Description
Equivalent course in our PhD program <i>e.g., BME 6564</i>	List the course to be transferred <i>e.g., M296A</i>	<i>e.g., UCLA</i>	<i>e.g., A</i>	Overlap between the two courses <i>e.g., 65 %</i>	A brief description of the course to be transferred

The Memo must list the course syllabi in an appendix. The Memo must be sent to the GPD by the adviser for final approval. If approved, the GPD will submit the request to the FIU Office of Registrar.

Selection of Courses and Removal of Hold:

Advising hold: An advising hold on the student's Panthersoft interface is to be removed prior to registration of classes. No students should register for a course without first consulting with their advisor or GPD.

- For students in the Research track who do not have the M-1 form on file, decision of enrollment in courses must be discussed with the adviser. For these students, the final removal of the adviser

hold will be approved by the GPD. For students with a filed M-1 form, the student's thesis adviser removes the hold.

- For students in the Professional track, decision of enrollment in courses must be discussed with the GPD.
- For students in the Orthotic and Prosthetic track, decision of enrollment in courses must be discussed with the associate director Dr. Wei-Chiang Lin.

Insurance hold: Students must contact the Program Administrative-Coordinator/Specialist in the BME 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 issues.

For information about Health Insurance, please refer to:

FIU Student Health Services

Division of Student Affairs

11200 SW 8th Street, SHC, 132-139 Miami, FL 33199

Phone: (305) 348-2688

Fax: (305) 348-3336

Hours: Monday-Friday: 8:00 A.M. - 5:00 P.M.

Like us! [facebook.com/SHS.FIU](https://www.facebook.com/SHS.FIU)

Website: studenthealth.fiu.edu

Follow us on Twitter: [@FIUSHS](https://twitter.com/FIUSHS)

UM/FIU Exchange Program

The UM/FIU program enables Masters's 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 adviser 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 in order 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: <https://gradschool.fiu.edu/wp-content/uploads/2020/11/WritableFIU-UM-Exchange-Application2020current.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, Associate Director, ortegak@fiu.edu (305) 348-2455

UM Program Coordinator: Tyrone Henry Jr., Assistant Director, t.henry1@miami.edu (305) 284-4155

Relevant Courses in the Medical Physics Concentration Area (Department of Biomedical Engineering, UM): Neuroscience (3 credits), Radiobiology and Physics (3 credits), Radiation Therapy Physics (3 credits), Radiation Protection (3 credits), Radiation Dosimetry and Physics (3 credits).

Formation of the Dissertation Committee

Form M-1: Appointment of Thesis Committee

The Master's student works with the potential adviser who matches the student's areas of interest and project to put together the master's thesis committee. The committee is designed to accommodate gaps in knowledge and to strengthen areas of research pertaining to the master's thesis.

Instructions and Helpful Information for M-1 Form Appointment of Thesis Committee (M-1)

1. DEADLINES

M-1 is to be completed at the time your committee is formed but no later than 2 semesters before the anticipated graduation semester. Deadlines for submission of subsequent forms to the UGS are available at: <http://gradschool.fiu.edu/calendar-deadlines/#doctoral>. Submit the M-1 form (Page 3) to the Academic units well before the deadline to allow enough time for approval and signature. Ultimately, it is the student's responsibility to make sure forms are received by the UGS on time and that all deadlines are met.

2. ACTIVE STATUS ENROLLMENT REQUIREMENTS

Master's 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 M-1. M-1 form will not be processed without proof of current enrollment. The form will be returned to the major professor. Further information regarding the UGS graduate active and full-time status policies is available at:

<https://policies.fiu.edu/files/759.pdf>.

3. INSTRUCTIONS

All information must be **typed**. All dissertation committee members are appointed by the Dean of the University Graduate School on the recommendation of the unit.

- The thesis committee is comprised of at least three (3) members of the Graduate Faculty (GF).
- The major professor (adviser) must be a member of the GF and must be an expert in the subject of the dissertation.
- 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.

If there is a co-major professor being designated, please complete name and signature in the line assigned for co-major professors **ONLY**. Type the names of the committee members, obtain their original signatures, and confirm they are members of FIU's GF. After confirming GF and DAS status, check the "Verified" boxes next to each name.

The list of GF is available at <http://gradschool.fiu.edu/facultystaff/>. Note that any individual currently associated with FIU as an employee must have GF status to serve on dissertation committees. If additional committee members **do not** have FIU GF status, these individuals must understand the time commitment required to read the doctoral student's proposal, participate in annual progress meetings and attend the dissertation defense. Non-FIU GF committee members must submit a CV and complete the Commitment Form for Non-FIU Committee Members. These documents must be submitted with M-1 form. Non-FIU GF must be approved by the UGS. It is the responsibility of the student and academic unit/college to ensure that the proposed committee meets the University's minimum committee composition requirements. M-1 forms that do not meet minimum committee composition requirements will be returned

to the major professor. Original signatures from all committee members are required on M-1 form. Complete checklist and attach documentation as needed.

- Provide a copy of your class schedule to show proof of current enrollment in graduate credit hours. Access: **my.fiu.edu** → Choose the Student Tab → Under “Academics” choose “Class Schedule” in the drop-box → Choose the arrow next to the drop-box to continue → Choose the current academic semester to continue → Show only the enrolled classes and “filter” → Click File → Print Preview → Pull drop-box which states “Only the selected frame” → Print the entire enrollment class schedule
- Provide a brief summary (no more than 2 pages) of the expertise of your committee members. The summary should identify the expected contributions of each committee member and his/her qualifications to serve in that capacity (a paragraph on each member is enough).
- If additional committee members **do not** have FIU GF status, a full CV, a brief statement of expertise related to student’s project, and confirmation of commitment of time must be attached.

Submit the M-1 form and required documentation to Chair/GPD and the Dean of the College for approval. Submit the hardcopy form to the UGS for final approval.

4. ADDITIONAL INFORMATION

To check the status of your form, please log on to **my.fiu.edu**, and check under the “To Do List” Section. If your GPA is below 3.0, see your academic adviser in order to plan to raise your GPA above 3.0; you **cannot** graduate with a GPA below 3.0.

Form M-1r: Modifications to the Thesis Committee

In case the student decides to make a change (add/ remove members) in his/her thesis committee, Form M-1r needs to be filed with UGS.

Instructions and Helpful Information for M-1r Form Appointment of Revised Thesis Committee (M-1r)

1. DEADLINES

M-1r is to be completed as soon as a revised committee is formed.

2. ACTIVE STATUS ENROLLMENT REQUIREMENTS

Master’s students are required to be enrolled in at least 1 graduate credit hour in the term in which they submit the M-1r. The M-1r form will not be processed without proof of current enrollment. The form will be returned to the major professor. Further information regarding the UGS graduate active and full-time status policies is available at:

<https://policies.fiu.edu/files/759.pdf>.

3. INSTRUCTIONS

All information must be **typed**. All Thesis committee members are appointed by the Dean of the University Graduate School on the recommendation of the unit. See the instructions above for the requirements for a Thesis Committee (M-1). From the drop-down menu, choose the role (major professor, co-major professor or member) of the committee member leaving the committee. Type and obtain original signatures from members leaving the committee. From the drop-down menu, choose the role (major professor, co-major professor or member) of the committee member being added. Type the names of the committee members, obtain their original signatures, and select their status from the drop-down menu to verify that they hold GF Status. If additional committee members **do not** have FIU Graduate Faculty status, these individuals

must understand the time commitment required to read the doctoral student's proposal, participate in annual progress meetings and attend the dissertation defense. Non- FIU Graduate Faculty committee members must submit a CV, a brief statement of expertise related to student's project, and confirmation of commitment of time. These documents must be submitted with the M-1r form. Non-FIU Graduate Faculty must be approved by the UGS. M-1r forms that do not meet minimum committee composition requirements will be returned to the major professor. Complete checklist and attach documentation as needed.

- Provide a copy of your class schedule to show proof of current enrollment in graduate credit hours. Instructions are given in the section for the M-1 form.
- Provide a brief summary (no more than 2 pages) of the expertise of your new committee members. The summary should identify the expected contributions of each new committee member and his/her qualifications to serve in that capacity (a paragraph on each new member is enough).
- If additional committee members **do not** have FIU GF status, a full CV, a brief statement of expertise related to student's project, and confirmation of commitment of time must be attached.

Submit M-1r form and required documentation to Major Professor, Chair/Program Director and the Dean of the College for approval. Submit hardcopy form to the UGS for final approval.

4. ADDITIONAL INFORMATION

To check the status of your form, please log on to **my.fiu.edu**, and check under the "To Do List" Section. If your GPA is below 3.0, see your academic advisor in order to plan to raise your GPA above 3.0; you **cannot** graduate with a GPA below 3.0. Please note that if a major-professor or co-major professor is changing roles to that of a dissertation committee member or vice versa, please make sure to select the corresponding role from the drop-down menu. M-1 forms must be submitted to the Dean's office at least one week before the deadline for UGS to allow time for its review.

Form M-2: Master's Thesis Proposal

Instructions and Helpful Information for M-2 Form Master's Thesis Proposal

1. DEADLINES

M-2 is to be completed at least 1 semester before the anticipated graduation semester. Deadlines for submission of forms to the UGS are available at: <http://gradschool.fiu.edu/calendar-deadlines>

- o Submit forms to the Academic units well before the deadline to allow enough time for approval and signature.
- o 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.

2. ACTIVE STATUS ENROLLMENT REQUIREMENTS

Master's students are required to be enrolled in at least 1 graduate credit hour in the term in which they submit M-2. M-2 form will not be processed without proof of current enrollment. Further information regarding the UGS continuous enrollment policies is available at: <https://policies.fiu.edu/files/783.pdf>

3. INSTRUCTIONS

All information must be **typed**. If Applicable, prior to filing the abbreviated proposal with the UGS, the thesis committee should meet with the student for an oral defense of the full proposal. Type the names of the committee members and obtain their original signatures. If one of the committee members is unavailable to sign, he/she can give the Department Chair written authorization to sign on his/her behalf. Complete checklist and attach documentation as needed. Provide a copy of your class schedule to show

proof of current enrollment in graduate credit hours. Access: my.fiu.edu → Choose the Student Tab → Under “Academics” choose “Class Schedule” in the drop-box → Choose the arrow next to the drop-box to continue → Choose the current academic semester to continue → Show only the enrolled classes and “filter” → Click File → Print Preview → Pull drop-box which states “Only the selected frame” → Print the entire enrollment class schedule.

- Attach the abbreviated proposal (no more than 5 pages plus references in a scholarly style appropriate to the discipline) that clearly outlines background information related to the research topic, research question/hypotheses, methods, and statistics/analysis to be used. (Refer to Guidelines for prep of proposals available at: http://gradschool.fiu.edu/documents/Proposal_Guidelines.pdf)
- Attach a copy of the Responsible Conduct of Research (RCR) Completion Report. (Instructions available at: <http://research.fiu.edu/rcr/>)
- If thesis involves human subjects, attach the IRB memorandum of approval. (Instructions available at: <http://research.fiu.edu/irb/>)

Submit M-2 form and required documentation to Chair/Program Director and the Dean of the College for approval. M-2 forms must be submitted to the Dean’s office at least one week before the deadline for UGS to allow time for its review. Submit to the UGS for final approval. Please provide the committee at least one week to review the M2.

4. ADDITIONAL INFORMATION

It is understood that the thesis may evolve in directions quite different from the Thesis Proposal, and that the proposal is not intended to restrict the normal development of a research project. The thesis proposal is in no way a contract between the University and the student. Depending on the outcome of the research, the thesis may require substantially more work than anticipated at the stage of the thesis proposal. The termination of a line of research and the adaptation of a substantially new thesis project will require the oral defense of a new proposal and approval of the proposal by the UGS. Any questions regarding IRB/IACUC procedures should be directed to your college IRB or IACUC representatives or to Christopher Grayson at 305-348-8379/ E-mail: irbiacuc@fiu.edu

If your GPA is below 3.0, see your academic advisor in order to plan to raise your GPA above 3.0. You **cannot** graduate with GPA below 3.0. To check the status of your form, please log in to my.fiu.edu, and check under “TO Do List” Section.

REMINDER

You must apply for graduation in the same semester in which you anticipate graduating. Please refer to <https://onestop.fiu.edu/> and <http://gradschool.fiu.edu/calendar-deadlines/#doctoral> for graduation deadlines.

Form M-3: Preliminary Approval of Thesis and Request for Oral Defense

Instructions and Helpful Information for Form M-3

1. DEADLINES

M-3 form must be submitted to the UGS at least **3 WEEKS BEFORE** the date of the defense or by the UGS deadline (whichever date is the earliest). The defense will be delayed if the announcement format does not confirm to the UGS standard. Deadlines for submission of forms to the UGS are available at: <http://gradschool.fiu.edu/calendar-deadlines/>. Submit forms to the Academic units well before the deadline to allow enough 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.

M-3 forms must be submitted to the Dean's office at least one week before the deadline for UGS to allow time for its review. Please provide the committee at least two weeks to review the M3.

2. CONTINUOUS ENROLLMENT REQUIREMENTS

Master's students are **required** to be enrolled in at least 1 thesis credit hour in the term in which they submit M-3. M-3 form will not be processed without proof of current enrollment. The form will be returned to the major professor. Further information regarding the UGS continuous enrollment policies is available at: <https://policies.fiu.edu/files/759.pdf>.

3. INSTRUCTIONS

All information must be **typed**. The final examination committee will consist of all members of the thesis committee and any other members of the Graduate Faculty as may be appointed by the Dean of the UGS. Type the names of the committee members and obtain their original signatures. If one of the committee members is unavailable to sign, he/she can give a departmental Faculty/Staff (proxy for a person) written authorization to sign on his/her behalf. It is expected that all committee members will be present for the thesis defense. It is possible for one committee member to attend via video conference or teleconference technology, however prior approval must be obtained from the UGS through a Petition for Exception to Graduate Requirements. Please contact your academic unit to initiate this process. Prior to defending a thesis, your major professor must run the document for content, excluding bibliography and preliminary pages, through Turnitin. The similarity report from Turnitin is required as part of the checklist items below. The major/co-major professor(s) will confirm that the content is original work by signing below. Complete checklist and attach documentation as needed.

- Provide a hard copy of class schedule to show proof of current enrollment in thesis credit hours:
 - Access: my.fiu.edu > Choose the Manage Classes tile > Choose Class Schedule
- Attach written authorization if one of the committee members has authorized a departmental Faculty/Staff (proxy for a person) to sign on his/her behalf.
- Provide a hard copy of the entire Thesis in standard UGS format. This hard copy is typically used by your academic deans to make any content suggestions they may have.
- Provide an electronic version to the UGS of the same Thesis submitted with your M3 in standard UGS format.
 - This electronic version is used for formatting review. To submit your electronic version, you will receive instructions via email to upload to Digital Commons once your M3 and pertinent documents are received by the UGS.
 - Regarding UGS format guidance, please refer to Regulations for Thesis and Dissertation Preparation Manual available at: http://gradschool.fiu.edu/documents/Manual_Regulations.pdf
 - Be sure to include the following in the thesis copy:
 - Signature page (unsigned). Be advised that you must use one of the thesis approval page templates at <https://library.fiu.edu/>
 - Title Page (mandatory), Abstract (mandatory), Table of contents (mandatory), List of tables (mandatory for 5 or more tables), List of figures (mandatory for 5 or more figures), References (mandatory), Copyright Page (optional and only include if paying for this service), Dedication (optional), Acknowledgments (optional), Appendices (optional).
- Provide a hard copy of the Thesis Defense Announcement in standard UGS format. (See

Additional Information and example)

- Provide an electronic version of the thesis defense announcement to the UGS as a Word document. Send to ugs@fiu.edu.
- OPTIONAL: Attach the first page of the Similarity report ran by your major professor. This first page only includes the title of your dissertation, name of your major professor, submission date, etc.
- OPTIONAL: Attach the page titled “originality report” which is found within the Similarity report ran by your major professor. This page of the originality report shows the percentage ranges of the Similarity Index, Internet Sources, etc.

Submit M-3 form and required documentation to Chair/Program Director and the Dean of the College for approval. Submit hardcopy form to the UGS for final approval.

4. ADDITIONAL INFORMATION

THESIS DEFENSE ANNOUNCEMENT

- The announcement should be prepared in accordance with the template available on the next page and at: <http://gradschool.fiu.edu/thesis-dissertation/>.
- It should include the date, time, and venue and should be no longer than one page.
- The abstract, part of the announcement, should be written in a scholarly style appropriate to the discipline. See example announcement on following page.

AFTER APPROVAL OF YOUR DEFENSE

- Thesis hard copy – You will receive an email instructing you to pick up your hard copy thesis draft from the UGS office. This email will also include confirmation that your defense was approved.
- Thesis electronic copy – After the formatting review of the electronic version of your dissertation has been completed, you will receive feedback regarding formatting edits via email. This email will contain a Common Error Checklist with a list of formatting edits that must be corrected. Furthermore, you will receive a copy of your electronic dissertation file with the formatting edits marked throughout your document.
- If your GPA is below 3.0, see your academic advisor in order to plan to raise your GPA above 3.0.; you cannot graduate with a GPA below 3.0. To check the status of your form, please log on to <https://my.fiu.edu/> and check under the “To Do List” Section.

REMINDER

You must apply for graduation in the same semester in which you anticipate graduating. Please refer to <https://onestop.fiu.edu/> and <http://gradschool.fiu.edu/calendar-deadlines/#doctoral> for graduation deadlines.

Form ETD: Final Electronic Thesis or Dissertation (ETD) Approval

Doctoral and master’s thesis students must submit this form to complete their thesis/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.

1. DEADLINES

Complete the Final ETD Approval form after a final copy of the dissertation is approved by the committee. Deadlines for submission of this form to the UGS are available at:

<http://gradschool.fiu.edu/calendar-deadlines/#doctoral>.

Submit form to the Academic units before the deadline to allow enough time for approval and signature. The final EDT must be submitted to the Dean's office at least one week before the UGS deadline. Ultimately, it is the student's responsibility to make sure the form is received by the University Graduate School on time. Please provide the committee at least two week to review the EDT before expecting a signature.

2. CONTINUOUS ENROLLMENT REQUIREMENTS

Enrollment of at least 3 dissertation credit hours OR 1 thesis credit hour is required in the term that the student submits this form. The final ETD Approval form will not be processed without proof of current enrollment. Further information regarding the UGS continuous enrollment policies is available at:

<https://policies.fiu.edu/files/783.pdf>

3. INSTRUCTIONS

All information must be **typed**. Complete information and instructions on the ETD process can be found at: <http://libguides.fiu.edu/etd>. Final ETD Approval submissions must also include the following:

- Certificate of Completion from Survey of Earned Doctorates (Ph.D. only). Complete Survey at: <https://sed-ncses.org>.
- For SACS accreditation purposes, submit a full version of your CV (this is different from the 2- page VITA in your dissertation) (Doctoral students only).
- Copyright release from publishers if any part of the thesis or dissertation has been published.

Submit Final ETD Approval form and required documentation to Major Professor, Committee, Graduate Program Director or Department Chair, and the Dean of the College for approval. The EDT form must be submitted to the Dean's office at least one week before the deadline for UGS to allow time for its review. Submit hardcopy form to the UGS for final approval. After submission, you will receive an email with upload instructions within a month of graduation. Hard copy of thesis or dissertation **is not** required.

4. BINDING DISSERTATIONS

BME department requires their students to provide additional bound copies. Although the signature page ii MUST be in the ETD, submission of physical signature page ii to UGS is NOT required. However, you may submit signed, physical copies for binding for your own records, if you choose. Listed below are binding companies that have agreed to provide special pricing for binding personal copies:

[**Boca Bookbinding, Inc.**](#)

Tel 407-654-0003 (Orlando based)

[**International Assets**](#)

Tel 305-421-4184 (Miami based)

For questions regarding this form and the requirements, please contact UGS: (305) 348-2455 or etd@fiu.edu. To check the status of your form, please log on to my.fiu.edu, and check under the "To Do List" Section.

Students Contracts:

Research Assistant (RA) contracts are initiated by the faculty member with the available research funding (i.e., the PI of the research grant). Teaching Assistant (TA) and Graduate Assistant (GA) contracts are

initiated by the Chair/GPD accordingly to the available departmental funding (Wallace Coulter Foundation, E&G - CEC). Only MS students in the Research track are eligible for department financial support. The department currently offers two GA positions two support the activities of the Undergraduate and Graduate Program Committees, respectively. RA and TA/GA contracts are prepared by the Program Administrative-Coordinator. After approval by Chair and PI/supervisors, contracts are referred to the Dean Office for execution. Appointment is contingent upon full-time enrollment (9 graduate credits in Fall and Spring; 6 graduate credits in Summer) and satisfactory academic and work performance (GPA of 3.0 or higher). After M2 approval, MS students are required to be enrolled in at least 1 credit hours every term, including summer. However, eligibility for contracts will be discussed on individual bases for students with a GPA below 3.3 (GPD and adviser).

It is required by UGS that students under RA and TA/GA contracts read/sign the GRADUATE ASSISTANT EMPLOYMENT AGREEMENT (Downloadable from the FIU UGS website). The signed document must be provided to the Program Administrative-Coordinator by the deadline specified in the form. All students under contracts are mandatorily required to complete online the Sign-On packet available at <https://hr.fiu.edu/employees-affiliates/new-employee/>. The students will receive email notifications about the status of the applications. To be under a contract, the student should have a GPA of at least 3.0. The department will have to petition for any exception.

Tuition Waiver: Tuition waiver will be requested on the contract whenever available by the GPD. The tuition waivers for TAs/GAs are approved by the Dean Office. Students not on contract will not get a waiver. Tuition waivers for RAs must be included in the research grants. Exceptions for RA tuition waivers from the CEC should be approved by the Dean Office.

Stipend: TA/GA stipends are defined by the university. RA stipends are defined by the PI of the research grant based on the requested budget. Payments are bi-weekly and based on the FIU payroll calendar (<https://hr.fiu.edu/payroll-calendars-schedules/>).

VISA – International Students: International students must be enrolled as full-time students (9 credits/semester) to maintain the F1 VISA status. After the M-2 Form is approved, a petition must be initiated by the student in order to be enrolled only in 1 credits/semester.

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Appendix I: Example of defense announcement according to UGS format

UNIVERSITY GRADUATE SCHOOL BULLETIN ANNOUNCEMENT

Florida International University
University Graduate School

Master's Thesis Defense

Abstract

Coping with Life Events through Possible Selves

by

Michelle L. Barreto

The purpose of this thesis was to explore the ways in which a stressful life event incorporates into the sense of self. This research supports the notion that individuals are producers of their own development by exploring the individualized use of possible selves towards coping with life events. Through possible selves, the role of the self in coping with a stressful life event was examined. Specifically, the purpose of this study was to determine what types of life events and experiences become integrated into the self-system in the form of possible selves, how those life events and experiences shape one's possible selves, and whether the integration of life events and experiences is positive for developmental and psychosocial outcomes such as coping and well-being.

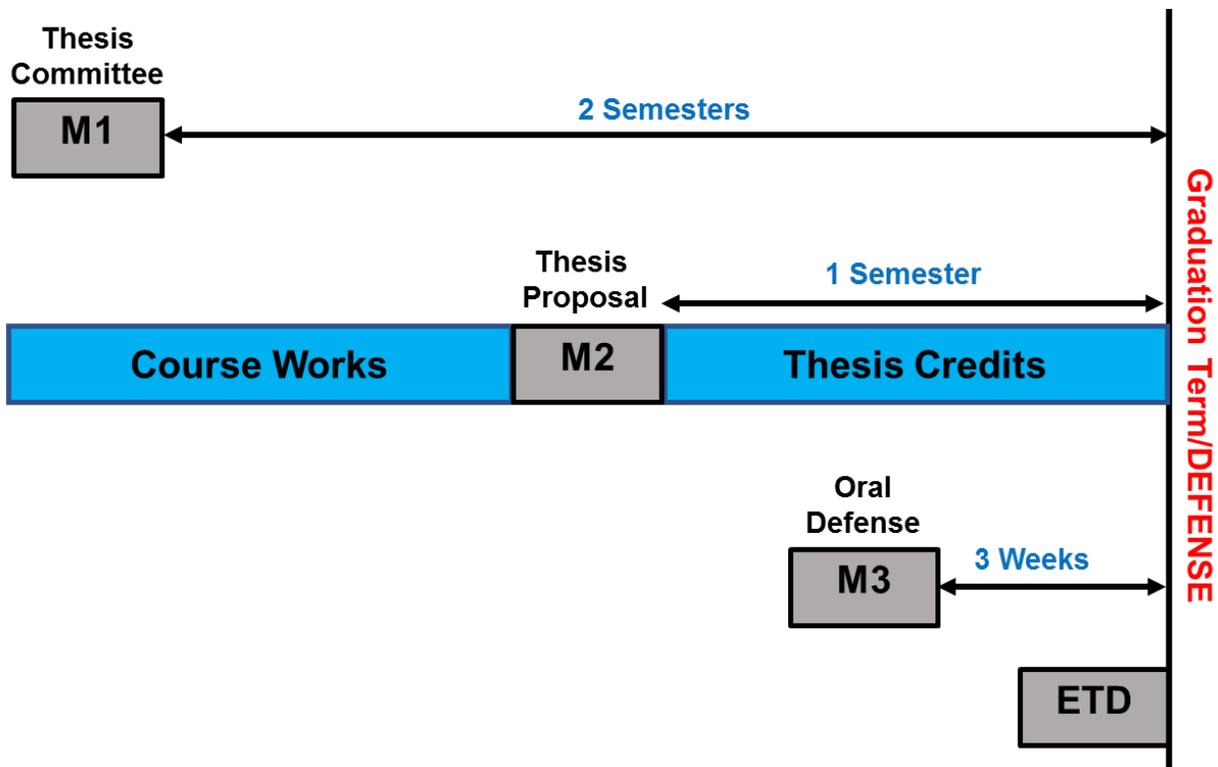
A total of 198 participants between the ages of 18 and 84 were included in this study (mean age was 43.78; 48.5% male, 51.5% female; 53.5% Hispanic, 27.3% White). The majority of the sample had some degree of integration of a stressful life event into their possible selves repertoire ($n = 151$).

The most common life events to be integrated into the possible selves repertoire were within the domains of family, bereavement, and lifestyle. The most significant life event to be integrated into the possible selves repertoire was the death of a parent (8.6%). Integrated life events were found to be, on average, more stressful than those that were not integrated: $t(65.6) = 2.675, p = .009$. As expected, coping scores were found to be higher for those with integrated selves: $t(51) = 2.502, p = .016$. This result indicates that more effective coping behaviors are associated with integrated selves.

Findings suggest that stressful life events that are integrated into the possible selves repertoire promote effective coping behavior. Findings indicate pathways for promoting better adaptation to life transitions in adulthood.

Date: April 5, 2020
Time: 12:00 p.m.
Place: MMC, DM 258

Department: Psychology
Major Professor: Dr. Leslie D. Frazier



Timeline Diagram

The number of semesters represents the minimum requirement