

2014 Guide for Students



Graduate Student Guide

Medical University of South Carolina College of Graduate Studies

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(Please familiarize yourself with the University Student Policies and Complaint Procedures)

Dear Graduate Students:

I am delighted to welcome you to the Medical University of South Carolina and the College of Graduate Studies. This is an exciting time to be embarking on a research career in the biomedical sciences. The myriad of new opportunities and approaches to making important fundamental scientific discoveries that will have a significant impact on the health of our nation has never been greater.

The faculty is committed to research and research training and we are proud of our graduates. As you pursue both your course work and laboratory research, I urge you to “think out of the box”. Think of truly unique hypotheses, be fearless and persistent in your approach to research. This is how you will be at the cutting edge of a discipline and make seminal discoveries. I have no doubt that you will find a research mentor that will nurture your growth and development as a scientist. As you prepare to choose a mentor there are two thoughts that you should keep in mind. First you should truly be excited about the science and secondly the personality and mentoring style of the potential mentor should match your expectations. Our campus is known for the collegial and interdisciplinary approach to research, a set of attributes that you will have an opportunity to realize during your time here.

The first year core curriculum is now in its 14th year. As a result of significant input from students and faculty, the curriculum has evolved into its current format. When the curriculum ends, you have the opportunity to take courses that are more closely allied with your area of interest and build your depth of knowledge in it. This curriculum embodies the fundamentals of the many basic science disciplines and promotes the skills necessary for becoming an outstanding scientist. Starting this year, you will have the opportunity to fill out your own personalized Individual Development Plan (IDP). There is increasing evidence that developing your own plan leads to a more efficient pathway towards obtaining your degree.

My office is always open for students and I welcome your comments concerning ways in which we can improve the College of Graduate Studies.

After your first year in graduate school and when appropriate you should seek to obtain your own extramural sponsored research fellowship. Our students have a success rate that is over twice the national average for NIH funded fellowship grants. It is a notable achievement to obtain your own fellowship and you are eligible for a financial bonus when you obtain one. I also encourage you to contact our administrative staff whenever you have questions concerning business or procedural questions. They are known for the outstanding help that they provide our students. We wish you all the best in your future endeavors and look forward to the day that you will join us as colleagues.

I encourage you to read through this handbook, because it contains much valuable information for you. **The handbook is subject to change so always check with the latest version which can be found on the College’s home page.**

Jacqueline F. McGinty, Ph.D.
Interim Dean, College of Graduate Studies

Dear Graduate Students,

Congratulations and welcome to the Medical University of South Carolina! The College of Graduate Studies is proud to have you join our talented team of scientists who are committed to increasing the breadth of knowledge and excellence in biomedical research. Our college offers numerous opportunities in research from Cancer Biology to Marine Biomedicine to Neurosciences, among others. A great system of teamwork and collaboration connects all of the programs, with each faculty member and student contributing their own element of expertise.

The Graduate Student Association (GSA) provides a great way to interact with fellow students and faculty. The GSA is a student-run organization with representatives from all departments of the Graduate Studies program. Our mission is to provide the best possible experience for graduate students by hosting social events, voicing any student concerns to the administration and faculty, and arranging community service opportunities. Each year GSA organizes social events that include the new student social, happy hours, winter cocktail party and a faculty-student spring picnic. We are also devoted to service in our community. Throughout the year, we serve dinner at the Hope Lodge and Senior Center, participate in beach clean-ups, build homes for Habitat for Humanity, and participate in campus-wide charity events. An additional outreach opportunity, Graduates Reaching Out With Science (GROWS), is a fantastic chance to teach middle school students in the Charleston area about the basic biology behind common medical problems and to introduce them to related opportunities in research. GROWS also gives students an excellent opportunity to gain teaching experience.

We highly encourage you to become involved in the GSA and attend the many social and service activities we offer. We also share opportunities for other service or social events that are happening in the Charleston community. Again, welcome to MUSC and Charleston! On behalf of GSA, I wish you a productive and successful career here at MUSC and beyond.

Rachel Weber
GSA President

SECTION I: COLLEGE AND UNIVERSITY INFORMATION AND POLICIES

MEDICAL UNIVERSITY OF SOUTH CAROLINA

COLLEGE OF GRADUATE STUDIES

Goals and Objectives

The purpose of the College of Graduate Studies, as part of the Medical University of South Carolina, is to train biomedical scientists for the discovery of new knowledge in a premier academic research environment. The College is committed to providing state-of-the-art facilities, technologies, and scholastic opportunities for the pursuit of graduate degrees at the master's and doctoral levels. In order to fulfill this purpose, the College of Graduate Studies has adopted the following goals: 1) To offer advanced courses, beyond the baccalaureate level, in various disciplines of the biomedical sciences; 2) To give students opportunities to develop and apply research techniques and to utilize the resources appropriate to their graduate programs; 3) To develop informed judgment, independent thought, and impartial inquiry and to foster the spirit of research scholarship through the development of original ideas; and 4) To contribute to the advancement of knowledge for the benefit of a constantly changing society through the efforts of its faculty and students.

Administrative Officers

Jacqueline McGinty, Ph.D., Interim Dean
Cynthia Wright, Ph.D., Associate Dean for Admissions and Career Development
Joann Sullivan, Ph.D., Assistant Dean for Extramural Program Development
Ed L. Krug, Ph.D., Associate Dean for Postdoctoral Affairs

Graduate Council

The Graduate Council is composed of a representative from each of the graduate programs and the Dean, acting as chairperson. The Graduate Council acts as an advisory group to the Dean. Each graduate program's representative also serves as the Graduate Coordinator for that program. In this capacity, they register students each semester and serve as the primary advisor for the students prior to the appointment of a mentor and advisory committee.

Graduate Council Members

Deans (non-voting members)

Dr. Jacqueline F. McGinty, Interim Dean
Dr. Ed Krug, Associate Dean for Postdoctoral Affairs
Dr. Joann Sullivan, Assistant Dean for Extramural Program Development
Dr. Cynthia Wright, Associate Dean for Admissions and Career Development

Program Directors (voting members)

Dr. Lauren Ball, Co-director, Cell & Molecular Pharmacology
Dr. Christopher Davies, Biochemistry and Molecular Biology
Dr. Victoria Findlay, Pathology and Laboratory Medicine
Dr. Louis Guillette, Marine Biomedicine & Environmental Science
Dr. Jennifer Isaacs, Co-director, Cell & Molecular Pharmacology
Dr. Laura Kasman, Microbiology and Immunology
Dr. Michael Kern, Co-director, D.M.D/Ph.D. Program
Dr. Keith Kirkwood, Co-director, D.M.D/Ph.D. Program
Dr. Antonieta Lavin, Neurosciences
Dr. Donald R. Menick, Molecular & Cellular Biology and Pathobiology
Dr. Russell Norris, Regenerative Medicine and Cell Biology
Dr. Viswanathan Ramakrishnan, Public Health Sciences
Dr. Natalie Sutkowski, Microbiology and Immunology
Dr. Patrick Woster, Drug Discovery & Biomedical Sciences & 1st Year Progress Committee

Non-voting Members)

Teri Lynn Herbert, MS, MLS, Library Science and Informatics
Ericka Smith and LaShardai Conaway, co-presidents, Multicultural Graduate Student Assoc.
Rachel Weber, President, Graduate Student Association
Jamie Mills, MSTP representative
Michele Nelson, Ph.D., Postdoctoral Association
Dr. Adam Smolka, Chairman, First Year Curriculum Committee and Curriculum Committee
Dr. Hai Yao, Clemson/MUSC Bioengineering

Standing Committees

Admissions Committee

Composition of the Committee: The admissions committee shall report to the Graduate Council. The chairperson of the committee will be the Associate Dean for Admissions. There will be a co-chairperson, who will serve a two-year term. The co-chairperson will be appointed by the Dean, College of Graduate Studies. Each program, department or track of the college shall have one permanent member on the committee. That individual shall be appointed by the chairperson of the department or director of a program or track and may or may not be the graduate coordinator. There will be two student representatives on the committee. They will be elected by either the graduate student body or graduate student association. Additional temporary or permanent members may be added when appropriate by the Associate Dean in consultation with the Dean, College of Graduate Studies. A member of the registrar's office will be an ex-officio member of the committee.

Duties and Responsibilities: The committee will set the guidelines for admission to the College of Graduate Studies. The chairperson shall be responsible for planning the interview process for the applicants. The members will interview and evaluate all potential applicants for the college. The committee will report the results of their deliberations on all applicants to the members of the graduate council for their information. The committee will meet every two weeks or more often if necessary, during the height of the recruitment season. Meetings can be canceled by the chairperson when there is not sufficient business to warrant them. When a final decision has been made on an applicant, and the committee feels that he or she is

an outstanding candidate, the Associate Dean will notify the Dean so that a letter of acceptance can be sent promptly to the applicant.

Student Progress for second year and beyond.

Student's progress is monitored at least once a year by an advisory committee after it is formed.

Before the advisory committee is formed, the department/program Graduate Training Committee and/or Graduate Training Coordinator is responsible for monitoring the progress of the student. The Graduate Training Committee is still responsible for monitoring the progress of the graduate students in their program as deemed necessary.

If a student has a problem with any aspect of their graduate training experience they may seek help from their Graduate Training Program coordinator. If the issue cannot be discussed with the Graduate Training Coordinator, then the student should go to the chairperson of the department or the chairperson's designee for resolution of the problem.

After following the above protocol for problem resolution, the student may seek the advice of the Dean of the College of Graduate Studies or the Dean's designee if there is a conflict of interest. The student may also appeal any decisions made by the Graduate Training Committee or Chairperson. If the student disagrees with the decision of the Dean of the College of Graduate Studies he/she may appeal to the Provost.

First Year Curriculum Steering Committee

Composition of the Committee: The first year curriculum steering committee reports to the Graduate Council via the chairperson. The committee has a chairperson appointed by the Dean. Each department and program is represented by one member and an alternate, both of whom are selected by the chairperson or program director. The MCBP has two representatives, one MBES and one MCBP and two alternates, one from each program. The alternate attends scheduled meetings and votes only if the primary representative is not able to attend the meeting. Members of the committee serve for a term of two years. In addition to the faculty, two students serve on the committee. One is a first year student chosen by his/her peers. The other student will have completed the first year curriculum, and is chosen by the GSA.

The total number of members may vary depending on the needs of the committee and curriculum. Additional members may be appointed by either the chairperson or Dean as deemed necessary. The course co-directors, the students and the Dean are *ex-officio* members.

Duties and Responsibilities: The committee is responsible for continued evaluation, revision, and evolution of the first year curriculum for the College of Graduate Studies. The schedule of meetings shall be determined by the chairperson.

Curriculum Committee

Composition of the Committee: The curriculum committee reports to the Graduate Council via the chairperson. Each department and program is represented by one member who is selected by the department chairperson. In addition to the faculty, one student serves on the committee. Additional members may be appointed by either the chairperson or Dean as deemed necessary. The curriculum committee is the longest standing committee of the College.

Duties and Responsibilities: The committee is responsible for reviewing and approving all courses for the College of Graduate Studies. The schedule of meetings shall be determined by the chairperson.

Credentials Committee

Composition of the Committee: The credentials committee will report to the Graduate Council. The chairperson of the committee shall be a member of the Graduate Council and will be appointed by the committee for a term of two years. The committee shall be made up of four to five senior members of the Graduate Faculty, who shall be appointed by the Dean in collaboration with the chairperson. They shall serve for a term of two years. Half of the committee shall rotate off each year. Half of the original group of members shall serve for a term of three years.

Duties and Responsibilities: The committee shall establish the standards for appointment of faculty to the College of Graduate Studies. All the members of the committee shall review all applications for appointment to the College. The results of the evaluation of the committee shall be presented to the Dean for the letter of appointment.

The committee shall review applications as they are received. The committee may also meet on an ad hoc basis when deemed necessary.

Student Organizations

Graduate Student Association

The Graduate Student Association (GSA) Senate is composed of a student representative from each of the graduate programs. The executive council is composed of the President, Vice-President, Secretary and co-Treasurers. This organization allows graduate students to participate in the design of their formal education and provides a forum for students to express opinions about the graduate school to the administration. This executive council will meet with the Dean of the College of Graduate Studies on a regular basis to discuss matters pertaining to graduate education and student well-being. These meetings keep the students abreast of the growing University and its changing policies. Representatives to standing committees of the College are appointed from the Graduate Student Association Executive Committee. Elections to the Graduate Student Association are held each year in the spring and all interested students are encouraged to become candidates.

The goal of the GSA is to promote graduate student involvement in university affairs by initiating dialogue between students and faculty while encouraging student interest and involvement. All students of the College of Graduate Studies are members of the GSA. The GSA Senate acts as the representative council for the graduate students to the College of Graduate Studies. Representatives from each of the basic science disciplines, as well as from the Medical Scientist Training Program (MSTP) and the Multicultural Graduate Student Association (MGSA), hold seats on the GSA Senate. The senate also acts as the Honor Council for College of Graduate Studies if an honor violation occurs. Faculty advisors to the senate include, but are not limited to, the Dean and Associate Deans of the College of Graduate Studies. Representatives to standing University committees are also elected from the senate members. These committees include the Graduate Council, MUSC Student Government Association, the SGA President's Council, and the Alcohol Awareness Committee.

Graduate Student Association Events

Please join your fellow students at our many events throughout the year! These include: New Student Social, Happy Hours for relaxation and socialization, GSA Cocktail Party, Graduate Student Spring Picnic, volunteer activities (Hope Lodge, Habitat for Humanity, and many others). We hope to see you at these events. It provides a fun, relaxing way to make new friends and hang out with old ones, as well as getting to know your professors in an informal setting. We also encourage you to become involved in our new program, G.R.O.W.S. which allows graduate students to share their knowledge and passion of science with middle school students. We have developed various modules such as how the brain works, how the heart works and basics of genetics. We work with schools all over the greater Charleston area. This is a great opportunity to share your knowledge and serve the community.

Your Humble Servants: GSA Senate 2013-2014

Executive Council:

Rachel Weber, President

webra@musc.edu

Audrey Padula, Vice President

padula@musc.edu

[Katie Walter,](#)

Treasurer

walterk@musc.edu

Kate Toomer, Secretary

toomerk@musc.edu

Maya El-Sabban, Service Chair

elsabban@musc.edu

Multicultural Graduate Student Association

Ericka Smith, Co-President

smieric@musc.edu

LaShardai Conaway, Co-President

conaway@musc.edu

Multicultural Graduate Student Association

To All New Graduate Students:

The Multi-Cultural Graduate Student Association (MGSA) welcomes you to the College of Graduate Studies (CGS) and to the Medical University of South Carolina (MUSC). MGSA is a student organization open to **ALL** students. We are committed to increasing awareness of diverse ethnic and cultural groups represented within the college. Some of the goals of the MGSA are:

- To enhance the well-being of all graduate students enrolled at the Medical University with specific focus given to overcoming ethnic and cultural barriers
- To encourage communication between students of diverse ethnicities/cultures with the university administration and other student organizations in order to facilitate the exchange of ideas and information that will enhance the efficiency of achieving solutions to common and/or specific problems
- To encourage and aid in the recruitment of minority students to the CGS and MUSC
- To plan activities that will be professionally, socially, culturally and educationally enriching to the membership, University and Charleston communities
- To give back to the surrounding community by volunteering our time and talents in efforts to foster interest in the biomedical sciences amongst minorities

As you adjust to your new academic environment and the rigors of graduate school, we urge you to get involved with MGSA. It is our goal that MGSA serves as a network for students of all ethnic cultural backgrounds, fostering positive and prosperous relationships between prospective and current minority graduate students, post-docs and minority faculty.

Again, we welcome you to the College of Graduate Studies, to MUSC and to the Charleston area.

Sincerely,
MGSA Officers

FACES IN THE DEAN'S OFFICE



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Interim Dean

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Karla Locklear

Business Manager

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Responsible for all college financial
and budget related items, Including
stipends and student travel



Stefanie Brown-Guion

Director of Summer Programs

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Responsible for Summer Research Programs, Student Research Day, Admissions related matters



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Amanda Thurman

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Responsible for coordinating IMSD
Assisting Business Mgr & GAC



Keisha Vaughn

Student Services Program

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Responsible for providing staff support to the First Year Curriculum



Dodie Weise

Student Services Program Coordinator

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Email: weised@musc.edu

Responsible for current students, registration
“pink forms”, admissions and graduation related matters

Program of Study

The College of Graduate Studies offers a common entry pathway for new Ph.D. students. The first year curriculum provides a broad interdisciplinary background devoted predominately to the principles of the basic sciences. It also provides information on some of the latest and cutting edge areas of science. The Curriculum is composed of several elements: Foundations of Biomedical Sciences, Essentials of Scientific Practice, three Laboratory Rotations, Important Unanswered Questions in the Biomedical Sciences, Program Selectives, and Program Exposures, in which students become familiar with the individual Ph.D. training programs at the beginning of the first semester. At the end of the Spring semester (May), students choose a Ph.D. program and faculty mentor for his/her Dissertation research. The additional didactic courses are decided by the various departments and programs. More details about the first year curriculum can be found at http://academicdepartments.musc.edu/grad/first_year_curriculum/.

Academic Standing

Registration

First year students register for their first fall term either on-line through Webadvisor or are registered via the College's Student Services Program Coordinator. All students beyond the first semester, full and part-time, are required to register on-line using WebAdvisor. At the time of registration, a schedule of courses for the upcoming semester will be given to each student. Courses may be chosen from this list, and students should discuss their course choices with the Program Director or the chairperson of the student's advisory committee. Only officially registered students may obtain credit on courses and/or research. In order to maintain an "active" status, one must be registered each semester or on an approved leave of absence. Any student who is not registered for course work in a given semester is considered to be "inactive." Any student who is not on an approved leave of absence and who does not register for any course work for three consecutive semesters will be notified that they have been dropped from the rolls of the College of Graduate Studies and will have to reapply through the Admissions Committee for readmission to complete their program.

A graduate student who has completed all the requirements for a degree and plans to write the thesis/dissertation either in absentia or in residence, must register for at least 1 hour per semester and pay at the current semester hour rate until completion of a successful defense. This applies to the first semester following a student's admission to candidacy, i.e. a student expecting to be admitted to candidacy at some point during a given semester does not fall into this category. Also, students who expect to defend at some point during a given semester are still required to register for that semester. **Students on stipends are required to maintain full-time status at all times.** This requires registration for a total of at least 15 hours per semester. Master students are required to register for a minimum of nine hours each semester.

Students who fail to comply with the College of Graduate Studies requirements in a timely fashion will be placed on a Dean's hold at the Graduate Coordinator's discretion. Also students repeatedly listed on the "pink sheet" list for failure to turn forms in within a timely manner will be placed on a Dean's hold. With a hold students cannot register and also will not receive transcripts, diplomas. etc.

Stipends

Ph.D. students on stipends are required to maintain 15 credit hours at all times. Stipend recipients are allowed to be on probation for one semester and still retain the award unless grades fall to 2.0 or below, in which case the stipend is terminated immediately. However, if one is on probation for two or more semesters, one loses eligibility for the award. A stipend through the Dean's Office is limited to a maximum of 12 months for Ph.D. students. At the end of or prior to the end of the 12 months, the stipend support will transition to the research mentor/department's funding.

Scholastic Requirements

Graduate students are expected to maintain at least a 3.0 overall grade point average. This represents the minimum requirement of the College. Individual programs may have more stringent requirements for continuation as a graduate student. A student whose total cumulative record is below these requirements at the end of any semester is placed on probationary status and is given one semester in which the cumulative average must be brought back to the required standard. By the end of the following semester, if the required level has not been attained, consideration for further enrollment by the program or college is obligatory.

Withdrawal

Students who voluntarily withdraw from a graduate program are required to submit in writing their intent to withdraw. Students who wish to go on an approved leave of absence are requested to submit the necessary form, approved by the Student's Major Advisor and the Dean of the College of Graduate Studies. To confirm approval of a student's leave of absence or withdrawal, the Major Advisor should put this in writing and either attach to the form or email the Dean's Office Student Services Program Coordinator. Students are required to turn in their MUSC ID Badges to the Dean's Office.

Action by the College or program is required before a student will be requested to withdraw for academic reasons.

The University reserves the right to sever the connection of a student with the University at any time, if in its opinion the student is unsuited for a career in the health professions and sciences.

Readmission

A student who has been required to withdraw for either academic or other reasons cannot be reinstated or readmitted except by action of the Admissions Committee and Dean.

Requirements for Graduation

Listed on pages 25 and 26 is a brief outline of the requirements for graduation. Those items marked with three asterisks (***) require the formal submission of a written form. These forms are available on the Graduate School website. All students are encouraged to make themselves familiar with the detailed information regarding the College requirements as stated in the current University Bulletin. It is the responsibility of the students to be familiar with the requirements of the particular program in which they are enrolled. It is possible that the program may have more stringent requirements to which the student must adhere. If you have

any questions regarding program requirements, you should consult your program graduate coordinator.

Master of Science

The **Master of Science in Biomedical Sciences** is a research intensive degree program requiring completion of an independent laboratory research project under the direction of a mentor in a student's chosen field, written thesis, and oral thesis defense. Students choose one of seven tracks as their field of concentration:

Tracks of concentration

- 1) Biochemistry and Molecular Biology*
- 2) Cell and Molecular Pharmacology and Experimental Therapeutics*
- 3) Microbiology and Immunology*
- 4) Neurosciences*
- 5) Pathology and Laboratory Medicine*
- 6) Public Health Sciences*
- 7) Regenerative Medicine and Cell Biology*

The Master of Science in Biomedical Sciences degree program is overseen by the Master in Biomedical Sciences Program Committee, consisting of a Chair appointed by the Dean of the College of Graduate Studies, the graduate director for each track, and a student representative. The 2014 MBS Program Committee roster is in the table below:

2014 Master in Biomedical Sciences Program Committee

<i>Program Committee Chair</i>	<i>Laura Kasman, PhD</i>
<i>Biochemistry and Molecular Biology</i>	<i>Christopher Davies, PhD</i>
<i>Cell and Molecular Pharmacology and Experimental Therapeutics</i>	<i>Jen Isaacs, PhD</i>
<i>Microbiology and Immunology</i>	<i>Natalie Sutkowski, PhD</i>
<i>Neurosciences</i>	<i>Antonieta Lavin, PhD</i>
<i>Pathology and Laboratory Medicine</i>	<i>Victoria Findlay, PhD</i>
<i>Public Health Sciences</i>	<i>Viswanathan Ramakrishnan, PhD</i>
<i>Regenerative Medicine and Cell Biology</i>	<i>Russell Norris, PhD</i>
<i>Student representative</i>	<i>Marshall Diven</i>

Degree Requirements

The College of Graduate Studies has specific course requirements and proficiency standards for the master of sciences (M.S.) degree. All tracks require completion of an independent laboratory research project under the direction of a mentor in their chosen field, written thesis,

and oral thesis defense. Coursework requirements vary by track, but consist of at least 45 total credit hours, including a minimum of 12 hours of didactic instruction. Each student follows an individual *Program of Study* designed in consultation with the Thesis Advisor. Master students are required to register for a minimum of nine hours each semester. Each student is expected to be familiar with the elements of statistics. If the sponsoring department considers that the student has insufficient preparation in this field, one or more courses may be included in the *Program of Study*.

Lab rotation requirements also vary by track (see table below). Some tracks admit students for thesis work with a specific investigator and do not require rotations. Others require all students to experience two lab environments, even if they have a chosen mentor. If required, M.S. lab rotation hours should be accounted for under Research credit hours (970 course numbers for the student's chosen track). M.S. students do not register for CGS 720/721, PhD lab rotations, which is a year long course. Prior research experiences at MUSC or elsewhere may take the place of laboratory rotations at the discretion of the individual track.

Lab rotation requirements by track:

<i>Track</i>	<i>Lab rotation requirement</i>	<i>Course number to register for lab rotations</i>
<i>Biochemistry and Molecular Biology</i>	<i>None required. Mentors chosen before admission.</i>	<i>BMB 970</i>
<i>Cell and Molecular Pharmacology and Experimental Therapeutics</i>	<i>Two 6-week rotations in the first semester</i>	<i>PCOL 970</i>
<i>Microbiology and Immunology</i>	<i>Two 6-week rotations in the first semester</i>	<i>MBIM 970</i>
<i>Neurosciences</i>	<i>None required. Mentors chosen before admission.</i>	<i>PHYSO 970</i>
<i>Pathology and Laboratory Medicine</i>	<i>None required. Mentors chosen before admission.</i>	<i>PATH 970</i>
<i>Public Health Sciences</i>	<i>None required. Mentors chosen before admission.</i>	<i>BMTRY 970</i>
<i>Regenerative Medicine and Cell Biology</i>	<i>None required. Mentors chosen before admission.</i>	<i>CELL 970</i>

Thesis Advisory Committee

This committee, which is recommended by the major department and approved by the Dean, shall consist of at least four members, three from the major department and one from outside the department. All members of the committee shall be members of the Graduate Faculty. The Advisory Committee chairperson must be a full member of the Graduate Faculty, or an associate member with a full member co-mentor. The Thesis Advisory Committee should be appointed after a student has chosen a specialized area in his/her field and no later than 6 months after the student enrolls (end of February of first year). In the interim, the student is advised by the departmental graduate committee or advisor.

Program of Study

The *Program of Study* is planned in a meeting of the student and his/her Thesis Advisor. It is a list of courses and other requirements (including those of the major department) that the student must complete in order to meet the minimum requirements of their degree. It lists

courses that are being transferred (rarely applicable), as well as courses that are to be taken on campus. After approval by the Thesis Advisor, the approved *Program of Study* is filed with the departmental graduate coordinator and with the Office of the Dean of Graduate Studies. This should occur within three months of the Thesis Advisor being chosen. A decision to remove, substitute, or add courses to the program can be made in a joint meeting of the student and the Thesis Advisor. Any changes in the program must be completed no later than one week after the substituted or additional course has begun. A record of any change in the program will be submitted by the Thesis Advisor to ensure that any change in the *Program of Study* is consistent with the maintenance of at least the minimum course requirements of the major department.

Ordinarily, only courses listed in the catalog of the College of Graduate Studies will be included in the program. The program must be completed before the final oral examination is scheduled.

Courses Audited

Any graduate student, with permission of the instructor and the chairperson of the Thesis Advisory Committee, and with written notice to the Graduate Office, may audit a course. Audited courses are not part of the *Program of Study* and will not be given credit.

Repeating Courses

The Thesis Advisory Committee may permit a student to repeat a course in order to raise the grade. Courses that have been repeated will be treated as follows: (1) Credit hours will be granted only once. (In computing the overall grade point average to determine eligibility for degrees or in rulings on probationary matters, the credit hours must be counted twice and both grades included). (2) The transcript must show both grades, with the second being designated as *Repeated*, and credit hours being given only once.

Transfer Credit

Only those courses (none from correspondence or research) in which grades of 3.0 or above were received will be acceptable for transfer on the *Program of Study*. In some instances, the department may request that a student transfer hours received in certain courses that have been taken on a pass/fail basis, but these cannot be averaged in the GPA. It is the responsibility of the department to determine the student's comprehension of the material before such hours are shown on the *Program of Study* for credit toward the degree.

Plan of Research (Research Proposal)

Prior to a student being certified as a candidate for the M.S. degree, he/she will submit a research proposal on the proposed thesis topic in NIH grant format. This proposal should show evidence of creative integration of course material, superimposed on a sound understanding of the pertinent literature. The topic for the M.S. thesis shall be approved by the student's major advisor(s) and the department chairperson, the latter with regard to availability and utilization of departmental resources, by their signatures on the *Plan of Research* form.

Proposal Defense

The Thesis Advisory Committee will critically review the written proposal. Within two weeks of the submission of the written proposal to the committee, the student will present and defend the research proposal orally before the committee. The student will be questioned on those methodologies and background areas needed to successfully complete the proposed research.

Admission to Candidacy

Upon approval of the research proposal, the student will be certified as a candidate for the M.S. degree by the signing of the *Admission to Candidacy-Masters* form. Such admission to candidacy must occur at least three months prior to completing requirements for the degree.

The graduate school recognizes that the student's research may deviate substantially from that originally proposed. The student should be encouraged to pursue promising leads; however, long-term changes in the direction of the student's research should only occur in consultation with the Thesis Advisory Committee.

Residence

At least one year of residency at the Medical University is required before receiving the M.S. degree. A graduate student who has completed all the course requirements for a degree and plans to write the thesis either in absentia or in residence must register and pay tuition for a minimum of one hour each semester (course number 980-*Thesis*) until completion of a successful oral defense of the thesis.

Research Seminar

Students are required to make a research presentation, on campus, in a manner to be determined by the department or program and the Thesis Advisory Committee.

Thesis

A thesis, contributing new knowledge or the treatment of familiar materials from a new point of view, is required on a topic in the major field. Theses must comply with the regulations contained in *A Guide to the Preparation of Theses and Dissertations* which is available in the Graduate Office or through the CGS website.

Prior to confirming a Thesis Defense date, the thesis must be certified as ready to defend by the Thesis Advisory Committee. Certification must occur at least 21 days before the final defense and is communicated to the Dean by the signatures of all committee members, the graduate program coordinator, and the department/program chair on the *Thesis/Dissertation Defense Notification form*. A draft thesis must therefore be distributed to the student's committee at least 4 weeks before the defense date so that the committee members have a week to review it before approving it as ready to defend.

It is common for corrections and revisions to the draft thesis to be required by Thesis Advisory Committee members. These must be communicated to the student in writing no later than 24hrs after the *Certification of Successful Defense* form has been sent to the Dean. The student will then have 30 days to make all corrections, show them to each of the committee members, and collect the signatures of each on the title page of the thesis.

The final, approved and signed version of the thesis **MUST** be turned in within 30 days of the thesis defense. Instructions for how to turn in the thesis electronically are available on the College of Graduate Studies webpage. A hard copy of the title page with original signatures must be turned in to the Registrar at the time of electronic submission, along with a form granting or withholding permission for online publication of the thesis.

Students who do not turn their Thesis/Dissertation within this time limit will be required to register for the next semester at their own expense for a minimum of one hour and will receive that semester as their completion date.

Final Examination (Thesis Defense)

Each candidate is required to pass a general oral examination covering the major field and the thesis. This shall begin with a formal presentation open to the public with appropriate slides and shall be at least 20 minutes in length for the M.S. candidate. The examination portion of the defense is conducted by the Thesis Advisory Committee, with its Chairperson presiding and is closed except to Graduate Faculty.

The Thesis Advisory Committee will have primary responsibility for evaluating the student's research, including the written thesis and formal oral presentation, and for administering the final oral examination.

Upon completion of the defense, each committee member will fill out a ***defense rubric form*** and give them to the Major Advisor. The Major Advisor will in turn collate the evaluations into one form, discuss it with the trainee and then submit it to the College's Registrar.

Approval by the Thesis Advisory Committee, with no more than one dissenting vote, is necessary for recommendation for awarding the degree. The decision of the Thesis Advisory Committee will be indicated by their signatures on the *Certification of Successful Defense* form and forwarded to the Dean of the College of Graduate Studies. The Graduate Faculty has the authority, which it has delegated to the Dean, for final approval of the candidate for the awarding of the degree.

Only one opportunity for re-examination shall be given (in not less than three months and not more than one year from the time of the final examination at which this decision was made). Any candidate who is granted the privilege of re-examination shall retain the status and obligations of a graduate student until the time of such re-examination.

NOTE: Diplomas are awarded three times per year, in August, December and May, but the only Graduation Ceremony for MUSC is in the Spring. Degree candidates wishing to participate in the Hooding Ceremony and or the Graduation Ceremony must complete all requirements, including submission of the final approved thesis, prior to the last day of class for the appropriate Spring Semester. The Hooding Ceremony and a Day of Celebration for the graduates takes place on the Thursday before the University Commencement on Friday. Refer to the University Academic Calendar for the dates in a given year. The *Degree Application/ Graduation Order* form should be completed the semester before the student plans to complete all requirements for their degree.

Time Limit

All requirements for Masters should be completed within a period of **five** years following initial registration, although course credit is not nullified until six years after completion of a course.

Doctor of Philosophy

The granting of the doctor of philosophy (Ph.D.) degree is based on evidence of general proficiency and distinctive attainments in a special field, particularly on the demonstrated ability to carry on independent and original investigation. The degree is not one to be conferred solely as a result of study for a specific length of time with the accumulation of credits taken.

As a prerequisite for the PhD degree, the College requires students to demonstrate a predetermined level of statistical competence. This may be achieved by either enrolling in and completing CGS 700 in the second or subsequent years of graduate study, or by providing the syllabus and transcript evidence of satisfactory completion of previously taken statistical course(s) that fulfill the College requirement to the Dean who will decide whether or not to grant a waiver.

Degree Requirements

The College of Graduate Studies does not require a specific number of course credits for the Ph.D. degree. Ph.D. students participating in the common core curriculum are required to take 12 didactic hours beyond the first year. Most students will have taken 75 hours of course credits (including research hours) before taking the qualifying exams. The structure of the exams varies according to each student's department or program. To advance to candidacy, students must also submit and defend a research proposal on their dissertation topic. Finally, students submit a dissertation based on their original investigation and must pass a general oral examination related to the defense of the dissertation. The Dissertation Advisory Committee will then recommend whether to award the final degree.

Dissertation Advisory Committee

The Dissertation Advisory Committee shall consist of at least five members, three from the student's major department and two from outside the department. All members of the committee shall be members of the Graduate Faculty. The chairperson must be a full member of the Graduate Faculty or an Associate member with a full member co-chair. The Chairperson will be responsible for coordinating the activity of the Dissertation Advisory Committee and ensuring compliance with graduate school regulations.

A Dissertation Advisory Committee is chosen by the student with the proposed dissertation advisor and the names forwarded through the departmental graduate coordinator for approval by the Dean. (Recommendation for Appointment of Dissertation Advisory Committee) *The Dissertation Advisory Committee should be organized after passing the departmental written exam.*

The student must meet at least annually with his/her Dissertation Advisory Committee from the time of appointment of the committee until completion of the requirements for the degree. The departmental coordinator and the Dean should be notified in writing of the results of the

annual meetings by the Chairperson of the Dissertation Advisory Committee (Annual Evaluation of Student Progress form.) More frequent meetings of the Dissertation Advisory Committee and the student are encouraged in order to facilitate student-committee interaction. Meetings may be called at the discretion of the student, the advisor, or if two or more members of the Dissertation Advisory Committee request such a meeting.

Program of Study

After the first year, the *Program of Study* is planned in a joint meeting of the student and his/her Dissertation Advisor. The Program of Study is a list of courses and other requirements, including those of the major department, which the student must complete in order to meet the minimum program requirements of a given degree. It lists courses that are being transferred as well as courses that are to be taken on campus. After approval by the Dissertation Advisor, the approved *Program of Study* is filed with the departmental graduate coordinator and with the office of the Dean within three months after the Dissertation Advisor is chosen. A decision to remove, substitute, or add courses to the *Program of Study* can be made in a joint meeting of the student and the Dissertation Advisor. Any changes in the program must be completed no later than one week after the substituted or additional course has begun. A record of any change in the program will be submitted by the Dissertation Advisor to the office of the Dean. In addition, it will be the final responsibility of the student and his/her Dissertation Advisor to ensure that any change in the *Program of Study* is consistent with the maintenance of at least the minimum course requirements of the major department.

The Dissertation Advisor, in consultation with the student, will prescribe additional course work needed to complete the departmental requirements for graduation and other course work or areas of study needed to remedy deficiencies in the student's background to ensure successful completion of the proposed dissertation. The *Program of Study* form must be completed before scheduling the qualifying examinations.

Courses Audited

Any graduate student, with permission of the instructor and the Chairperson of the Dissertation Advisory Committee, and with written notice to the Graduate Office, may audit a course. Audited courses are not part of the *Program of Study* and will not be given credit, although they will appear on the academic transcript.

Repeating Courses

The Dissertation Advisory Committee may permit a student to repeat a course in order to raise the grade. Courses that have been repeated will be treated as follows: (1) Credit hours will be granted only once. (In computing the overall average to determine eligibility for degrees or in rulings on probationary matters, the credit hours must be counted twice and both grades included.) (2) The transcript must show both grades, with the second being designated as *Repeated*, and credit hours being given only once.

Transfer Credit

Only those courses (none from correspondence or research) in which grades of 3.0 or above were received will be acceptable for transfer to the *Program of Study*. In some instances, the department may request that a student transfer hours received in certain courses that have been taken on a pass/fail basis, but these cannot be averaged in the GPA. It is the

responsibility of the department to determine the student's comprehension of the material before such hours are shown on the *Program of Study* for credit toward the degree.

Qualifying Examination

An applicant will not be admitted to candidacy for the Ph.D. degree until he/she has passed a comprehensive qualifying examination. This examination is intended to test his/her general knowledge of his/her major field and related fields of study. Failure to pass any part of the examination requires a reexamination in areas not completed satisfactorily and will be permitted only once and after not less than three months of further study.

The nature of the examination in the major field is determined and conducted by the major department. If credits have been transferred, a definite part of the qualifying examination must be devoted to testing on the courses involved. The College of Graduate Studies does not require that qualifying examinations be given in courses earned as credits *outside the major department* or in related fields. The student is advised to consult the major department to determine departmental requirements in the area of qualifying examinations.

Plan of Research

Prior to a student being certified as a candidate for the Ph.D. degree (no later than six months after passing the qualifying examinations), he/she will submit a research proposal, in NIH grant format, on the dissertation topic. This proposal should show evidence of creative integration of course material, superimposed on a sound understanding of the pertinent literature. The topic chosen for the Ph.D. dissertation shall be approved by *the advisor and the department chairperson*, the latter with regard to availability and utilization of departmental resources.

The Dissertation Advisory Committee will critically review the written proposal. The student should understand that the proposal will be acceptable only if it is imaginative and provides a scientifically rigorous test of a meaningful hypothesis. The proposal may be strengthened with data from preliminary experiments.

Within two weeks of the submission of the written proposal to the committee, the student will present and defend the research proposal orally before the committee. The student will be questioned on those methodologies and background areas needed to successfully complete the proposed research.

Admission to Candidacy

Upon completion of the *Program of Study*, the qualifying examinations, and approval of the research proposal, the Dissertation Advisory Committee recommends that the student be admitted to candidacy. Such admission to candidacy must occur at least one year prior to completing requirements for the degree.

The graduate school recognizes that the student's research may deviate substantially from that originally proposed. The student should be encouraged to pursue promising leads; however, long-term changes in the direction of the student's research should be done in consultation with the Dissertation Advisory Committee.

Residence

At least one year of residency at the Medical University is required before receiving the Ph.D. degree. A graduate student who has completed the requirements for a degree and plans to write the dissertation either in absentia or in residence, must register and pay tuition for a minimum of one hour each semester until completion of a successful defense of the dissertation. If the student is in residence and receiving a stipend, registration must be for at least 15 hours per semester.

Research Seminar

Students are required to make a research presentation, on campus, in a manner to be determined by the department or program and the Dissertation Advisory Committee.

Dissertation

A dissertation, based on original investigation, is required which gives evidence of mature scholarship and critical judgment, indicates knowledge of research methods and techniques, and demonstrates the ability to carry out independent investigation. Instructions for the preparation of the dissertation is available on the CGS website.

Final Examination

Each candidate is required to pass a general oral examination directed primarily to the defense of the dissertation. This shall begin with a formal presentation with appropriate slides and shall be at least 30 minutes in length for the Ph.D. candidate.

The examination is conducted by the Dissertation Advisory Committee, with its Chairperson presiding. The Dissertation Advisory Committee will have primary responsibility for evaluating the student's research, including the written dissertation, the formal oral presentation (which is open to the general graduate faculty), and for administering the final oral examination.

Approval of the Dissertation Advisory Committee, with no more than one dissenting vote, is necessary for recommendation for awarding the degree. The decision of the Advisory Committee will be forwarded to the Dean. The graduate faculty has the authority, which it has delegated to the Dean, for final approval of the candidate for the awarding of the degree.

Upon completion of the defense, each faculty will fill out a defense rubric form and give them to the Major Advisor. The Major Advisor will in turn collate the evaluations into one form, discuss it with the trainee and then submit it to the College's Registrar.

In the event of disapproval, the candidate may be permitted to retake the examination in not less than six months and not more than two years from the time this decision was made. Only one opportunity for re-examination is given. Any candidate who is granted this privilege shall retain the status and obligations of a graduate student until the time of such re-examination.

Notice of Final Defense

All “Notice of Final Defense” forms must be received in the Dean’s Office of the College of Graduate Studies **three weeks** prior to the date of the Defense. The reason for this rule is so that the Defense can be advertised well enough in advance to allow all interested parties to attend. By the rules of the College of Graduate Studies, all Graduate Faculty may attend the Defense of a master’s or doctoral student and participate in the questioning of that student; only the advisory committee will be permitted to vote on the student’s performance on the exam.

The “Notice of Final Defense” form must be signed by all advisory committee members. The committee members should have read your dissertation prior to signing this form to insure that the dissertation is of a caliber to be defended. Signing this form does not state that revisions will not be needed. Indeed, there usually are final revisions after this point. However, it does establish that each committee member is satisfied that the body of work is appropriate for Defense and that the dissertation is written in a manner to be worthy of Defense.

Please arrange your schedule so that the committee members have an opportunity to examine your dissertation before signing the form. Do not expect the committee members to sign the form when you first submit the document to them. Depending on each individual committee member’s schedule, it may take some days to several weeks before they are able to examine the dissertation and sign off on the form.

It is the student’s responsibility to assure that the timing of this initial review of the dissertation and the defense itself is such that the committee members will be available for both the reading of the dissertation and attending the defense. A handy rule of thumb is for the student to allow themselves at least one month from the time they submit the final draft to the committee in order to receive sign-off approval by their committee that the dissertation is ready for defense, defend the dissertation, make the necessary corrections to the dissertation, and submit the final dissertation.

The Dissertation MUST be electronically submitted to ProQuest within 30 days of the defense. Stipend support will end for students on the 31st day.

Students who do not submit their Dissertation within this time limit will be required to register for the next semester at their own expense for a minimum of one hour and will receive that semester as their completion date.

We appreciate your cooperation with these College of Graduate Studies regulations. The dissertation is a final, complete accounting of one’s doctoral research. It is the most valuable documentation of your research project. The dissertation will require a great deal of effort and time to prepare. Please remember this when making your schedules. The Ph.D. degree is not awarded until the final dissertation is submitted and a signed signature page is turned in to the College of Graduate Studies Dean’s Office.

NOTE: Diplomas are awarded three times a year, in August, December and May. Official graduation ceremonies are held in May.

Time Limit

In the event that all work is not completed within **four** years following the qualifying examination, a second qualifying examination will be required. All work for the PhD degree must be completed within seven years. This time limit may be extended upon approval by the Dean.

Exit Interview

As a part of the requirements of the College of Graduate Studies all students are required to have an exit interview with the Dean. The interview is conducted after completion of the requirements of the MS or PhD degree. There are forms that must be filled out and supplied prior to the interview. The forms can be downloaded from the College of Graduate Studies website.

http://academicdepartments.musc.edu/grad/curr_students/forms_guidelines.htm/graduation_forms.htm

College of Graduate Studies Student Policies

Conflict of Interest Policy for Graduate Students

I. Definition

The term "conflict of interest" as it pertains to the policy described herein refers to a conflict of interest as defined in Section 10.08 of the MUSC faculty handbook. More information on this and other types of conflicts of interest or on grievance procedures are described on the College of Graduate Studies (CGS) website (http://academicdepartments.musc.edu/grad/curr_students/forms_guidelines.htm/index.htm).

All students are required to sign a conflict of interest statement once they have chosen a mentor. If a student perceives a change in status and a conflict of interest at any time, he/she must fill out the conflict of interest form.

II. Scenarios for Potential Conflict of Interest Situations

Conflict of interest issues are not necessarily tied to sponsored projects -- i.e., funded projects -- nor are they necessarily related to late-stage research or commercial products. A potentially harmful conflict of interest could arise from a faculty member having a financial interest in a project on which his or her student is working, whether the project is sponsored or unsponsored. The project in question could be a textbook, software, scientific or engineering innovation, or basic/applied research that would harm/benefit the mentor's or company's interest. The key issue is whether that outside financial interest may have the potential to influence the Faculty Mentor/Thesis/Dissertation Advisor to make a decision that could harm the academic interests of the student or postdoctoral fellow. Four sample scenarios for identifying financial interests that may have such conflict of interest potential are described below.

- A faculty member has a personal consulting agreement with a private company that provides research support for a project through the university. The faculty member is advising a student who is also working on that project. The student wishes to publish his or her dissertation in a related area, but the outside entity requires the student to withhold publication and delay graduation until the research is complete.
- A faculty member owns stock in an outside entity that may or may not be supporting research on which the faculty is working, but which stands to benefit from that research. The faculty member directs the student or fellow, who is also working on this research, to delay publication until the faculty member can complete his research.
- A faculty member establishes a company that stands to benefit financially from research or other project. The company is also supporting the faculty member's research in this area at the university. The faculty member pressures a student or fellow to work on the research project of interest to his/her company.
- A faculty member has an extramurally funded research grant and the student or fellow generates data that refutes the previous results supported by that grant. The faculty member pressures the student not to publish the results.

Student Participation in Proprietary Research

Faculty and students of the Medical University of South Carolina College of Graduate Studies create, disseminate and apply knowledge for the benefit of society. When faculty of the University are involved in research, some of which may be of a proprietary nature, particular care must be taken to ensure that the need for graduate students to publicly present and defend results of their thesis or dissertation research is not compromised. Graduate student advisors, graduate program directors, and graduate students themselves, therefore share in the responsibility to ensure that graduate students do not become involved in thesis or dissertation research that is, or has the potential to become, proprietary if participation in that research will delay completion of their degree requirements or negatively affect their productivity or future employability.

The policy of the College of Graduate Studies is that a graduate student cannot enter an agreement that prevents or significantly delays the presentation or publication of research results or have as a thesis or dissertation project research involved in such an agreement. Journal publication delays not exceeding three months are acceptable.

In instances where, despite good faith efforts on the part of the graduate student advisor, the graduate program director, and the graduate student, the graduate student's thesis or dissertation research is later found to be of a proprietary nature, the Dean of the College of Graduate Studies will be notified immediately. The Dean, in turn, will immediately convene a meeting of the graduate student, the chairperson and members of the student's research advisory committee, and the involved graduate program director. This group, in consultation with the Executive Director of the Research Foundation, will resolve the problem.

Graduation Requirements Outline/Checklist

Check list in order of events completed. You may refer to the current University Bulletin for further details, or call the Graduate Office at Ext. 6-2411 for information on the requirements listed below.

***requires submission of form(s). Forms can be obtained from the College of Graduate Studies website at the url. listed below.) **Failure to turn in forms in a timely manner may result in a Dean's hold on the student's file. This will prevent registration and release of any academic information.**

(academicdepartments.musc.edu/gra/curr_students/forms_guidelines.htm/index.htm)

	Master of Science	Doctor of Philosophy
1. Selection of Major Thesis/Dissertation Advisor	The major advisor should be selected no later than the end of the first semester	The major advisor should be selected no later than June of the first year of study.
2. Thesis/Dissertation Advisory Committee Advisory Committee shall consist of 4 (MS) 5 (PhD) members. All members shall be members of the Graduate Faculty. The Chairperson must be a full member of Graduate Faculty or an associate member with a full member co-mentor	After completing Departmental Requirements that qualify student to Admission to Candidacy Major Dept. _____ Major Dept. _____ Major Dept. _____ Outside Dept. _____ Department Chairperson must send form recommending committee to Dean. ***	After passing the Departmental Written Exam and requirements that qualify student to Admission to Candidacy. Major Dept. _____ Major Dept. _____ Major Dept. _____ Outside Dept. _____ Outside Dept. _____ Department Chairperson must send form recommending committee to Dean. *** Annual Meeting Required
3. Program of Study	Within 3 months after Thesis Advisor appointed - consult department. Complete before final oral examination. ***	Within 3 months after Dissertation Advisor appointed - consult department. Complete before final oral examination. ***
4. Qualifying Exam	None required by Graduate School. See Departmental requirements.	Schedule as soon as possible after completion of Program of Study. Obtain certificate of eligibility from advisor. See individual Department. ***
5. Plan of Research	Due before beginning research. Obtain approval sheet from advisor or Graduate Office. ***	Due no later than 6 months after passing qualifying exams and before beginning research. ***
6. Admission to Candidacy	Thesis Advisory Committee recommendation. At least 3 months prior to completion of degree. ***	Recommendation for candidacy is included in the eligibility form to the Dean at least one year prior to completion of degree.***
7. Research Seminar	Determined by Department and Advisory Committee.	Determined by Department and Advisory Committee.
8. Thesis or Dissertation	Draft and form due 3 weeks before final oral exam. (Submit form for Date/Time/Title/etc.) ***	Draft and form due 3 weeks before final oral exam. (Submit form for Date/Time/Title/etc. ***
9. Residence	At least 12 months of residency at MUSC. Must register for a minimum of one hour each semester until completion of a successful oral defense (Thesis). This is only applicable after all research is completed and the student is preparing his/her thesis.	At least 12 months of residency at MUSC. The following is only applicable after all research is completed and the student is preparing his/her dissertation. Must register for a minimum of one hour each semester until completion of a successful oral defense (Dissertation).

10. Final Exam	On the major field and thesis. A formal presentation with slides at least 20 minutes long; conducted by Thesis Advisory Committee. (Refer to Thesis/Dissertation Guidelines.) ***	Defense of dissertation. A formal presentation with slides at least 30 minutes long; conducted by Dissertation Advisory Committee. (Refer to Thesis/Dissertation Guidelines.) ***
11. Exit Interview	Exit interview with the Dean of the College of Graduate Studies	Exit interview with the Dean of the College of Graduate Studies
12. Completion of Thesis/Dissertation	Must be completed within 30 days of final defense or student is required to register for one hour the following semester.	Must be completed within 30 days of final defense or student is required to register for one hour the following semester at the student's expense. For MSTP students failure to complete within 30 days may result in withholding of stipend.
13. Time Limit	Within 5 years	In the event that all work is not completed within four years following the qualifying examination, a second qualifying examination must be offered. All work for the PhD degree must be completed within seven years. This time limit may be extended upon approval by the Dean

Leave Policy

The College of Graduate Studies has adopted the following policy regarding leave time for students:

The policy of the Graduate School is that full-time students may be granted up to two weeks leave per year. The College follows the NIH vacation policy for all its trainees. Kirschstein NRSA fellows may receive the same vacations and holidays available to individuals in comparable training positions at the sponsoring institution. Fellows shall continue to receive stipends during vacations and holidays. At academic institutions, the time between semesters or academic quarters generally is considered an active part of the training period and is not considered to be a vacation or holiday. Trainees must receive approval for their vacation from their mentor several weeks prior to the start date. Granting of leave is at the discretion of the program/mentor.

Requests for leave time exceeding two weeks cumulative may be granted at the discretion of the program/mentor with written notification to the Office of the Dean. For students on stipends, leave exceeding two weeks could result in stipend support being suspended until the student's return to campus. For maternity/paternity related accommodations, please go to the following link (http://academicdepartments.musc.edu/grad/curr_students/) and click on "Petition for Maternity/Paternity-Related Academic Accommodation."

Students in their first two years, who are taking didactic courses requiring one month or more leave during a single semester, are advised to request a formal leave-of-absence for that semester. If the student is on stipend, support will be discontinued for that semester. Students on stipends should be aware that their funding cannot be guaranteed upon their return from a leave-of-absence of more than one semester.

Travel Policy

Full time Doctoral students in the College of Graduate Studies are authorized a \$700 travel allowance to present research at a scientific meeting. The travel must be approved by the Dean or Business Manager prior to the meeting. This only applies to students matriculated at MUSC. This does not apply to visiting students or students with cross registration from another SC college of university.

Once approved by the Dean, the following procedures apply. Airline tickets and registration fees are the only costs that are allowable to be paid for in advance. Students need to identify the specific airline and flights that they are interested in prior to coming to the Dean's Office to meet with the Business Manager. Registration fees and airline tickets may be purchased via the internet or paid directly to a vendor. If purchased directly by the student, these costs are only reimbursable after the travel has been completed.

Reimbursement requests for travel related expenses must be submitted to the Business Manager. Reimbursements will be mailed to your home address within approximately one month after receipt of claim.

The following information is required on all travel claims: your name, social security number and home mailing address. You must submit original receipts for all reimbursable expenses except for meals. If you purchased your airline ticket via the web, a computer printed receipt is acceptable. You must submit any left over pieces of your airline ticket along with your airline receipt. You need to submit a copy of your abstract, any name tag received at the

meeting, and a copy of the cover and the page of a meeting booklet that lists your presentation.

Other allowable expenses include items such as airport parking, meals, mileage if driving, lodging, taxi fees to and from the airport/place of lodging. Mileage is reimbursed at .505 per mile. You must attach a web print (such as MapQuest) showing the mileage from your home to the airport, and to your destination, if driving instead of flying. If you are driving out of state, you need to provide a copy of a web airline price quote to show that it costs less to drive than it did to travel by air.

Meal reimbursements are made via a per diem rate. The out of state rates are as follows: breakfast \$7, lunch \$9, dinner \$16. You do not need to keep any receipts for meals. If you spend more than the per diem rate, you still will not be able to be reimbursed for anything above the per diem rate.

Standards of Conduct for Treatment of Trainees

MUSC strives to impart the values of professional and collegial attitudes and behaviors in interactions among members of the University community. MUSC prohibits attitudes and behaviors toward students, residents and fellows that are unfavorable to the development of mutual respect. The University has established Standards of Conduct for Treatment of Trainees which are published in the MUSC Student Handbook. The Standards of Conduct policy provides examples of misconduct and outlines procedures trainees can use to address mistreatment.

Standard of Conduct policy

http://academicdepartments.musc.edu/esl/studentprograms/studenthandbook/Policies/student_pol/standardsconduct.html

College of Graduate Studies Honor Code

The College of Graduate Studies follows the University Honor Code.

<http://academicdepartments.musc.edu/esl/studentprograms/honorcode/honorcode.html>

College of Graduate Studies Professional Code of Conduct

The College of Graduate Studies promotes a code of conduct for its students and faculty that seeks to maintain the highest professional standards. Students and faculty are expected to conduct themselves in a professionally acceptable manner at all times.

The following outlines behavior that is unacceptable for graduate students and postdoctoral fellows.

1. Engaging in any activity that is deemed disrespectful towards a faculty member, fellow student or colleague. This may include but is not limited to engaging in violent, forceful, threatening, intimidating, or disruptive conduct, or inciting others to engage in such individual or collective conduct, that willfully disrupts any normal operation, function, or activity of the College or any of its organizations, personnel, or guests.
2. Any form of conduct within the classroom or laboratory that substantially disrupts the academic or research environment.
3. The use of any mechanism or other practices that result in harassment.

A student who is found to be in violation of the professional code of conduct shall be charged with non-professional behavior and referred to the honor council. A student has the right to appeal the decision to the Dean. Postdoctoral fellows found to be in violation of the professional code of conduct will be referred to the Assistant Dean for Postdoctoral Affairs, who will adjudicate the incident along with the postdoctoral fellow's mentor.

*Adopted and modified from the University of North Carolina code of conduct.

Mentor-Graduate Student Compact

At the time of the selection of a mentor by the student, the mentor and the student are required to review and discuss the mentor-graduate student compact.

Compact Between Biomedical Graduate Students and Their Research Advisors

Learn

Serve

Lead

These guiding principles, known as the ***Compact Between Biomedical Graduate Students and Their Research Advisors***, are intended to support the development of a positive mentoring relationship between the pre-doctoral student and their research advisor. A successful student-mentor relationship requires commitment from the student, mentor, graduate program, and institution. This document offers a set of broad guidelines which are meant to initiate discussions at the local and national levels about the student-mentor relationship.

The Compact was prepared by the AAMC Group on Graduate Research, Education, and Training (GREAT) and is modeled on the AAMC Compact Between Postdoctoral Appointees and Their Mentors, available at www.aamc.org/postdoccompact. Input on this document was received from the GREAT Group Representatives and the members of the AAMC governance. The document was endorsed by the AAMC Executive Council on September 25, 2008.

The Compact is available on the AAMC Web site at:
www.aamc.org/gradcompact

Compact Between Biomedical Graduate Students and Their Research Advisors

Pre-doctoral training entails both formal education in a specific discipline and an apprenticeship in which the graduate student trains under the supervision of one or more investigators who are qualified to fulfill the responsibilities of a mentor. A positive mentoring relationship between the pre-doctoral student and the research advisor is a vital component of the student's preparation to become not only an independent and successful research scientist but also an effective mentor to future graduate students.

Individuals who pursue a biomedical graduate degree are expected to take responsibility for their own scientific and professional development. Faculty who advise students are expected to fulfill the responsibilities of a mentor, including the provision of scientific training, guidance, instruction in the responsible conduct of research and research ethics, and financial support. The faculty advisor also performs a critical function as a scientific role model for the graduate student.

Core Tenets of Pre-doctoral Training

Institutional Commitment

Institutions that train biomedical graduate students must be committed to establishing and maintaining high-quality training programs with the highest scientific and ethical standards. Institutions should work to ensure that students who complete their programs are well-trained and possess the foundational skills and values that will allow them to mature into independent scientific professionals of integrity. Institutions should provide oversight for the length of study, program integrity, stipend levels, benefits, grievance procedures, and other matters relevant to the education of graduate students. Additionally, they should recognize and reward their graduate training faculty.

Program Commitment

Graduate programs should endeavor to establish graduate training programs that provide students with the skills necessary to function independently in a scientific setting by the time they graduate. Programs should strive to maintain scientifically relevant course offerings and research opportunities. Programs should establish clear parameters for outcomes assessment and closely monitor the progress of graduate students during their course of study.

Quality Mentoring

Effective mentoring is crucial for graduate school trainees as they begin their scientific careers. Faculty mentors must commit to dedicating substantial time to graduate students to ensure their scientific, professional and personal development. A relationship of mutual trust and respect should be established between mentors and graduate students to foster healthy interactions and encourage individual growth. Effective mentoring should include teaching the scientific method, providing regular feedback in the form of praise and constructive

criticism to foster individual growth, teaching the “ways” of the scientific enterprise, and promoting students’ careers by providing appropriate opportunities. Additionally, good graduate school mentors should be careful listeners, actively promote and appreciate diversity, possess and consistently exemplify high ethical standards, recognize the contributions of students in publications and intellectual property, and have a strong record of research accomplishments and financial support.

Provide Skills Sets and Counseling that Support a Broad Range of Career Choices

The institution, training programs, and mentor should provide training relevant to academic, industrial, and research careers that will allow their graduate students to appreciate, navigate, discuss, and develop their career choices. Effective and regular career guidance activities should be provided, including exposure to academic and non-academic career options.

Commitments of Graduate Students

- **I acknowledge that I have the primary responsibility for the successful completion of my degree.** I will be committed to my graduate education and will demonstrate this by my efforts in the classroom and the research laboratory. I will maintain a high level of professionalism, self-motivation, engagement, scientific curiosity, and ethical standards.
- **I will meet regularly with my research advisor and provide him/her with updates on the progress and results of my activities and experiments.**
- **I will work with my research advisor to develop a thesis/dissertation project.** This will include establishing a timeline for each phase of my work. I will strive to meet the established deadlines.
- **I will work with my research advisor to select a thesis/dissertation committee.** I will commit to meeting with this committee at least annually (or more frequently, according to program guidelines). I will be responsive to the advice of and constructive criticism from my committee.
- **I will be knowledgeable of the policies and requirements of my graduate program, graduate school, and institution.** I will commit to meeting these requirements, including teaching responsibilities.
- **I will attend and participate in laboratory meetings, seminars and journal clubs that are part of my educational program.**
- **I will comply with all institutional policies, including academic program milestones.** I will comply with both the letter and spirit of all institutional safe laboratory practices and animal-use and human-research policies at my institution.
- **I will participate in my institution's Responsible Conduct of Research Training Program and practice those guidelines in conducting my thesis/dissertation research.**
- **I will be a good lab citizen.** I will agree to take part in shared laboratory responsibilities and will use laboratory resources carefully and frugally. I will maintain a safe and clean laboratory space. I will be respectful of, tolerant of, and work collegially with all laboratory personnel.
- **I will maintain a detailed, organized, and accurate laboratory notebook.** I am aware that my original notebooks and all tangible research data are the property of my institution but that I am able to take a copy of my notebooks with me after I complete my thesis/dissertation.
- **I will discuss policies on work hours, sick leave and vacation with my research advisor.** I will consult with my advisor and notify fellow lab members in advance of any planned absences.
- **I will discuss policies on authorship and attendance at professional meetings with my research advisor.** I will work with my advisor to submit all relevant research results that are ready for publication in a timely manner prior to my graduation.
- **I acknowledge that it is primarily my responsibility to develop my career following the completion of my doctoral degree.** I will seek guidance from my research advisor, career counseling services, thesis/dissertation committee, other mentors, and any other resources available for advice on career plans.

Commitments of Research Advisors

- **I will be committed to the life-long mentoring of the graduate student.** I will be committed to the education and training of the graduate student as a future member of the scientific community.
- **I will be committed to the research project of the graduate student.** I will help to plan and direct the graduate student's project, set reasonable and attainable goals, and establish a timeline for completion of the project. I recognize the possibility of conflicts between the interests of externally funded research programs and those of the graduate student, and will not let these interfere with the student's pursuit of his/her thesis/dissertation research.
- **I will be committed to meeting one-on-one with the student on a regular basis.**
- **I will be committed to providing financial resources for the graduate student as appropriate or according to my institution's guidelines, in order for him/her to conduct thesis/dissertation research.**
- **I will be knowledgeable of, and guide the graduate student through, the requirements and deadlines of his/her graduate program as well as those of the institution, including teaching requirements and human resources guidelines.**
- **I will help the graduate student select a thesis/dissertation committee.** I will assure that this committee meets at least annually (or more frequently, according to program guidelines) to review the graduate student's progress.
- **I will lead by example and facilitate the training of the graduate student in complementary skills needed to be a successful scientist, such as oral and written communication skills, grant writing, lab management, animal and human research policies, the ethical conduct of research, and scientific professionalism.** I will encourage the student to seek opportunities in teaching, if not required by the student's program.
- **I will expect the graduate student to share common laboratory responsibilities and utilize resources carefully and frugally.**
- **I will not require the graduate student to perform tasks that are unrelated to his/her training program and professional development.**
- **I will discuss authorship policies regarding papers with the graduate student.** I will acknowledge the graduate student's scientific contributions to the work in my laboratory, and I will work with the graduate student to publish his/her work in a timely manner prior to the student's graduation.
- **I will discuss intellectual policy issues with the student with regard to disclosure, patent rights and publishing research discoveries.**
- **I will encourage the graduate student to attend scientific/professional meetings and make an effort to secure and facilitate funding for such activities.**
- **I will provide career advice and assist in finding a position for the graduate student following his/her graduation.** I will provide honest letters of recommendation for his/her next phase of professional development. I will also be accessible to give advice and feedback on career goals.



- I will provide for every graduate student under my supervision an environment that is intellectually stimulating, emotionally supportive, safe, and free of harassment.
- Throughout the graduate student's time in my laboratory, I will be supportive, equitable, accessible, encouraging, and respectful. I will foster the graduate student's professional confidence and encourage critical thinking, skepticism and creativity.



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PROFESSIONAL CODE OF CONDUCT FOR THE COLLEGE OF GRADUATE STUDIES*

The College of Graduate Studies promotes a code of conduct for its students and faculty that seeks to maintain the highest professional standards. Students and faculty are expected to conduct themselves in a professionally acceptable manner at all times.

The following outlines behavior that is unacceptable for graduate students and postdoctoral fellows.

1. Engaging in any activity that is deemed disrespectful towards a faculty member, fellow student or colleague. This may include but is not limited to engaging in violent, forceful, threatening, intimidating, or disruptive conduct, or inciting others to engage in such individual or collective conduct, that willfully disrupts any normal operation, function, or activity of the College or any of its organizations, personnel, or guests.
2. Any form of conduct within the classroom or laboratory that substantially disrupts the academic or research environment.
3. The use of any mechanism or other practices that result in harassment.

A student who is found to be in violation of the professional code of conduct shall be referred to the Associate Dean of the College. The Associate Dean will determine the appropriate course of action that may entail, counseling by Counseling and Psychological Services (CAPS), referral to the honor council, suspension or dismissal from the College. If the student fails to follow the course of action outlined by the Associate Dean or Honor Council, he/she may be suspended or permanently dismissed from the College. A student has the right to appeal the decision of the Associate Dean to the Dean.

Postdoctoral fellows found to be in violation of the professional code of conduct will be referred to the Assistant Dean for Postdoctoral Affairs, who will adjudicate the incident along with the postdoctoral fellow's mentor.

*Adopted and modified from the University of North Carolina code of conduct.

Signature

Date

Print Name

University Student Policies

For University Student Policies please refer to the University Bulletin found at <http://academicdepartments.musc.edu/esl/bulletin/index.htm>.

SECTION II: GSA – PLANNING FOR YOUR RESEARCH

Student Research Day



On the second Friday in November the University holds its annual Perry V. Halushka Research Day (SRD). SRD is run like a major meeting and gives students a chance to practice delivering oral or poster presentations in a “safe” environment. The number of presentations has increased steadily to ca. 200, divided into sections for undergraduates, MD Postdocs/Residents, DDS and MS, PhD, and Fellows. More than 50% of presentations fall into the PhD section, which is further subdivided according to the number of years the presenters have been enrolled in their graduate programs. The standard of presentations is extremely high - driven in part by the desire of students to win a prize. Teams of according to scientific delivery, and question second place winners in significant prizes (\$200-showcase for the wealth of MUSC and is the day the University truly celebrates its research mission. This is a great time to practice your presentation skills and receive constructive criticism. A great reference is “Preparing Effective Slides and Poster” (3). The deadline for abstracts is usually in mid-September.



Career Day. The Career Day for Biomedical Scientists is held the day before Research Day. It follows an informal and interactive format. There is usually a panel discussion with 4-5 external speakers in the am and in the afternoon MUSC CGS faculty and alumni representing academia, industry, and other career tracks. Each panelist usually gives a brief personal history of why and how they got to their current job, what things (i.e., courses, experiences, contacts, etc.) were useful to them in starting on their career path, and what things they would have done differently. They also discuss their personal strategies for conducting their job searches and how they integrated domestic and other considerations into their choices. Predoctoral and postdoctoral attendees can sign up for lunch and one-on-one informational interviews with the panelists.

Tips From Your Colleagues

Choosing a Thesis/Dissertation Topic

Excerpted from an essay by Marie desJardin (1)

Generally speaking, a good thesis/dissertation topic is interesting to you, to your advisor, and to the research community. As with many aspects of graduate school, the balance you find will depend at least in part on the relationship you have with your advisor. Some professors have well defined long-term research programs and expect their students to contribute directly to this program. Others have much looser, but still related ongoing projects. Still others will take on anyone with an interesting idea, and may have a broad range of interesting ideas to offer their students. Be wary of the advisor who seems willing to let you pursue any research direction at all. You probably won't get the technical support you need, and they may lose interest in you when the next graduate student with a neat idea comes along.

1. Future Directions...

In order to do original research, you must be aware of ongoing research in your field. A good source of ideas for the thesis/dissertation project is the future work section of papers you're interested in. However, you'll never be able to read everything that might be relevant — and new work is always being published. Also, read future directions suggested in the theses/dissertations from students who have already been through the program. Try developing and implementing an extension to an existing system or technique.

If you see new work that seems to be exactly what you're working on, don't panic. It's common for graduate students to see a related piece of work and think that their topic is ruined. If this happens to you, reread the paper several times to get a good understanding of what they've really accomplished. Show the paper to your advisor or someone else who's familiar with your topic and whose opinions you respect. Introduce yourself to the author at a conference or by e-mail, and tell them about your work (without giving away novel ideas that you and your lab have developed). By starting a dialogue, you will usually find that their work isn't quite the same, and that there are still directions open to you. You may even end up collaborating with them. Good researchers welcome the opportunity to interact and collaborate with someone who's interested in the same problems they are.

2. Pick a narrow, defined topic that addresses an important issue.

To finish quickly, it's usually best to pick a narrow, well-defined topic. The downside of this approach is that it may not be as exciting to you or to the research community. If you're more of a risk-taker, choose a topic that branches out in a new direction. The danger here is that it can be difficult to carefully define the problem, and to evaluate the solution you develop. If you have a topic like this, it helps a lot to have an advisor or mentor who is good at helping you to focus and who can help you maintain a reasonably rigorous approach to the problem. In the extreme case, if your topic is so out of the ordinary that it's unrelated to anything else, you may have difficulty convincing people it's worthwhile. Truly innovative research is, of course, exciting and often pays back in recognition from the research community — or you could just be out in left field. If you have a far-out topic, be sure that people are actually **interested** in it, or you'll never be able to "sell" it later, and will probably

have trouble getting your work published and finding a job. In addition, it will be hard to find colleagues who are interested in the same problems and who can give you advice and feedback.

In any case, a good topic will address important issues. You should be trying to solve a real problem, not a toy problem (or worse yet, no problem at all); you should have solid theoretical work, good empirical results or, preferably, both; and the topic will be connected to, but not be a simple variation on or extension of, existing research. It will also be significant yet manageable. Finding the right size problem can be difficult. One good way of identifying the right size is to read other dissertations. It's also useful to have what has been called a "telescoping organization" — a central problem that's solvable and acceptable, with extensions and additions that are "successively riskier and that will make the thesis more exciting." If the gee-whiz additions don't pan out, you'll still have a solid result.

Remember that a thesis is only a few years of your work, and that — if all goes well — your research career will continue for another 30 or 40. Don't be afraid to leave part of the problem for future work, and don't compare yourself to senior researchers who have years of work and publications to show for it. (On the other hand, if you identify too much future work, your thesis won't look very exciting by comparison.) Graduate students often pick overly ambitious topics (in theory, your advisor will help you to identify a realistic size problem). Don't overestimate what other people have done. Learn to read between the lines of grandiose claims (something else a good advisor will help you to do).

BEWARE:

If you pick a topic that you're not truly interested in simply because it's your advisor's pet area, it will be difficult to stay focused and motivated — and you may be left hanging if your advisor moves on to a different research area before you finish. The same is true for choosing a topic because of its marketability: if you're not personally excited about the topic, you'll have a harder time finishing and a harder time convincing other people that your research is interesting. Besides, markets change more quickly than most people finish dissertations.

Scientific Reading and Writing

Excerpted from an essay by Marie desJardin (1)

You'll have to read a lot of technical papers to become familiar with any field, and to stay current once you've caught up. You may find yourself spending over half of your time reading, especially at the beginning. It is normal to be overwhelmed by the amount of reading you think you "should" do. Try to remember that it's impossible to read everything that might be relevant: instead, read selectively. When you first start reading up on a new field, ask your advisor or a fellow student what the most useful journals and conference proceedings are in your field, and ask for a list of seminal or "classic" papers that you should definitely read. Start with these papers and the last few years of journals and proceedings.



Finding and Organizing Resources

Based on an essay by Marie desJardin (1) and MUSC student contributions (6)

Keep the papers you read filed away so you can find them again later, and set up an online bibliography (EndNote is a must). The library periodically offers tutorials on EndNote, and an “evaluation” version of the software along with a tutorial may be downloaded from the supplier’s website. Your lab will most likely already have EndNote and the library carries the program on several of its computers. A useful location to get abstracts is PubMed (<http://www.ncbi.nih.gov/PubMed/>). It has about the best search engine available for all of Medline and if a reference has a structure or a sequence in it, there will be a link to it. Also, if the journal has a web site, you may be able to download the entire article as a PDF file (which can be viewed and printed in the library). The citation and abstract of references that you would like to keep can be downloaded as queries and then imported into EndNote. EndNote gives each reference a number and you can organize your own collection by number. Including an EndNote citation within the text of your paper and then using EndNotes’ “Scan Paper” and “Format Bibliography” commands enable you to format your paper and reference page according to almost any journal’s format with a simple mouse click. Finally, if there is a reference that isn't available in the MUSC Library, you can request a free copy through our InterLibrary Loan Service. Just follow the “Electronic Requests” link from our library homepage (<http://www.library.musc.edu>).

Publishing Papers

Excerpted from an essay by Marie desJardin (1)

Key properties of a good paper: 1) significant content — original, important ideas that are well developed and tested and 2) good writing style. Investigate style guides for your discipline. *On Writing Well*, 12th ed. by William Zinnser is a general guide that has been suggested. Others are the APA manual or the Chicago Style Manual. The degree to which the paper’s content has to be “significant” depends on where you’re submitting it. Preliminary ideas and work in progress are more suitable for a workshop or symposium; well-developed, extensively tested ideas are more appropriate for a journal. One way to decide where your paper should be submitted is to read papers in potentially appropriate publications. Another method is to show a draft or outline of the paper to your advisor or other colleagues and ask their advice.

If you have a great idea but present it poorly, your paper probably won’t be accepted. Be sure you know what the point of the paper is, and state it clearly and repeatedly. The same goes for the key technical ideas. Don't make the reader work to figure out what's important - tell them explicitly. Otherwise, they might get it wrong, if they bother to finish reading the paper at all. State the problem you're addressing, why it's important, how you're solving it, what results you have, how other researchers have addressed the same or similar problems, and why your method is different or better.

Don’t try to put every idea in your thesis into one conference paper. Break it down into pieces, or write one or two longer journal articles. As you refine your ideas, you can re-publish in new forms, but be sure you’re adding new material, not just rehashing the same ideas. Some papers start as short workshop papers, evolve into conference papers, and eventually — with the addition of detailed empirical results or formal proofs — become journal articles. It’s usually okay to publish the same or substantially similar papers in multiple workshops, but papers for conferences and journals generally have to be original, unpublished work.

Know your audience. Write for the audience that you expect to read the paper, just as you would plan a talk. Give more background for general audiences, less background and more technical detail for specialized audiences.

Proofread. It is critical that any paper you plan to submit be read by someone else first, if only to check for typos, grammatical errors, and style. A good reviewer will give you feedback on the organization and content of the paper as well. The more tightly refereed the publication you're submitting to, the more trouble you should go to have it pre-reviewed. For a workshop paper, having your advisor read it over is probably enough. For a refereed conference, have one or two other graduate students read it as well. For a journal paper, you should probably find researchers who are active in the field-preferably at other institutions (to give breadth) to read it over and give you comments. This is where the network of colleagues you should build (see the section on networking) comes in handy.

If you go through multiple revisions of a paper, don't expect the same person to keep reading new drafts. You should only give a revised draft to your advisor or another reviewer if the paper has changed substantially and he or she has said that he or she is willing to reread it. Never submit a manuscript without the final approval of your advisor!

Handling rejection. If your paper is rejected, keep trying! Take the reviews to heart and rewrite the paper, addressing the reviewer's comments. You'll get more substantial and useful reviews from journals than conferences or workshops. Often a journal paper will be returned for revisions; usually a conference paper will just be accepted or rejected outright. After reading the review the first time, put it aside. Come back to it later, reading the paper closely to decide whether the criticisms were valid and how you can address them. You will often find that reviewers make criticisms that are off-target because they misinterpreted some aspect of your paper. If so, don't let it get to you — just rewrite that part of your paper more clearly so that the same misunderstanding won't happen again. It's frustrating to have a paper rejected because of a misunderstanding, but at least it's something you can fix. On the other hand, criticisms of the content of the paper may require more substantial revisions — rethinking your ideas, running more tests, or redoing an analysis. (On the gripping hand, sometimes a paper is rejected for neither of these reasons, but because of politics: somebody on the reviewing committee dislikes your topic, your advisor, your writing style, or even you personally for some reason. This is all the more reason to try resubmitting to a different conference or journal!)

References:

1. <http://www.cs.umbc.edu/%7Emariedj/papers/advice-summary.html>
2. <http://www.training.nih.gov/careers/careercenter/publish.html>

Suggestions for choosing journals for submission:

Based on workshop information from Dr. Kofi Lomotey (5)



- Pick journals in each tier (Example: 1st tier = Science, 2nd tier = J. Neuroscience)
- If rejected from 1st tier journal, use comments to revise, then resubmit or submit to 2nd tier journal
- 1st vs. 2nd tier journals: 1st tier journals often have higher rejection rates, stringent submission guidelines, and more external reviewers than other journals
- Follow Manuscript submission guidelines—these are found in the journal's index or on its website



Notes on Authorship

Based on workshop information from Dr. Kofi Lomotey (5)

There is an additional criterion for significance of publications. This relates to the number of authors/editors and the order in which the authors/editors appear. The most significant articles (for you) are those that are single-authored (edited). The second most prestigious publications are those that are jointly authored/edited but for which you appear as the FIRST author/editor. Third in level of significance is the jointly authored/edited publication, for which you are not the first author/editor. Generally, the further away you are from the first author (in terms of position in the listing of authors on the publication) the less significant the publication is for YOUR record.

Publication opportunities during graduate school:

Based on workshop information from Dr. Kofi Lomotey (5)

- Literature review— this can be done soon after preparing your research proposal. You would have done the most recent, comprehensive review of the literature in your field while preparing your proposal—take advantage of the time you've put into going through all of those references!
- Research Results
- Dissertation Summary

Writing the Research Proposal / Oral Defense of the Proposal

Based on an essay written by Marie desJardin (1) and MUSC student contributors (6)

You will be required to write a dissertation/thesis proposal. This is a good first step to take. It forces you to define the problem, outline possible solutions, and identify evaluation criteria; and it will help you to get useful feedback from your advisor and other colleagues. Writing a good thesis proposal will take up to several months, depending on how much background work and thinking you've already done in the process of choosing the topic. Your dissertation proposal should follow the NIH format.

The proposal should provide a foundation for the dissertation. First, you must circumscribe the problem and argue convincingly that it needs to be solved, and that you have the methodology for solving it. You must identify and discuss related work: has this problem been

addressed before? What are the shortcomings of existing work in the area, and how will your approach differ from and be an improvement over these methods? Present your ideas for solving the problem in as much detail as possible, and give a detailed plan of the remaining research to be done. The proposal should include, or be structured as, a rough outline of the thesis itself. In fact, unless your final topic differs significantly from your proposed topic (which many do), you may be able to reuse parts of the proposal in the thesis/dissertation.

You will have to take an oral exam in which you present and/or answer questions about your proposal. Start going to proposal/dissertation defenses in your area early in your studies. Be sure that your committee members are as familiar as possible with your work beforehand. Give them copies of the proposal, and talk to them about it. During the exam, don't panic if you don't know the answer to a question. Simply say, "I'm not sure" and then do your best to analyze the question and present possible answers. Your examining committee wants to see your analytical skills, not just hear canned answers to questions you were expecting. Often, the oral exam is geared toward determining if the student has a solid grasp of relevant background information, a thorough understanding of all methodology that could be used to address the hypothesis, and an idea about the meaning and significance of the expected data. Give a practice talk to other students and faculty members. Remember: you know more about your thesis/dissertation topic than your committee; you're teaching them something for a change!

Writing the thesis/dissertation and the Final Defense

Based on information from MUSC student contributors (6)

Your years in graduate school will culminate in the writing of your thesis/dissertation, which describes your research and discusses your important findings. For the most part, you will have a final committee meeting when your committee gives you the go ahead to finish up any final experiments and begin writing. The actual writing of the thesis/dissertation is a process unique to your project and department. It is at this point that you realize the importance of a well-organized lab notebook so that you can remember the significance of data that you collected years ago! Your proposal and published papers often provide a good framework from which to start writing your thesis/dissertation. It is a good idea to read other dissertations from your department to get a feel for how successful ones are organized.

Writing the thesis/dissertation will usually take 3-6 months, depending on your project, advisor, etc. Also, plan to remain on campus at least one month after the defense in order to allow time to make any revisions that may be required. How much time you have to finish also depends on how much longer your financial aid/stipend can last, so be sure to clarify how you will be paid during this time. Don't forget that you must be registered for at least one credit hour each semester until your defense.

Once you have completed a final rough draft, you must distribute a copy to your advisory committee for their review. When your committee has approved your draft, they must sign a form stating that your dissertation is ready for defense. Following approval by the advisory committee, one copy of your unbound thesis/dissertation must be available in your Department (**no less than THREE weeks** before the date of the defense). A notice from the candidate's advisor (Notification of Defense form) must be in the Graduate Dean's Office **THREE weeks prior** to the defense giving the title, place, date, and time of the defense. Also be sure to understand your program or department's rules for the seminar format i.e., length, style, who can attend, who votes on whether you pass/fail. Some departments require

only your committee conduct the oral exam and vote, other departments allow all department faculty to participate.

In the defense of the research proposal, it is common for there to be emphasis on knowing relevant background information, understanding methods, and having an idea about how to interpret expected data. In the FINAL defense, you are expected to communicate your understanding of the BEFORE and AFTER. That is, BEFORE your project, little was known/understood about Subject X. You will be expected to interpret the actual data and its significance with regard to what was previously understood. Then you must discuss what comes AFTER your project, that is, what are the new questions that your research has raised and how can such questions be addressed? In simpler terms, what would you do next?

You cannot get your diploma until your thesis/dissertation is electronically sent to ProQuest and you provide proof to the Dean's Office that your committee accepted your final submission. This can be done by giving the Dean's office the signature page of the Thesis/Dissertation with your entire committee's signatures. Ph.D. students must also submit the Doctoral Agreement form and the Survey of Earned Doctorate form. All students must complete a degree application, the Graduate Information Form, on-line Student Survey and have an exit interview with the Dean.

Selection of an Advisor

Doctoral students may have as the Chair of their Advisory Committee only individuals who have competitive extramural funding, except in special cases such as NOAA laboratories. The selection of a mentor is a critical decision in your research career. You should seek much advice both from fellow students and other faculty in the program, as well as requesting your potential advisor's C.V. and inquiring as to funding status. It is very unfortunate when the approval of an advisor cannot be granted at the Dean's level. This is disappointing to both the student and the advisor and can often delay the student as the student must then rethink research options. Therefore, please keep in mind this issue of funding in selecting an advisor.

Here are a few more tips that should help you select an advisor:

1. Ask your department and other students for advice.

Talking with students is a great way to find out how an advisor interacts with his/her students. Although you will probably not get specific recommendations from faculty, if you ask whether or not a supervisor has a past history of complaints you should get an honest answer.

2. Read and listen.

Read through the Faculty Research Interests booklets and visit departmental websites—but keep in mind that these sources are not all-inclusive and may be out of date. Go to seminars—you may find someone you have never heard of doing really interesting work. Read published papers by the principal investigator you are interested in. Attend or audit courses given by these professors.

3. Ask questions concerning a potential mentor.

-Is your advisor well-established in the area of research/scholarship you intend to pursue?

-Is his/her critical or theoretical orientation consistent with yours?

- What is the reputation of the advisor within the discipline?
- What does the advisor expect from his/her students?
- Does the advisor closely supervise students?
- What kind of funding will be available for my support?
- Does the advisor hold lab meetings, journal clubs, etc.?
- How much freedom will I have in designing my own project/choosing my dissertation topic?
- How many papers am I expected to publish?
- Do students attend national meetings and present posters and/or papers?
- How much research is collaborative with the advisor and other labs?
- Is the advisor engaged in patentable/saleable work? If so, how does he/she assign credit to the student? Does the work get published promptly?
- Does the advisor have good relations with other faculty in the program?
- How long has the advisor been on the faculty?

There are advantages and disadvantages to being one of the first members of a new research group. On the positive side, you often have more freedom to choose your research topic and to influence the direction of the group's research. On the negative side, you may be more isolated since there won't be older graduate students in the group, and your advisor won't have as much experience.

- Is the advisor likely to remain on the faculty for the duration of your degree work?

Make sure you are comfortable talking to the mentor, and ask questions if you don't understand something. Pay attention to how interested he or she is in what you have to say. If asked, be honest about what you expect from a mentor and about how hard you are prepared to work. It is also appropriate to ask for your potential advisor's curriculum vitae, biographical information, and/or publication list.

4. Work in the lab before you commit.

Attend their research group meetings regularly. Give them a copy of a research proposal if you have a good idea of what you want to work on, and ask for comments. The core curriculum has a requirement to conduct three rotations during your first year, even if you think you know who you want to work with ahead of time. Rotations for the first year are fixed at 10 to 11 or eight weeks. It can't hurt to gain the extra experience, and it will make you more certain of your choice in the end.

5. Talk to past and present members of the lab.

This is VERY IMPORTANT! It is important to find out how the advisor interacts with others and handles stressful situations such as bungled experiments. If the advisor is hesitant about your speaking to members of the lab, beware! It is very important to talk to as many people as possible, because a first year student will undoubtedly have different needs and expectations than an experienced postdoc. Remember, you will need to work with these people every day! Try to assess if they are receptive to you joining the lab, if they will be helpful, or if they will be competitive.

6. Know your work style.

The type of relationship that each student needs with an advisor will be different. Some students prefer to be given more direction, to have frequent contact, and to be "checked up on." Others are more independent. Some may need contact but are self-

conscious about asking for it. Other things that vary include what kinds of feedback are preferred (lots of “random” ideas vs. very directed feedback or pointers), working individually vs. in groups, working on an established research project vs. a new, independent effort; working in the same area as your advisor or doing an “outside” thesis.

Choosing a Dissertation Committee / Committee Meetings

Committee Selection: This is equally as important as choosing your advisor!

-Your advisor will figure into this selection in a major way, but you will have the final responsibility of putting the committee together. Talk with your mentor about any collaborators he/she has on campus. That might be the place to start.

-Most importantly, make sure all of your committee members get along.

-Choose committee members in a similar fashion as you chose your advisor: interview prospective members, talk to other students who have prospective members on their committees, etc.

-All of the members of your committee should be able to contribute to your project in some way. Weigh their areas of expertise and their reputations so you can be sure of good guidance throughout your thesis/dissertation work.

-For M.D./ Ph.D. students: If possible, have a mix of MDs and PhDs. MDs tend to remember that you still have medical school to complete and MAY be a little less likely to hold you in the lab for extended periods. You want to pick MDs that you think will

contribute to your scientific training. By stipulation of the Graduate school, they should be Graduate faculty members.

Committee Meetings

-Make sure that your committee has been approved by the Dean by turning in a list of your committee members to the graduate office (see section on “pink sheets”).

-The first time your entire committee meets and hears your proposal is usually at the research proposal/oral examination. However, you must present a copy of your written proposal to your committee a few weeks prior to the defense. That way, your committee feels involved in your work, and you can anticipate any weak areas. But, do not show them more than one or two drafts. You don't want to be caught in an endless draft revision cycle and never get to the exam.

-Talk with all your committee members often. You are required to meet with your committee every 12 months. However, it is generally a good idea to meet with your committee more often (2-3 times per year) if possible. Confirm that everyone knows what you have planned for your dissertation. The goal is to keep them informed, so there are no surprises (e.g., extra month of experiments) the last month/week/day before your defense.

-Be sure that your personal “deadlines” and goals for completing your project are known. You may want to provide a timeline or checklist and/or progress reports for your committee so everyone may keep up with your progress. Providing coffee and/or snacks are a nice touch for committee meetings. Everyone is more agreeable on a full stomach!

Networking/Attending Professional Meetings

Excerpted from an essay written by Marie desJardin (1)

One of the most important things a graduate student should do is to become established as part of the research community. Your advisor can help with this process by funding conference travel, encouraging you to publish research results early, collaborating on joint publications, introducing you to colleagues, and promoting your work. In turn, you can make yourself more visible by participating in conferences and workshops, publishing papers on your work, and meeting and maintaining contact with colleagues.

Attending Conferences

Attending conferences and workshops is valuable whether you present a paper or not. Some of the reasons to do so are:

- You’ll meet people and have a chance to discuss your ideas and to hear theirs.
- You’ll get a good sense of what the current state of research is and learn more about how to write conference papers and give talks (sometimes by counterexample).
- You’ll probably realize that your ideas are more significant, relatively speaking, than you thought.
- If you’re giving a talk you’ll gain even more visibility, and will have an opportunity to make an impression on other researchers. (See section on “Preparing Presentations”).

The Dean's Office will provide a total of \$700 for travel expenses associated with presenting a paper or poster while attending a conference. All requests must be approved by the Dean. Many departments also have money available to travel to national conferences. Scholarships/travel fellowships are also offered to students by some meetings. Be sure to inquire about what this money can be used for (registration, lodging, travel, meals). Also, inquire if the expenses will be paid by the sponsor up front or if you will need to be reimbursed (expect a minimum of 4 weeks for reimbursement). Be sure to save your receipts to turn in, and retain copies for your records in case there are administrative problems.

Networking

One of the most important skills you should be learning in graduate school is how to “network”. Breaking into the research community requires attending conferences, meeting established researchers, and making yourself known. Networking is a learned skill, so you shouldn’t expect to be an expert at it immediately; but it is also a skill that you can, and should, learn in order to be a successful member of the research community.

Just going to conferences and standing in the corner isn’t enough. Especially if you’re not normally an outgoing person, you have to make a conscious effort to meet and build relationships with other researchers. Presenting papers is a good way to do this, since people will often approach you to discuss your presentation. Introducing yourself to people whose presentations you found interesting and asking a relevant question or describing related research you’re doing is also a good way to meet people.

You should talk about your research interests every chance you get. (But be sure to spend some time listening, too: you'll learn more this way, and people will feel that your conversations are a two-way street.) Have summaries of your work of various lengths and levels of detail mentally prepared, so that you can answer the inevitable "So what are you working on?" intelligently and clearly.

If someone expresses an interest in your work, follow up! Send them e-mails talking about new ideas or asking questions. Bring business cards with your e-mail address to conferences to help new acquaintances jog their memory. (You can make your own business cards using perforated cards available at office supply stores. They usually come with directions for creating them using common word processing programs and a laser printer). Maintain the relationships you form via e-mail, and by re-establishing contact at each workshop or conference you attend. If you work at it, and use your initial acquaintances to meet new people, you'll find that your "network" grows rapidly.

Sometimes these contacts will grow into opportunities to do collaborative research. Seize these opportunities: you will meet more people, often become exposed to new methods of doing research or new subfields within your research area, and the responsibility you feel towards your collaborator may give you more of an incentive to stay motivated and keep accomplishing something. In addition, these contacts may provide opportunities for finding postdoctoral positions.

Other professional activities can bring you into the research network as well: volunteer for program committees, send your resume to a book review editor, offer to give seminars at other universities, write conference and workshop papers and send them to people you've met or would like to meet, or organize a workshop on your subfield at a larger conference. Mentoring junior graduate students and undergraduates is a good investment in the long run (besides providing them a valuable service and making you feel useful and knowledgeable).

Finding specific mentors can be very useful. Especially if you feel that you are isolated at your institution, having a colleague at another institution that can give you advice and suggestions for research directions can be extremely valuable.

WELL-CONNECTED

Research Funding Sources

Tips on finding funding for your research

Based on MUSC student contributions (6) and workshop information from Dr. Patrick Johnson (4)

MUSC policy on funding for students

It is a policy of the college of Graduate Studies that doctoral students have as the Chair of their Advisory Committee only individuals who have competitive extramural funding and who are full members of the Graduate Faculty.

What is extramural funding and who has it?

Extramural funding is funding provided by agencies and/or institutions outside of MUSC.

The major sources of extramural funding are the National Institutes of Health (NIH Ruth Kirshstein NRSA fellowships). The College provides a \$1500 Dean's Incentive Award for every year that a student has the fellowship. Other agencies, such as the American Cancer Society and the American Diabetes Association often provide grants as well. You can find funding for P.I's by searching to MYGRANTS on the MUSC webpage.

Types of Funding

- **Fellowships:** Programs that support studies and related activities at the graduate level. Usually, no return of service or repayment is required.
- **Grants:** Programs that provide funding to support innovative efforts, travel, projects, creative activities, or research. Usually, return of service or repayment is required.
- **Awards:** Competitions, prizes, honoraria granted in recognition of personal accomplishments, research results, creative writing, or artistic activities.
- **Loans:** Programs that provide money for study or research that eventually must be repaid—with or without interest.
- **Traineeships:** Internships, research training, and other work experience programs.

Techniques for finding funding

- **Human networking**—communicate with colleagues, mentors, speakers, etc.
- **Scholarship**—check acknowledgements in relevant professional literature
- **Print and electronic databases**—search reference books and databases

Resources for identifying sources of funding

- Publications from federal agencies (e.g., Federal Register, NIH Guide)
- Agency web pages
- Online Databases (e.g., Community of Science, Grant Source Service, SPIN)
- Print Directories (e.g., Annual Register of Grant Support, Directory of Research Grants, Money for Graduate Students, Directory of Financial Aids for Minorities, Foundation Directory)

Deans Incentive Award for Excellence

Criteria for award: PhD graduate students that receive individual extramural fellowships or scholarships that pay a minimum of 60% of their full tuition are eligible to receive a Dean's Incentive Scholarship.

Award: For each year that a student is the recipient of an extramural individual fellowship or scholarship that pays a minimum of 60% of their tuition, they will receive an award from the Dean's office \$1,500.

Office of Research Development

The MUSC Office of Research Development (ORD) helps faculty members and trainees identify extramural funding opportunities, obtain the appropriate forms and guidelines, and assemble their proposals. ORD is located in the Basic Sciences Building, Suite 101, 792-5828. The ORD newsletter, Research INKlings, is distributed via campus mail to all on-campus faculty and graduate students and contains information about funding opportunities. The ORD web site (academicdepartments.musc.edu/research/ord) has links to other sites for funding opportunities.

Community of Science (www.cos.com)

Community of Science, Inc. (COS) is a network of scientists and research organizations on the World Wide Web.

COS Funding: To help you find funding, the Company publishes COS Funding Opportunities, the largest database of grants on the Web. Through COS Funding News we provide weekly highlights from COS Funding Opportunities, which is updated daily. Because MUSC is a COS member institution, you have direct access to complete information on more than 15,000 grants.

COS Expertise: COS Expertise enables research institutions—those who contribute profile information to the database—to track current research, find collaborators, identify peer reviewers, and promote their research. Research-driven companies, government agencies, and private foundations—those who gain read-only access on a subscription basis—use COS Expertise to identify prospective collaborators, license new technologies, leverage R&D efforts, perform due diligence, and stay informed about the constantly changing world of basic science and scholarly research. COS Expertise research profiles typically include contact information, positions held, publications, patents, funding received, and a first-person narrative describing current research activities and expertise. Direct links to e-mail, a personal home page, patent abstracts (and full-text where available), publication abstracts, and available research grants provide additional critical information for and about each researcher.

Online Databases:

- GrantSource Library (<http://grantsource.unc.edu>)
- GrantsNet (<http://sciencecareers.sciencemag.org/funding>)
- NIH Guide to Grants and Contracts (<http://www.nih.gov/grants/guide/index.html>)

Additional Information

Stipend, Loan, (i.e. getting paid):

Your stipend check will arrive on the last day of each month and can be picked up at the Dean's Office (101 Bioengineering Building, phone number 876-2411). Your first check will not arrive until the end of September. Direct deposit is available and strongly suggested. In the case that your stipend arrives early, please keep in mind that it is not due until the end of the month. At the time your stipend support transitions to your mentor's department and/or you become funded via payroll, your pay date will be the last workday of the month.

The Financial Aid Office is located in the Harper Student Center (AC209, 792-2536) and they can assist you in getting student loans, etc. Keep in mind that you must fill out the FAFSA to be sure that you are eligible for assistance--this process takes about four weeks, so start early. If you are being paid via payroll, then you must officially become an employee. To become an employee, you must attend an OSHA training session at Harborview Office Tower (RM 103) and have an employee health screening at Employee Health Services (57 Bee Street). This will be coordinated by the department that is funding you. A drug screen will be part of the health screening at Employee Health Services.

Income Tax Information for Graduate Students with Stipend Support

Students receiving stipend support will not have income taxes withheld from their stipend payments. The exception to this is some international students depending on their home

country's tax treaty with the United States. International students may be contacted to meet with Andrew Rider concerning tax withholding. Stipend students that want to have taxes withheld, but are not required to, should also contact Andrew Rider.

Stipend support is considered taxable income. Any stipend funds used for living expenses is taxable. This would apply to all or the majority of your stipend support as your tuition is funded by a combination of a Dean's Scholarship and payments by the College or a MUSC Department.

You will receive a 1098-T from Student Accounting at the end of January. This 1098-T is how your stipend and any scholarships are reported to the IRS. The 1098-T reports tuition billed as well as any stipend support received, tuition scholarships/payments/waivers or any other non-tuition type scholarships. The block that reports your stipend also includes your scholarships. Tuition scholarships/payments/waivers made in your behalf are currently not considered taxable income.

It is suggested that you consult a professional tax preparer concerning the taxability of your stipend. You can refer to **IRS Publication 970** for information relating to scholarships and stipend support. Page 5 of the 2010 Publication 970 is where you can find the statement concerning tuition scholarships not being taxable. Students are finding it difficult to use a program such as TurboTax when entering 1098-T data that includes tuition scholarships.

You are also advised to either save some funds back to cover a tax liability due to no tax withholding for stipends or to make quarterly payments to the IRS. You can find a form to submit when mailing quarterly payments at the irs.gov website.

Graduate students receiving their support via payroll will have income taxes deducted from their checks. These students are considered "graduate assistants" for reporting purposes. Currently State and Federal income taxes will be withheld, but not FICA and Medicare taxes. The FICA and Medicare withholding exemptions are subject to change based on federal tax code changes. Payroll supported students will receive a W-2 from Payroll and a 1098-T from Student Accounting.

1098-Ts and W-2s are made available electronically by the end of January for the previous year. Instructions will be provided to you via your MUSC email account.

Stipend or salary support is usually determined by the source of funds paying your stipend or salary. Some grants require payroll support and many training grants require stipend support. Most non-grant funded support is provided via stipend and not payroll.

If you are receiving stipend support from the Dean's Office, you may find that when your support transfers to your research mentor that you will be moved to payroll support. You may also find that once on payroll, you are again moved to stipend if you receive your own individual training grant or a research grant lapses.

The above information is not considered as official income tax information as tax codes can change during the year.

Please contact Karla Locklear, Business Manager, College of Graduate Studies, for any questions concerning financial matters.

Tuition Bills, Dean Scholarships and Health Insurance for Financially Supported Students

Students with financial support, i.e. stipend/payroll funded doctoral and dual degree students, need to submit a completed Confirmation of Financial Support form each semester to Dodie Weise in the College of Graduate Studies Dean's Office. It is very important that we know if you are supported via stipend or payroll, what the source of that support is, and what the tuition funding availability is on any applicable grant funding. Whether you are paid via stipend or payroll affects how the portion of the tuition that is paid is handled.

It is the responsibility of the student to provide a copy of their tuition bill to the area that is also funding their stipend support each semester. The financial offices need to see the bills so that they know to pay for health insurance that may be included on the bill. This is also required for any stipend paid student and for any training grant funded student.

Financially supported students using health insurance vendors other than AIG via MUSC Student Health, can file for reimbursement of premiums up to the AIG rate. Proof of payment and dates of coverage should be submitted to the office that is funding your stipend/payroll support.

Tuition bills will be posted to WebAdvisor via Student Accounting. Any delays in registering for classes, submitting the Confirmation of Financial Support form, or submitting an incomplete Confirmation of Financial Support form can result in a delay of Dean's Scholarship tuition waivers being posted. Students receiving other financial aid are asked to notify Mrs. Locklear, College of Graduate Studies Dean's Office, that they are waiting for aid to be released. This will assist Mrs. Locklear in scheduling the posting of applicable Dean's Scholarships and help to minimize any delays in the release of the funds to you. It is not a requirement that you provide any additional financial aid information to Mrs. Locklear, but it can help with the timing of the process. Mrs. Locklear can be reached via email at locklear@musc.edu or in the Bioengineering Building, Room 101J.

Entertainment:

Free or discounted tickets for a variety of events (both school sponsored and not) can be picked up at the Office of Student Programs (SW213 Harper Student Center, 792-2693). Also, student discounts are given at a number of area events (such as hockey games and ice skating).

Housing:

The Office of Off-Campus Housing (SW213 Harper Student Center, 792-0394) keeps a list of houses and apartments that are for rent by individuals and complexes. They also keep a list of new and returning students who are looking for roommates to share the cost of living.

Health/Prescriptions:

All students enrolled at MUSC are required to have health insurance. Questions regarding the MUSC Student Group Health Plan may be answered by Student Health Services. Students can receive free health services by making an appointment with Dr. Blumenthal at Student Health Services (30-A Bee Street, 792-3664). There is also a Dental Clinic that offers reduced dental services -- call 792-2611 for more information. Students can have prescriptions filled at the Student and Outpatient Pharmacy (Rutledge Tower Pharmacy, 876-0199), which is often less expensive than commercial drugstores.

Students with health insurance via AIG must go to Student Health first, if during normal visiting hours, for health care.

Technology support services available for MUSC students

A partnership of IT technologists from the MUSC Library, MUSC colleges and MUSC Information Services has formed Student Technology Support Services (STSS) to provide MUSC students with a place they can go for help with their laptop or smartphone.

<http://academicdepartments.musc.edu/musc/academics/edtechresources>

Some of the services provided include: in-warranty hardware repair for Apple, Dell and Lenovo products; wireless access setup for laptops and smartphones; installing or upgrading application and virus protection software; virus and malware removal; e-mail setup and support on laptops and smartphones; general troubleshooting and problem resolution; technology purchasing advice; and software support for MUSC related applications.

Students can get instant service for minor problems or requests while they wait or may be asked to leave their device for more involved problems or repairs. The services are performed by a variety of technology experts employed at MUSC who know your system and software you may use.

STSS is located on the fourth floor of the Colbert Education Center & Library. Service hours are 11:00am – 3:00pm, Tuesdays and Thursdays.

For information, e-mail stusppt@musc.edu or visit <http://stss.library.musc.edu>.

Resources

Favorite MUSC Websites:

- MUSC Homepage (<http://academicdepartments.musc.edu/musc/>)
- College of Graduate Studies homepage (<http://academicdepartments.musc.edu/grad/>)
Start here to check out departmental pages to find mentors, committee mentors, interesting projects...
- Enrollment Management (<http://academicdepartments.musc.edu/esl/em/>)
Check your grades, class schedule, change your address, request transcripts
- MUSC Library (<http://www.library.musc.edu>)
- Catalyst Online (<http://academicdepartments.musc.edu/catalyst/>)
Online version of the campus newspaper, published every Friday. Also contains a link to “Seminars and Events” (formerly known as The Blue Sheet—a listing of seminars)
- Center for Academic Excellence (<http://academicdepartments.musc.edu/esl/cae>)
Provides tutoring, assistance with papers, presentations, CVs/resumes, etc. Also provides an opportunity for teaching experience if you become a tutor.
- MyGrants (<https://erma.musc.edu/mygrants>)
Site of a search engine for the information provided in the MUSC Research Investigators with Extramural Funding booklet. Run searches based on PI name, grant title, MUSC department or division, funding agency, or keyword.

More Good Websites:

- NCBI (<http://www.ncbi.nlm.nih.gov>)
links to GenBank, PubMed, Entrez, BLAST, other essential molecular and genomic databases
- National Association of Graduate-Professional Students (<http://www.nagps.org>)
great resource for information on matters of interest to graduate students, links to other graduate student associations
- Science Next Wave Career Resource (<https://courses.washington.edu/phd/wave.html>)
also available through a link on CGS Careers homepage. All you need to know about life after graduate school (yes, there IS such a thing!)

Books to read:

- The Ph.D. Process: A Student's Guide to Graduate School in the Sciences by Dale Bloom, Johnathon Karp, and Nicholas Cohen. New York: Oxford University Press, 1998.
- The Ultimate Grad School Survival Guide by Lesli Mitchell. Princeton, NJ: Petersons, 1996.
- Negotiating Graduate School: A Guide for Graduate Students by Mark Rossman. Thousand Oaks, CA: Sage Publications, 1995.

SECTION III: CONTACT INFORMATION:

Dean's Office:

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Neuroscience Institute

Chairperson	Gary Aston-Jones, Ph.D.
Phone	792-6092
Campus Location	BSB 403C
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Coordinator	Antonieta Lavin, Ph.D.
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Drug Discovery and Biomedical Sciences

Chairperson	Rick Schnellmann, PhD
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Pathology & Laboratory Medicine

Chairperson Steven L. Carroll, M.D., Ph.D.
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Coordinator Victoria Findlay Ph.D.
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Pharmacology

Chairperson Kenneth Tew, Ph.D.
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Co-Coordinator Lauren Ball, Ph.D.
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Co-Coordinator Jennifer Isaacs, Ph.D.
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Contact Person Belinda Andersen
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Coordinator Donald Menick, PhD
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Contact Person Linda Paddock
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Medical Scientist Training Program (MSTP)

Director Perry Halushka, Ph.D., M.D.
Phone 876-2405
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Contact Person Amy Connolly
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Dental Medical Scientist Training Program (DMSTP)

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Co-Director Michael Kern, PhD
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Campus Location BSB 638A
Email kernmj@musc.edu

Contact Person LuAnne Harley
Phone 792-2327
Campus Location BSB 230B
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Quick Reference Guide

For details and more Student Services go to the following link

<http://academicdepartments.musc.edu/studenthandbook/Services/index.html>

Academic Assistance..... 792-6390

Center for Academic Excellence, Rm 201, Colbert Education Center/Library

<https://www.musc.edu/esl/cae/>

Academic Information..... 792-5396

Enrollment Management, 45 Courtenay Dr., MSC 203

<http://academicdepartments.musc.edu/esl/em/>

Art Services..... 792-4724

Harper Student Ctr, 4th floor, Room SS440,

http://academicdepartments.musc.edu/esl/itfr/services/graphic/art_services/index.htm

Art Services provides faculty, staff and students with services such as large format printing, exhibits, posters, banners, signs, illustration, graphic design, disc prep and scanning.

Automated Teller Machines

- * Hospital's first floor corridor, next to Room B101; operated by Bank of America
- * Hospital's 2nd floor, operated by Wachovia
- * Harper Student Center lobby; operated by South Carolina Federal Credit Union
- * Main entrance to Children's Hospital; operated by South Carolina Federal Credit Union
- * Harborview Tower; operated by South Carolina Federal Credit Union

Cashier's Office..... 792-2015

303 Harborview Office Tower

<http://academicdepartments.musc.edu/vpfa/finance/controller/accounting/cashier/cashier.htm>

Cafeteria (Hospital - Menu Line)..... 792-8713

<http://www.muschealth.com/nutrition/dining/index.htm>

CARTA 724-7420

<http://www.ridecarta.com/>

***The Catalyst*..... 792-4107**

Weekly campus newspaper; <http://academicdepartments.musc.edu/catalyst/>

Change of Address, Name, or Phone Number..... 792-5396

<https://webadvisor.musc.edu>

Class Cancellation/Resumption	792-MUSC
Computer Classrooms/Labs	792-2381
Apple and Windows; 4th floor, Education Center/Library	
Computer Help Desk	792-9700
Office of the CIO (OCIO), http://www.musc.edu/info services	
Copy Machines	792-2371
Education Center/Library; 2nd, 3rd, and 4th floors	
Counseling and Psychological Services (CAPS)	792-4930
http://academicdepartments.musc.edu/esl/caps/	
Disaster Preparedness	
http://academicdepartments.musc.edu/research/resources/dprc.html	
Register with the MUSC Alert system at www.musc.edu/muscalert	
Office of Student Diversity	792-2146
http://academicdepartments.musc.edu/esl/studentprograms/studentdiversity/	
E-Mail	792-9700
Office of the CIO (OCIO)	
Enrollment Management	
Registrar and Admissions Offices, 45 Courtenay Dr.....	792-5396
Financial Aid, SS359 Harper Student Center.....	792-2536
Escort Service	792-4196
Public Safety, 101 Doughty Street	
Financial Assistance	792-2536
http://academicdepartments.musc.edu/esl/em/fin_aid/	
Grammar Hotline	792-6390
http://academicdepartments.musc.edu/writingcenter/hotline.html	
Writing Center; 2nd Floor, Education Center/Library	
ID Cards (MUSC)	792-4196
Public Safety, 101 Doughty Street	
Insurance	792-3664
Student Health Insurance, Dorothy Roper; Student Health Services, 30-A Bee Street	

International Visa Support	792-6105
Harper Student Center, Room 454	
http://academicdepartments.musc.edu/immigrationservices/j1procedure.html	
Library --- http://www.library.musc.edu/	
2nd Floor Service Desk.....	792-2371
Reference.....	792-2372
4th Floor Service Desk.....	792-2381
Waring Historical Library.....	792-2288
Loan Deferment Certifications	792-5396
Enrollment Management, 45 Courtenay Dr.	
Matthews Bookstore, MUSC	792-1900
158 Ashley Avenue, 1st Floor	
MUSC Information Line	792-MUSC
Call for recorded information regarding cafeteria menu and class cancellation/resumption due to weather emergencies and natural disasters.	
MUSC Gives Back	
(Student Volunteer Program).....	792-4094
Liz Sheridan, Director; SW213A, Harper Student Center	
Needlesticks	792-3664
Student Health Services, 30 Bee Street	
After hours, page House Service Coordinator.....	(792-2123)
Notary	
Services offered in the Offices of Student Programs, Enrollment Management, Student Financial Aid and in the deans' offices of most colleges.	
Parking Services	792-3665
http://www.musc.edu/parking	
Melinda S. Anderson, Director; Parking Garage II, corner of President and Bee Streets	
University Press (printing Dissertations/Thesis)	792-2591
122 Bee Street, Suite BG-105	
Public Safety	
Emergency.....	792-4196
Business.....	792-2261
Anthony Dunbar, Chief; 101 Doughty Street	

Registrar	792-5396
Enrollment Management, 45 Courtney St	
SC Residency Classification	792-5396
Sexual Harassment	792-8066
Connie Best, PhD, Director, Office of Gender Equity; 165 Cannon Street, 3rd floor	
Shuttle Bus Schedule	577-6860
University Transportation	
Student Accounting	792-2170
Joseph R. Maggitti, Sr., Director; SS341, Harper Student Center	
Student Government Association	792-2693
http://academicdepartments.musc.edu/esl/studentprograms/sga/	
Student Health Services	792-3664
http://www.musc.edu/studenthealth	
Larry Blumenthal, MD, Director; 30 Bee Street	
Student Programs	792-2693
https://www.musc.edu/esl/studentprograms/	
Willette Burnham, PhD, Executive Director of Student Programs and Student Diversity SW213, Harper Student Center	
Tuition and Fees	
http://academicdepartments.musc.edu/esl/em/records/fees.html	
Tutors	792-6390
Center for Academic Excellence; 2nd floor, Education Center/Library	
University Transportation	577-6860
Withdrawal	792-5396
Enrollment Management, 45 Courtney Drive	
Writing Center	792-6390
http://academicdepartments.musc.edu/esl/writingcenter/	

Guidelines for completing Degree Requirements

In order to be recommended to the Vice President for Academic Affairs for presentation to the Board of Trustees for your degree, the following is required.

- Notification of Defense form is due in the Dean's office **three weeks before** the defense

Dates for defending and submitting the final Thesis/Dissertation are below. The dates below will be strictly enforced and no exceptions will be made. The dates listed will allow enough time for a student to defend and submit their Thesis/Dissertation prior to the posting of degrees.

Students who do not submit their Thesis/Dissertation within this time limit will be required to register for the next semester at their own expense for a minimum of one hour and will receive that semester as their completion date.

Semester	Last day to defend	Last day to submit Thesis/Dissertation	Date degree will be posted
Summer 2014	July 14, 2014	August 12, 2014	August 16, 2014
Fall 2014	November 10, 2014	December 10, 2014	December 18, 2014
Spring 2015	March 30, 2015	April 28, 2015	May 15, 2015
Summer 2015	July 14, 2015	August 13, 2015	August 18, 2015
Fall 2015	November 11, 2015	December 11, 2015	December 19, 2015
Spring 2016	March 29, 2016	April 28, 2016	May 20, 2016
Summer 2016	July 18, 2016	August 16, 2016	August 20, 2016
Fall 2016	November 14, 2016	December 13, 2016	December 21, 2016
Spring 2017	March 29, 2017	April 27, 2017	May 19, 2017

Below is an explanation of the items left to be turned in to complete degree requirements. Following that is a post-defense checklist

- Degree Application/Graduation Order Form
http://academicdepartments.musc.edu/esl/em/records/commencement/degree_app/ This form is used to order your diploma as well as your cap and gown. The name you enter on this form will be on your diploma and the Commencement Program. (this can be done one semester before requirements are completed.) MD/PhD and DMD/PhD students will complete this through the College of Medicine and Dental Medicine.
- A Dissertation Rubric should be completed by each member of the Advisory Committee then summarized by the Major Advisor and turned in to the Dean's Office
- The Successful Defense Form should be turned in as soon as possible after the defense
- The final Thesis/Dissertation **MUST** be submitted within 30 days of the defense. Stipend support will end for students on the 31st day.

CHECKLIST

- ☐ Completed Online Degree Application
- ☐ Turn in Successful Defense form
- ☐ Thesis/Dissertation Rubric
- ☐ Schedule exit interview with Dr. McGinty (contact Amy Connolly to schedule connolla@musc.edu)
- ☐ On-line Student Survey (must be completed prior to exit interview with Dr. McGinty)
- ☐ Graduate Information form (DMD/PhD and MD/PhD students can skip this form)
- ☐ Electronically Submit Thesis/Dissertation to Proquest within 30 days of defense
- ☐ Doctoral Agreement Form - completed through ProQuest as part of Dissertation submission (MS students do not complete)
- ☐ Survey of Earned Doctorates (<https://sed.norc.org/doctorate>) (MS students do not complete)
- ☐ Contact Anne Thompson in the Digital Imaging Office and schedule an appointment to have picture taken for the COGS graduate composite. (If you do not have regalia, I have some you can borrow for the picture.)
- ☐ Financial Aid Exit counseling/interview (for those students who received financial aid)

This information may be found at the following url.

http://academicdepartments.musc.edu/grad/curr_students/forms_guidelines.htm/graduation_forms.htm

As a College of Graduate Studies student your academic progression is recorded through timely completion of the following items. You can locate these forms at the following link. http://academicdepartments.musc.edu/grad/curr_students/forms_guidelines.htm/phd_forms_info.htm Descriptions and time limits are printed at the bottom of each form. The following are forms for PhD students. Master students should go to the following link for required MS forms. http://academicdepartments.musc.edu/grad/curr_students/forms_guidelines.htm/ms_forms_info.htm

Appointment of Major Dissertation Advisor

Due no later than the end of the summer semester of the first year of study

Program of Study

Due within three months after Dissertation Advisor is chosen. Complete before final oral exam.

Recommendation for Appointment of Dissertation Advisory Committee

Due after passing the Departmental Written Exam & requirements qualifying to Admission to Candidacy

Change to Advisory Committee

(add or drop member)

Once an Advisory Committee is formed it must meet at least once a year

Annual Evaluation of Student Progress

Must meet at least once a year after forming Dissertation Committee (more frequent meetings encouraged)

After Written and Oral Qualifiers

Admission to Candidacy

At least one year prior to completion of degree

Plan of Research

Due no later than 6 months after passing the qualifying exams and before beginning research

Defense Forms

Due three weeks before the defense date

Certification of Successful Defense

Due as soon as possible after defense

Defense Rubric

Must be completed by each member of the committee on the day of defense then summarized by the Major Advisor on one Rubric and turned in to Dean's Office.

Medical University of South Carolina

University Calendar 2013 - 2018

The academic calendar is approved by the Deans of the colleges within the university. However, beginning and ending dates of some classes and final examinations may vary within programs of study, to accommodate special curricular needs. The dates shown for registration, state and federal holidays, and commencement are valid throughout the university.

	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017
Orientation/Registration	Aug 19	Aug 18	Aug 24	Aug 22	Aug 21
Classes Begin	Aug 20	Aug 19	Aug 25	Aug 23	Aug 22
Labor Day (campus closed)	Sep 2	Sep 1	Sep 7	Sep 5	Sep 4
Last Day for Drop/Add	Sep 3	Sep 2	Sep 8	Sep 6	Sep 5
Election Day (no classes scheduled)	-	Nov 4	-	Nov 1	-
Research day (no classes or tests scheduled)	Nov 8	Nov 14	Nov 13	Nov 11	Nov 10
Thanksgiving (campus closed)	Nov 28-29	Nov 27-28	Nov 26-27	Nov 24-25	Nov 23-24
Classes End	Dec 10	Dec 10	Dec 11	Dec 13	Dec 12
Final Examinations	Dec 12-18	Dec 12-18	Dec 14-19	Dec 15-21	Dec 14-20
	Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018

Registration	Jan 6	Jan 5	Jan 4	Jan 3	Jan 2
Classes Begin	Jan 7	Jan 6	Jan 5	Jan 4	Jan 3
Dr. Martin Luther King Day (campus closed)	Jan 20	Jan 19	Jan 18	Jan 16	Jan 15
Last Day for Drop/Add	Jan 21	Jan 20	Jan 19	Jan 18	Jan 17
Spring Break	Mar 8-16	Mar 7-15	Mar 12-20	Mar 11-19	Mar 10-18
Classes End	Apr 29	Apr 28	Apr 28	April 27	April 26
Final Examinations	May 1-May 7	Apr 30-May 6	Apr 30-May 6	Apr 29-May 5	Apr 28-May 4
Commencement	May 16	May 15	May 20	May 19	May 18
Clinics Closed	May 16, 8 am-12 n	May 15, 8 am-12 n	May 20, 8 am-12 n	May 19, 8 am-12 n	May 18, 8 am-12 n
	Summer 2014	Summer 2015	Summer 2016	Summer 2017	Summer 2018

Summer Semester*	May 12-Aug 16	May 11-Aug 18	May 9-Aug 20	May 8-Aug 19	May 7-Aug 18
Confederate Memorial Day (campus open)	May 9	May 11	May 10	May 10	May 10
Memorial Day (campus closed)	May 26	May 25	May 30	May 29	May 28
Orientation/Registration†	Jun 2	Jun 1	Jun 6	Jun 5	Jun 4
Independence Day (campus closed)	Jul 4	Jul 3	Jul 4	Jul 4	Jul 4
Classes End	Aug 12	Aug 13	Aug 16	Aug 15	Aug 14
Final Examinations	Aug 14-16	Aug 15-18	Aug 18-20	Aug 17-19	Aug 16-18

* Beginning and ending dates of summer semester courses may vary within these dates.

† For courses beginning **before** the first Monday in June, registration occurs within department offices.

