

CELL AND MOLECULAR BIOLOGY PROGRAM

Doctor of Philosophy (Ph.D.) Degree

DEGREE INFORMATION

Program Admission Deadlines:

Domestic

Fall:	February 1
Spring:	July 1
Summer:	No Admission

International Students Living Outside the U.S.

Fall:	January 1
Spring:	August 1
Summer:	No Admission

Minimum Total Hours:	90
Program Level:	Doctoral
CIP Code:	26.0406
Dept Code:	JRG1
Program (Major/College):	To be assigned

CONTACT INFORMATION

College:	Arts and Sciences
Departments:	Cell Biology, Molecular Biology and Microbiology (CMMB)
Contact Information:	www.grad.usf.edu

PROGRAM INFORMATION

Accreditation:

Accredited by the Commission on Colleges of the Southern Association of College and Schools.

Major Research Areas: Cell Biology, Molecular Biology, Cancer Biology, Signal Transduction and Gene Regulation, Developmental Biology Applied and General Microbiology

ADMISSION INFORMATION

Must meet University requirements (see Graduate Admissions) as well as requirements listed below.

Program Admission Requirements

- 3.00 GPA last 60 hours of B.S. degree.
- GRE: 57th percentile Verbal, 35th percentile Quantitative, 73rd percentile AW
- All international students are required to submit the TOEFL test. Non-native English speaking graduate students must score a minimum of at least 570 on the paper based or a minimum total score of 79 on the internet-based test TOEFL and at least 50 on the TSE to be eligible for a teaching assistantship.
- It is expected that candidates for the Ph.D. degree will have completed courses equivalent to those required for the B.S. in Biology at U.S.F.
- Interview
- Personal Statement of goals, experience

DEGREE PROGRAM REQUIREMENTS

Total Minimum Program Hours	90	post
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bacc[HC2]

Core Requirements	6 Hours
PCB 6525 Molecular Genetics	3
BSC 6094 Scientific Grant Writing[JRG3]	3
Other Required Courses	7 Hours
PCB 6920 Advances in Cellular and Molecular Biology	1
BSC 6930 Lectures in Contemporary Biology (1) taken four times	4
BSC 6932 Advances in Scientific Review	2

Electives* [HC4][JRG5]	6 hours minimum
Selected from:	
PCB 5616 Molecular Phylogenetics	3
PCB 6107 Advanced Cell Biology	4
BSC 5425 Genetic Engineering and Recombinant DNA Technology	3
MCB 5206 Public Health & Pathogenic Microbiology	3
PCB 6236 Advanced Immunology	4
PCB 5256 Developmental Mechanisms	3
BSC 6932 Selected Topics	1-4
<i>*Classes not on this list may be used with the approval of the CMMB Graduate Program Director</i>	

Research Requirements	71 hours minimum
BSC 7910 Directed Research	32 hours minimum
BSC 7980 Dissertation Research	38 hours minimum
BSC 7936 PhD Seminar	1 hour

Written Qualifying Exam

All students in the Cell and Molecular Biology Ph.D. program must complete a written qualifying examination. The exam shall be in the format of a grant proposal and contain the following sections:

- Abstract {300 words}
- Specific Aims [1 page]
- Background and Significance of topics [4-5 pages]
- Proposed research program (conducted over 3 year period) [9-10 pages]
- Bibliography (no page limit)

The length of the proposal shall be no more than 15 pages (the abstract and bibliography does not count in the page limit). The topic of the exam shall meet the following guidelines:

- The written proposal *cannot be based in the same model organism* that the student will use to carry out their dissertation research
- The written proposal *cannot be based on the analysis of the same gene/protein* that the student will investigate during their dissertation research
- The written proposal *cannot be based on the analysis of the same pathway* that the student will investigate during their dissertation research

Admission to Candidacy

The doctoral student is eligible for admission to candidacy after completing structured course requirements, passing the qualifying examination and approval by the supervisory committee. Appropriate forms to document promotion to candidacy must be completed and to the Graduate School. Following admission to candidacy, a student must enroll in BSC 7980 when engaged in research, data collection, or writing activities relevant to the doctoral dissertation. Advisors should assign the number of credits in this course in accordance with policy and appropriate to the demands made on faculty, staff, and University facilities, but in no event will the total number of earned dissertation credits be fewer than 38. Students not admitted to candidacy are not eligible to enroll in BSC 7980.

Dissertation Requirements

The dissertation of all graduate students admitted to a graduate degree program at the University of South Florida must conform to the guidelines of the Handbook for Graduate Thesis and Dissertations available from the USF Graduate School (<http://www.grad.usf.edu/thesis.asp>).

Doctoral Seminar and Defense

All doctoral students must present a public seminar to the CMMB Department and must be enrolled in BSC 7980, during the semester in which the seminar is given. The seminar should be a concise summary of the research completed to satisfy the requirements for the Ph.D. The seminar is open to the general public and must be announced two weeks prior to the presentation. Upon completion of the seminar, the general public will be invited to ask questions. At the discretion of the student's graduate committee, members of the committee may continue to question the graduate student after the general public has departed the seminar room. Each student is expected to defend his/her research to the unanimous satisfaction of the graduate committee. Following the defense, students will make any editorial modifications to the dissertation as recommended by the supervisory committee and submit the dissertation to the Graduate School.

Other Requirements

- 1 Scientific Publication
- 2 presentations at Scientific Meetings

COURSES

For an updated list of course offerings see: <http://www.ugs.usf.edu/sab/sabs.cfm>