

A GUIDE TO ASSIST STUDENTS OBTAINING A DOCTORAL DEGREE IN INTEGRATIVE BIOLOGY

FLORIDA ATLANTIC UNIVERSITY

I. THE FLORIDA ATLANTIC UNIVERSITY GRADUATE POLICIES AND PROCEDURES MANUAL

Students should consult the Graduate Policies and Procedures Manual for university-wide policies and procedures prescribed by the Office of Graduate Students (see <http://graduate.fau.edu>). The following are guidelines pertaining specifically to the Integrative Biology program.

II. DEGREE REQUIREMENTS

A. Initial course of study and course requirements

Doctoral degrees at FAU require at least 80 semester credits beyond the baccalaureate degree. The following are requirements of the Program in Integrative Biology.

A minimum of 18 credits of course work with a cumulative grade point average of 3.0 or higher with the following requirements:

Supervisory Committee:

- The initial Supervisory Committee shall consist of three members, including the chair, whose responsibility is to advise on the initial course of study.
- They must be members of the Integrative Biology Graduate Faculty.

Course and Dissertation requirements:

- 9 Credits will be in courses designated as core courses
- The remainder of the 9 credits will be made up of elective courses that support the student's research plan. The student's major advisor and the supervisory committee must approve all elective courses.
- The elective courses must be 5000, 6000, or 7000 level biology courses in biology, biomedical science, chemistry, or approved cognates.
- Courses designated as proficiency or remedial may not be used to satisfy the course requirements.
- Enrollment in three seminar/journal club courses offered by the program prior to graduation.
- Successful defense of a dissertation research proposal before the Dissertation Committee for admission to candidacy.
- Dissertation Research involving independent research under the direction of the student's Advisory Committee.
- A minimum of 25 credits of doctoral dissertation.

- Submission and public presentation of a research dissertation. Following the public presentation, the defense of the dissertation will be held with the student's dissertation committee.

B. Advancing to Candidacy

Dissertation Research Committee

The Dissertation Research Committee shall consist of FIVE members, including the chair, whose responsibility is to guide development of the Dissertation research and administer the dissertation proposal review and Dissertation defense.

- Three of these members can be the same as the supervisory committee.
- Generally the members shall be from the Integrative Biology Graduate Faculty.
- Students are encouraged to have one member who is not in the Program faculty (internal or external).
- One member must be from outside your immediate area of research.

C. Defense of dissertation proposal (Candidacy examination)

- The student will be required to defend the research proposal in a meeting with the Dissertation Committee in which the student's proposed research and relevant scientific background will be explored in comprehensive oral Format (presentation). **Part A.**
- One week prior to the proposal presentation the candidate sends an announcement to program assistant by E-Mail. The defense shall be open to all IB Ph.D. students/faculty.
- Following the open presentation the Dissertation committee (in private) shall vote on the defense.
- Successful defense of the proposal and the grant application, **Part B** (see section D below) shall qualify the student for candidacy and is **contingent** upon satisfactory completion of the core and elective course (s) requirement. Students MAY propose and defend before completion of the course requirement, but formal advancement to candidacy will be delayed until the core course requirement is satisfied.
- A student's Dissertation committee may specify other requirements as part of the Candidacy exam.
- Students who fail the candidacy exam shall have one more semester to pass. If unsuccessful the second time, the student shall be dropped from the IB Ph.D. program.

D. Dissertation grant proposal

- The student shall submit a research proposal for review by the student's Dissertation Research Committee (along with the defense).
- The proposal will be written using NIH or NSF proposal preparation Guidelines for format. The Committee MAY decide on other formats.
- The student is advised to seek advice from his/her advisor and other Committee members during the course of writing the proposal.
- The grant must be submitted on the day of the oral presentation to the Committee.

Consult FAQs at the IB PhD web page for additional details.

E. I am admitted to Candidacy. What are the paperwork requirements?

1. The chair of your Dissertation Committee informs the program assistant by E-Mail.
2. Update the milestone check list.
3. Complete the FAU Admission to Candidacy form.
4. Complete Admissions to Candidacy Compliance verification form
5. Complete the memorandum to the College of Science, Associate Dean, student services.
6. Meet the Director of the program with these forms (# 2-5) prior to obtaining the signature from the Chairs.
7. A copy of the grant application is required for file.
8. Once these steps are complete you are admitted to Candidacy. You can now register for Dissertation credits.
9. Within one month of Admission to Candidacy, submit your research progress report.

Note: all these forms are online. See

http://www.science.fau.edu/biology/intbio/form_download.htm

F. Dissertation research and defense of the dissertation

- The dissertation research shall be conducted under the guidance of the student's Dissertation Research Committee. Students are expected to meet with the advisor and other committee members on a regular basis (at least once a year) as the dissertation research proceeds.
- The student and the advisor shall submit an annual progress report to the Program Committee as the end of each academic year.
- A written dissertation that follows FAU guidelines for formatting shall be submitted for review by the student's Dissertation Research Committee. It is permissible to use published work as chapters provided their insertion follows FAU formatting guidelines. Students are expected to publish the results of research on an ongoing basis.
- **At least** one peer-reviewed publication in press with the student as first author is required for graduation.
- The results of the dissertation research shall be presented in a public form in which faculty and students of the program as well as other interested parties are invited.
- Following the public presentation, the candidate shall defend the dissertation in a meeting with the Dissertation Research Committee.

- The Integrative Biology Program will assign an external faculty member to serve as an observer and the Program's representative at the defense.
- At this meeting, the Dissertation Research Committee shall vote on approval of the dissertation. A majority vote is required.
- Successful defense of the proposal, completion of all other academic requirements, and formal submission of the approved dissertation to the Office of Graduate Studies constitutes completion of the requirements for the Doctor of Philosophy in Integrative Biology.

III. COURSE SELECTION – See IB PhD web page for approved courses

Students are required to complete at least 18 hours of course work as follows:

Integrative Biology 1, Integrative Biology 2, and one course in statistics are required. These three courses constitute the required **core courses**.

Integrative Biology 1: This course presents the concepts inherent in an integrative view of biology. The focus will be on the hierarchical nature of biological phenomena and the relationship of processes that occur at different levels of biological organization going from the subcellular to biological assemblages. (3 credits)

Integrative Biology 2: This course is based on lectures on specific topics that exemplify the integrative nature of biological processes. Faculty members will describe their specific research areas in the context of integrative biological processes. The goal is to introduce students to the areas of academic focus and research being conducted in Integrative Biology at FAU and to introduce students to potential faculty members in whose laboratories they may conduct research. (3 credits)

The Integrative Biology I & II **must** be taken within the first year.

One course in Biostatistics: A course in statistics appropriate to the area of specialization of the student. (minimum 3 credits)

A **minimum** of three elective courses relevant to the field of Integrative Biology (see the list on the Integrative Biology web page).

For credit for research conducted prior to candidacy, students should register for BSC 7978 Advanced Research in Integrative Biology, with approval of the advisor. DIS credits are **not** acceptable to the program.

Students should register for BSC 7980 Dissertation to receive credit for research conducted after attaining candidacy, with approval of the advisor.

In addition to the above, students are required to enroll in three seminar/journal club courses taken over the entire term of residence of the program. The title of the course **must** indicate

seminar/journal club. The seminar/journal club is **not** a requirement for candidacy examination.

Students must be registered for a minimum of nine credits per semester to be considered a full-time student and be eligible for graduate teaching and research assistantships during the academic year. Registrations for six credits is required to maintain full-time student status during the summer. Students must maintain a minimum of 3.0 GPA to be eligible for graduate teaching assistantship.

IV. SAMPLE SCHEDULE OF PROGRESS TO DEGREE

The following is a sample timeline to assist students in making satisfactory progress toward completion of the degree. Each student's progress to completion of degree requirements will be unique and is usually dependent on the length of time needed to complete courses and other preliminary requirements and the dissertation. Students should try to complete course requirements, apart from Dissertation credits, within two years of matriculation. See also the general guidelines of Conditions and Timetable for Graduation in the Graduate Policies and Procedures Manual.

Year 1

- Discuss a program of courses with your advisor in the first semester. Your elective courses should be chosen to strengthen your background in your selected field of study.
- Choose your Supervisory Committee in consultation with your advisor.
- The Supervisory Committee guides the initial course of study.
- A minimum of three members who must be members of the Integrative Biology Graduate Faculty.
- Members of this committee may also be members of your Dissertation Research Committee. In practice, many students may have the same faculty members serve on both the Supervisory and Dissertation Research Committees.
- Meet with your Committee as soon as possible for approval of the plan of courses, no later than semester two of year one, and complete the College Audit for Graduate Program.
- Begin preliminary research and register for Advanced Research in Integrative Biology for research credits during the first year.

Year 2

- Continue preliminary research and register for Advanced Research in Integrative Biology
- Complete courses
- Choose your Dissertation Research Committee in consultation with your advisor
- A minimum of five members, three of whom must be members of the Integrative Biology
- This committee will guide your dissertation research and administer the dissertation proposal and dissertation defense
- Members of your Supervisory Committee may serve on the Dissertation Research Committee.
- **No later than** semester two of Year 2 or early Year 3, plan to present and successfully defend your dissertation proposal (candidacy exam). You can register for Dissertation credits **only** after your proposal is accepted and have advanced to candidacy.

Year 3 and beyond

- Requirements for the doctoral degree should be completed in three to five years, but not more than seven.
- Complete dissertation research
- Have a peer-reviewed first authored publication (minimum one) in press before the thesis defense.
- Submit dissertation to Dissertation Research Committee
- Public presentation of Dissertation research
- Successful dissertation defense and approval of the dissertation
- Submit final copies of the dissertation to the Office of Graduate Studies

Students are expected to submit research findings for publication in scientific journals on a continuing basis.

*It is generally expected that the students graduate **within** five years. Students not finished in five years will have their matriculation in the program re-evaluated and must petition for continuance.*

V. E-MAIL: ONLY FAU E-MAIL SYSTEM MUST BE USED FOR ALL COMMUNICATION WITH THE PROGRAM

VI. DUE PROCESS:

The students not meeting the requirements set forth by the supervisory and dissertation committee shall not matriculate;

The students not meeting the requirements shall have an opportunity to address the deficiency in a reasonable period of time. This must be approved by the student's Supervisory/ Dissertation committee;

The students failing the plagiarism standards established by the Program is given a C- to F grade depending on the severity for the required courses;

The students MAY petition to the Department chairs who are responsible for the course delivery on issues related to grades;

The students are also required to abide by the FAU honors code outlined in the FAU graduate guidelines;

If the student wishes to change the research advisor, he/she shall first obtain approval from the Director. Approval shall be **granted** subject to availability of funds in the new sponsor's laboratory. If approved, the student shall complete the candidacy requirements according to the newly constituted Dissertation committee.

If the dissertation proposal defense (candidacy examination) is not satisfactory as deemed by the majority of the dissertation committee, the student shall have an additional semester to address the deficiency. The dissertation committee shall notify the Director of the proposed measure recommended to address the deficiency. The COMMITTEE may elect to have an observer if a subsequent dissertation committee meeting is scheduled to address the deficiency;

The student's final dissertation proposal prior to graduation MUST be approved by a majority of the Dissertation Committee;

The student shall have the right to petition to the COMMITTEE to review any grievance.
The student shall provide in writing to the Director of the COMMITTEE;

The COMMITTEE may appoint an ad hoc committee to hear the grievance;

The student shall have the right to petition the COMMITTEE if any undue delay occurs
in meeting the requirements of the program;

The COMMITTEE shall vote on the petition; its decision is final.

VII. DEADLINES: YOU ARE RESPONSIBLE FOR MEETING ALL DEADLINES