

# **Graduate Student Handbook Physics & Astronomy**



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**Summary of Changes:** Over the previous year, the graduate school has passed a number of new policies that are reflected in this catalog:

1. The graduate school now requires that all programs provide annual evaluations of GTAs. Our evaluation process is described in Section V.
2. The graduate school has tightened the policy on continuous enrollment. The new policies are reflected in Section VII.
3. The text on course requirements has been clarified to highlight the process one must follow to be exempt from core course requirements. See Section II.

## **I. Introduction**

Graduate school is among the most intellectually stimulating phases of your academic career. You will find that your study of physics 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 Physics & Astronomy 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 of 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 Physics & Astronomy Department guidelines as you pursue your advanced degree. This handbook also includes some general information about life on campus, but it is not in anyway 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, [Sean Brittain](#). He can answer most questions related to Department and University policies and procedures and represents your interests to the Graduate School. Our student services coordinator, [Amanda Ellenburg](#), will handle the processing of all forms related to the program. The Physics & Astronomy Department Chair, [Terry Tritt](#), is ultimately responsible for department academic matters, and welcomes your questions and input.

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 Physics & Astronomy 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 Physics & Astronomy Department offers 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. The most common path is for students pursuing a Ph.D. degree to earn the M.S. degree along the way (en-route in graduate school parlance). Your thesis advisor may require you to write and defend an M.S. thesis as part of your preparation for you Ph.D. It is important that you discuss this with your advisor early in your graduate school career.

The following sections summarize Physics & Astronomy Department 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 departmental 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.)***

There are two options for getting an M.S. degree in Physics at Clemson University. The first is the thesis option. This program requires 24 credit hours of course work with at least 12 hours of Physics and Astronomy coursework at the 800 level or above and at least 6 hours of Research in Physics and Astronomy (PHYS891), which culminates in the writing of a thesis submitted to the Graduate School. The non-thesis option requires 30 credit hours of graduate course work, an additional 6 hours of directed studies (PHYS 890), a written report on the directed studies, and a final oral examination. At least one-half of the total graduate credit hours required by the advisory committee must be selected from Physics and Astronomy courses numbered 800 or above.

At least three weeks prior to the convocation at which the student expects to receive a Master's degree, a final oral examination and thesis presentation must be completed. You will need to schedule your defense with your committee, reserve the room for the defense (see Debra Helvie in 118 Kinard) and notify the Graduate School of the time and place of the defense at least 10 days in advance. Students or their advisor should invite the Physics & Astronomy department faculty and the Dean of the Graduate School to attend the examination. Committee members should receive a copy of the defense at least one week in advance of the defense date. Some committees may require more advanced notice. You should discuss this with your committee early in the process.

Prior to the defense, you need to complete the [GS7M form](#). Upon passing your defense, you should have your committee sign the form, give a copy to the Student Coordinator, Amanda Ellenburg, and file the original with the Graduate School as soon as possible, and no more than three days after the defense. During the thesis defense, committee members will make suggestions concerning the thesis. You will need to make these changes and have your committee sign the completed thesis. You will then need to get the Graduate School to approve your 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.

If you plan to complete the MS degree with the thesis option, but change your mind and decide to finish with the non-thesis option, you will need six credit hours of PHYS8900. Previous PHYS8910 credits can be changed to PHYS8900, but this must be done as soon as possible. Waiting until the last minute can lead to delays in your graduation date. While the non-thesis version does not require a thesis and defense, you do have to provide a written report and pass an oral exam on that report.

A master's student has six years to complete a degree; however, it is expected that full-time physics students should complete their master's degree within two years of their arrival at Clemson. Ordinarily financial support will not be extended beyond the second year of study.

### *M.S. Timeline (Example courses, there are no specific course requirements for the M.S. degree)*

First Year

Fall

- Mathematical Methods (PHYS 811) 3 credits
- Classical Mechanics (PHYS 821) 3 credits
- Optics (PHYS 632) 3 credits

Total: 9 Credits

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Spring ([GS2 must be submitted by start of this semester](#))

- Electrodynamics I (PHYS 842) 3 credits
- Statistical Mechanics (PHYS 815) 3 credits
- Masters Research (PHYS 890/891) 3 credits

Total: 9 Credits

Second Year

Fall

- Quantum Mechanics I (PHYS 655/951) 3 credits
- Solid State Physics I (PHYS 845) 3 credits
- Masters Research (PHYS 890/891) 3 credits

Total: 9 Credits

Spring

- Quantum Mechanics II (PHYS 656/952) 3 credits
- Solid State Physics II (PHYS 846) 3 credits
- Masters Research (PHYS 890/891) 3 credits

Total: 9 Credits

Enrollment in summer classes is not required unless one is being paid as a graduate assistant or graduating in August. You are expected to remain in residence and pursue your thesis research during this time.

### ***Doctor of Philosophy (Ph. D.)***

#### *Course Requirements*

Study for the PhD degree begins with the core courses intended to prepare you to carry out and publish independent scientific work. The core courses are PHYS 8150, 8210, 8110, 8410, 9510, and 9520. You are also required to take four advanced courses at the 8000-9000 levels. These courses must be selected in consultation with your thesis committee and will form part of your plan of study. Your GS2 (plan of study form) should be [submitted](#) before the start of your third semester. It is to your advantage to form a committee as soon as possible, and must not be delayed past your fourth semester.

If you have taken courses equivalent to our required core courses elsewhere, you may petition the faculty for exemption from these courses. To do so, you should provide the Graduate Program Coordinator with the courses you want to exempt, the syllabus of the course (including textbook(s) used and topics covered) and copies of the final exam(s) from that course(s) if available. You will still be required to complete the minimum credit hours defined by the graduate school (at least 12 hours of graded coursework and 18 credits of research beyond the M.S. degree or at least 60 hours of credit beyond the bachelor's degree with a minimum of 12 credits hour coursework and 18 credits of research).

#### *Qualifying Examination*

During your second year of study, you must pass the written portion of the qualifying examination unless you receive a deferral from the department (all year-0 will be given an automatic one year deferral). This exam covers classical and statistical mechanics (Day 1), electrodynamics (Day 2), and quantum mechanics (Day 3). These subjects form the foundation for advanced study of physics, and the original research problems you pursue will draw on principles from these topics. The purpose of

the exam is to test your ability to apply the knowledge you have gained from the study of physics to solving problems from each of these fields.

Typically, the exam is offered at the beginning of the Fall and Spring semesters. The Qualifying Examination Committee will grade the exams, and the committee will recommend (P)assage or (F)ailure for each section. The Physics & Astronomy faculty will vote on whether to pass or fail each student based on the totality of your performance on all three exams. The deliberations of the faculty are strictly confidential, though you do have the right to examine your graded exam. Your thesis advisor, graduate program coordinator, or department chair will alert you to your status as soon as the faculty meeting is adjourned. If you fail the exam on your first try, you will have a second opportunity to take the exam. The Qualifying Exam Committee may require you to retake all or some portions of the qualifying exam based on their evaluation of your performance. If you do not pass the exam on your second attempt, you will not be eligible to earn a Ph.D. in Physics at Clemson University. You may, with the approval of the faculty, complete an M.S. degree by satisfying the requirements given [above](#). You are also eligible to transfer to a different Ph.D. program within the university. Programs have varying policies and procedures for handling transfers. If you think you might want to move to a different program, you should contact that program to determine their requirements, deadlines, etc... well in advance of the semester you will transfer.

While not passing the qualifying exam is undeniably disappointing for many students, most students find rewarding careers with an M.S. degree. You are strongly encouraged to meet with your thesis committee to discuss career options if you decide to take this route. You may also find it helpful to discuss your options with the Graduate Program Coordinator and/or Department Chair.

Upon passing the written portion of the Qualifying Examination, you are required to pass the Comprehensive Examination. This is an oral exam that should be completed within 12 months of passing the qualifying examination. Prior to the oral exam you must form your thesis committee by completing the GS2 (see [Section VI](#)). For the oral exam, you will propose your thesis topic by describing what work others have done on that topic and how you will advance our knowledge of this field. You will also discuss the tools you will bring to bear on this topic and convince the committee that you can do this work. Your thesis committee will probe your understanding of the underlying physics of your problem, your knowledge of the literature in the field, and the tractability of the problem you pose. If you do not pass the oral portion of your exam on your first try, you may retake the exam at the invitation of your committee, but the oral exam must be passed no later than 12 months following the passage of your written exam.

Extenuating circumstances may justify a deferral of the qualifying exam. If such a circumstance arises, you should discuss this with your advisor and graduate program coordinator as soon as possible. You will need to petition the department faculty for a deferral by making a request in writing to the Department Chair and copies to the Graduate Program Coordinator and your thesis advisor.

Your thesis committee is more than simply an examination committee. Your committee members are available to provide advice and guidance – both on your research projects and career goals. It is up to you to take full advantage of the expertise and experience of your committee members. Ideally you will be in regular contact with all of your committee members. At the very least you should plan to formally update your full committee on your progress annually.

At least three weeks prior to the convocation at which you expect to receive a PhD degree, a

final oral examination and dissertation presentation must be completed. 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 Debra Helvie in 118 Kinard), and notify the Graduate School of the time and place of the defense at least 10 days in advance. You or your advisor must invite the Physics & Astronomy department faculty and the Dean of the Graduate School to attend the examination. It is best practice to provide committee members, graduate program coordinator, and department chair 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 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 Student Coordinator, and file the original with the Graduate School as soon as possible, and no more than three days after the defense. They 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.

#### *Ph.D. Timeline*

##### First Year

###### Fall 1

- Mathematical Methods (PHYS 8110) 3 credits
- Classical Mechanics (PHYS 8210) 3 credits
- Quantum Mechanics I (PHYS 9510) 3 credits
- Introduction to Research (PHYS8750) 1 credit

Total: 10 Credits

###### Spring 1

- Electrodynamics I (PHYS 8410) 3 credits
- Statistical Mechanics (PHYS 8150) 3 credits
- Quantum Mechanics II (PHYS 9520) 3 credits

Total: 9 Credits

###### Fall 2

- Elective 1 3 credits
- Masters/Doctoral Research (PHYS 8900/8910/9910) 9 credits
- Qualifying Exam

###### Spring 2

- Elective 2 3 credits
- Masters/Doctoral Research (PHYS 8900/8910/9910) 9 credits

###### Fall 3

- Elective 3 3 credits
- Doctoral Research (PHYS 9910) 9 credits
- Comprehensive Exam

###### Spring 3

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- Elective 4 3 credits
- Doctoral Research (PHYS 9910) 9 credits

Future Semesters:

- Doctoral Research (PHYS 9910) 12 credits

Additional electives may be taken with the approval of your advisor and the Graduate Program Coordinator as long as you are making adequate progress toward your degree. Taking unapproved courses outside of the department may hamper your progress towards your degree and jeopardize your assistantship. Normally the department does not provide support beyond the sixth year. Enrollment in summer classes is not required unless one is being paid as a graduate assistant or graduating in August. However, you are expected to remain in residence and pursue their thesis research during this time.

### **Academic Probation**

To remain in good standing with the Graduate School, a student must maintain at least a 3.0 GPA at all times. Failure to maintain a 3.0 will result in going on probation. The Graduate School Policy is in a state of flux at the writing of this handbook. Currently, students who go 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 of success (GSR1) and have it signed by your advisor, the program coordinator, and Associate Dean of the Graduate School. If you do not raise your GPA above a 3.0, you may be allowed one additional opportunity to do so. You must complete a second plan of success (GSR2) and have it approved by your advisor and 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, not the Department of Physics & Astronomy. 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 Plan of Study and Graduate Degree Curriculum (**Form GS2**).
3. Satisfy the comprehensive examination prerequisite for admission to candidacy.
4. Apply for admission to candidacy for a doctoral degree (**Form GS5**).
5. Complete Final Examination (**Form GS7M** for master's students or **Form GS7D** for doctoral students).
6. Order diploma (**Form GS4**) after completing at least half the prescribed course work.
7. Order cap, gown, and hood from 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 graduate dean.

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### *The En Route 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. You will need to file the [GS2-14](#) with the Graduate School prior to the semester in which the degree is conferred. You can satisfy either the thesis or non-thesis requirements. 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. The Department of Physics & Astronomy does not have any guidelines in addition to those spelled out by the graduate school. Neither the graduate school, nor the department 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 and department (at the faculty member's expense).

### *Proficiency Requirements*

We administer a diagnostic exam to new students during orientation. We are collecting data to determine the reliability of this exam for placing students in first year courses. The results from this exam will be used by the first year advisor (Professor Sean Brittain) in conjunction with your undergraduate record to guide his advice to you about which courses to take.

### *Year Zero*

Most students will begin with the first year core. Occasionally students with a non-traditional academic background are admitted to our program. Often times the admissions committee will recommend that these students enter a "year-zero" upon arrival. Before taking 8000-level courses, students who are not proficient in the topics of our B.S. in Physics & Astronomy may take 6000-level courses. This will help ensure academic success as students proceed through their degree program.

If you are a year-zero student, you will be granted a one-year extension on the qualifying examination. This will give you time to complete the graduate level core before taking the qualifier. Invitation to continue in the program generally requires that the student complete the recommended courses with a B or better.

## **III. Graduate Student Evaluation Committee**

Your progress toward either the M.S. or Ph.D. degree should be monitored by your thesis advisor and committee. Regular communication with your committee is essential to making efficient progress toward your degree. In addition to informal monitoring by your committee, all students are annually evaluated by the Graduate Student Evaluation Committee (GSEC). The purpose of the GSEC evaluation is to provide you an opportunity to voice concerns you may have with your progress that you may not feel comfortable sharing with your committee. It is also an opportunity to receive outside feedback on your progress.

### *Annual Student Evaluations*

#### *1. Students who have not passed the Ph.D. Qualifying Exam:*

Prior to passing the Qualifying Exam, the Physics and Astronomy Graduate Student Evaluation Committee (GSEC) will evaluate the student's progress. The evaluations will be made annually.

The GSEC evaluations can be as follows:

(1)	Continuing progress toward the Ph.D. Qualifier
(2)	Advancement beyond the Masters degree unlikely, or
(3)	Unsatisfactory progress toward any graduate degree

*2. Students who have passed the Ph.D. Qualifying Exam:*

The progress of Ph.D. candidates will be evaluated annually during the fall semester by the GSEC. The evaluations can be as follows:

(1)	Satisfactory progress toward the Ph.D. degree, or
(2)	Unsatisfactory progress toward the Ph.D. degree

Evaluations for all students will be based on research progress documented by the Faculty Evaluation Report (Appendix A), course grades, opinions of the faculty teaching courses in which the student is enrolled, the student's transcript, and one or more meetings between the GSEC and the student, as deemed necessary. Information about research accomplishments provided to the GSEC by the student and the student's research advisor, if one has been chosen, will be considered as well.

Satisfactory progress toward the Ph.D. degree would typically include grades no lower than B in courses. Factors contributing to grades lower than B will be evaluated on an individual case basis. Ph.D. students shall provide an annual update on their research to their committee, and the committee shall review the student using the Faculty Evaluation Form.

You are expected to find a research advisor no later than the second semester, with the goal of carrying out research in the summer following their first two semesters in the department. If you are working towards a Masters degree, you should enroll in either PHYS8900 or PHYS8910. If you are working toward your Ph.D. you should enroll in PHYS9910. You can change your advisor at any time, however, if you change your advisor after you have completed the comprehensive exam, you will need to form a new committee and defend your new thesis topic.

The result of the evaluation made by the GSEC will be reported to the Department Chair, to the student's research committee (if a committee has been constituted), to the Department's Graduate Student Advisor, and to the student. In addition, a summary of the overall results of the evaluation process will be reported to the Physics and Astronomy faculty after the annual evaluations have been completed.

#### **IV. Research**

Original research is a primary difference between graduate school and other education. Our graduate students participate extensively in our major thrusts in research in the following areas:

- Astrophysics

- Atmospheric and Space Physics
- Atomic Physics
- Biophysics
- Condensed Matter and Materials Physics
- Foundations of Quantum Mechanics

You are encouraged to visit individual faculty members' research and web pages, which can be found on the Physics department's web site. 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***

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. Each research group in the department is unique and students are encouraged to be open-minded as they evaluate which group and advisor is the best fit. Your enrollment in the program and GTA support is not dependent on the research group you join.

You should plan to meet with various faculty throughout the department during your first semester of study. This will help you to learn more about different research and groups. After you and a faculty member mutually agree to work together, you should notify the Student Coordinator (Amanda Ellenberg) and Graduate Program Coordinator (Sean Brittain). 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 (Plan of Study) Form. This form will outline the courses you will take in order to complete the degree requirements. Your Advisory Committee will need to consist 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. These faculty members should be approached after discussion with your Research Advisor. After the form is completed and each member of the committee has signed it, you need to give a copy of the form to the Student Coordinator, Amanda Ellenberg, and file the original with the Graduate School.

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

## **V. 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. To receive financial support, a student must maintain full-time status, which, by University policy, is defined as being enrolled in 9 credit hours in the Fall and Spring semesters and 3 credit hours in each Summer session. Many forms

of support are distributed over nine months to save students from registering for classes (and paying fees) during the summer.

### ***Fellowships***

The Graduate School awards several fellowships. The department 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 an assistantship granted by the department. 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***

Research Assistantships are available to graduate students through research grants and contracts held by faculty members in the department. 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 \$1,000/semester in Fall/Sprint and about \$300/Summer session.

### ***Teaching Assistantships***

These are the most common type of financial support for incoming graduate students. These assistantships provide 12 months of support, though the payment is distributed during the academic year (over nine months). This is to save GTAs 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 to make it through the summer. No specific teaching duties are assigned during the summer, but students are expected to continue making progress to their degree during that time.

A teaching assistant's duties usually entail teaching two or three undergraduate labs per semester, and/or grading assignments for undergraduate courses. Typically your TA duties should not exceed 20hrs/wk, 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 2016-2017, teaching assistantships were on average \$20,000 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 teaching assistant (TA) responsibilities, you must pass the SPEAK 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 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 Ellenburg immediately. Your teaching

assistantship will be rescinded if you do not pass the SPEAK test (currently a score of 50 or better). It will be 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), based on Graduate School and departmental 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) at the ISDP office (E-208 Martin 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 should contact the FSA before filing your thesis or dissertation.

#### *Time Limit on TA Support*

Teaching Assistantship support is normally made available to graduate students for only a limited time. Allocation of TA support to continuing students will be recommended by the GSEC and is generally dependent on making satisfactory progress towards a degree (M.S. or Ph.D. in physics). A student pursuing a Ph.D. degree should not expect to be supported by departmental funds for more than 10 semesters. A student pursuing an M.S. degree should not expect to be supported by departmental funds for more than 4 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:

<http://www.clemson.edu/financial-aid/special-circumstances/graduate.html>

To qualify for federal financial aid, you must make satisfactory progress towards your degree as defined by the Financial Aid office:

<http://www.clemson.edu/financial-aid/applying/academic-progress.html>

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:

<http://www.clemson.edu/financial-aid/applying/academic-progress-FAQ.html#DoIneedtosubmitanydocumentation>

In short you will need to complete the graduate SAP form:

[http://www.clemson.edu/financial-aid/documents/Grad\\_SAP\\_Form.pdf](http://www.clemson.edu/financial-aid/documents/Grad_SAP_Form.pdf)

#### ***Graduate Assistant Evaluations and GTA policy***

An important part of your professional development is formative evaluation of your teaching and research performance. The GSEC and your committee members are currently charged with evaluating your research performance. The GTA supervisor will work with the graduate program coordinator to evaluate your performance as a GTA. These evaluations will provide you with documentation to include in their teaching portfolio when applying for jobs, provide the faculty with a basis for nominating students for teaching awards, provide the department chair with a fair basis for distributing raises, and provide documentation of any deficiencies that need to be addressed.

All GTAs will be evaluated at least annually to assess their performance. This information will be provided to the GSEC and included in the review of graduate students. The outcome of the annual evaluation will be either:

1. *Exemplary performance* – Student exceeds expectations by taking on a leadership role among the GTAs, 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 GTA 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 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 GTA for not following policy multiple times. “Poor” performance will result in probation the following semester of teaching. If a student does not perform at an “adequate” level, s/he will not be eligible for further GTA support from the department without approval from the GSEC. Students who earn a “Poor” will not be eligible for a raise.

You should discuss the evaluation with your supervisor. You can appeal to the Graduate Program Coordinator [and](#) the Department Chair if you feel [the 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 Dec 15), the GTA supervisor will provide an initial evaluation of all first time GTAs and GTAs on probation. All other students will be evaluated by the start of the Spring semester (on or about January 15). These evaluations will be copied to the Graduate Program Coordinator and the GSEC. The GTA supervisor will address major accomplishments or deficiencies immediately. These will be documented in writing and copied to the department chair, Graduate Program Coordinator, and GTA.

*Teaching Courses:* GTAs 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 under the supervision of a faculty member. Teaching a course will be considered a full GTA load and will come with a 10% supplement for the semester during which the course is taught.

***Evaluation of GRAs:*** The evaluation of GRAs should be handled by the PI of the grant from which the GRA is being paid. The PI is not necessarily the student’s thesis advisor, and the work the GRA is being paid to deliver is not necessarily directly connected to the student’s thesis work. Thus the evaluation of performance for the GRA rests with the PI rather than the GSEC or the thesis committee.

The expectations for the GRA 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 PHYS8900/8910/9910). While there is typically a great deal of overlap between the work the student does as a GRA and 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 department 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 department and the GRA know. If a PI anticipates terminating a GRA from a grant for the subsequent academic year, the PI should alert the department by January 30. If additional funding is anticipated, that should be passed on to the department as well.

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

### ***Guarantees of Support***

While most students in the Physics & Astronomy department receive some kind 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 SPEAK test 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 Physics & Astronomy Department.

### ***Payroll and Paydays***

All Clemson University employees are paid semi-monthly: on the 15<sup>th</sup> and last day of the month (if either of these dates falls on a weekend or bank holiday, then 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 contact [Rise Sheriff](#) in 118 Kinard before beginning your teaching duties to complete required paperwork. You will be required to bring your Social Security card, a cancelled check and any necessary paperwork as required by 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 though classes are not in session). In addition, you are allowed to take ten working days during the year as vacation. The latter should be taken so that the interference with your teaching and research responsibilities is minimal. Your thesis advisor should approve leave in advance. Keep in mind though, that your primary responsibility is to complete a dissertation of original research and that you have a limited term of financial support to do so. Taking extended leaves can result in your project being scooped by someone else and putting you further behind than you anticipated. Thus 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 shift in the PHC because of an illness or injury, inform your immediate supervisor (e.g., [Jerry Hester](#)) *and* Amanda Ellenberg. 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. 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 working out an arrangement 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 one another out in cases when you cannot make your lab. This is great, but you must not switch off without letting your lab supervisor and thesis advisor know. 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 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 Physics & Astronomy department 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.

## **VI. 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 be familiar with. The National Science Foundation and National Institutes of Health also requires that everyone supported by NSF 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, the Graduate Program Coordinator, and/or the Department Chair.

## **VII. Other Academic Policies**

The Graduate School maintains a [database of university academic policies](#) for graduate students. Below is a summary of some of the most common issues that arise for our graduate students. However, you should double check the summaries presented below against the official university policies stated on the Graduate School website.

### *Continuous Enrollment*

Graduate students enrolled in a degree program are required to maintain continuous enrollment after initial matriculation. Continuous enrollment refers to a student's registration each semester, excluding summer sessions, until he/she has either graduated, been permanently withdrawn or dismissed. All students attending classes must be registered for either credit or audit. Students on 12 month graduate assistantships must maintain continuous enrollment during the summers as well as during both fall and spring semesters.

Exceptions:

- a) Incomplete grades: Students who anticipate not being able to remove a fall "IN" grade by the end of the spring semester should register for that spring, and any subsequent semesters needed to complete the work, to stay in compliance with the continuous registration policy. Students who fail to remove a spring "IN" grade by the end of the summer will not be terminated (because summer registration is not required for continuous registration), but they will have to register for the following fall and any subsequent semesters until the "IN" has been removed.
- b) Registration in a summer session - submission of thesis/dissertation and oral examinations: All students who take their final oral examination or submit their thesis/dissertation to the Graduate School during either summer session must be registered during that summer session.
- c) Graduation: Students who complete all requirements for the degree (including acceptance of final version of thesis or dissertation by the Graduate School) prior to the first day of the fall or spring semester or the first summer session may graduate during the next semester or summer session without being registered provided that they were registered in the immediately preceding semester or summer session and that they applied to graduate during that preceding term.

The Graduate School will dismiss any student without further notice who fails to comply with the continuous enrollment policy. (See Leave of Absence policy). If a student is terminated from his/her program, the student will be required to reapply for admission. Readmission requires a positive recommendation from the student's academic program, and approval by the Graduate School, and therefore is not guaranteed.

Students needing to maintain continuous enrollment should register for at least one credit in each Fall/Spring semester. If necessary, students can enroll in GRAD 8001 (1 credit) to maintain status.

*Leave of Absence:* A leave of absence is usually granted for compelling personal, family, medical, or professional reasons that require the student to suspend graduate study and be absent from the University for a period of time. During a leave of absence, students are expected to be focused on

these non-academic priorities. Students may not make progress toward their degree requirements while on leave (e.g., comprehensive or qualifying exams, completing incomplete grades, submitting or defending a thesis or dissertation, etc.). A leave of absence is not intended to be a mechanism for students to avoid tuition costs while making progress toward degree. Students on leave will maintain access to basic CCIT services such as university email, but should not be using other university resources such as research labs, faculty time, recreation facilities, or health and wellness services.

A student in good academic standing (minimum 3.0 GPA and who has successfully met other program or Graduate School requirements) who must interrupt a graduate program may request a leave of absence from graduate study. A leave of absence may be granted for 12 months, with a possible renewal of one more 12 month period.

A student not in good standing (less than 3.0 GPA or has failed critical program or Graduate School requirements; e.g., comprehensive or qualifying exams) may also request a leave of absence. However, the Graduate School may also choose to permanently dismiss the underperforming student where future success seems unlikely. Should the request for the leave of absence be approved by the Graduate School, the student will return in the same academic status as prior to the leave.

*Readmission:* Students who have separated from the University without an approved Leave of Absence may apply for readmission and pay the standard application fee. Admission decisions are subject to approval by the program and the Graduate School.

If a student is re-admitted, the student must pay a fee equivalent to registering for one credit hour for each semester the student was absent from the University. All policies and course of study requirements in effect at the time of readmission will be in effect for that student. Courses that have exceeded the maximum time limit, or in which the student did not receive at least a C, will not be applied to the new program of study. Of those courses that meet those criteria, programs have sole discretion to accept or not accept these courses. Programs also have the right to impose other requirements as part of the re-admission, including (but not limited to) re-taking qualifying or comprehensive exams, completing new internships, etc.

*Duplication of Higher Degrees:* The duplication of higher degrees is discouraged on the same basis as the duplication of the bachelor's degree. Thus, a student holding a master's degree may not as a rule become a candidate for another master's degree in the same field of study. Nor may the holder of a master's degree in the same field of study, received at another institution, become a candidate for another master's degree in the same field at Clemson.

*Non-Physics Courses:* You may choose non-Physics courses as part of your plan of study. These decisions are normally made with the student's Research Advisor and are designed to enhance the student's understanding of their emphasis area. Credit received for graduate-level courses taught by other departments may also be counted toward a Physics or Astronomy degree, provided those courses involve subject matter that is relevant to the student's degree program. The student should consult with and receive approval from his or her Research Advisor before taking such classes with the intention of having them count toward a graduate Physics or Astronomy degree. *A student supported on either a research or teaching assistantship must obtain approval from his or her Research Advisor and Graduate Program Coordinator prior to taking any non-physics electives not required on the GS2 while working toward a graduate Physics or Astronomy degree.* Failure to do so can result in loss of support. The Graduate School requires each degree program to consist of a

minimum of 30 semester hours of graduate credit with at least 12 semester hours in addition to Master's thesis research (PHYS 8910) in the major discipline as defined by the advisory committee.

*Auditing Courses:* Permission for a student to audit a particular graduate course is at the discretion of the Chair of the department, the coordinator of the program offering the course, or the instructor. The principal factors involved in granting permission are that the auditor must possess the necessary academic background and space must be available in the class.

Audited courses do not carry credit and the fact that a course has been audited is not noted on the graduate student's official record. Graduate auditors are not required to stand tests or exams. However, the instructor, at his or her own discretion, may demand the auditor's participation in class to whatever extent deemed desirable.

You may not satisfy a stated prerequisite for a graduate course by auditing it. Additionally, you may not establish credit through examination in any course for which he/she was previously registered as an auditor. Full-time students or graduate assistants may audit courses as part of their schedule. Part-time students are charged a fee according to the following schedule:

*Repetition of Courses:* You may repeat courses in which you received an F. It is recommended that you repeat courses if you received a C or less in any course required by the department as a part of the degree program. If you repeat a course for which you received a grade of F, you will not receive any credit, and the grades from the two courses will be averaged. The F will not be dropped.

*Protesting a Grade:* The procedure for a student who wishes to protest a grade received in a course is described in the Appeals and Grievances section of the Graduate Announcements, which can be found at [www.grad.clemson.edu/policies/Appeals](http://www.grad.clemson.edu/policies/Appeals).

*Transfer Credit:* The number of credit hours that may be transferred from an accredited institution cannot be greater than 1/3 of the graded course work required for a Master's degree. No more than 12 semester credit hours earned in a non-degree status at Clemson University can be applied to a degree program. For the doctoral degree, as many as 48 semester credit hours of work may be transferred. In all cases, the use of transfer credits must be recommended by the student's advisory committee and approved by the department. Under no circumstances will transfer credit be awarded for research, internship or courses graded P/F or for courses in which a grade lower than B, or its equivalent, has been received. Grades earned for courses taken at institutions other than Clemson University will not be included in the student's academic average. No credit will be given for continuing education units, correspondence, extension or in-service courses or for concentrated courses and workshops that award credits at a rate exceeding one credit per week.

Course work completed outside the six-year time limit may not be transferred to Clemson University or validated for graduate credit. All transfer credits must be verified by an official transcript from the institution at which the work was completed. It is the student's responsibility, not the advisor's or the department's, to request a transcript of transfer credits be sent directly to the Graduate School. The degree will not be conferred at the close of the term during which the student has been registered elsewhere for the purpose of transferring credits.

## **VIII. Departmental Operations**

### *Student Offices*

Most of you will be assigned a space in Kinard 310 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 Debra Helvie and Risé Sheriff in 118 Kinard.

### *Building Security and Keys*

Debra Helvie in 118 Kinard will issue you the appropriate keys. It shall be clearly understood that students should:

- \*Take great care to prevent loss of the key. Should a key become lost, it should immediately be reported to the staff in 118 Kinard.
- \*Refrain from loaning a key to anyone.
- \*See that the outside door and all appropriate laboratories are locked when entering or leaving the building after regular hours.
- \*Under no circumstances allow anyone into the building after hours who is not a holder of a front door key. NEVER PROP OPEN THE DOORS TO THE BUILDING AFTER HOURS.
- \*Report to the University Police and to the Department Chair any unusual or suspicious occurrence or persons found in Kinard Lab at any time.

### *Mail*

Student mailboxes are located in the mail/copier room. You should check your mail daily.

### *E-mail*

E-mail is the primary way the department 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, department happenings and university information. Many of these may require immediate attention. It is particularly crucial that you carefully read all communications from the Dept. Chair (Terry Tritt), Graduate Program Coordinator (Sean Brittain), and the Program Assistant (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*

Office and computer supplies are ordered through Debra Helvie in 118 Kinard. Items that are needed for instructional labs and classrooms are maintained in Kinard 118. Your advisor will provide materials for research labs. Office supplies are not intended for personal use. Office supplies that are not maintained in the cabinets may be ordered through Debra Helvie. You will not be reimbursed for personal supplies.

### *Equipment and Other Supplies*

Before ordering any equipment or supplies, you should check with your research advisor, or [Jerry Hester](#), if ordering for instructional labs. You may ask [Lori Rholetter](#) for help with ordering supplies. You will need an account to charge the purchase against and approval from the owner of that account. You should get confirmation of any orders to Lori Rholetter in 118 Kinard within one business day of placing the order. All orders must be delivered to the department, not to a home address of a student or professor. Copies of packing slips with items delivered should be given to Lori so she can pay for the items received. You will not be reimbursed for supplies you purchase on your own.

## **IX. 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 any way. While undergraduate students are required to have a laptop approved by CCIT, you are not. It is however, strongly recommended that you have your own computer. Most students find it helpful to have LINUX on their laptop. Some students setup 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](#). WIFI 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 of the 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. *Students have no expectation of privacy when utilizing university computing resources, even if the use is for personal purposes.* The university reserves the right to inspect, without notice, the contents of computer files regardless of medium, the contents of electronic mailboxes and computer conferencing systems, systems output such as printouts, and to monitor network communication when:

1. It is considered reasonably necessary to maintain or protect the integrity, security or functionality of university or other computer resources or to protect the university from liability;
2. There is reasonable cause to believe that the users have violated this policy or otherwise misused computing resources;
3. An account appears to be engaged in unusual or unusually excessive activity;
4. It is otherwise required or permitted by law.

Use of university computing resources, including network facilities, account numbers, data storage media, printers, plotters, microcomputer systems, and software for computing activities other than those authorized by the university is strictly prohibited. Unauthorized use of such resources is regarded as a criminal act in the nature of theft and violators are subject to suspension, expulsion, and civil and criminal prosecution.

The following are examples of misuse of computing resources:

1. Unauthorized duplication, distribution or alteration of any licensed software. This includes software licensed by the university and licensed software accessed using the computing networks.
2. Attempting to gain unauthorized access to any computing resource or data, at Clemson or anywhere on the Internet, or attempting to disrupt the normal operation of any computing resource or network.
3. Attempting to use another student's or employee's computer account or data, without their permission.
4. Using the university electronic mail system to attack other computer systems, falsify the identity of the source of electronic mail messages. Sending harassing, obscene or other threatening electronic mail. Attempting to read, delete, copy or modify the electronic mail of others without their authorization. Sending, without official university authorization, "for-profit" messages, chain letters or other unsolicited "junk" mail.
5. Knowingly infecting any computing resource with a software virus.
6. Tampering with the university computer network or building wiring or installing any type of electronic equipment or software that could be used to capture or change information intended for someone else.
7. Participating in a "denial of service" attack on any other computer, whether on or off campus.
8. Using university computing or network resources for personal gain or illegal activities such as theft, fraud, copyright infringement, sound or video recording piracy, or distribution of child pornography or obscenities.

Any suspected violations of this policy or any other misuse of computer resources by students should be referred to the Office of Student Judicial Services. That office will investigate the allegations and take appropriate disciplinary action. Violations of law related to misuse of computing resources may be referred to the appropriate law enforcement agency. Notwithstanding the above, CCIT may temporarily suspend, block or restrict access to an account, independent of university disciplinary procedures, when it appears reasonably necessary to do so in order to protect the integrity, security or functionality of university or other computer resources, to protect the university from liability, or if it appears that the emotional or physical wellbeing of any person is immediately threatened. When CCIT unilaterally takes such action, it will immediately notify the account holder of its actions and the reason for them in writing. The account holder may appeal the action taken by CCIT in writing to the [Chief Information Officer](#).

Access will be restored to the account holder whenever the appropriate investigatory unit of the university determines that the protection of the integrity, security or functionality of university or other computing resources has been restored and the safety and wellbeing of all individuals can reasonably be assured, unless access is to remain suspended as a result of formal disciplinary action imposed through the Office of Student Judicial Services.

*Clemson University Libraries*

This handbook was last edited July 2016

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. In addition to the Cooper Library, the University Libraries include the Emery A. Gunnin Architectural Library in Lee Hall and the Special Collections Unit located in the Strom Thurmond Institute Building.

These branch libraries contain materials dealing with the special nature of their programs. A small reading room containing periodical literature related to chemistry is located in the Hunter Chemistry Laboratory. Detailed information regarding facilities, hours of operation, loan privileges, policies and fine regulations is available at the circulation and reference desks and on Cooper Library's Web site at [www.lib.clemson.edu](http://www.lib.clemson.edu).

Access to the libraries' collections is provided through the Online Libraries Catalog, a part of the libraries' CU Explorer system. To assist in finding journal and newspaper articles, the libraries have provided access to a number of electronic indexes, several of them providing access to full-text journals online. CU Explorer is accessible from most computers on campus as well as through dial-up access.

Among the regular services the libraries offer are circulation, reference, interlibrary loan, class instruction, tours and photocopiers. The Cooper Library houses two open computer laboratories. Assistance is available at the reference desk.

### *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 physics? 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 a number of 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.

## **X. 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](mailto: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 previous to 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 previous to the student's enrollment at the University. Students not in compliance with immunization requirements will not be allowed to complete registration.

### *Counseling and Psychological Service*

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 hyperactive 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 in 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 a number of 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 a number of 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 to grant 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 TigerStripe account
- Meal plan card
- Library card
- Residence hall 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 always remember to carry 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, under Harcombe Dining Hall. 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. [Edgar's](#) 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 Center](#) for the visual arts hosts visiting artists and various visiting exhibits each year. Clemson University fields a number of competitive men's and women's [varsity athletic teams](#). Many of these sporting events offer free admission to students.

## **XI. 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: do not 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, Department Chair, 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.