

Medical Biophysics Graduate Student Handbook

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I. Introduction

Graduate school is among the most intellectually stimulating phases of your academic career. You will find that your study of medical biophysics will take you to the frontier of human knowledge. You will transition from being one of our students to being one of our colleagues over the next few years. While this is an exciting time for most students, it can also be stressful, frustrating, and confusing. As a faculty, we are here to guide you through this process and offer encouragement and support along the way. Part of the support we offer is this handbook. We want to make our policies (and their justification) as transparent as possible and minimize the headaches that come from the administrative details that must be satisfied as you pursue your degree.

This handbook is a compilation of policies, procedures, and advice about the graduate program in Medical Biophysics at Clemson University. It is meant to serve as a guide to help you make your way through the program. This handbook does not cover all the policies of the Graduate School of Clemson University. Those policies are compiled in the [Graduate Announcements](#) and on [the Graduate School Policies page](#), which are published by the Graduate School each school year. You must follow both the Graduate School and the Medical Biophysics program guidelines as you pursue your advanced degree. This handbook also includes some general information about life on campus, but it is not in any way complete. You will undoubtedly learn even more as you chat with your fellow students and faculty members.

Usually, your first point of contact in the graduate program when you have questions is the Graduate Program Coordinator, Dr. Emil Alexov (ealexov@clemson.edu). He can answer most questions related to the program and University policies and procedures and represents your interests to the Graduate School. Our Graduate Student Services Coordinator, Amanda Ellenburg (AELLENB@clemson.edu) will handle the processing of all forms related to the program.

Please note that this handbook summarizes the policies and procedures as of the date on the front of the booklet. However, policies evolve over time and the policies listed in this handbook are subject to change. The entire Medical Biophysics faculty and staff would like to wish you success at every stage of your academic journey. If we can be of assistance, please do not hesitate to call upon us.

II. Programs of Study

Overview

The Clemson University offers Medical Biophysics programs of study leading to Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees. Each degree program has specific requirements. It is possible to earn a Ph.D. without earning an M.S. degree first. It is also possible to earn only an M.S. degree. If you are admitted as a Ph.D. student, you will need the approval of your committee and the Graduate Program Coordinator to switch to the terminal M.S. program. Your thesis advisor and committee may require you to write and defend an M.S. thesis as part of your preparation for your Ph.D. resulting in an en route M.S. degree. It is important that you discuss this possibility with your advisor early in your graduate school career.

The following sections summarize the Medical Biophysics programs policies as they relate to the programs of study for the M.S. and Ph.D. degrees. The Clemson Graduate School also has policies that relate to programs of study for these degrees. These are summarized in the Graduate

Announcements. It is important for you to remember that you must satisfy BOTH the program and Graduate School criteria.

A student holding a master's degree or a doctoral degree may not, as a rule, become a candidate for the same degree in the same field of study. Exceptions must be appealed directly to the Graduate School. Please see the Graduate School Policy Handbook for further information.

Master of Science (M. S.)

The M.S. degree in Medical Biophysics does not require thesis writing and it is earned online. It requires 30 credit hours of graduate course work and a final oral examination. Students must earn a B average or higher in the core courses.

During their first year, students take the following courses:

- [MBIO 8100 - Molecular and Cellular Medical Biophysics 3 Credits](#)
- [MBIO 8110 - Medical Biophysics at Larger Scale: Tissues and Organs 3 Credits](#)
- [MBIO 8210 - Medical Biophysics and Human Health 3 Credits](#)
- [MBIO 8220 - Medical Biophysics Seminar Series 3 Credits](#)

Students also participate in a rotation of faculty labs (a minimum of three credits each in [MBIO 9910](#)) for a total of 12 credits.

Elective courses may be selected by the student and advisory committee from courses in fields such as bioengineering, biology, chemical and biomolecular engineering, chemistry, computer science, genetics and biochemistry, materials sciences, mathematical sciences, physics, or plant and environmental sciences, or various lectures and seminars offered by PRISMA Health. A list of available elective courses is provided here.

A master's student is allowed a maximum of six years to complete a degree; however, it is expected that full-time students should complete their master's degree within two years of their arrival at Clemson.

Graduation Requirements:

- (1) Successful completion of core courses with course grade “B” or higher.
- (2) The MS in Medical Biophysics program requires that each student completes at minimum 30 credits in courses.
- (3) Several talks/posters at regional/national meetings, which demonstrate the ability to address a complex problem in the field as determined by an internally developed rubric.
- (4) MBIO 991 Keystone Assignment: completion of a research project that demonstrates the student’s ability to develop and conduct appropriate computational and/or experimental investigations, analyze data and draw conclusions.

(5) Assessment of student's performance in core coursework and final exams on topics related to drug discovery (Pharmaceutical component), genetic origin of human diseases and Personalized Medicine (Medical component) and basic biophysical science.

Doctor of Philosophy (Ph.D.)

Course Requirements

The Ph.D. in Medical Biophysics requires a minimum of 60 credits of coursework, completion of core courses with average grade "B" or higher, and the successful submission presentation and defense of a doctoral thesis.

During their first year, students take the following courses:

- MBIO 8100 - Molecular and Cellular Medical Biophysics 3 Credits
- MBIO 8110 - Medical Biophysics at Larger Scale: Tissues and Organs 3 Credits
- MBIO 8210 - Medical Biophysics and Human Health 3 Credits
- MBIO 8220 - Medical Biophysics Seminar Series 3 Credits

Upon successful completion of the core courses, the student and the advisory committee select a minimum of total four elective courses that must be completed in the second and third year from courses in fields such as bioengineering, biology, chemical and biomolecular engineering, chemistry, computer science, genetics and biochemistry, materials sciences, mathematical sciences, physics, or plant and environmental sciences, or various lectures and seminars offered by PRISMA Health. The student may select, or the advisory committee may require, more elective courses if necessary. A list of available elective courses is provided here.

The student's advisory committee is formed by three members of participating faculty who are experts in the field chosen by the student. In addition, to ensure student has broad view in Medical Biophysics, it is required that two additional members be selected from participating faculty who are not experts in the research area of the student's doctoral thesis.

Graduation Requirements:

- (1) Successful completion of core courses with grade "B" or higher or successful passing of written qualifying exams.
- (2) The first-year students take core courses. It is required that students have at minimum 30 credit hours in coursework. At the end of the program, the students accumulate 60 credit hours, which includes 30 research credits via MBIO 9910 course.
- (3) Several peer reviewed papers, which demonstrate the ability to address a complex problem in the field as determined by an internally developed rubric.
- (4) Completion of dissertation thesis that demonstrates the student's ability to develop and conduct experimental and/or computational investigations, analyze data and draw conclusions.
- (5) Assessment of student's performance in core coursework and final exams on topics related to Biophysics (Biophysics component) and genetical origin of human diseases and Personalized Medicine (Medical component).
- (6) Several talks/posters as a first author at regional/national meetings, which demonstrate the ability to address a complex problem in the field as determined by an internally developed rubric.

Prior to the convocation at which you expect to receive a PhD degree, a final oral examination and dissertation presentation must be completed (see the graduate school webpage for deadlines). Prior to the defense, you need to complete the [GS7D form](#). You will also need to schedule the defense of your dissertation with your committee, reserve the room for the defense (see [Celeste Hackett](#) in the main office for help with that), and notify the Graduate School, via the [Defense Calendar](#) of the time and

place of the defense at least 10 days in advance. You or your advisor must invite the Medical Biophysics faculty and the Dean of the Graduate School to attend the examination. It is best practice to provide committee members, and Graduate Program Coordinator a copy of the completed dissertation that you will be defending 30 days in advance of the defense date and absolutely no later than one-week prior. Some committees may have different requirements, so it is important to discuss this with your research advisor early in the process.

During the thesis defense, committee members will make suggestions concerning the thesis. Students will need to make these changes and have their committee sign the completed thesis. Upon passing the dissertation defense and satisfying the committee's comments on your manuscript, you should have your committee sign the GS7D form, give a copy to the Graduate Student Services Coordinator, and forward a copy to the Graduate School as soon as possible, and no more than three days after the defense. You will then need to get the Graduate School to approve the thesis. This must all be completed at least two weeks prior to graduation. It is advisable to make an appointment with the Graduate School to review your thesis before the defense as reviewers get "booked up" at the end of the semester.

Academic Probation

To remain in good standing with the Graduate School, students must maintain a GPA of at least 3.0 at all times. Failure to maintain a 3.0 will result in academic probation. The Graduate School policy is available in the [Graduate School Policies and Procedures Handbook](#). Currently, students put on probation will be given one semester to raise their GPA above a 3.0. To continue in the program, you must fill out a Plan for Success ([GSR1](#)) and have it signed by your advisor, the Graduate Program Coordinator, and Associate Dean of the Graduate School. If you do not raise your GPA above a 3.0 after one semester, you may be allowed one additional opportunity to do so. You must complete a second Plan for Success ([GSR2](#)) and have it approved by your advisor and Graduate Program Coordinator. Failure to raise your GPA above a 3.0 will result in dismissal and disqualification from pursuing any graduate degree from Clemson. Note that your status in the program is determined by the Graduate School. While we can provide input and advice to the Graduate School, ultimately, they alone can admit and dismiss students from their programs of study. Other conditions may apply to conditionally admitted students on a case-by-case basis. These will be described in your admission letter.

Checklist on Graduate School Procedures

This is admittedly a lot of information. Here is a summary of the forms you need to fill out as you work your way to your degree. You should carefully note this checklist as well as the [deadline dates](#).

1. Select a thesis advisor and advisory committee.
2. Submit Committee Selection and Plan of Study Curriculum (**Form GS2**).
3. Satisfy the average B grade on core courses for admission to candidacy.
4. Apply for admission to candidacy for a doctoral degree (**Form GS5D** and **GS-Approval of Thesis/Dissertation Research Proposal**).
5. Complete Final Examination (**Form GS7M** for master's students or **Form GS7D** for doctoral students).
6. Order diploma (**through iRoar**) after completing at least half the prescribed course work.
7. Order cap, gown, and hood from the University Bookstore.
8. Submit completed thesis (if required) or dissertation to research advisor and arrange for final examination by the advisory committee.
9. Review thesis/dissertation submission [guidelines and procedures](#), and make sure you submit your properly formatted manuscript prior to the deadline.

The final responsibility for ensuring compliance with these procedures rests with you. Special problems should be referred to the Dean of the Graduate School.

The En -oute M.S. degree

While taking courses for your Ph.D. and preparing for your dissertation research, you will likely satisfy the requirements for an *En-Route* M.S. degree. With the approval of our committee, you may apply for the M.S. degree. You will need to file the [GS2-14](#) with the Graduate School prior to the semester in which the degree is conferred. Many faculty members require their students to complete an M.S. thesis before starting their Ph.D. dissertation. You should discuss this with your committee.

Dissertation Formatting and Binding

The Graduate School has specific [guidelines](#) for formatting your thesis. After your defense, the Graduate School must approve your manuscript before you can be a candidate for graduation. Neither the Graduate School nor the Medical Biophysics program requires that you present either with bound copies of your thesis. Some students have been known to provide copies of their thesis to their advisor as a gift, and some faculty will request that their student provide a bound copy of the thesis to the research group (at the faculty member's expense).

III. Research

Original research is a primary difference between graduate school and other education. You are encouraged to visit individual faculty members' research and web pages, which can be found on the Medical Biophysics [website](#). Many students also find it helpful to talk to senior students from different groups. Most importantly, you should arrange a meeting with the professor you are interested in working with.

Selection of Research Advisor and Advisory Committee

Within 9 months of entering the program, you should choose a Research Advisor. The selection of a Research Advisor is a decision that requires a great deal of thought. This decision should not be taken lightly as it strongly affects the course of your graduate studies and professional life.

You should plan to meet with various faculty throughout the Medical Biophysics program during your first semester of study. This will help you learn more about different research and groups. After you and a faculty member mutually agree to work together, you should notify the Graduate Student Services Coordinator (Amanda Ellenburg) and Graduate Program Coordinator (Dr. Emil Alexov). Keep in mind that this must be a mutual decision. No faculty member is required to take you on as a student.

You will then work with your Research Advisor and the rest of your Advisory Committee to complete the GS-2 (Committee Selection/Plan of Study) Form. This two-part form will outline the courses you will take in order to complete the degree requirements. Your Advisory Committee will need to consist of a minimum of two (for a master's committee) or three (for a Ph.D. committee) faculty members in addition to your advisor who will work with you as you pursue your thesis work.

Your committee is a valuable resource, but it is your responsibility to take advantage of this resource. You should keep all your committee members up to date on your progress and accomplishments. Regular meetings with your committee members are essential for maximizing the benefit of their advice.

IV. Financial Support

There are several options for financial support available to students in the graduate programs, including teaching assistantships, research assistantships, and fellowships. The purpose of this support is to provide students the means to concentrate on their scholarship with minimal distractions. Because of this, outside employment is prohibited as a condition of accepting full time support. Each type of support is awarded to qualified students on a competitive basis. Continuation of all support is based upon satisfactory progress towards a degree and satisfactory performance of your duties. To receive financial support, a student must maintain full-time status, which, by University policy, is defined as being enrolled in a minimum 9 credit hours in the Fall and Spring semesters and 3 credit hours in each Summer session (if on a 12-month assistantship). Most forms of support are distributed over nine months to prevent the requirement of registering for classes (and paying fees) during the summer.

Fellowships

The Graduate School awards several fellowships. The Medical Biophysics program nominates candidates who will compete for the fellowships with other nominees throughout the university. These fellowships currently pay from \$5,000 to \$10,000 per academic year in addition to any assistantship granted by the program. Graduate School Fellowships require no explicit duties and may be renewable. Some students are awarded extramurally funded fellowships. The Graduate School maintains a list of [fellowship opportunities](#) and offers grant-writing [workshops](#) that can help guide you through the process of applying for a fellowship.

Research Assistantships (Ras)

Research Assistantships are available to graduate students through research grants and contracts held by faculty members in the program. They may pay a somewhat higher rate than the teaching assistantships and are awarded based on availability and the qualifications of the recipients. Most students work as Research Assistants after passing the Qualifying Examination.

All assistantships carry a waiver of graduate tuition, but there is a [fee](#) imposed for the Fall/Spring semesters and the Summer Session. Currently, the academic fees are about \$1,150/semester in Fall/Spring and about \$670/Summer.

Teaching Assistantships (TAs)

These are the most common type of financial support for incoming graduate students. These assistantships provide the equivalent of 12 months of support, though the payment is distributed during the academic year (over nine months). This is to save TAs from paying fees during the summer when they are not taking classes. It is your responsibility to budget carefully to ensure that you have sufficient funding for the summer. No specific teaching duties are assigned during the summer, but students are expected to remain in residence and continue making progress toward their degree during that time.

A teaching assistant's duties usually entail teaching two to three undergraduate labs per semester, and/or grading assignments for undergraduate courses. Typically, your TA duties should not exceed 20 hours/week; however, the workload throughout the semester can vary considerably. Senior students who have distinguished themselves as TAs may be given the option of teaching a full course at Clemson or release to teach at a local college. This can be an excellent professional development opportunity for students interested in careers in academia. For the year 2019-2020, teaching assistantships were, on average, \$23,000 per nine months. Exceptional performance (or negligence) may affect your stipend. A reduction in pay due to poor performance will be communicated to you within two weeks of the end of the semester.

Special Requirements for International TAs

If you are a new non-native English speaker performing TA responsibilities, you must pass the VEST (Verification of English Skills Test). This test will determine how well you can understand and communicate in spoken English. The test is given on campus, free-of-cost. The Graduate Student Coordinator, Amanda Ellenburg, will schedule the test. You will be informed of your test date and time either in person or in an e-mail. If you have a conflict with the scheduled date and time, you should contact Amanda immediately. Your teaching assistantship will be rescinded if you do not pass the VEST. It is your responsibility to find an alternative source of funding in this case.

If you hold F-1 or J-1 status, you are required to register for full-time status (a minimum of nine credit hours per semester, excluding summer sessions), based on Graduate School and program regulations. It is important not to fall below the required credit hours. If you elect to withdraw from the University, you must discuss your plans with the Foreign Student Advisor (FSA) in the Office of International Services (108 Long Hall) to avoid problems with the US Immigration and Naturalization Service (INS). If you anticipate completing and filing your thesis or dissertation between the end of one semester and the beginning of another, you should contact the FSA before filing your thesis or dissertation.

Time Limit on TA Support

TA support is normally made available to graduate students for a limited time. Allocation of TA support to continuing students is generally dependent on making satisfactory progress towards a degree (M.S. or Ph.D. in medical biophysics). A student pursuing a Ph.D. degree should not expect to be supported by program funds for more than 10 semesters. These numbers do not include summer sessions.

Federal Financial Aid

Some students may choose to pursue federal financial aid such as federal loans. To do so please see the Financial Aid [website](#).

To qualify for federal financial aid, you must make satisfactory progress towards your degree as defined by the Financial Aid [office](#).

Because of the way satisfactory progress is defined for students pursuing graduate degree, it is highly likely that your record will be flagged by the fifth year of graduate school (once you exceed 90 credit hours). This is not necessarily a problem, but there is additional [paperwork](#) involved.

In short you will need to complete the graduate [Satisfactory Academic Progress Appeal Form](#).

TA and RA Evaluations Policy

An important part of your professional development is formative evaluation of your teaching and research performance. Your advisory committee members are currently charged with evaluating your research performance. The TA supervisor will work with the Graduate Program Coordinator to evaluate your performance as a TA. These evaluations will provide you with documentation to include in your teaching portfolio when applying for jobs, provide the faculty with a basis for nominating students for teaching awards and provide documentation of any deficiencies that need to be addressed.

All TAs will be evaluated at least annually to assess their performance. The outcome of the annual evaluation will be either:

1. *Exemplary performance* – Student exceeds expectations by taking on a leadership role among the TAs, receiving accolades from students, or otherwise demonstrating excellence in the

performance of his/her duties. Students who receive an “Exemplary” evaluation will be highest priority for the nomination for TA awards and for a raise if funds are available.

2. *Adequate performance* – Student meets expectations by arriving prepared for each lab and on time. The student also submits grades and attendance reports in a timely manner and meets other necessary deadlines. Complaints from students are minimal. Such students will be eligible for a cost of living stipend adjustment if funds are available.
3. *Fair Performance* – Student mostly meets expectations, but occasionally is late for meetings or class (or otherwise underprepared), is reminded occasionally to follow policy, does not get grades submitted in a timely manner, or receives a large number of student complaints. A “Fair” evaluation will result in a warning. If a student’s performance is gauged “Fair” two semesters in a row, that student will be put on probation. Students who earn a “Fair” evaluation will not be eligible for a raise.
4. *Poor Performance* – Student fails to meet expectations. The student is regularly late for lab, meetings, or in getting grades turned in. The TA coordinator must correct the TA for not following policy multiple times. “Poor” performance will result in probation the following semester of teaching. If a student continues to perform at this level, s/he will not be eligible for further TA support from the program. Students who earn a “Poor” will not be eligible for a raise.

You should discuss your evaluations with your supervisor. You can appeal to the Graduate Program Coordinator if you feel an evaluation is unfair. You also have the right to file a grievance with the Graduate School. It is highly recommended that you discuss your situation with the Ombudsman prior to filing a grievance.

Timing of evaluations: By the end of the fall semester (on or about December 15), the TA supervisor will provide an initial evaluation of all first time TAs and TAs on probation. All other students will be evaluated by the end of the Spring semester (on or about May 15). These evaluations will be copied to the Graduate Program Coordinator. The TA supervisor will address major accomplishments or deficiencies immediately. These will be documented in writing and copied to the Graduate Program Coordinator, and TA.

Teaching Courses: TAs who have earned their M.S. degree, have passed the qualifying and comprehensive examinations, and have demonstrated excellence in their teaching may be afforded the opportunity to teach a full lecture course as a Graduate Teacher of Record (GTR) under the supervision of a faculty member. Teaching a course will be considered a full TA workload and will come with a 10% supplement for the semester during which the course is taught.

Evaluation of RAs: The evaluation of RAs will be handled by the Primary Investigator (PI) of the grant from which the RA is being paid. The PI is not necessarily the student’s thesis advisor, and the work the RA is being paid to deliver is not necessarily directly connected to the student’s thesis work. Thus, the evaluation of performance for the RA rests with the PI rather than thesis committee.

The expectations for the RA should be clearly defined prior to the student starting work on the grant. The student is limited to 20hrs/wk. of work on tasks for which s/he is compensated. This is in addition to the work the student must do to make adequate progress to his/her graduate degree (i.e., satisfy the demands of MBIO 8900/8910/9910). While there is typically a great deal of overlap between the work the student does as a RA and the research required to complete his/her thesis, it is

crucial that the PI delineate the two.

PIs have wide discretion on how they administer their grants, thus it is crucial for PIs to be very clear about their expectations and to be upfront with students and the program about the timeline for funding. If a PI is not going to fully fund a student for the academic year, s/he should let the program and the RA know. If a PI anticipates terminating a RA from a grant for the subsequent academic year, the PI should alert the program by January 30. If additional funding is anticipated, that should be communicated to the program as well.

If a PI finds a RA's performance unsatisfactory, s/he should attempt to work with the RA to rectify the deficiency and alert the Graduate Program Coordinator. Termination mid-semester should be reserved for the egregious violations of responsible conduct of research or other egregious violations of program policy. If termination is necessary, the PI should discuss this with the Graduate Program Coordinator.

Guarantees of Support

While most students in the Ph.D. program receive some type of financial support (based on the availability of funds), it should be understood that financial support is not guaranteed to any student. No contracts, whether written or verbal, may guarantee a student support. Unsatisfactory performance of teaching duties, in course work, in research work, or on the VEST may all be considered cause for reduction or termination of financial support. Other reasons may be considered just cause for termination of support at the discretion of the Medical Biophysics program coordinator.

Payroll and Paydays

All Clemson University employees are paid semi-monthly: on the 15th and last day of the month (if either of these dates falls on a weekend or bank holiday, you will be paid on the prior business day). An employee's first payday may take up to 6 weeks to process. All employees are required to have direct deposit of their checks into an account of a US banking institution. You need to see Kim Web in the main office (118 Kinard) before beginning your teaching duties to complete required paperwork. You will be required to bring your Social Security card, a government-issued photo ID (e.g. Driver's License or Passport), a cancelled check and any additional paperwork required by DHS and/or INS. International students will have additional required paperwork to complete.

Holidays and Time Off

You are entitled to take, as holidays, the days on which the University is [officially closed](#) (note that the university is often open even when classes are not in session). In addition, you may take ten working days during the year as vacation. The latter should be taken so that the interference with your teaching and/or research responsibilities is minimal. Your supervisor and/or thesis advisor should approve leave in advance. Keep in mind, however that your primary responsibility is to complete a dissertation of original research, and you have a limited term of financial support to do so. Taking extended leave can result in your project being scooped by someone else and putting you further behind than you anticipated. Therefore, extended leave should be reserved for extenuating circumstances.

If you are working as a TA, you should not take vacation while classes are in session. In the event you must miss a lab section or other job requirement because of an illness or injury, inform your immediate supervisor (e.g., [Dr. Daniel Thompson](#)) **and** Amanda Ellenburg. It is a good idea to let your thesis advisor know as well. It is your responsibility to perform your due diligence in finding a replacement for your lab section; however, if you are unable to find a replacement for your lab, your supervisor will help you do so.

While it is imperative that you keep your absences to an absolute minimum while classes are in session, we also recognize that your research responsibilities may lead to conflicts (e.g. attending conferences, off-site research trips, etc.). When you know that you will need to miss time in your lab, it is incumbent upon you to find a replacement. You must also have approval from your thesis advisor and alert the lab supervisor as soon as possible, but no later than two weeks before your trip. If you have trouble making arrangements to have someone cover your lab section, your thesis advisor and laboratory supervisor will work with you to find a replacement.

Many students find it helpful to arrange informal agreements with their fellow students to help each other in cases when a conflict prevents you from being able to teach your lab(s). This is allowable, but you still must let your lab supervisor and thesis advisor know that you will be absent. You are responsible for your lab sections. We take your responsibilities as an instructor very seriously and you should, too. Your performance as a TA will be considered by the GSEC when deciding whether to recommend further financial support.

Outside Employment

One of the purposes of TAs and RAs is to support you during your graduate studies. Therefore, it is the policy of the Medical Biophysics program to disallow students from outside employment if their assistantship is equivalent to more than half time. Exceptions to this policy are temporary consulting and/or tutoring jobs that the student may do with the approval of their thesis advisor.

Taking on outside employment without approval from your thesis advisor while on an assistantship may result in immediate termination of your assistantship.

V. Academic Integrity

As members of the Clemson University community, we have inherited Thomas Green Clemson's vision of this institution as a "high seminary of learning." Fundamental to this vision is a mutual commitment to truthfulness, honor and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, academic dishonesty in any form will not be tolerated.

Furthermore, as scientists, we depend on the trustworthiness of our colleagues to advance knowledge in our discipline. Academic dishonesty can shake the public's confidence in the reliability of scientific knowledge as well. The American Physical Society has also adopted guidelines for [professional conduct](#) that you should become familiar with. The National Science Foundation and National Institute of Health also require that everyone supported by NSF/NIH funds receive [Responsible Conduct in Research training](#). The [Office of Research Compliance](#) provides brown bag lunch seminars and online training seminars that you should work through as soon as possible.

The Graduate School provides a comprehensive description of University policy as it pertains to [Academic Integrity](#). You should read this carefully and make sure you understand everything in it. If you have questions, feel free to discuss these policies with your advisor and the Graduate Program Coordinator.

VI. Other Academic Policies

The Graduate School maintains a [database of university academic policies](#). These cover readmission, residency requirements, continuous enrollment requirements, leave of absence, duplication of higher degrees, auditing courses, protesting grades, transfer credits, deadlines for graduation, and so forth. If there is a conflict, Graduate School policy supersedes program policies. Please refer to the Graduate School webpage for official university policies, important deadlines, and questions about issues not

described here.

VII. Program Operations

Student Offices

Most of you will be assigned a space in ??? for your first year. After you have chosen a Research Advisor, you will likely move to a different office with students in your area. When moving, you should notify the Amanda Ellenburg in 118 Kinard. Space is limited, so you may be required to move your office as demand on space requires.

E-mail

E-mail is the primary way the program and the University will contact you. Both student and employee e-mail accounts should be checked regularly (at least once per day) as you will receive important information concerning courses, program events and University information. Many of these may require immediate attention. It is particularly crucial that you carefully read all communications from Graduate Program Coordinator (Dr. Emil Alexov), and the Graduate Student Coordinator (Amanda Ellenburg). Many of these email messages may be time sensitive and affect your ability to progress efficiently through the program.

Office and Computer Supplies

Your advisor will provide materials for research labs. Office supplies are not intended for personal use. You will not be reimbursed for personal supplies.

VIII. University Resources

Clemson Computing and Information Technology ([CCIT](#))

Services

[CCIT](#) provides computer support, manages the campus network, and sets computing policy. Their [information for new students](#) is primarily directed to undergraduates, but you may find some of the information useful. While undergraduate students are required to have a laptop approved by CCIT, graduate students are not. It is, however, strongly recommended that you have your own computer. Most students find it helpful to have LINUX installed on their personal computers. Some students set up a dual boot with MS Windows. Others use Macintosh computers that have X11 built in. Before purchasing a new laptop, you should discuss your computing needs with your thesis advisor.

CCIT provides robust [computing support](#) – from hard drive recovery to help setting up your email. They also provide access to [high performance computing](#) with the [Palmetto Cluster](#) and [high throughput computing](#). The Palmetto Cluster is a 12,000-core supercomputer for large calculations. High throughput computing is a network of 1700 machines across campus useful for running a large number of serial jobs. CCIT provides [training](#) on these facilities as well as training in the use of UNIX/LINUX, scripting, and writing optimized parallel code.

Network

CCIT maintains the campus [network](#). Wi-Fi is available across campus (EduRoam), and Ethernet connections are available in all offices. [Instructions](#) for setting up your devices to use EduRoam are available on the CCIT solutions page. Be sure not to connect an unauthorized router to the campus network. This can result in the loss of access to the campus network.

Software

CCIT provides access to a number of [Software titles](#) for free or steeply discounted prices. Talk to your advisor about other software you may need for your research. Do not risk using pirated software on your machine. The penalties can be harsh, and you have no expectation of privacy while using the campus network.

Computing Policy

Be sure to familiarize yourself with the [campus computing policy](#). Most regulations are common sense. Keep in mind that the campus network exists to promote official University business (teaching, research, and service to the state). Any activities that compromise the ability of campus users to do their job is strictly forbidden.

Clemson University computing resources are the property of Clemson University, to be used for University-related business. *You have no expectation of privacy when utilizing university computing resources, even if the use is for personal purposes.*

Clemson University Libraries

Clemson's main library, the Robert M. Cooper Library, is located at the center of campus and provides students with a variety of services and up-to-date collections. More than 1.6 million items are available as books, periodicals, microforms, government publications and electronic materials. Detailed information regarding facilities, hours of operation, loan privileges, policies, and fine regulation is available at the circulation and reference desks and on Cooper Library's [website](#).

Career Services

You are now a professional student, and it is never too early to start thinking about the next stage of your career. What do you hope to do with your graduate degree in Medical Biophysics? Many students plan on following the traditional path from Ph.D. to postdoc to faculty job. Perhaps that is your goal as well; however, you may find that your goals shift as you move through your graduate studies. It is a very good idea to be aware of the opportunities available to you and learn how you need to position yourself to take full advantage of those opportunities. Previous students in our program have found rewarding careers in government labs, industry, and secondary education. As you think through your goals, you may find that the [Michelin Career Center](#) is helpful. The Michelin Career Center is committed to meeting you unique needs as a [graduate student](#).

As you search across campus, you will find that there are several certification programs that may help you pursue your professional goals. For example, many students find they are interested in teaching high school science. If you think this is for you, you might be interested to learn that the School of Education offers an intensive 13-month [Master of Arts in Teaching in Secondary Science](#). Other students want to go into business for themselves. Such students may find the [Technology Entrepreneurship Certificate](#) of interest. If you think you may want a career teaching at a non-research intensive college, you might find the [Certificate in Engineering and Science Education](#) useful. These are just a few examples of the certification programs available on campus. As you think through your career goals, you may find it helpful to explore additional options as well. However, be sure to get the approval of your thesis advisor before taking any courses beyond those approved on your GS2. Approval of extra coursework is contingent on making satisfactory progress toward your degree as determined by the GSEC. Taking extra courses without prior approval by your advisor will place your assistantship in jeopardy.

IX. Student Life

Graduate Student Government

The mission of the [Graduate Student Government](#) (GSG) is to represent the interests of all graduate students at Clemson University in four vital focus areas:

- Involvement - to encourage graduate student participation in the University process;
- Communication - to act as the liaison between the University and graduate students with an emphasis on honest and open communication;
- Collaboration - to promote the efforts of graduate students and the University into one united mission of making the Clemson experience one of quality education and reward; and
- Development - to provide participatory learning experiences that allow for the enhancement of graduate students' academic, civic, social and professional development.

The GSG is composed of all graduate students at Clemson University. Its Senate consists of one representative from each academic department. The Executive Board consists of the president, vice president, secretary, treasurer and chairs of the GSG committees. In addition, there are board seats for the executive assistant, the news editor and the assistant news editor. The GSG elects representatives to various University boards, commissions, committees or councils that solicit graduate student opinions. GSG also participates in the planning and implementation of Graduate Student Orientation and the Graduate Student Research Forum. Students can contact GSG via e-mail at gsg@clemson.edu.

Health Services

Most students satisfy the mandatory health insurance requirement by enrolling in the [University Health Plan](#). Preventative care [Redfern Health Center](#) consists of four divisions: Medical Services, Counseling and Psychological Services (CAPS), Disability Services and Health Education/Alcohol and Drug Education. Medical Services Redfern Health Center, an outpatient facility, operates Monday through Friday, 7:30 a.m. to 5:00 p.m. (summer hours are 8:00 a.m. to 4:30 p.m.). Students without an appointment are seen in the Nurses Clinic. ASK-A-NURSE telephone services (656-2233) are also available. The student health center offers outpatient ambulatory care for illnesses and injury, pharmacy, lab, X-ray and specialty clinics including orthopedics and women's health.

A completed medical history questionnaire is required of all students entering the University for the first time. Documentation of two red measles (rubella) vaccines since the student's first birthday is required. Students born prior to January 1, 1957, are exempt from the measles requirements. A tuberculin skin test (PPD) is required within the year before the student's enrollment at the University. Students with a history of a positive skin test are required to have a chest X-ray within the year before the student's enrollment at the University. Students not in compliance with immunization requirements will not be allowed to complete registration.

Counseling and Psychological Services (CAPS)

CAPS strives to provide quality counseling and mental health services to enhance students' intellectual, social and personal growth. Counselors work with students to improve self-awareness, understanding and coping skills. All information is kept confidential and separate from medical and academic records. CAPS offers individual and group counseling for a range of personal problems, including anxiety, depression, trouble coping, sexual concerns, relationship problems, substance abuse and alcoholism. Testing and counseling groups are also offered for students with learning disabilities and attention deficit hyperactivity disorder. Testing is also provided to aid in the diagnosis of problems. Some testing services require a fee, but most are free of charge.

Disability Services

Clemson University is committed to providing educational opportunities for all students and assisting them in making their college experience successful. In compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Clemson University

recognizes a student with a disability as anyone who has a physical or mental impairment that substantially limits one or more major life activity. Individualized accommodations for students with disabilities are coordinated through the Office of Student Disability Services. Reasonable and compensatory strategies are developed confidentially with each student based on the nature of the disability and the academic environment.

Students requesting accommodations must provide current documentation of their disability from a physician or licensed professional to Student Disability Services in Redfern Health Center (Voice/TTY (864) 656-0515). For more information, visit Student Disability Services Student Guide.

Health Education

Health Education provides information and wellness challenges on a variety of subjects: alcohol and other drugs, sexuality, leadership, nutrition and stress management. Health Education provides the opportunity to develop leadership skills through peer education programs. Alcohol and Drug Education offers social host training, on-campus party registration and OCTAA (On-Campus Talking About Alcohol course).

Health Fee

University policy requires that all students registered for seven or more credit hours during the fall or spring semester or four or more credit hours during a summer session pay the University health fee. The health fee provides access to the professional services of University physicians/nurse practitioners, counselors and health educators at no additional cost; reduced costs for medical diagnostics; and an after-hours urgent care excess insurance benefit. Students pay for pharmaceuticals, orthopedic equipment, specialty clinics and psychological testing. Payment is expected at the time of service.

Students may pay with cash, check, MasterCard, Visa or Tiger Stripe.

Health Insurance

The University offers an accident and sickness insurance plan to help cover major medical expenses. Information is sent to all students prior to the fall semester. All students are strongly encouraged to have comprehensive health insurance coverage during their tenure at the University. International students' dependents are required to have comprehensive health insurance as well.

After Hours

Students may call ASK-A-NURSE at (864) 656-2233 Sunday through Thursday, 4:00 to 8:00 p.m. A registered nurse is available to answer questions, provide health information and schedule appointments. Students requiring the care of a physician after hours may choose from area emergency rooms and urgent care facilities including Clemson Health Center, Oconee Memorial Hospital, Anderson Area Medical Center, Baptist Medical Center and Greenville Memorial Medical Center. Medical costs incurred are the student's responsibility. Students should contact Redfern the next business day for follow-up care.

On-campus medical emergencies are transported by the University ambulance to the closest community medical resource. The University ambulance is staffed with licensed emergency medical personnel 24 hours a day. Students are required to pay for off-campus ambulance transportation except for those medical resources within the city of Clemson for after-hours urgent care.

Graduate Student Housing

There is no Graduate Student housing on campus. While you may apply to live in [general student housing](#), almost all of our graduate students live off campus. There are several economical options available near campus. Talking to more senior graduate students is the most helpful way to find the best living arrangement for you.

Dining Plans

The University has a number of dining options on campus and provides a number of [convenient meal plans](#) some students find attractive. There are also several restaurants in walking distance from campus, and a number of grocery stores and shopping centers serviced by the CAT bus.

Tiger 1 Card

The [Tiger 1 Card](#) is every student's official Clemson University ID. Many departments use Tiger 1 Card as a means of granting access to their information and services. The Tiger 1 Card will serve as a:

- Personal student identification card
- Personal debit card to access pre-deposited funds in a Tiger Stripe account
- Meal plan card
- Library card
- Residence hall access card
- After-hours building access card
- Fike Recreation Center access card

You will also need to show your Tiger 1 Card in order to receive tickets to athletic events. You should keep your Tiger 1 Card with you at all times.

Parking Information

Students who live off-campus who intend to drive to campus and park their cars must obtain a parking permit from [Parking Services](#), which is located at G-01 Edgar Brown Union. Information about obtaining a parking permit, parking lot locations, and game day parking are available at the Parking Services [website](#). The [Clemson Area Transit](#) (CAT) Bus is a mode of transportation open to Clemson students, faculty and staff. Many students find taking the CAT bus to campus is much more convenient than searching for a parking place on campus.

Campus Recreation

The [Department of Campus Recreation](#) provides a wide array of recreation opportunities. The centerpiece of Campus Recreation is the [Fike](#) Recreation Center. Fike offers fitness equipment, fitness classes, athletic courts, and a pool. There is also a [campus beach](#) for enjoying warm sunny days. The University also sponsors organized [outdoor](#) getaways. [The Edgar Brown University Union underground recreational facility](#) has pool tables, bowling alleys, and various arcade games at reasonable rates. McKissick Theatre in the [Hendrix Student Center](#) hosts discounted or free movies throughout the semester. The [Brooks Center](#) hosts a number of live events throughout the year. Most of these are at very reasonable rates, and some are even free. The [Lee Gallery](#) for the visual arts hosts visiting artists and various visiting exhibits each year.

Clemson University fields several competitive men's and women's [varsity athletic teams](#). Many of these sporting events offer free admission to students.

X. University Harassment Policies

General Harassment Policy

Clemson University is committed to being an inviting community of scholars that respects the dignity of every individual. Therefore, harassment of any kind will not be tolerated. Details of the [University Harassment policy](#) are available from the [Office of Access and Equity](#). The policy defines harassment, provides information on how to report claims, and describes how complaints may be resolved. While most of this information is common sense to most people, you should still review it to make sure you do not run afoul of university policy and so that you know your rights and responsibilities in the unlikely event you run into an issue.

Amorous Relationships

[Amorous relationships](#) that might be appropriate in other circumstances can be inappropriate when they occur with a person for whom you have a professional responsibility (e.g. a student in a lab

section you teach). Those in positions of authority inherently carry the element of power in their relationships with subordinates. It is imperative that you neither abuse, *nor appear to abuse*, the power entrusted to you. You should be aware that any romantic involvement with a student or subordinate employee could make you liable for formal action if a complaint is initiated. Even when both parties have consented to such a relationship, it is the officer, supervisor or faculty member who may be held accountable for unprofessional behavior. *Difficulties can also arise from third parties who may feel that they have been disadvantaged by such relationships.* You would be wise to exercise special care in your relationships with students you instruct or evaluate. A simple policy to avoid problems and perception of problems is not to date or develop close personal relationships with your students while they are in your class or lab. An amorous relationship with a student you are charged with grading will result in immediate loss of support.

Ombudsman Information

Overview

The [Ombudsman](#) is an independent, confidential resource that provides assistance to you in resolving problems, complaints and conflicts when normal processes and procedures have not worked satisfactorily. The Ombudsman's Office serves as a central information source on policies, procedures and regulations affecting faculty, graduate students and post docs. The office refers individuals to persons able to resolve problems or handle appeals at the lowest possible level. Where appropriate, the Ombudsman can facilitate and/or mediate communication between parties in a dispute.

The Role of the Ombudsman

The Ombudsman strives to ensure that faculty members, graduate students and post docs receive fair and equitable treatment within the University system. He or she provides an independent point of view in an informal and confidential environment. The Ombudsman will not identify any student with whom he or she has contact or discuss his or her personal concerns with anyone without the student's permission. Private confidential meetings can be arranged at the convenience of the student. All communications will be treated with strict confidentiality. The Ombudsman works toward resolutions based on principles of fairness. He or she is neither an advocate for faculty members, administrators, nor students. Nor is the Ombudsman an agent of the University, rather he or she is an advocate of fair process.

Contacting the Ombudsman

Any complaint should first be taken to the faculty or staff member involved to reach a resolution. If no resolution is reached, the graduate student should consult with the Graduate Program Coordinator or the Dean who will hear the complaint and act as a referee. If an acceptable resolution is not reached or if you are not comfortable approaching one of these three people, you should discuss your situation with the [University Ombudsman](#). If a resolution cannot be made, the student should then consult with the [Dean of the Graduate School](#). Graduate students should talk with the associate dean responsible for academic grievances if mediation is necessary. The Graduate School is located in E-106 Martin Hall, and the telephone number is 656-4172.