



Graduate Student Orientation – part 1

2018 – 2019
Academic Year

Svetlana Folimonova, Director
Gilles Basset, Graduate Coordinator

Welcome to PMCB!

- PMCB orientation goals
- Mission and values

“PMCB is deeply committed to helping students develop into successful biological scientists, capable of conducting independent fundamental and applied research.”

“PMCB values students that act conscientiously and conduct themselves as professionals, proactively developing the behavior, knowledge, skills and leadership required for a successful career.”

PMCB Roles & Responsibilities

Director

Svetlana Folimonova

- Overall administration
- Guidance with classes and curriculum

Graduate Coordinator

Gilles Basset

- Rotations
- Classes
- Personal issues related to academic performance

Academic Coordinator

Eliana Kämpf

- Registration
- Paperwork
- Tuition waiver and payroll
- Overall coordination
- PMCB email list
- PMCB website, social media

Faculty Advisor – TBA

- Research direction
- Classes
- Funding
- Personal issues related to academic performance and progress

PMCB Graduate Degree Requirements



Ph.D. degree

- minimum of 90 credit hours
- minimum of 6 credits of Journal Colloquium (*PCB7922 or equivalent*)
- 4 core courses
 - grade B or higher in each core course
- no more than 6 credits of Masters Research from M.S. can be transferred to Ph.D.

M.S. degree

- minimum of 30 credit hours beyond B.S. degree
 - 24 credits of regular coursework
- minimum of 4 credits of Journal Colloquiums (*PCB7922 or equivalent*)
- 4 core courses
 - same core courses as Ph.D.
- no more than 6 credits of PCB 6971 Masters Research

PMCB Curriculum



Key skills emphasized in the PMCB program:

- Reading and interpreting primary literature
- Experimental design and execution
- Scientific writing
- Oral presentation of scientific results
- Professional development

Overview



Coursework
Lab Rotations
Written Exam



Coursework
Research Proposal
Oral Exam



Research
Conference
Journal Article



Research
Dissertation
Oral Exam

PMCB Curriculum cont.



Courses & Exam Schedule	Year 1			Year 2		
	Fall 1	Spring 1	Summer 1	Fall 2	Spring 2	Summer 2
Plant Molecular Biology & Genomics	X					
Advanced Genetics	X					
Plant Cell & Develop. Biology		X				
Plant Biochemistry		X				
Journal Colloquium	X	X		X	X	
Lab Rotations	X	X				
Electives					X	
Written Exam			X			
Oral Exam						X

PMCB Graduate Courses



Course	Title	Credits	Offered	Designation
PCB 5065	Advanced Genetics	4	Fall	Core course
PCB 5530	Plant Molecular & Cellular Biology	3	Fall	Core course
PCB 6528	Plant Molecular Biology	3	Spring	Core course
BOT 6935	Plant Biochemistry	4	Spring	Core course
PCB 6937	Special Topics in Plant Molecular and Cellular Biology	1-4	any semester	Maximum of 8 credits
PCB 6971	Research for Master's Thesis	1-6	any semester	Maximum of 6 credits
PCB 7922	Journal Colloquium in Plant Molecular and Cellular Biology	1	Fall & Spring	Minimum of 4 credits for M.S. and 6 credits for Ph.D.
PCB 7979	Advanced Research	1-12	Taken before qualifying exams	
PCB 7980	Research for Doctoral Dissertation	1-15	Taken after qualifying exams	

For a list of possible electives: <http://pmcb.ifas.ufl.edu/courses.shtml>

Academic Honesty and Student Conduct Code



- In adopting the Honor Code, UF students recognize that academic honesty and integrity are fundamental values of the university community.
- Students who enroll at the University commit to holding themselves and their peers to the high standard of honor required by the honor code.
- The Honor Code:

We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.
- On all work submitted for credit by students at the University, the following pledge is either required or implied:

On my honor, I have neither given nor received unauthorized aid in doing this assignment.

Plagiarism

Don't Do It

What is plagiarism?

- **According to the Merriam-Webster Online Dictionary, to "plagiarize" means:**
 - “to steal and pass off (the ideas or words of another) as one's own”;
 - “to use (another's production) without crediting the source”
 - “to commit literary theft”;
 - “to present as new and original an idea or product derived from an existing source”.
- “Plagiarism involves both **stealing** someone else's work and **lying** about it afterward.”

Source: <http://www.plagiarism.org/plagiarism-101/what-is-plagiarism>

Plagiarism cont.

Examples of plagiarism

- “turning in someone else's work as your own”
- “copying words or ideas from someone else without giving credit”
- “failing to put a quotation in quotation marks”
- “giving incorrect information about the source of a quotation”
- “changing words but copying the sentence structure of a source without giving credit”
- “copying so many words or ideas from a source that it makes up the majority of your work, whether you give credit or not”

Source: <http://www.plagiarism.org/plagiarism-101/what-is-plagiarism>

Plagiarism cont.

- Plagiarism is avoidable by citing the sources of the information and ideas
- If words are copied then you need to put quotation marks around the sentences
- Paraphrasing is a skill that needs to be developed:
 - Synthesis of the information and then rewriting in your own words is critical to your success
 - Paraphrasing requires citations

Source: <http://www.plagiarism.org/plagiarism-101/what-is-plagiarism>

First Year Advising

Rotation students - PMCB Director and Graduate Coordinator serve as the supervisory committee:

- Provide advice for course work.
- Help with lab rotation and advisor selection:
 - Opportunity to explore different areas of research,
 - Find a good match for the student's PhD advisor.
- Solve student and programmatic issues:
 - Help clarify what is expected,
 - Arbitrate issues when necessary.

Lab Rotations

- At least 3 labs:
 - Each rotation takes 10 weeks.
 - At end of each rotation, students will present a 10-minute research talk:
 - Gives an introduction to the research problem,
 - Explain the experimental design and results,
 - Provide conclusions/future directions appropriate for the rotation project.
- What is a successful rotation?
 - Mentor
 - Lab culture
 - Project that matches your scientific interest
 - Funding

Lab Rotations

Mark your calendars!

- 2018-2019 rotations and seminars schedule:

Aug. 01 to 21, 2018	Find lab rotations
Aug. 22 to Nov. 2, 2018	First rotation
Nov. 2, 2018	<i>Seminar day</i>
Nov. 3, 2018 to Feb. 8, 2019	Second rotation
Feb. 8, 2019	<i>Seminar day</i>
Feb. 9 to April 26, 2019	Third rotation
April 26, 2019	<i>Seminar day</i>

→ by **end of August** send a list of all rotations to Eliana

Faculty Advisor

- Is the primary supervisor and mentor for your graduate education:
 - Guides Ph.D. research project
 - Should provide professional development opportunities
 - Needs to have funding to support graduate student research

If you don't consider your advisor is achieving these goals, you need to communicate this concern with him/her. If the situation does not change, then reach out to the PMCB Coordinator.

- Is the chair of your supervisory committee:
 - Assists in determining the other members of your committee
- The advisor needs to be a member of the PMCB graduate faculty.

It is your responsibility to find a major advisor by the end of your rotations

YOUR THESIS COMMITTEE

Also known as: an impossibly difficult group to get together in one room but who nevertheless hold your future in their hands depending on their ability to reach a civilized consensus.



Your Professor

Simultaneously your biggest ally and your worst enemy. Will be the first to suggest you do more work.



The Guru

Only here for the free cookies. Don't forget to bring cookies.



Adversary
~~The Asshole~~

Has bitter rivalry with your Professor and will argue the exact opposite view. Work this to your advantage.



The Strawman/woman

Nice guy.
No opinions.



The Assistant Professor

Still doesn't believe just a few months ago they were on the other side just like you. Pretends to be an adult.

NONE OF THEM WILL ACTUALLY READ YOUR ENTIRE THESIS.

Ph.D. Supervisory Committee

- Supervisory committee guides your program of study
 - Determines when you have met the standards required for advancement to candidacy and for graduation.
- Members identified by the end of your first year:
 - *Summer 2019*
 - All committee members must have UF graduate faculty status
 - Changes in the committee can be made up until your final semester
- Minimum of four members – *including your advisor as chair:*
 - At least two members must be PMCB graduate faculty
 - At least one *external member*

Ph.D. Supervisory Committee cont.

- External Member
 - UF graduate faculty
 - Faculty holding joint, affiliate, courtesy, or adjunct graduate faculty appointments in PMCB **cannot** be external members
 - Special appointment members **cannot** serve as external members
 - If the external member becomes PMCB faculty, you will need to find a new external member
- Special Appointment Member
 - Individuals without UF graduate faculty status with specific expertise that contributes to the student's program of study. Examples:
 - tenure-track faculty who have not yet qualified for graduate faculty status
 - non-tenure-track faculty/staff at UF who cannot qualify for graduate faculty status
 - Submit Special Appointment Form

Written Examination

The intent of the written exams is to facilitate student learning and rigorously assess whether students have the ability to succeed at the Ph.D. level in the PMCB Program.

- PMCB written examination committee develops the exam
- Exam covers the following core areas:
 - biochemistry
 - bioinformatics/genomics
 - cell biology development
 - genetics
 - molecular biology
 - general plant biology

Written Examination cont.

- Written exams begin on the first day of summer C term:
 - May 13, 2019 (exact date to be confirmed)
- Three weeks for the exams:
 - **two** take-home exams: will take 1 week each
 - **one** in-class comprehensive exam: one ½ day (date to be determined during the 3rd week)
- Students are expected to focus primarily on the exams
- Students are not required to perform extensive lab work or other activities unrelated to the exam during this 3 week-period.

Written Examination cont.

- Exam committee grades the student's performance.
 - Exams are not returned to the students.
 - Graded copies are stored in the PMCB administrative office for students to review.
- A Ph.D. level pass is $\geq 70\%$ on at least two of the three exams and $\geq 50\%$ on the third exam.
- A guideline for a M.S. level pass is $\geq 70\%$ on one exam and $\geq 50\%$ on the other two exams
 - Students with this grade have the option of requesting an oral exam in an effort to qualify for a Ph.D. level grade.
 - The oral exam will be administered by the written exam committee the week following the in-class exam.
 - Exam is meant to rigorously evaluate the student's knowledge and abilities.

Written Examination cont.

- Ph.D. grade, continue towards candidacy
 - Students with this grade proceed to writing a proposal and taking the oral candidacy exams
 - Complete before the end of spring semester of their second year
- M.S. grade, can opt for M.S. with thesis
 - Student needs to have a willing advisor
 - Complete research, coursework, and thesis before end of second year.
- Below an M.S. level, the supervisory committee will evaluate whether the student should continue in the PMCB program.

Oral Examinations and Advancement to Candidacy



- Required of Ph.D. students ***before the end of the spring semester of your second year (Spring 2019)***
 - Any oral exam scheduled after one year from taking your written exam is considered late.
 - A hold will be placed on registration until this exam is completed.
- We ***strongly encourage*** you to complete your proposal and oral exams ***before the end of the spring semester***
- Student writes an NSF-style proposal on a researchable topic.
- Your intended dissertation research is standard, but not required.
- Student gives a public proposal seminar presenting current progress and research plans written in the proposal.

Oral Examinations and Advancement to Candidacy



- Seminar is public and must be announced to the PMCB program with adequate notice:
 - A minimum of two weeks before seminar date
 - Seminars should not conflict with other PMCB activities
 - Strictly enforced: **needs to be completed by the end of May of second year (2019)**
- Admission to Candidacy form needed:
 - Form needs to be signed by ***all*** committee members ***after your candidacy exams*** and turned in to Eliana right after the exam
 - This form is required to register for PCB 7980 Doctoral Research (research credits taken **after** you pass your qualifying exam)

Professional Development

- Fellowship Proposals
 - U.S. students should apply for NSF pre-doc fellowship
- Annual Workshop
 - 1½ day retreat at the beach
 - Travel awards for best student talk
- Florida Genetics Symposia
- Teaching Opportunities



PMCB Curriculum Overview



Year 1

- 4 Core Courses
- 3 Lab Rotations
- NSF pre-doc proposal (*US*)
- Find an advisor (*funding*)
- Pass Written Exam
- Supervisory Committee
- Journal Colloquia (*ongoing*)

Year 2

- 2 Elective Courses
- Preliminary Research
- Write Proposal
- Proposal/Candidacy Seminar
- Pass Oral/Candidacy Exam
- Advance to Candidacy
- Journal Colloquia (*ongoing*)

Year 3

- Dissertation Research
- Present at a Conference
- Publish a first author paper in a peer-reviewed journal in appropriate research field
- Journal Colloquia (*ongoing*)

Year 4

- Complete Research
- Write Dissertation
- Exit Seminar
- Pass Final Exit Exam
- Journal Colloquia (*ongoing*)

Now, seriously...

A few suggestions for a successful graduate degree

1. Working with an advisor is like marriage

Make sure you and your advisor “connect” with respect to the way you work, time management, expectations.

2. Network, network, network

The best students are the ones that create new, useful relationships, for them and their lab.

3. Time management

Know what you do best and when.

Now, seriously...

A few suggestions for a successful graduate degree

4. You can chose to do just what your advisor tells you to do. Or you can create your own research program.

Graduate school is an opportunity to explore new ideas. Make sure you are the one who creates and proposes them.

5. Get out of your comfort zone – graduate school is an unique opportunity to explore your interests and strengthen your weaknesses.

Who in the world gets paid to study, and try new things?

6. Read, read, read.

Unless you have the foundation, you will not recognize what is relevant.

Now, seriously...

A few suggestions for a successful graduate degree

7. One of the requirements of a Ph.D. degree is that it has to be novel.

As such, it is likely that NO ONE in your lab (or in the world) has tried what you are just about to try!

8. Beware failures will be a constant

Know when to move on and seek alternatives. Utilize your committee members. Get out there, and look for solutions outside UF. Don't get stuck in a problem for two years without a solution.

Now, seriously...

A few suggestions for a successful graduate degree

9. The amount of work you put in your research is a reflection of how interested you are in the problem.

If you are not sure you want to put the effort, then maybe graduate school or your research project is not for you

10. Work hard, play hard.

There is a time for everything in life. **And if you need help, PLEASE SEEK HELP! WE ARE HERE FOR THAT.**

11. Life after graduate school.

You are in charge. Make your “next life”. No one will do it for you.