Welcome from the Chair of Microbiology and Cell Science

Welcome to the graduate program of the Department of Microbiology and Cell Science (MCS) at the University of Florida (UF). The purpose of this handbook is to provide new and continuing graduate students with information regarding Microbiology and Cell Science department policies and information.

Information regarding University policies can be found in the UF Graduate Student Handbook and the University of Florida Graduate Catalog. If you have any problems or questions about any of the information within either student guide, please feel free to consult with the Department's Student Services Coordinator:

Mr. Jonathan Orsini  
Student Services Coordinator  
352-846-1330  
jorsini@ufl.edu  
Bldg. 981, Room 1055

The graduate program in the Department of Microbiology and Cell Science is administered by the College of Agriculture and Life Sciences (CALS), a unit of the Institute of Food and Agricultural Sciences (IFAS) at the University of Florida. The primary goal of the Department of Microbiology and Cell Science is to train qualified students for professional careers in research and teaching.

Currently, there are 23 tenure-track and 9 non-tenure-eligible faculty members, working closely with over 50 graduate students on exciting research dealing with microbial physiology, metabolism, regulation, molecular biology, molecular genetics, immunology, virology, host-pathogen interactions in plants and animals, cellular ultrastructure, and environmental microbiology.

You will find us to be an active and engaging faculty. We work hard to provide our graduate students with excellent projects and a productive working environment. Join us in this exciting era for microbiology and cell science.

Eric W. Triplett,  
Ph.D. Professor and Chair  
ewt@ufl.edu
# Table Of Contents

Welcome from the Chair of Microbiology and Cell Science 1

Department Main Office Contact Information 4

Graduate Faculty Directory and Research Information 4

Graduate Programs of Study 4

Application and Admissions Information 5

Stipend and Tuition Waiver Information (Ph.D. Program ONLY) 5

Financial Aid 6

Applying for Florida Residency 7

Ph.D. Program General Information and Degree Requirements 8

Selecting a Major Professor 8

Supervisory Committee and Plan of Study 9

Required Examinations
  Comprehensive Written Preliminary Examination 9
  Qualifying Oral Exam 10
  Admission to Candidacy 10
  Dissertation 10
  Final Oral Examination 10

M.S. (with Thesis) Program Requirements 11

Selecting a Lab and Major Professor 11

Supervisory Committee and Plan of Study 11

Thesis
  Final Oral Examination 12

Changing Degree Program 12

M.S. (non-Thesis) Program Requirements 13

Selecting a Major Professor and Supervisory Committee 13

Graduation Requirements for M.S. (non-Thesis) Degree 13

MCS Combined Degree Program (4+1 BS/MS Non-Thesis) 13

Combined Degree Program Admissions Information 14
Department Main Office Contact Information

The MCS Department Main Office is located in room 1052, near the front of the Microbiology building directly adjacent to Museum Road. You can find a map indicating the location of the building on our website.

You can find office locations and contact information in the MCS Department Staff Directory.

The MCS Main Office Staff manage the daily administrative activities of the department. If you have any questions or concerns, please do not hesitate to contact anyone within this office.

A good first point of contact for any graduate student inquiries would be:

Mr. Jonathan Orsini  
Student Services Coordinator  
352-846-1330  
jorsini@ufl.edu  
Bldg. 981, Room 1055

Graduate Faculty Directory and Research Information

The complete faculty profiles for the department of Microbiology and Cell Science can be found here: http://microcell.ufl.edu/directory/faculty-info/. This directory also includes faculty contact information, and Google Scholar Profiles, which contain the vast majority of their research publications.

You can also visit the MCS Department Google Scholar Profile, which includes the combined works of all faculty who are currently active within the department.

For more information about research being conducted within the department, please feel free to contact the Graduate Program Coordinator:

Dr. Tony Romeo  
Graduate Coordinator  
352-392-2400  
tromeo@ufl.edu

Graduate Programs of Study

The Department of Microbiology and Cell Science currently offers three graduate degree programs:

• PhD in Microbiology and Cell Science – Go to page 8 of this guide for more information.
• MS (Thesis/Non-thesis/Combined) in Microbiology and Cell Science – Go to page 11 of this guide for more information on our various MS programs
• Online MS degree (non-thesis) in Microbiology and Cell Science - (Coming Fall 2015!)


Application and Admissions Information

Admission to the UF Microbiology and Cell Science Graduate programs requires that an applicant be accepted both by the UF Graduate School and by the MCS Department.

Visit our admissions website to learn more about the most current application and admission requirements and procedures for each degree program.

The official application can be found at the University of Florida Graduate School Admissions website. Students interested in the MCS Graduate Programs should select the “Graduate” option to create the appropriate application.

The department strongly encourages all applicants to have completed undergraduate microbiology and biochemistry coursework before applying. Although this is not a definitive program requirement, it is extremely beneficial to a candidate’s successful completion of the MCS graduate education within a reasonable amount of time.

Please contact the Student Services Coordinator if you have any questions regarding the admissions procedures and requirements.

Stipend and Tuition Waiver Information (Ph.D. Program ONLY)

Stipends are available to financially assist MCS Ph.D. students. The amount of the stipends for the 2013-2014 academic year was $23,000 for all students accepted into the Ph.D. program, paid bi-weekly at about $880 per pay period.

Students in the MCS Ph.D. program will also receive a Graduate Tuition Payment or Tuition Waiver. To receive a Graduate Tuition Payment a student must 1) be admitted and enrolled in a graduate program at the University of Florida, 2) maintain a GPA of 3.00 (truncated), and 3) be registered for the number of credits required for the appointment.

Tuition and fees at UF are usually charged on a per credit hour basis. The tuition and fees for each credit hour include several student services fees. A Graduate Tuition Payment pays the matriculation fee (often referred to as "in-state" tuition) and, if necessary, the nonresident fee ("out-of-state" tuition) for the number of credits required for the appointment. The student is responsible for paying the student services fees for all credits. For a standard 9 credit academic semester, the fees for 2013-2014 were about $700 per semester. The MCS Department automatically processes Graduate Tuition Payments at the beginning of each semester.

A Graduate Tuition Payment is NOT available for audited courses, correspondence work, DOCE courses, self-funded courses, courses not eligible to count toward a graduate degree, or dropped courses regardless of the point of the term at which the course is dropped. In addition, the student is responsible for paying all tuition and fees for credits carried over the minimum number of credits required for the appointment. Any change in the student’s academic or employment status after processing the Graduate Tuition Payment will result in the entire original payment liability being reassigned to the student.

For further information or clarification, contact the Academic Personnel Office, 352-392-2477.
For more information, please review the UF Graduate Student Handbook (follow the link, the handbook will be located on the bottom of the page).

**Constraints on Financial Support for Ph.D. Program**

Students seeking financial assistance can normally expect continued financial support from the department upon satisfactory progress towards fulfilling their degree requirements. However, this continued financial assistance is dependent on the availability of funds within the department. Support will be available only for a maximum of fifteen (15) semesters for PhD students entering the program with a B.S. degree. If the student fails to complete his/her degree requirements by the end of the above-described time period, he/she must petition the Graduate Oversight Committee for approval for the continuation of support. It is anticipated that students entering this program with a M.S. or B.S. degree normally finish their degree requirements in 3 or 4-5 years, respectively.

**Financial Aid**

Various forms of financial aid are available to PhD and MS Students through the University of Florida Office of Student Financial Affairs.

For most financial aid programs at UF, you must:

- Be a U. S. citizen, national, or permanent resident alien.
- Be accepted/enrolled at least half-time in a degree program.
- Make satisfactory academic progress toward a degree.
- Register with the Selective Service Administration, if required to do so.
- Not be in default on a federal or institutional loan or owe a repayment on a previous financial aid award received at UF or other institution.

**How to apply for financial aid:**

Applying for financial aid at UF begins with the FAFSA, the Free Application for Federal Student Aid. Complete the FAFSA at fafsa.ed.gov. You can file a FAFSA as early as January 1 each year. UF’s “On-Time” deadline to receive the results of your FAFSA from the federal processor is March 15. Apply well before March 15 to ensure that the federal processor has time to analyze and send the results of your FAFSA to the financial aid office. Financial aid is awarded on a first come, first served basis so apply as early as possible to be considered for the most, and best aid.

**Student Financial Affairs Office Contact Information**

S-107 Criser Hall
P. O. Box 114025
Gainesville, FL 32611-4025
Phone: (352) 392-1275
Fax: (352) 392-2861
Applying for Florida Residency

U.S. citizens, permanent residents, and others included in Section 4 of the Board of Education Rule 6a-10.044 are eligible to apply for Florida residency. **All MCS students that enter the program as a Non-resident are REQUIRED to apply for Florida residency prior to the start of their 2nd full year (or 4th semester)** Students who fail to do so may be liable for out of state tuition after their first year (international students exempt from this requirement). For example, a student that starts in Fall 2014 would be expected to apply for residency for the Fall 2015 semester.

Laws created by the Florida Legislature exclusively control residency reclassification for tuition purposes. For the purpose of assessing tuition, residency and non-residency status shall be determined as provided in Classification of Students Florida or Non-Florida (Section 6A-10.044, Florida Administrative Code), Section 240.1201, Florida Statutes, and the Florida State University System Residency Policy and Procedure Manual [revised effective October 17, 2000]. [The law may be found in its entirety online](https://www.floridaplacement.com/information/faculty-staff-guides/residency/).

The residency review staff members in the Office of the University Registrar are not authorized to provide guidance on methods of obtaining residency. Their role is to review applications for Florida resident status, together with supportive documentation, and to render a decision based on the documentation and the requirements of Florida law.

This law, the rules, and the implementation manual presume that students who are initially classified as non-resident will not be reclassified as residents merely by being enrolled for one year. Physical residence in Florida that is merely incidental to enrollment in a college is not sufficient, under Florida law, to obtain reclassification. It is the sole responsibility of the applicant to provide all appropriate documentation to merit a reclassification for tuition purposes.

A student wishing to establish residency should pick up the Request for Change in Residency Status form from the Office of the University Registrar, 222 Criser Hall, to review the information and items that may be requested when filing for Florida residency for tuition purposes. Check the registrar’s residency website for updated information.

**For more information, contact:**

<table>
<thead>
<tr>
<th>Initial Classification</th>
<th>Office of Admissions</th>
<th>352-392-1365</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reclassification</td>
<td>Office of the University Registrar</td>
<td>352-392-1374</td>
</tr>
</tbody>
</table>
Ph.D. Program General Information and Degree Requirements

A minimum of 90 credit hours beyond the student’s acquisition of a Bachelor’s degree, in graduate level courses (5000 – 7000) is required. No more than 30 credit hours of a Master’s degree from another institution will be transferred to a doctoral program. If a student holds a Master’s degree in a discipline different from the doctoral program, the Master’s work will not be counted in the program unless the department specifically petitions and acquires the approval of the Dean of the Graduate School.

PhD students must register for a minimum of 9 credit hours for Fall and Spring semesters. Minimum registration for the Summer is 6 credit hours. Minimum study load for domestic “part-time” graduate students not on assistantship is three credits during Fall and Spring and two credits for Summer. (International students not on an assistantship must register for the correct number of credit hours required to assure compliance with the requirements of their visa).

Selecting a Major Professor

The selection of a major professor is one of the most crucial decisions a graduate student makes. The composition of the total laboratory group is important since the vitality and enthusiasm of your fellow laboratory workers will have a great influence upon the direction and character your own research will assume. The ideal laboratory environment should allow you to reach your full research potential by promoting the frequent exchange of views that often lead to a creative mixing of ideas and novel technical approaches to experimental design. It is important that you select a laboratory group with which you will enjoy working and one that has the time and resources to provide you the best possible foundation in your research specialty. The importance of this decision in shaping your future career potential cannot be over emphasized and, therefore, deserves the careful and immediate consideration of each new student.

In order to select a Major Professor, Graduate students should:

• Schedule meetings (in person or over the phone) with individual faculty members (preferably during the summer, before classes begin) in order to determine which you would be interested in selecting as your major professor. These meetings will provide you with the opportunity to learn about the diversity of research programs existing within the department. Contact information, including research interests for all faculty members can be found in the faculty directory.

• Select three faculty members within the department in which the student can complete four-week rotations during the first semester on campus. These rotations are designed to provide an opportunity for the student to gain first-hand working knowledge of the faculty members’ research and laboratory environment. Discussions with faculty members in the research areas of the student’s interest and the Graduate Studies Coordinator should aid in selecting the three-labs/faculty members for these research rotations. Students interested in rotating with off-campus faculty (Kennedy Space Center, Lake Alfred, etc.) should contact those faculty members directly before the start of the semester.

• New students should select a major professor at the end of their third 4-week research rotation (or earlier if they wish and the faculty member accepts) and no later than the beginning of the second semester of enrollment. Students are expected to start active research in their select research laboratory at the beginning of the second semester of their graduate program.
Supervisory Committee and Plan of Study

• Students should select their supervisory committee in consultation with the major professor. These selections are nominated by the Department Chair, approved by the Dean of the College of Agriculture, and appointed by the Dean for Graduate Studies and Research. The committee should be appointed as soon as possible after the student has begun graduate work, and, in general, no later than the end of the second semester of full time study. **Failure to select a supervisory committee by the end of the second semester will prevent further registration and cause termination of assistantship support until the deficiency is remedied.**

• Supervisory committees for the Ph.D. degree should have a minimum of four members. Members of the Supervisory Committee for the Ph.D. degree must have Graduate Faculty status. One member, the official “external” member, of the Ph.D. committee must be selected from a department different from that in which the degree is being sought and is not an affiliate faculty of the Department of Microbiology and Cell Science. At least two members must be selected from the Department of Microbiology and Cell Science. Graduate students are expected to meet with their supervisory committee on a regular basis (twice per year is recommended).

• Following the selection of a supervisory committee, a Plan of Study must be submitted by the middle of the third semester of enrollment in graduate school. The plan of study lists all of the courses to be taken by the student to satisfy the course work requirements and must be approved by the supervisory committee.

Please review the [UF Graduate Student Handbook](#) for additional information on the make up and responsibilities of the supervisory committee.

Required Examinations

The MCS Ph.D. program requires that all students pass three exams in order to graduate:

• Comprehensive Written Preliminary Examination
• Qualifying Oral Examination
• Final Oral Examination and Dissertation Defense

Comprehensive Written Preliminary Examination

The written preliminary examination will consist of questions from topic areas selected by the student’s supervisory committee. Each member of the student’s supervisory committee will compose and grade a written examination. Participation in this examination is optional for external members. A student’s supervisory committee may submit questions in the student’s specialty area or on general topics such as: 1) molecular biology and genetics 2) metabolism and regulation 3) cellular structure and function and/or 4) immunology and virology. **The written preliminary examination must be taken no later than the end of the second year of graduate study (typically in the summer semester of the second year).** A make-up exam may be given for those showing unsatisfactory performance in one or more topics. If additional course work is recommended, the make-up exam will be given upon demonstration of satisfactory course performance. The Student Services Coordinator will contact the student and their supervisory committee to initiate the written examination process at the appropriate time.
Qualifying Oral Exam

This examination will be administered by the student’s supervisory committee and given within six months of successful completion of the comprehensive written preliminary examination. At least five faculty members must be present. The subject matter tested will be determined by the individual supervisory committee and will include questions in the student's specialty area. The student should prepare a brief, written research proposal (patterned after NIH or NSF guidelines) on the research completed and planned, and submit to the supervisory committee. The student will also orally present this to the committee at the beginning of the examination. A student showing unsatisfactory performance on the oral preliminary exam will be permitted one re-examination.

Admission to Candidacy

The student’s supervisory committee will make a recommendation concerning admission to candidacy for the Ph.D. degree as soon as possible after the oral preliminary examination. Approval will be based on the academic record of the student, satisfactory performance on both written and oral examinations, selection of a suitable dissertation topic, a demonstrated ability to conduct laboratory research, and the overall fitness of the student for candidacy.

Dissertation

The candidate is required to prepare a dissertation that shows independent investigation, makes a significant contribution to the research field, and must be publishable. The department is responsible for quality and scholarship. The format, typing, and position requirements of the Graduate School Editorial Office take precedence over any MCS department specifications. A copy of the dissertation is to be provided to the department. Complete instructions detailing the expectations and guidelines for a student’s dissertation can be found in the UF Graduate School Handbook (located at the bottom of the page). Contact the UF Graduate School Editorial office directly with formatting questions:

Walk-in: HUB 224  
Phone: (352) 392-1282  
Fax: (352) 846-1855  
Email: gradedit@aa.ufl.edu  
Mail: 224B Hub Stadium Road  
P.O. Box 118461  
Gainesville, FL 32611-8461

Official Dissertation Completion and Submission Checklist

Final Oral Examination

The student must present a departmental seminar of the dissertation research to be immediately followed by an oral defense administered by the individual’s supervisory committee. At least five faculty members must be present during the department seminar.

During the terms of the qualifying examination and the final term in which the degree is awarded, the student must be registered for credits that count toward the graduate degree. In the latter of the two terms cited, doctoral students must register for 7979 during the qualifying exam term and 7980 at the final term.
M.S. (with Thesis) Program Requirements

A minimum of 30 credit hours beyond the student’s acquisition of a Bachelor’s degree, in graduate level courses (5000 – 7000) is required. No more than 6 credit hours of MCB6971, Master’s Research, can be attributed toward the 30 hours required.

MS students will normally register for 9 credit hours for Fall and Spring semesters. The summer is not required, but typical registration for the Summer is 6 credit hours. Minimum registration for graduate students is three credits in Fall or Spring and two credits in Summer; minimum registration for students receiving financial aid may be different. Students on a fellowship, traineeship, or assistantship must be registered appropriately for their appointments (full-time in the MCS department). International students not on an assistantship must register for the correct number of credit hours required to assure compliance with the requirements of their visa.

Selecting a Lab and Major Professor

The selection of a major professor is one of the most crucial decisions a graduate student makes. The composition of the total laboratory group is important since the vitality and enthusiasm of your fellow laboratory workers will have a great influence upon the direction and character your own research will assume. The ideal laboratory environment should allow you to reach your full research potential by promoting the frequent exchange of views that often lead to a creative mixing of ideas and novel technical approaches to experimental design. It is important that you select a laboratory group with which you will enjoy working and one that has the time and resources to provide you the best possible foundation in your research specialty. The importance of this decision in shaping your future career potential cannot be over emphasized and, therefore, deserves the careful and immediate consideration of each new student.

In order to select a Major Professor, MS students should:

- Schedule meetings (in person or over the phone) with individual faculty members (preferably during the summer, before classes begin) in order to determine which you would be interested in selecting as your major professor. These meetings will provide you with the opportunity to learn about the diversity of research programs existing within the department. Contact information, including research interests for all faculty members can be found in the faculty directory. Students interested in working with off-campus faculty (Kennedy Space Center, Lake Alfred, etc.) should contact those faculty members directly before the start of the semester.

- New students should select a major professor at the end of their third 4-week research rotation (or earlier if they wish and the faculty member accepts) and no later than the beginning of the second semester of enrollment. Students are expected to start active research in their select research laboratory at the beginning of the second semester of their graduate program.

Supervisory Committee and Plan of Study

- Students should select their supervisory committee in consultation with the major professor. These selections are nominated by the Department Chair, approved by the Dean of the College of Agriculture, and appointed by the Dean for Graduate Studies and Research. The committee should be appointed as soon as possible after the student has begun graduate work, and, in general, no later than the end of the second semester of full time study.
• Supervisory committees for the MS degree should have a minimum of two faculty members (preferably three). Members of the supervisory committee for the MS degree must have Graduate Faculty status. At least two members must be selected from the Department of Microbiology and Cell Science. Graduate students are expected to meet with their supervisory committee on a regular basis (twice per year is recommended).

• Following the selection of a supervisory committee, a Plan of Study must be submitted by the middle of the third semester of enrollment in graduate school. The plan of study lists all of the courses to be taken by the student to satisfy the course work requirements and must be approved by the supervisory committee. Failure to select a Supervisory Committee by the end of the second semester will prevent further registration until the deficiency is remedied.

Thesis

Each MS student is required to prepare a thesis that shows independent investigation, makes a significant contribution to the research field, and is publishable. The department is responsible for quality and scholarship. The format, typing and position requirements of the Graduate School Editorial Office take precedence over any MCS department specifications. A copy of the thesis is to be provided to the department. Complete instructions detailing the expectations and guidelines for a student’s thesis can be found in the UF Graduate School Handbook (located at the bottom of the page). Contact the UF Graduate School Editorial office directly with formatting questions:

Walk-in: HUB 224  
Phone: (352) 392-1282  
Fax: (352) 846-1855  
Email: gradedit@aa.ufl.edu  
Mail: 224B Hub Stadium Road  
P.O. Box 118461  
Gainesville, FL 32611-8461

Official Thesis Completion and Submission Checklist

Final Oral Examination

The student must present a departmental seminar of the thesis research to be immediately followed by an oral defense administered by the individual’s supervisory committee. The entire supervisory committee must be present during the department seminar.

Changing Degree Program

Students who wish to change a major or degree objective (including continuing to a Ph.D. after receiving a master's degree), whether in the same or to a different college, must have the academic unit submit a completed Change of Graduate Degree Program form via the Graduate Information Management System (GIMS). Any changes to degree programs, including thesis/non-thesis/project options, concentrations, or minors MUST occur before the published midpoint deadline of the student's final term. Do not submit another Application for Admission to the Office of Admissions.
M.S. (non-Thesis) Program Requirements

The requirements for the MS non-Thesis program do not differ greatly from the MS-thesis degree except that students cannot receive credit for taking MCB 6971, Master’s research, and students are not required to submit a thesis. A minimum of 30 credit hours beyond the student’s acquisition of a Bachelor’s degree, in graduate level courses (5000 – 7000) is required.

MS students will normally register for 9 credit hours for Fall and Spring semesters. The summer is not required, but typical registration for the Summer is 6 credit hours. Minimum registration for graduate students is three credits in Fall or Spring and two credits in Summer; minimum registration for students receiving financial aid may be different. Students on a fellowship, traineeship, or assistantship must be registered appropriately for their appointments (full-time in the MCS department). International students not on an assistantship must register for the correct number of credit hours required to assure compliance with the requirements of their visa.

Selecting a Major Professor and Supervisory Committee

Students should consult with the MCS Graduate Coordinator to select a major professor. The Graduate Coordinator will also assist students in the formation of a supervisory committee. Supervisory committees will require at least 2 members from the MCS graduate faculty (including the committee chair). Contact information, including research interests for all faculty members can be found in the faculty directory.

Dr. Tony Romeo
Graduate Coordinator
352-392-2400
tromeo@ufl.edu

Graduation Requirements for M.S. (non-Thesis) Degree

Students must complete a technical report/project and a comprehensive final oral exam in order to complete the MS non-thesis program. Both the project and the oral exam will be designed and coordinated by the supervisory committee.

MCS Combined Degree Program (4+1 BS/MS Non-Thesis)

The combined B.S./M.S. program allows qualified students to earn both their Bachelor’s and Master’s degrees with 12 credit hours of jointly counted course work. This program is considered a “4/1” because students may be awarded both degrees within a five-year period. This program is only offered for Microbiology and Cell Science majors in the College of Agricultural and Life Sciences and the College of Liberal Arts and Sciences.

There is no graduate stipend or TA supplement awarded for this non-thesis program. Combined degree program participants are responsible for all of their fees and tuition out of pocket or via Bright Futures and Florida Prepay. These scholarships and payment plans only cover the undergraduate fees for courses so the student is responsible for the difference in the undergraduate and graduate fees out of pocket.
Combined Degree Program Admissions Information

Preliminary admission application steps:

- Be on track to complete all lower division course work
- Review graduate school application procedures for online application.
- Meet with the MCS Student Services Coordinator prior to submitting your official application

Mr. Jonathan Orsini
Student Services Coordinator
352-846-1330
jorsini@ufl.edu
Bldg. 981, Room 1055

Admission Requirements for the B.S./M.S. program in Microbiology and Cell Science:

- Attain 3 MCB or MCY status to apply (Typically junior year)
- Apply to the UF Graduate School. – This will require a statement of purpose and three letters of reference.
- Submit a signed copy of the Combined Bachelors and Masters Degree Request form.
- Notify Jonathan Orsini, the Student Services Coordinator, at jorsini@ufl.edu when you have completed your graduate application.
- Submit a University of Florida transcript. It must show a cumulative GPA of at least a 3.2 in undergraduate upper division course work

All applications must be received by April 15th. The application must contain the Statement of Purpose, the Combined Bachelors and Masters Degree Request Form, the Graduate Application, three letters of recommendation, a GRE score, and a copy of the official UF transcript.

The 4-1 B.S./M.S. program in Microbiology and Cell Science requires that 12 credits of graduate level courses (5000 level of above) be taken to fulfill requirements of the B.S. degree program. The 12 credits of graduate level courses are courses used to fulfill *6 credits of the 18 credit B.S. core course requirement and a minimum of 6 credits of the 9 credit B.S. elective course requirement. The 12 credits of 5000-level or higher required and elective courses may also be applied to satisfy the M.S. degree requirements.

Microbiology and Cell Science Undergraduate Requirements

18 required credits: These courses are all required and no substitutions will be made:

- MCB 3023 Basic Biology of Microorganisms (3 credits)
- MCB 3023L (2 credits)
- MCB 4304 Genetics of Microorganisms (3 credits), -OR- PCB 4522 Molecular Genetics (3 credits)
- PCB 5235 Immunology (3 credits) (required for the M.S.)
- BCH 4024 Biochemistry (4 credits), -OR- CHM 3218 Organic/Biochemistry 2 (4 credits)
- PCB 5136 Techniques in Microbial & Cell Biology (3 credits), -OR- MCB 5305L Microbial Genetics Lab (2 credits)
- MCB 4905 – Undergraduate Research (2 semesters required, 3 recommended)
Microbiology and Cell Science Undergraduate Elective Requirements

9 required credits: The following is a listing of available courses that can be utilized to fulfill 9 credits of microbiology elective course requirement. Select 3 credits from the list below or you may opt to take all 9 credits from the 5000 level courses.

- MCB 4203 Bacterial/Viral Pathogens (3 credits)
- MCB 4403 Prokaryotic Cell Structure (3 credits)
- MCB 4503 General Virology (3 credits)
- PCB 3134 Eukaryotic Cell Structure (3 credits)
- ZOO 4232 Parasitology (3 credits)
- MCB 4034L Microbiology Advanced Lab (1 credit)

5000-level or above courses: Select a minimum of 6 credits from the list below. Do not include any of the courses below already taken to fulfill the core requirement.

- MCB 5505 General Virology (3 credits)
- PCB 5136L Techniques in Microbial & Cell Biology (3 credits)
- BCH 5413 Mammalian Molecular Biology and Genetics (3 credits)
- BCH 6415 Advanced Molecular and Cell Biology (3 credits)
- BCH 6206 Advanced Metabolism (3 credits)

Total credits required for the B.S. degree = 27 credits - A maximum of 12 credits of 5000-level or above credit hours may be substituted for the B.S. degree requirements. Please note that any course taken as an undergraduate and used to meet the requirement for graduation (B.S.) cannot be transferred and used to meet M.S. degree credit.

Students applying for the 4-1 program are strongly encouraged to take Physical Chemistry (either CHM 3400 or CHM 4411) as a general course elective during their B.S. program, since these courses provide important conceptual background for Advanced Physical Biochemistry (BCH 6740), which is required for the M.S. degree. This background will be considered a strong credential for admission to the limited positions available in the program.

Supervisory Committee for Combined Degree Program

The supervisory committee must consist of a chair and one other member selected from the graduate faculty in the student’s major department. The graduate contact, Dr. James Preston, is the primary advisor for all students enrolled in the 4/1 Program. Students will be referred to Dr. Eric Triplett, Chair of the supervisory committee, for exceptions to the approved program. Students must complete a technical report/project and a comprehensive final oral exam in order to complete the MS non-thesis program. Both the project and the oral exam will be designed and coordinated by the supervisory committee.
Preparing for Graduation

Degrees are awarded after each term in December, May, and August. The semester before graduation, the candidate should check his or her file with the academic unit to make sure that all incompletes or other unresolved grades are cleared, grade changes have been recorded, and the supervisory committee (if required) and all degree program details listed in the web-based Graduate Information Management System (GIMS) are accurate.

Application for the degree must be made online early in the semester of graduation by the deadline published in the University Calendar and the Graduate School Academic Calendar. Application for the degree assures that the student's name is on the graduation list and includes the application for the diploma, placement of the student's name in the commencement program, and placement of the name on the list to receive information on commencement procedures, including rental or purchase of regalia.

Application for graduation must be made each term a student anticipates graduating. THE APPLICATION DOES NOT CARRY OVER FROM A PREVIOUS SEMESTER. Failure to make an application by the published deadline will preclude the student's graduation in that term.

Students must register for at least three credits (two in Summer) that count toward the degree during the semester of graduation. Students on an assistantship, fellowship, or traineeship must be registered appropriately for their appointment. Thesis students must register for MCB 6971 and doctoral students for MCB 7980. Candidates pursuing concurrent degrees to be awarded in the same semester need to apply to the Office of the University Registrar for both degrees.

Satisfactory performance on the final examination or defense and final submission of the corrected thesis or dissertation must be completed by the deadline dates shown in the Graduate School calendar. Diplomas will be available approximately six weeks after Commencement and will be mailed by the Registrar’s Office to the graduates’ permanent addresses. Degree remarks are posted to the student’s transcript by the Registrar’s Office and are generally available the day after certification. Click here to see a graduation checklist for all graduate students.

Cleared Prior

Cleared Prior permits students to be exempt from registration for the term in which the degree will be awarded. Clearing prior is a possibility only for Thesis and Dissertation students who have met all published deadlines for the current term except Final Clearance from the Graduate Editorial Office. No other students are eligible.

A student must meet all of the posted criteria from the UF Graduate School Handbook to receive approval for Cleared Prior status.
Graduate (PhD and MS) Course Requirements

MS and PhD students within the department do not register for classes. Although there are some minor variations depending on a student’s background or circumstances, the first year schedule is generally uniform, and set by the department faculty. Students may request enrollment in elective courses, however, registration is handled by the department Main Office, and will require approval from the student’s major professor, supervisory committee, or from the Graduate Studies Coordinator.

MS and PhD students are required to take 24 credits per year, 9 per semester in the fall and spring, and 6 in the summer (MS Students may opt out of summer coursework). Any deviation from the required plan of study will require approval from your major professor (or supervisory committee) and/or the department chair.

Required Courses

The courses listed here are generally completed in the semester listed, but some variations may occur for individual students.

**Students without a strong background in Microbiology will take one or both of these courses during the 1st year fall semester**

- Special Topics: Bacterial Physiology – (3 credits)
- Special Topics: Advanced Bacterial Genetics – (3 credits)

**All Students in either 1st or 2nd year fall semester:**

- MCB 6317 – Molecular Biology of Gene Expression – (1 credit)
- MCB 6318 – Comparative Microbial Genomics – (1 credit)
- MCB 6417 – Microbial Metabolism and Energetics – (1 credit)

**All Students in their 1st year spring semester:**

- MCB 6355 – Microbial/Host Defense – (1 credit)
- MCB 6457 – Metabolic Regulation – (1 credit)
- BCH 6740 – Structural Biochemistry – (3 credits)
- MCB 6937 – Special Topics: Immunology (1 credit) - Students are required to show proficiency in immunology. Students who have taken appropriate undergraduate or graduate coursework in immunology prior to enrolling may be exempt from this requirement.
  (Plus one of the following)
- MCB 6465 – Microbial Metabolic Engineering – (1 credit)
  -OR-
- MCB 6772 – Advanced Topics in Cell Biology – (1 credit)

**For international students who did not test out of the Spoken English requirement**

- EAP 5836 – Academic Spoken English 2 – (3 credits)
**Required Seminar**

- **MCB 6930 – (1 credit)** - All Microbiology and Cell Science graduate students are required to participate in the department’s seminar course each semester (fall and spring), irrespective of their registration status in this course.

**Required Journal Colloquy**

- **MCB 7922 – (1 credit)** - All Microbiology and Cell Science graduate students are required to participate in the department’s Journal Colloquy course each semester (fall and spring), as scheduling permits.

**Supervised Teaching**

- **MCB6940 – (1 or 2 credits)**

  All graduate students within the department of Microbiology and Cell Science must complete a teaching requirement. International students who do not test out of the Academic Spoken English requirement will also register for EAP5836 concurrently with their teaching assignment. International students who have not scored a 23 or higher on the TOEFL iBT test, or a 45 or higher on the UF SPEAK test, are not permitted to teach until they overcome the deficiency. Students will be placed in one of the following undergraduate labs to complete their teaching requirement or in an advanced lab course.

  - **MCB2000L** – Microbiology lab for non-science majors
  - **MCB3020L** – Microbiology lab for non-microbiology science majors
  - **MCB3023L** – Microbiology lab for microbiology majors

    - MS students are required to teach a minimum of one semester (1 credit)
    - PhD students are required to teach a minimum of two semesters (2 credits)

  Generally, MS students with an adequate microbiology background will begin their teaching assignments during their first semester (fall) of study. PhD students will typically conduct teaching assignments during the fall and spring semester of their first year.

  International students who do not initially pass the spoken English language requirement typically begin their teaching assignments in the fall semester of their 2nd year. PhD students in this scenario will typically conduct teaching assignments during the fall and spring semester of their second year.

  Teaching assignments are also available in the summer, but are limited in availability.

**Elective Courses**

Students are permitted to select elective courses specific to their area of research interest in consultation with their major professor and supervisory committee. Registration is handled by the department Main Office.

Electives offered outside of Microbiology and Cell Science will require the additional approval of the outside department. You can search for electives using the [University of Florida Graduate Catalog](https://catalog.ufl.edu).
Example Plan of Study

Each student within the program may have variations regarding their prerequisites, research, and elective coursework. It is the student’s responsibility to meet with their major professor/supervisory committee to plan out their coursework and to understand their academic and research goals and expectations.

Example plans of study are listed below:

Example Plans of Study for M.S. Students

Example Plans of Study for PhD Students

Contact the MCS Student Services Coordinator if you have any questions.

Grading System

The only passing grades for graduate students are A, A-, B+, B, B-, C+, C, and S. C+ and C grades count toward a graduate degree if an equal number of credits in courses numbered 5000 or higher have been earned with grades of B+, A- and A, respectively. Grade points are not designated for S and U grades; these grades are not used in calculating the grade-point average. All letter-graded courses taken as a graduate student, except 1000 and 2000 level courses, are used in calculating the cumulative grade-point average (GPA). Letter grades of C-, D+, D, D- or E are not considered passing at the graduate level, although the grade points associated with these letter grades are in included in grade point average calculations.

The following values are assigned to each grade:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
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</tr>
<tr>
<td>A-</td>
<td>3.67</td>
</tr>
<tr>
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<tr>
<td>B</td>
<td>3.00</td>
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<tr>
<td>B-</td>
<td>2.67</td>
</tr>
<tr>
<td>C+</td>
<td>2.33</td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
</tr>
<tr>
<td>C-</td>
<td>1.67</td>
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<td>D+</td>
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<tr>
<td>D</td>
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<tr>
<td>E</td>
<td>0.00</td>
</tr>
<tr>
<td>I</td>
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</tr>
<tr>
<td>W</td>
<td>Withdrew, 0.00 points</td>
</tr>
<tr>
<td>X</td>
<td>Failure to take Final Examination, 0.00 points</td>
</tr>
<tr>
<td>S/U</td>
<td>Satisfactory/Unsatisfactory, not counted</td>
</tr>
</tbody>
</table>
Calculating Grade Point Averages

Grade point averages (GPA) for graduate students are computed on all eligible credits attempted at the 5000 level and above and 3000/4000 level outside the major taken at the University of Florida while in a 7, 8, or 9 classification. Courses receiving grades of S and U are excluded. Courses taken at the 1000-2000 level are excluded. Credits at the 1000-2000 level may not count toward the campus residence requirement or toward the total credits required for a degree. Students must earn an overall GPA of 3.00 (truncated) AND a major GPA of 3.00 (truncated) (also applicable to a minor if elected). Applicable coursework for the major and minor are defined in the Majors and Concentrations section of the UF Graduate Catalog.

For more information, please review the UF Graduate Student Handbook section on Grading Systems.

Information for International Students

The mission of the University of Florida International Center (UFIC) is to enhance the educational experience and environment of UF’s students, faculty and staff by promoting a global perspective. The International Center is the University of Florida’s liaison with foreign and domestic embassies and consulates and is responsible for maintaining compliance with federal regulations pertaining to international students, faculty and scholars. For more information, contact the appropriate person at UFIC:

1765 Stadium Road, Suite 170 HUB
PO Box 113225

Gainesville, FL 32611
Phone: (352) 392-5323
Fax: (352) 392-5575

International Student Services provides services for international students through immigration document preparation, orientation, immigration services, and various workshops. These services include advising international students on academic, immigration, financial, cultural, and personal issues. All new international students are required to check-in with the International Center.

Study Abroad Services administers a wide range of programs that give students the opportunity to live and study abroad while fulfilling degree requirements. Students can choose among faculty-led summer programs, exchange programs, and independent programs for the summer, a semester, or an academic year as well as spring break, Thanksgiving break and other programs. Various scholarships and other financial aid can be applied to help finance the international academic experience. UF exchange programs enable students to pay UF tuition while studying abroad. Study Abroad program assistants advise applicants on all aspects of UF approved programs, provide pre-departure orientations, and process the foreign transcript on return of the student. Study Abroad program details are available in the UFIC library on the UFIC website.
Graduate Assistantship Responsibilities

Graduate students receiving financial support (i.e. Stipends, Graduate Tuition Payments, etc.) as a teaching or a research assistant are required to spend up to a maximum of 20 hours per week over a period of the appointment on assigned duties in addition to their own graduate research and coursework.

Teaching Assistantship duties normally will not exceed 9 classroom contact hours or 12 laboratory contact hours. Other assigned duties may include: laboratory preparation, grading, staff meetings, student consultation, and required lecture attendance. Research Assistantship duties, not directly related to the student’s thesis or dissertation, will be specified by the major professor.

Graduate Student Assistantships are appointments for 12 months. Students on Assistantships are expected to devote their full time in pursuance of their degree objectives. This includes the time both during the semesters and the semester breaks. Outside jobs (including weekends) are not permitted while enrolled in the MCS department. Graduate students are entitled to two weeks or ten working days of vacation in addition to official state holidays. Vacation should be taken when it does not interfere with other assigned duties and with the approval of the student’s major professor.

For more information on Graduate Assistantships, please review the UF Graduate Student Handbook.

Student Health Insurance Requirement

Effective Summer B term starting on June 30, 2014, all newly admitted or re-admitted domestic students who are enrolled at least half-time* in a degree-seeking program along with all international students are required to purchase the Student Health Insurance Plan unless proof of comparable coverage is provided.

*Half time is defined as 6 eligible credit hours for undergraduate students and 5 eligible credit hours (4 credit hours during summer) for graduate students including post-candidacy doctoral students. For students beginning in Summer B term, half-time is considered 3 hours; however one must be enrolled in 6 hours to receive financial aid. This applies to both domestic and international students.

PhD students entering the MCS program will have their health insurance provided through GatorGradCare. Make sure to fill out a waiver in order to clear your insurance hold or we will not be able to register you at the beginning of the fall semester.

For more information, visit the Student Health Insurance Website.

Contact Information for the Student Healthcare Center:

Academic Integrity

Plagiarism is not tolerated at the University of Florida. Plagiarism in a thesis or dissertation is punishable by expulsion. If the plagiarism is detected after the degree has been awarded, the degree may be rescinded. The University of Florida has an honor code that defines plagiarism as follows: Plagiarism - A student shall not represent as the student’s own work all or any portion of the work of another. Plagiarism includes but is not limited to:

1. Quoting oral or written materials including but not limited to those found on the internet,
whether published or unpublished, without proper attribution.

2. Submitting a document or assignment, which in whole or in part is identical or substantially identical to a document or assignment not authored by the student.

Please note that intent is not an element of this kind of violation so it is important to take great care in appropriately citing your work. For a good discussion about plagiarism and how to properly cite your sources, please review the UF Graduate Schools instructional information.

Please refer to the UF Honor Code and procedures or the UF Graduate School Handbook for more information.

**Academic Problems**

**Time Limit**

All work counted toward the MS degree must be completed during the seven years immediately preceding the term in which the degree is awarded.

For the PhD, all work must be completed within five calendar years after the qualifying oral examination, or the examination must be repeated.

**Unsatisfactory Scholarship**

Any graduate student may be denied further registration or removed from the MS or PhD programs if progress toward completing the program becomes unsatisfactory to the academic unit, college, or Dean of the Graduate School. Unsatisfactory scholarship is defined as failure to maintain a B average (3.00 truncated) in all work attempted, or failure to meet the expectations of the major professor or supervisory committee in regards to the students’ research goals and responsibilities. Graduate students need an overall GPA of 3.00 (truncated) and a 3.00 (truncated) GPA in their major (and in the minor, if a minor is declared) at graduation. Students with less than a 3.00 (truncated) GPA may not hold an assistantship or fellowship.

**Repeating Courses**

Repeating courses refers only to repetition of the same course where no significant change in content has occurred. It does not include repetition of seminars, special problems, or courses that have a varying content.

With academic unit approval, graduate students may only repeat courses in which they earned failing grades (C-, D+, D, D-, or E). The grade points from both the first and satisfactory attempts are included in the computation of the grade point average. Of course, the student receives credit only when the course is passed. Repeating a course for credit may not be used to resolve an incomplete grade. If enrollment is needed for completion, then auditing the course is the appropriate registration.

**Registration Adjustment – Drop/Add**

Graduate students may drop a course during the current term until the day before commencement, as stated in the Graduate School Academic Calendar. Students not on appointment must maintain minimum registration when enrolled. Students on appointment must always maintain appropriate
registration unless otherwise approved by the Graduate School. Registration adjustments made after the drop/add deadline of the current semester will result in the student having financial liability for all credits, including those dropped or added. This financial liability also applies to students on appointment receiving tuition waivers.

**Procedure for Changing Major Professor**

A student may change his/her major professor during the first year upon consultation with the Department Chair and the Graduate Studies Coordinator. Changes during the first year are not unusual and are viewed as a rotation of projects. Students who wish to change major professors after the first year must submit a request in writing to the Department Chair. This request should include the reasons for the change request and indicate that the proposed change has been discussed with both the current and proposed major professors. The Department Chair will meet with the MCS Graduate Oversight Committee to make a decision on the change.

**To-Do List for New Students**

1. **Attend New Graduate Student Orientation**
2. **Attend New Graduate Teaching Assistant Orientation**
3. **Attend the Microbiology Graduate Teaching Assistant orientation** organized by Dr. Monika Oli, Lab Coordinator for Microbiology and Cell Science. The orientation takes place at the Microbiology building.
4. **Attend the 2014 Microbiology Graduate Symposium** – The symposium is an overnight function that is required for all students. Lodging will be provided for students by the department. Contact the MCS Department Main Office for more details. The Symposium is generally held on the first weekend before the start of Fall classes each year.

**To-do List for Newly Admitted MS or PhD International Students:**

1. Receive your I-20: Review the International Student Services website for an instructions on how to receive your I-20.
2. Receive your Visa: Review the International Student Services website for instructions on how to apply for your visa.
3. Complete the check-in process for new international students.
4. If your score on the TOEFL iBT Speaking Portion is less than 23, you must complete the UF SPEAK Test. Florida law requires all international teaching assistants (ITAs) to demonstrate oral proficiency in English. Students who scored 23-27 on the TOEFL iBT (or 45-50 on the SPEAK test) will be permitted a provisional teaching assignment if they concurrently enroll in EAP5836 (Academic Spoken English 2).
Additional Student Resources

UF Graduate School Handbook

The most up-to-date [UF Graduate School Student Handbook](#) is located on the UF Graduate School website listed below the link for Colleges, Schools, and Departments.

UF Graduate School Website

The [Graduate School website](#) contains information about important deadlines, checklists, grants and fellowships, workshops, and other items relevant to graduate education. Students will be held responsible for procedures, and deadlines that are published through this website.

Integrated Student Information System (ISIS)

The Office of the Registrar provides the [Integrated Student Information System (ISIS)](#) as a central location for many academic services and student resources. Please become familiar with the elements, including access to the Graduate Catalog, GIMS, your transcript, grades, registration, etc. Be advised that some of the items in ISIS are for undergraduates.

Graduate Information Management System (GIMS)

The [Graduate Information Management System (GIMS)](#) is a database, which captures key elements of graduate students’ progress through their degree program. Students are expected to review this read-only data a minimum of twice each semester.

• The first review should be two weeks after drop-add, to make sure their demographic information is pulling correctly from the university directory.
• At the end of each semester, students should review GIMS to make sure all degree program changes and/or milestones achieved in that term have been properly recorded.
• Prudent students will carefully review their GIMS’ record any time a milestone has been reached.
• During the final term/graduating semester, students must be certain that all necessary GIMS data is entered on time to meet the deadlines posted in the graduate calendar.
• Failure to meet any deadline will result in delay of degree award to a future term.

Graduate School E-mail Listserv

The Graduate School communicates directly with enrolled graduate students via an e-mail listserv using GatorLink addresses only. Students are automatically included in this listserv and cannot opt-out. These messages include funding announcements, information applicable to graduate students in general, reminders of deadlines, and critical information related to graduation, etc. An archive of messages is available. Students are required to use their GatorLink account to receive all official university communications.

The Student Health Care Center (SHCC)

The [Student Health Care Center (SHCC)](#) provides outpatient medical services that include primary medical care, health screening programs, health education, and sexual assault recovery services. Physicians are board-eligible or certified and all clinical staff are experienced in the care of university students. SHCC is accredited by the Accreditation Association for Ambulatory Health Care, Inc. The SHCC is staffed by physicians, physician assistants, nurse practitioners, registered nurses, dietitians,
University Libraries

The University of Florida Library System consists of three central units—Library West, Smathers Library (Library East), Marston Science Library—and branch libraries located in the Colleges of Fine Arts; Education; Journalism and Communications; Law; the Department of Music; and the J. Hillis Miller Health Science Center. Orientation tours of the main libraries are scheduled at the beginning of each semester. LUIS (Library User Information Service) terminals in each library provide computerized access to the collection. The entire sixth floor of Library West is reserved exclusively for graduate student use.

English Skills for International Students

The University of Florida makes available English language programs to help international graduate students improve their proficiency in English. These programs are 1) the English Language Institute, 2) Academic Written English, and 3) Academic Spoken English.

Applicants whose command of English is not as good as expected may be requested by their departments to attend the English Language Institute (ELI), an intensive English program designed to provide rapid gain in English proficiency. An ELI student may require one, two, or occasionally three semesters of full-time English study before entering Graduate School. Information about ELI is available in 315 Norman Hall.

The Academic Written English (AWE) program is designed to help foreign graduate students improve their writing ability. Applicants whose verbal GRE scores are below 320, or students who have been admitted provisionally with a score lower than required on a TOEFL (550 paper, 80 internet), IELTS (6), or MELAB (77) may be required to take a writing test. Those demonstrating a lower proficiency than needed for successful performance in written tasks as determined by their academic unit may be required to take courses in written English. Information about the AWE program is available at the coordinator’s office, 4131 Turlington Hall, telephone (352) 392-0639.

The Academic Spoken English (ASE) program is designed to help those students who expect to be Graduate Teaching Assistants at the University of Florida but who cannot demonstrate a high enough proficiency in English. Students who must raise speaking proficiency scores are advised to take EAP 5835, a course to improve general oral language skills.

Computer Support

Graduate students who are preparing theses or dissertations must contact the Application Support Center. ASC has developed templates in various word-processing programs for preparing theses and dissertations in the Graduate School format. Students should download these templates from http://etd.helpdesk.ufl.edu/. Thesis or dissertation production consulting also is available by appointment — call ASC, 392-HELP (392-4357), option 5, and ask for a thesis/dissertation consultant.

Students are required to have computer hardware and software appropriate to their degree program and to have basic competency in computer use. Consult your college or department website for the specific requirements for your degree program. Consult UF Computing Help Desk (downstairs HUB) for further advice and information.