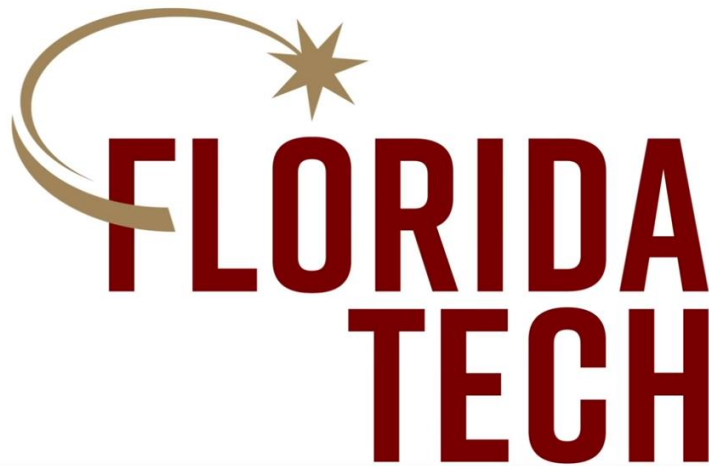


GUIDELINES FOR THESIS STUDENTS

Behavior Analysis Program



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General Guidelines for Conducting a Thesis at Florida Tech

Thesis Proposal

Your thesis proposal should be written IN THE FUTURE TENSE and adhere to the 7th edition of the APA style manual (American Psychological Association, 2020). All thesis students should purchase the APA Publication Manual, Seventh Edition. You may choose to write your thesis proposal as part of the Research Methods class that you will take during your first semester in the program, or write a new proposal once you begin working with your thesis advisor in the summer semester between your two years in the program. Your advisor will work with you to revise your proposal; you should expect at least a one-week turn-around time from your faculty advisor per revision.

Apply for IRB Approval

All thesis research projects must be submitted to the FIT Institutional Review Board (IRB) for approval. See the Florida Tech IRB website (<http://www.fit.edu/research/committees/irb/>) for the application and instructions about submission. You must include your methods section with the application and an informed consent form. Also, if your participants are part of, or receive services from, an agency or group, you must get written permission from the director of the agency or group to recruit participants (this includes the Scott Center). You should allow two weeks AT THE VERY LEAST to hear back from the IRB as to the status of your application. You may submit your IRB proposal prior to your thesis proposal meeting (discuss with your advisor - s/he may want you to submit AFTER your thesis proposal meeting), but if major changes are requested by your thesis committee, you may be required to submit an addendum to your IRB proposal to the IRB.

Registering for Thesis Credit

Register for 1 thesis prep credit during the summer between your first and second year, and thesis credits for all remaining semesters (e.g., Fall and Spring of 2nd year) (except for ABA + OBM students, who register for thesis credits in the spring of their second year and summer of their second year). Look on the office of Graduate Programs website <https://www.fit.edu/office-of-graduate-programs/> to find out the current requirements regarding (i) posting your defense announcement (ii) necessary forms and their due dates, and (iii) due date of your final thesis materials for on-time graduation, as these vary by semester.

Requirements for Earning a Passing Grade each Semester

For thesis prep, which is taken in the summer between the first and second year of the program, students must submit a first draft of their proposal to their faculty thesis advisor by the last day of the summer semester in order to receive a passing grade. For the fall semester, students must have proposed to their committee by the last day of the fall semester to receive a passing grade (note that ABA + OBM students do not generally take thesis credits in the fall, so their deadline for this is spring break of their second year). The requirements for the spring semester are less rigid due to data collection and the delays that can arise during this process. However, students are expected to finish their thesis by the end of the spring semester. If a student does not finish by the end of the spring semester, s/he may still receive a passing grade for the spring semester,

as long as adequate progress on the thesis has been made. Determination of adequate progress is made by the faculty thesis advisor. ABA + OBM students are expected to finish their thesis by the end of their second summer semester.

Select Thesis Committee

A thesis committee consists of (at least):

- 1 Committee Chair (your faculty advisor)
- 1 School of Behavior Analysis Member
- 1 Florida Tech (non-BehAn) member

You should ask your thesis advisor about potential non-BehAn committee members, and you can also visit the Office of Graduate Programs office to view a list of approved graduate faculty members (<http://www.fit.edu/grad-programs/faclist.htm>). Psychology faculty are considered non-BehAn faculty. You should contact your potential committee member by phone or email and briefly explain who you are and what you are doing in order to determine if they might be interested. If they are interested, it might be good to set up a face-to-face meeting during which you can explain a bit more about your project and learn more about their background.

Set Proposal Date

Set date, time, and room (contact administrative assistant) in the COPLA Main Office [321-674-8104] for your thesis proposal meeting. The assistant will have you complete an Establishment of Master's Committee form

https://www.fit.edu/media/site-specific/wwwfitedu/registrar/documents/registrar-forms/OGP_Est_MS_EdS_Committee.pdf

indicating your thesis title and committee members. Be sure to allow at least 2 weeks for each committee member to read your proposal before attending your proposal meeting.

At your proposal meeting, you do not need to bring a snack (cookies, water, coffee, etc. depending on the time of day) for the committee members (some programs encourage this but we do not). Plan on a one-hour meeting. You will present each section of your proposal (e.g., PowerPoint presentation), for about 30 minutes. Each committee member will then provide feedback, ask questions, and make suggestions for improving the proposal. At the conclusion of this meeting, have all the committee members sign the Establishment of Master's Committee Form and then turn the form and a copy of your thesis proposal to admin. assistant in the main office of the School of Behavior Analysis (SOBA) (this form can be signed before the proposal meeting as well, but should be signed no later than at the proposal meeting). This will be filed in your student file in the main office after the dean signs the form. The possible outcomes of this meeting are as follows: a) asks for minor revisions to the thesis proposal; or b) the committee requests major changes to your thesis proposal. Although there is no formal exam report form to sign for the thesis proposal meeting, approval to proceed must be given orally by committee members at this meeting.

Proposal Revision

After you have modified your proposal according to the comments of your committee members, let your committee chair review the changes. After getting the "go ahead," (i.e., paperwork is filed, and IRB approval obtained) start collecting your data!

Data Collection

During data collection, you should meet with your committee chair AT LEAST once per week to discuss your progress. DO NOT MAKE ANY MODIFICATIONS OR PHASE CHANGES WITHOUT FIRST CONSULTING WITH YOUR COMMITTEE CHAIR! Also, during the course of data collection, if you make any major changes to the project, these changes must be approved by your entire thesis committee.

Number of Participants

For single subject designs, students are generally required to use 3 participants in a thesis. This number is based on a brief survey of existing ABA program requirements at other universities. However, this is a general guideline, and depending on the individual thesis project, two participants might be permitted in some circumstances. For example, if a thesis involves a detailed assessment procedure and a detailed treatment evaluation, or if it involves a sequence of detailed treatment evaluations, two participants might be acceptable. If a group design is used, generally a minimum of 10 participants per group should be used, but before starting data collection, the student should conduct a power estimate / analysis to identify the number of participants needed to obtain statistically significant differences between groups. Each student's thesis committee ultimately decides on an individual basis the number of participants they required of the student. This is the case with all theses across all units on campus - the committee is the final judge, but the committee uses guidelines from the school or department to inform the student and make a determination as to whether the student has passed.

Reporting Your Results

Write up your results and discussion section and modify your documents to reflect that data collection has now occurred in the past (i.e., use past tense). Submit your revised document to your Committee Chair for feedback. Once approved, set your final thesis defense meeting.

Thesis Defense Meeting

Set date, time, and room (contact Suzie Philbeck in the Main Office) for your thesis defense meeting. Be sure to allow at least 2 weeks for each committee member to read proposal before attending your defense meeting.

Prior to your thesis defense, please fill out the Announcement form

https://www.fit.edu/media/site-specific/wwwfitedu/registrar/documents/registrar-forms/Oral_Def_Ann_11-14.pdf

- see example Appendix A) 14 days prior to your scheduled defense. Plan on a 1-1.5 hour meeting. BE SURE TO DRESS PROFESSIONALLY! You will present each section of your thesis, with PowerPoint, for about 30 minutes. For this presentation, you should focus on your results and discussion. Each committee member will then provide feedback, ask questions, and make suggestions for improving the manuscript. At the conclusion of the defense, your ADVISOR will have all the committee members sign the Exam Report Form and the ADVISOR will turn this form in to the office of graduate programs or the SOBA admin. assistant. The possible outcomes of this meeting are as follows: a) the committee signs your exam report form and asks for minor revisions to the thesis; b) the committee signs your exam report form, but

requests major changes to your thesis; or c) the committee asks to see changes to your thesis before signing your exam report form. A grade of “fail” may be given if you did not do what you proposed in the thesis proposal.

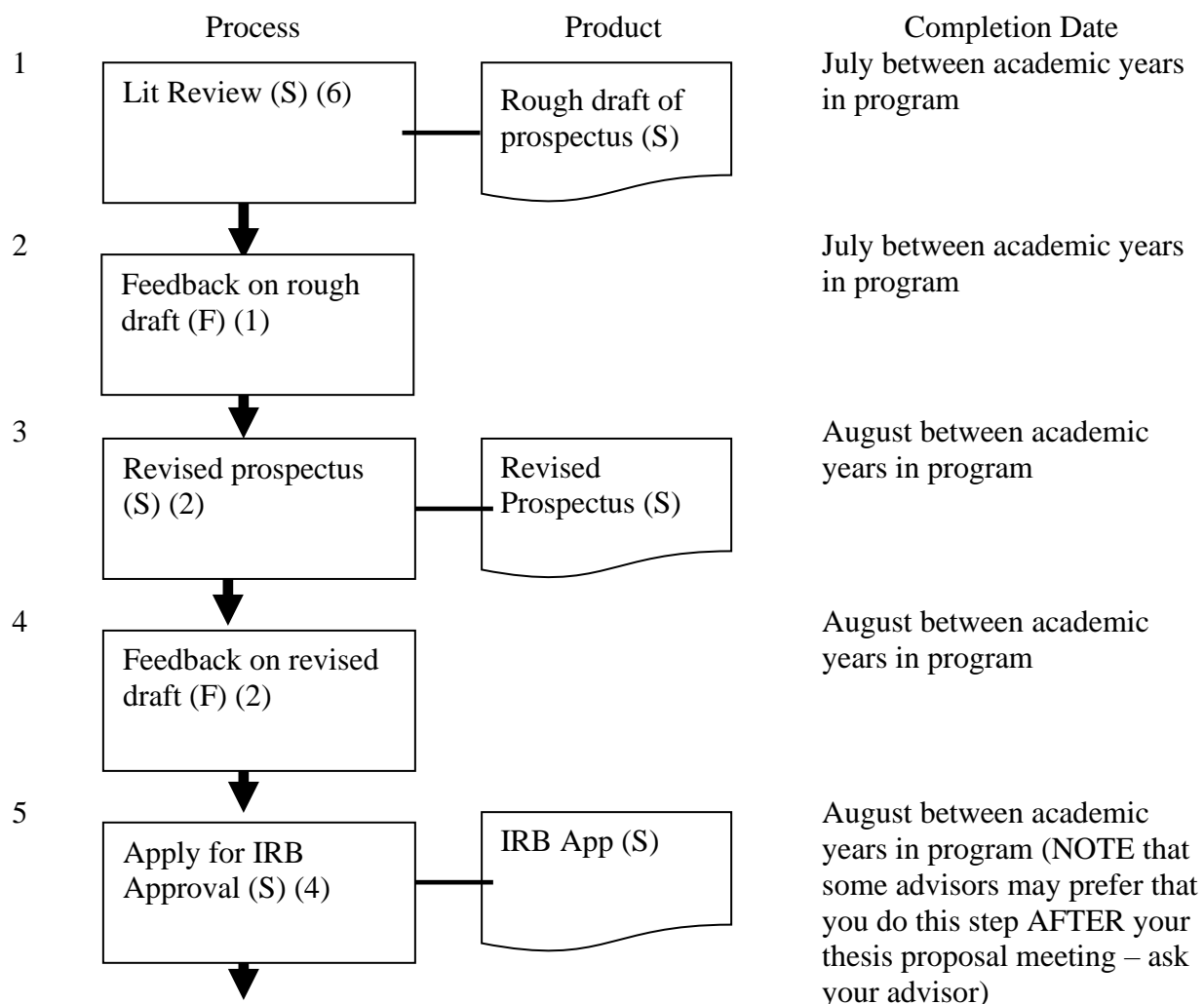
Final Review and Submission

Once you have made the necessary Changes to your thesis, submit it to your Committee Chair for (hopefully!) final rounds of edits. Once given the “go ahead,” turn the final thesis in to the Office of Graduate Programs according to their guidelines. At this time, you should also discuss with your Committee Chair whether the document should be readied for submission for possible publication.

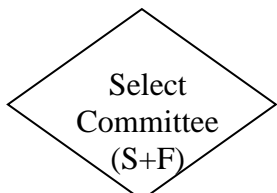
References

American Psychological Association (2020). *Publication Manual of the American Psychological Association* (7th ed.). Washington, DC: American Psychological Association.

JOB AID / FLOWCHART FOR FL TECH THESIS STUDENTS



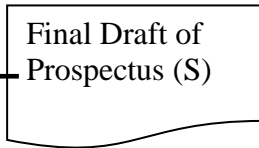
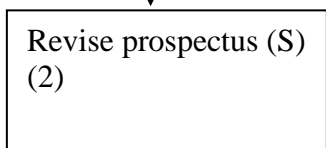
6



Committee = 3 members (1 chair, 1 committee member in BehAn, 1 outside of BehAn but at Florida Tech). For outside member visit <https://www.fit.edu/office-of-graduate-programs/graduate-faculty-list/>

September of Second Year

7



September of Second Year

8

At this point, you are ready to schedule your thesis proposal!

KEY: (F) Faculty; (S) Student; (#) Average number of weeks to complete

Thirty Common Writing Errors

1. Using “data” as a singular noun.
2. Using ambiguous terms (e.g., this, that) without a clear referent.
3. Using sexist language.
4. Confusing “i.e.” (id est, that is) and “e.g.” (example gratia, for example)
5. Failing to indicate page numbers for quotes.
6. Failing to use parallel form.
7. Changing verb tense without reason
8. Confusing the meaning of “affect” and “effect”
9. Mislacing modifiers.
10. Failing to ensure the accuracy of references.
11. Beginning a sentence with a number that is not written out, a lowercase abbreviation, or a symbol.
12. Failing to hyphenate compound modifiers.
13. Using “which” when “that” is appropriate.
14. Confusing the appropriate use of colons and semicolons.
15. Using “since” as a synonym for “because,” which it is not.
16. Failing to ensure agreement of subject and verb.
17. Failing to use active voice.
18. Using the pronoun “who” to refer to non-humans.
19. Using “consequate,” which is not a word.
20. Using split infinitives.
21. Using “is comprised of” when “is composed of” is appropriate (the whole comprises the parts and is “composed of” them)
22. Confusing the meaning of “can” and “may.”
23. Using double negatives.
24. Referring to other species as “infrahumans,” “subhumans,” or “animals,” instead of “nonhumans” or “other animals,” when they are compared with us.
25. Using ampersands when referring to text to references with two or more authors.
26. Ending a sentence with a preposition.
27. Formatting references incorrectly (See APA Publication Manual).
28. Using “between” (instead of “among”) when three or more items are under consideration.
29. Confusing “continual” with “continuous.”
30. Using “less” and “fewer” as synonyms, which they are not.

Oral Presentation Helpful Hints

Structure your presentation with a beginning, middle and end. At the beginning of your presentation: gain audience attention (e.g., greet your audience), and signal beginning of the presentation. During the presentation present: the findings of previous research, the objectives / aims of your thesis proposal, highlight the methods that you will use to achieve stated goals / aims / objectives. Sequence your ideas / slides (e.g., chronological or from general to specific) so they build up to your proposed project (e.g., previous research supports the method you propose to use and your proposal is a systematic replication). After presentation of method section, thank your committee for attending behavior and open the floor to questions from your committee members.

Pronunciation (proper names, concepts and principles) and presentation is important, practice at least twice beforehand.

Use proper body language (e.g., stand up, eye contact with audience, smile). Minimize time with back to audience, swaying back and forth, and hands in pockets.

Check to see that your presentation is compatible with the equipment in the presentation room PRIOR to the presentation. Secure any adaptors that may be needed (e.g., when using a Mac).

When presenting a graphic element, vocally label the axes and then highlight important aspects of the graph.

Use visuals and keywords to minimize the number of words on slides.

Use large fonts (> 18 point).

Use a pointer or pen to draw attention to specific points or visual aspects.

Use a spell check!

When presented with difficult questions, make sure you understand the question: ask a question to see if you understand or repeat the question in your own words to check that

General Characteristics of each Section of a Thesis

Literature Review: general description of applied behavior analysis and the population you are using in your thesis, general description of the specific topic and why it is important, review of 10-30 relevant studies, purpose statement/research questions

Method: Participants and setting, materials, dependent variables and data collection, design, experimental conditions/procedures, interobserver agreement, treatment integrity

Results: *for proposal* - hypothetical data that show how the design chosen will be sufficient to demonstrate experimental control and a one paragraph description of hypothetical data per participant; *for final thesis* – a detailed description of means, a measure of variability (e.g., range, standard deviation) and data trends for each phase per participant, graphs depicting the results of all portions of your study for each participant

Discussion – *for proposal* – A 2-3 paragraph description of what the hypothetical results will signify; *for final thesis* – A 1-2 paragraph review of the results, a detailed description and discussion of the implications of the results, a discussion of the possible behavioral mechanisms responsible for the results, a detailed description of limitations of the study, and a detailed description of suggestions for future research

Detailed Characteristics of each section of a Thesis

Literature Review (Introduction Section)

Locate relevant literature

- Identify key authors and journals
- Use bibliographic reference sources
- Use computerized literature searches
- Obtain reprints and preprints
- Look at literature from other relevant disciplines
- Scan tables of contents of key journals
- Use reference lists from articles, chapters, and books
- Use primary sources
- Avoid popular press and websites

Critically read the literature

- Identify themes
- Identify strengths and weaknesses of individual articles
- Identify strengths and weaknesses of field as a whole
- Collect photocopies or notes

Prepare to write

- Investigate length and format parameters
- Make a preliminary outline
- Include page allocations
- Limit the scope of your review
- Organize the literature you will cover

Write your review

- Write the introduction
- Write subsections
- Use transition and integrative phrasing
- Synthesize and critically analyze the literature

Introduce your study and hypotheses

- Be careful not to plagiarize 11

Method Section

Subsections

Subjects

- How many (or a range)
- Criteria for inclusion
- Criteria for exclusion (if any)
- Other characteristics of subjects (e.g., demographics)
- Sampling and recruitment procedures
- How informed consent will be obtained

Design

- Name of design
- Independent variables
- Dependent variables
- Method of assigning subjects to group

Setting and apparatus

- Setting
- Where study will be conducted
- Important features of setting
- Equipment described
- Make and model (if any)
- Construction details for apparatus unique to study

Independent variables

- How operationalized
- Potential confounds and how they will be avoided and/or assessed
- Who serves as experimenter (e.g., self or others)?
- How experimenter will be kept blind to hypotheses
- Training experimenter will receive
- How integrity of independent variables will be assessed
- Fidelity checks
- Instrumentation and methods

Measures (dependent variables)

- Description
- Scoring

What scores will you use?

Procedure

- Sequence and timing of tasks
- IOA 12

Results Section

Present data related to purposes of the study

Present results in an orderly, logical way

- Order and sequence the results

 - Include relevant information

 - Name of statistic (if any)

 - Relevant details of analyses

 - Means (with range or standard deviation)

- Word your results clearly

 - Follow APA conventions regarding presentation of tables, graphs, and/or statistics

- Create well-crafted, clear tables

- Prepare well-crafted clear figures¹³

Discussion Section

Summarize your findings

- Avoid technical detail

- Use clear language

Interpret your findings

Place your findings in context

- Consider how your findings converge with, clarify, or contradict past findings

Consider the implications of your findings

- Theoretical implications

- Methodological implications

- Applied implications

Include a humility subsection

- Consider internal validity issues

- Consider external validity issues

- Consider measurement issues

- Consider statistical issues (if any)

Include comments about future directions

Appendix A

The [Oral Examination/Defense Announcement form](#) must be submitted to the SOBA administrative assistant (who will then send to the Graduate School) at least two weeks before your scheduled thesis defense (no exceptions). Defenses are not permitted during final exam week.



ORAL EXAMINATION/DEFENSE ANNOUNCEMENT

TO: Office of Graduate Programs, 321-674-8137, Academic Quad, Room 100

Submit NO LATER THAN 14 days before defense/examination

FROM _____
Academic Unit *Approval Signature of Department Head/Program Chair (REQUIRED)*

STUDENT NAME _____ ID NUMBER _____ MAJOR CODE _____ GPA _____

STUDENT PHONE _____ STUDENT E-MAIL _____

Do NOT use this form to announce proposal conferences or written examinations of any type.

- | | | | | |
|-------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------|
| <input type="checkbox"/> Ph.D./D.B.A./Av.D./ or DRP Defense | <input type="checkbox"/> M.S. Thesis/Design Project/Portfolio | <input type="checkbox"/> M.S. Oral Final Program Examination | <input type="checkbox"/> Ph.D./D.B.A./Av.D. Oral Comprehensive | <input type="checkbox"/> Ed.S. Final Program Examination |
|-------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------|

TITLE OF DOCUMENT (*Please use initial capitalization so acronyms are easy to identify. Underline words to be italicized.*)

Please schedule during normal business hours: DATE _____ TIME _____ PLACE _____

Below, **TYPE/PRINT** committee members' names, using correct title (Dr., Mr., Ms., etc.) Signatures are **not** necessary.

Committee Members:	Major Advisor _____	Dept./Prog. _____
	Outside Member _____	Dept./Prog. _____
	Other Committee Member _____	Dept./Prog. _____
	_____	Dept./Prog. _____
	_____	Dept./Prog. _____
	_____	Dept./Prog. _____

FOR OFFICE USE ONLY

Prep by _____

Wk of _____

SHADEGR _____ EM

STUDENTS MUST PASS DEFENSE/EXAMINATION BY THE NEXT-TO-LAST MONDAY IN ORDER TO GRADUATE CURRENT TERM

RGR-407-519

Appendix B

Master's Program Checklist (Thesis)



MASTER'S PROGRAM CHECKLIST (THESIS)

STUDENT NAME _____ ID NO. _____
Last First

PROGRAM NAME _____

- | DATE COMPLETED | REQUIREMENT | | | | | | | | | | | | | |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------|----------|------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| 1. _____ | <input type="checkbox"/> Admitted to master's degree study (Policy 1.1) | | | | | | | | | | | | | |
| 2. _____ | <input type="checkbox"/> Master's degree program plan filed one month before nine semester hours completed (Policy 1.3.1). Use separate program plan approved for each additional degree (Policy 1.3.2). Submit Permission to Take Undergraduate Course form prior to registering for each 3000- or 4000-level (not deficiency) course included in program plan (Policy 1.9). | | | | | | | | | | | | | |
| 3. _____ | <input type="checkbox"/> Master's committee established and approved in writing by major advisor, academic unit head, and Office of Graduate Programs (OGP) (Policy 1.5): | | | | | | | | | | | | | |
| | <table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 25%;">NAME</th> <th style="text-align: left; width: 25%;">DEPARTMENT</th> <th style="text-align: left; width: 25%;">NAME</th> <th style="text-align: left; width: 25%;">DEPARTMENT</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> | NAME | DEPARTMENT | NAME | DEPARTMENT | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | |
| NAME | DEPARTMENT | NAME | DEPARTMENT | | | | | | | | | | | |
| _____ | _____ | _____ | _____ | | | | | | | | | | | |
| _____ | _____ | _____ | _____ | | | | | | | | | | | |
| 4. _____ | <input type="checkbox"/> Thesis registration (at least 3 hours every semester except the last semester per deadlines in Policy 4.10). Required minimum GPA of 3.0 to initially register for XXX 5999 Thesis. Required every semester thereafter (including summer) until thesis is accepted by OGP (Policy 1.4.1): | | | | | | | | | | | | | |
| | <table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 25%;">SEMESTER</th> <th style="text-align: left; width: 25%;">CREDITS</th> <th style="text-align: left; width: 25%;">SEMESTER</th> <th style="text-align: left; width: 25%;">CREDITS</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> | SEMESTER | CREDITS | SEMESTER | CREDITS | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | |
| SEMESTER | CREDITS | SEMESTER | CREDITS | | | | | | | | | | | |
| _____ | _____ | _____ | _____ | | | | | | | | | | | |
| _____ | _____ | _____ | _____ | | | | | | | | | | | |
| 5. _____ | <input type="checkbox"/> Print and bring several sample pages from each section of thesis to OGP for initial format/layout check (sample title page; signature page; table of contents; pages with tables, figures, photos; references; appendices). | | | | | | | | | | | | | |
| 6. _____ | <input type="checkbox"/> Petition to Graduate submitted to Registrar at least 21 weeks prior to graduation date. Confirm submission deadline in Academic Calendar. Late fee if petition is submitted past the deadline. | | | | | | | | | | | | | |
| 7. _____ | <input type="checkbox"/> Thesis distributed to committee for review at least two weeks prior to defense (Policy 1.6.1.2). Visit OGP for full format check. | | | | | | | | | | | | | |
| 8. _____ | <input type="checkbox"/> Thesis seminar (if any – department requirement, not graduate policy) | | | | | | | | | | | | | |
| 9. _____ | <input type="checkbox"/> Oral examination/defense announcement submitted to OGP at least two weeks prior to defense date. Unannounced defenses are illegal and must be held again (Policies 1.6.2 and 1.6.3). | | | | | | | | | | | | | |
| 10. _____ | <input type="checkbox"/> Go to www.fit.edu/office-of-graduate-programs/forms-and-documents/ to access and complete ETD Access form (requires advisor signature). Information at: http://libguides.lib.fit.edu/etd , or specific questions, contact Nancy Garmer at ngarmer@fit.edu . | | | | | | | | | | | | | |
| 11. _____ | <input type="checkbox"/> Thesis defense (Policy 1.6.3) | | | | | | | | | | | | | |
| 12. _____ | <input type="checkbox"/> Bring printed copy of entire Thesis to OGP to check compliance with requirements prior to uploading to ETD submission site. Make certain title on title page matches title on signature page. | | | | | | | | | | | | | |
| 13. _____ | <input type="checkbox"/> Submit archival copy of thesis to Evans Library for inclusion in scholarship repository (required): pdf/A file of final thesis with unsigned signature page. File name must include your name and graduation year (example: JONES-THESIS-2019). Submit pdf/A to ETD at http://etd.lib.fit.edu (see item 10 above). | | | | | | | | | | | | | |
| 14. _____ | <input type="checkbox"/> Submit to OGP per announced deadline (Policies 1.4.2 and 4.10): Signed signature page; completed ETD Access form (see item 10 above). | | | | | | | | | | | | | |
| | <u>THESIS ACCEPTANCE BY OGP BY ANNOUNCED TURN-IN DATE IS REQUIRED FOR GRADUATION.</u> | | | | | | | | | | | | | |
| 15. _____ | <input type="checkbox"/> Both the overall GPA and the applicable program GPA must be 3.0 or greater for a master's degree to be awarded (Policy 1.12). | | | | | | | | | | | | | |

FLORIDA'S STEM UNIVERSITY[®]

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RGR-484-0220