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INTRODUCTION

Welcome/Purpose of this Handbook
Welcome to the Department of Engineering and Science Education (ESED) at Clemson University. We wish you success at every stage of your academic journey.

This handbook is intended to familiarize you, as a graduate student in ESED, with the requirements, policies and procedures involved throughout your graduate experience. The rules and regulations provided in this handbook govern our academic programs and describe the duties and responsibilities of graduate students in the department. These rules and regulations were developed in conjunction with the Graduate School. In addition, this handbook provides useful information and resources to ease and enhance your experience in the program. Each student is expected to be familiar with the contents of this handbook.

These rules and requirements are in addition to and subordinate to those described in the Graduate School Announcements, which you can find at www.registrar.clemson.edu/html/catalogGrad.htm or through the Graduate School office in E-108 Martin Hall. Any inconsistencies within this handbook or between this handbook and the Graduate School Announcements should be brought to the attention of the Program Coordinator.

Contact Information
The Graduate Curriculum Committee oversees the regulations and procedures of the program, coordinates curriculum updates and interacts with the Graduate School on matters such as student status, assistantships and fellowships. The chairperson of the Graduate Curriculum Committee is Dr. Lisa Benson. Dr. Benson is your first contact should any issue arise regarding your academic progress or the program curriculum. Contact information for Dr. Benson:

Office location: M-12 Holtzendorff Hall
Office phone: 864-656-0417
Email: lbenson@clemson.edu
Program Overview

The PhD program in ESED is a nationally-unique graduate program in science, technology, engineering, and mathematics (STEM) education research. The Department of Engineering & Science Education, in the College of Engineering and Science at Clemson University, is the only department in the country that includes both engineering education and science education in a college of science/engineering. As such, it includes faculty who are experts in science education and engineering education, and have active research programs in these areas. Students in this program will be exposed to the wide breadth of STEM education research under current investigation as well as be prepared to interface between the development of new theory in STEM education and the implementation of new research findings in practice. This field is also referred to as Discipline Based Education Research (DBER), which combines knowledge of teaching and learning with deep knowledge of discipline-specific science or engineering content. It describes the discipline-specific difficulties learners face and the specialized intellectual and instructional resources that can facilitate student understanding.

The objectives of the ESED PhD program is to prepare students for academic careers in STEM education, science education policy in higher education or informal education institutions, and a range of other careers that require a deep disciplinary knowledge coupled with understanding of the factors that affect student learning, retention, and inclusion in STEM. Students who enroll in this program will be expected to be content experts in a STEM discipline with at least a Master's degree or equivalent in their content area of expertise. Graduates from this program will be prepared to become faculty in traditional departments of engineering or science, as well as STEM education departments. They will be prepared to lead curricular and pedagogical reform at the post-secondary level as well as conduct research in the burgeoning fields of STEM education research.
ENTRING THE PROGRAM

Admission Requirements

Minimum requirements to be considered for admission to graduate study in ESED generally follow those of the Graduate School (see the *Graduate School Announcements* at www.registrar.clemson.edu/html/catalogGrad.htm). Minimum requirements include at least a four-year bachelor’s degree in a science or engineering discipline from an institution whose scholastic rating is satisfactory to the University, high quality of previous academic record, and satisfactory scores on the general portion of the Graduate Record Exam (GRE) or other applicable test.

Admission to ESED is restricted to applicants whose academic record indicates a high potential to be successful in graduate studies. This determination is made by the faculty of ESED and is affirmed by the Graduate School. The various indicators used to arrive at this determination may include, but are not limited to: previous academic performance, letters of recommendation, standardized test scores, personal interviews and statements of interest. In reviewing transcripts, both the difficulty of the courses taken and the grade point ratio are considered.

Admission to graduate studies in ESED begins with your submission of an official application to the Clemson University Graduate School via their website at www.grad.clemson.edu/Admission.php. Upon receipt of all admission materials through the online application process (www.grad.clemson.edu/admission/ApplyOnline.php), the Graduate School will forward your application to the ESED department for review. Applicants must meet all admission requirements of the Graduate School and the ESED department before official acceptance will be granted.

Prerequisites

All students admitted into the program must have at least a Bachelor of Science degree in a science, technology, engineering, and mathematics (STEM) discipline from a college or university that is acceptable to Clemson University, with preference being given to those who have completed graduate studies (Masters level or higher) in a STEM discipline. Those who enter the program with a STEM Bachelor of Science degree must take 18 credit hours at the graduate level in a single STEM discipline (e.g., mechanical engineering, physics, chemistry, etc.). Thus, the program is designed for students who are content specialists in a STEM discipline who seek to pursue discipline-based education research. Students may be admitted into the PhD program in Engineering & Science Education in the fall, spring, or summer semesters. If you are enrolled in a Master’s program in a science or engineering discipline, you may be accepted directly into the ESED PhD program prior to completion of your Master’s degree with the consent of your Major Advisor.
**English language proficiency**

International students whose native language is not English are required to submit a satisfactory score on the Test of English as a Foreign Language (TOEFL) or to have completed approved English as a Second Language (ESL) course work from one of Clemson’s ESL affiliates. If you are a non-native English speaker and your graduate advisor feels you should improve your English skills, you must complete English 111: English as a Second Language or an approved course from one of Clemson’s ESL affiliates.

A graduate student whose native language is not English is required by South Carolina state law to pass an English speaking exam (the SPEAK test) before you can be certified to teach as a laboratory teaching assistant. The Clemson English department administers the exam, which is similar in form to the Test of Spoken English administered by ETS. The exam is offered at the start of each semester and once in the summer, and students may take the exam anytime that it is offered. It is expected that you will pass this exam sometime during your first year of study. If you do not pass the exam by the end of the first year of study, you may be asked to leave the program. When you do pass the English speaking exam, you will be eligible to serve as a teaching assistant. You would then receive the same stipend as all other students who are teaching assistants.

**Computer proficiency**

The ESED program has no specific requirements for computer literacy or competency. However, each graduate student is expected to be proficient in the use of modern computers and appropriate software. Use of computers and competency in various software programs will be necessary in many graduate courses and, in most cases, in both your teaching and research, and it is expected that you will acquire whatever skills are needed to use these resources as they are required. Workshops provided by Clemson Computing and Information Technology (CCIT) are periodically made available to help students who need help to gain this competency.

**Foreign language requirement**

The ESED program does not have a foreign language requirement.

**Transfer credits**

University policy does not allow automatic transfer of graduate credit. Students with graduate credit earned at another institution, in another department at Clemson University, or earned before admission to this program must have prior work evaluated for transfer credit. Requests for transfer credit to the program must be recommended by your Advisory Committee and approved by the Graduate Curriculum Committee, the department chair and the dean of the Graduate School. You must make your request in writing for each course or credited activity to be transferred. Each request must be accompanied by an official transcript, catalog description and syllabus or other
supporting documentation. Grades earned for courses taken at institutions other than Clemson University will not be included in a student’s academic average. All transfer credits must be verified by an official transcript from the institution at which the work was completed. It is your responsibility, not your Major Advisor’s or the department’s, to request a transcript of transfer credits be sent directly to the Graduate School.

In any case, as many as 48 semester credit hours of work may be transferred for the doctoral degree in ESED. No more than 12 semester credit hours earned in a non-degree status at Clemson University can be applied to a degree program.

Transfer credit will not be awarded for research, internships, courses graded pass/fail, or course work in which you received a grade lower than a B or its equivalent. Course work completed outside the six-year time limit may not be transferred to Clemson University or validated for graduate credit. See the Graduate School Announcements for more information regarding transfer credits (www.registrar.clemson.edu/html/catalogGrad.htm).

South Carolina residency

Many students are interested in establishing residency in South Carolina for the purpose of paying in-state tuition. The South Carolina residency laws call for you to establish legal ties with the state; you must generally wait one year before establishing legal ties. Thus, you should take steps near the beginning of your program to initiate the process of becoming a South Carolina resident. The legislation defining residency sets forth a fairly strict set of criteria for the administrative approval of residency requests. The Office of Residency Classification handles all the information regarding domicile requirements for residency status. Due to the frequency of changes implemented by the state legislature in past years, those criteria are not elaborated here. If you are interested in establishing South Carolina residency, review the up-to-date information at www.clemson.edu/SCResident/. Questions should be addressed to the Office of Residency Classification (G-01 Sikes Hall, (864) 656-2281).

University employee enrollment

With the approval of the appropriate dean or director, a qualified employee of Clemson University may pursue graduate work for credit. However, no member of the faculty or staff who has a rank higher than instructor or its equivalent may be considered as a candidate for an advanced degree in the academic department where you are employed. Payment of the application fee is required.

Limitations on the number of hours taken per semester are explained under “Maximum Enrollment”. You must make up any time spent in class during normal working hours under a schedule acceptable to your employment supervisor. Flexibility will be given to accommodate class schedules, but you must work out conflicts with your supervisor. You must complete a PhD degree within five years of satisfactory completion of your preliminary examinations.
Admission Procedures

Upon your completion of the online application, your application is reviewed by the Graduate Curriculum Committee. Your application status can be checked at [http://www.grad.clemson.edu/ApplicationCheck.php](http://www.grad.clemson.edu/ApplicationCheck.php).

The Graduate Curriculum Committee examines your application packet and notifies faculty members in the specialization area that you indicated as your area of interest on the application. If a faculty member agrees to be your Major Advisor and you meet the admission criteria, the Graduate Curriculum Committee and department chair may approve your application. The Graduate School will then notify you of your acceptance as well as any existing provisions.

If you are not considered acceptable for admission or if a major advisor within the department cannot be identified, the Graduate Curriculum Committee will indicate this in the admissions database and the Graduate School will then send you a letter of rejection. You may appeal the rejection to the Graduate School.

International Students

*Student expenses*

International students must certify access to a minimum of one year’s estimated expenses. See [www.clemson.edu/IA/forms/student_financial_certification.pdf](http://www.clemson.edu/IA/forms/student_financial_certification.pdf) for more details or contact the International Affairs Office (E-303 Martin Hall, (864) 656-3614).

*Student visa*

You are responsible for maintaining legal status with the US Department of Homeland Security during your studies. Form DS-2019 (J-1 exchange visitor visa certificate) is usually issued to students who are funded by their home government or by an international organization. If no organizational sponsor is involved, an I-20 (F-1 student visa certificate) will be issued.

When your application to the Graduate School has been accepted and your language and financial abilities are certified, Campus Immigration Services will issue you an I-20 or DS-2019. Take this document to the nearest US Consulate to apply for a nonimmigrant student visa. For more information and details about applying for your visa, see the Campus Immigration Services website at [www.clemson.edu/IA/isss/new.html](http://www.clemson.edu/IA/isss/new.html) or contact them at (864) 656-3614.

*Social Security number*

If you are an international student receiving an assistantship, you must have your offer letter with you upon your arrival. You should then go to the Social Security Administration in Anderson, S.C., for a Social Security Number or meet with the Social
Security Administration representative in Martin Hall on the dates indicated by the Graduate School. The Graduate Curriculum Committee Chair will provide you with the paperwork that you must take with your signed Social Security card to the Foreign National Payments Coordinator in E-303 Martin who will complete the necessary paperwork to assist you with getting on the payroll. Be sure to bring the following:

- U.S. Visa
- Unexpired foreign passport
- I-94
- IAP-66/I-20

You must call for an appointment before going to the Foreign National Payments Coordinator's office. The telephone number is (864) 656-5589.

**Costs**

For current tuition and fees, see [www.grad.clemson.edu/Financial.php](http://www.grad.clemson.edu/Financial.php).

Graduate assistants may choose to defer tuition and fees. This is accomplished easily on the day of registration. Persons in the fee assessment area will have a list of all graduate assistants. Anyone listed may sign a note to defer these costs and these costs will be deducted from the first six full paychecks of the semester.

For more information about academic costs, financial aid and making payments, contact the Office of Student Financial Aid (G-01 Sikes Hall, (864) 656-2280) or the Bursar's Office (G-08 Sikes Hall, (864) 656-2321).

**Financial Assistance**

Financial support through assistantships is awarded on a competitive basis to qualified students, both domestic and international. All qualified students are considered for assistantships when applications are processed. Award decisions are based on academic record, test scores, statement of purpose, and letters of recommendation.

Assistantships are awarded based on availability of funds in the area of desired study and academic merit. If you change your subject area after support has been extended, support eligibility is reviewed and funding may or may not be provided.

Graduate students are eligible for assistantships if they are (1) enrolled in full-time graduate studies, (2) in good academic standing (i.e., not on probation), and (3) making satisfactory progress toward their degree. Tuition and fees for students receiving support are at a reduced flat fee. To receive the reduced tuition and fees for a particular semester, a qualified student must be on the department payroll by end of the second week of that semester.
Employment Paperwork

If you have been awarded an assistantship, you must report to the departmental staff at the beginning of your assistantship and complete the following forms: information sheet, tax forms (federal and state), and I-9 Form. You will need to provide proof of nationality, Social Security number, age, etc. (usually by way of a passport, driver’s license, birth certificate or Social Security card).

CU Student ID, Username and Tiger 1 Card

CU ID

When you are accepted into the Graduate School, you will be issued a unique student identification number as part of your admissions acceptance packet. Your student ID is a 9-digit number you will use on forms and other official University business. It is often referred to as your “CU ID”.

Username

Also upon acceptance, you will be assigned a Clemson University computer user identification. This is a permanent, unique-to-you identifier that you will use every time you access the Clemson computer network. You may see or hear it referred to as your “username” or “USERID”. Your username is a 4-8 character identification that generally consists of some part of your first and/or last name and designates your official Clemson University email address (for example, Jones2@clemson.edu, where “Jones2” is the username). Your username gives you access to University systems such as email, iROAR, course management systems, the Student Information System (SISWeb) and the online registration. You may also need to use your student username to access department-specific networks and files.

Tiger 1 Card

Soon after you arrive, you will want to obtain your Tiger 1 Card. This is your official Clemson University photo ID card and gives you access to a variety of services throughout campus and around town, including:

- Library card
- Fike Recreation Center access card
- Athletic ticket privilege access
- Purchase discounted software through CCIT
- Personal debit card to access pre-deposited funds in a TigerStripe account (see tiger1.clemson.edu/content/tigerstripe_what.php for more information).

You must be registered for at least one class during the current semester to qualify for a Tiger 1 Card. Bring a photo ID (driver's license, state-issued ID card or passport) to the
Tiger 1 Card office located in the lobby of Fike Recreation Center. There is no charge for your first ID card. Always remember to carry your Tiger 1 Card with you.

Registration

Prior to registration for your first semester of study, you must report to your assigned advisor or the Graduate Curriculum Committee Chair. The Chair will help you plan your initial program of study and identify a suitable Major Advisor.

Registration is conducted entirely online via TigerWeb/iROAR. The Office of Registration Services provides information that you may refer to regarding the steps to be taken in the registration process at www.registrar.clemson.edu. Any student pursuing any phase of a graduate program must be registered. See “Maximum/minimum credit loads” under Assistantships/Financial Support for enrollment limits.

Housing Information

Housing

New graduate students are housed on campus as space permits, after all continuing student and freshman assignments are completed. The University has a small community of two-person apartments in Thornhill Village for single (unmarried) graduate students. In addition, single graduate students may request to live in other areas on campus, as space permits. Graduate students should call the Housing Office at (864) 656-2295.

The Clemson area offers students a host of off-campus housing choices in a wide range of prices. Consult a local realtor for options or more information. Some apartments do not include utilities (electric, water, phone, cable) as part of your lease agreement. You may need to make arrangements to have services connected by contacting the utility companies directly; your property manager/landlord should be able to provide you with the appropriate contact information.

CAT Bus

The Clemson Area Transit Service, known as the CAT Bus, is a free bus service provided by the City of Clemson. It offers fare-free shuttles around campus and around the Upstate, including service to Anderson, Central and Seneca. For route information, visit their website at www.catbus.com.

Orientation

All graduate students are required to attend the Graduate School orientation held on the Sunday before classes start in the fall and spring semesters.
GETTING THROUGH THE PROGRAM

Student Responsibilities

The ESED department expects you to approach your graduate study in a professional manner. We expect all graduate students to put in (on average) at least five eight-hour workdays per week, and graduate students may not be allowed all breaks/holidays afforded to undergraduate students.

Academic Integrity

A university is a community of scholars dedicated to the pursuit of knowledge. It follows as a basic tenet that students will conduct themselves with integrity in academic pursuits. In instances where the academic standards may have been compromised, Clemson University has a responsibility to protect this process and to respond appropriately and expeditiously to charges of academic misconduct. For a summary of the Graduate School’s policy on academic integrity go to the Academic Regulations section of the Graduate School website at: http://gradspace.editme.com/AcademicGrievancePolicyandProcedures#integrityphilosophy and the Graduate School Announcements at: www.registrar.clemson.edu/html/catalogGrad.htm. For information about and examples of plagiarism visit www.plagiarism.org/learning_center/what_is_plagiarism.html.

Requirements for the ESED Doctoral Degree

Students in the ESED doctoral program will be exposed to the wide breadth of current STEM education research as well as be prepared to interface between the development of new theory in STEM education and the implementation of new research findings in practice. Students who enter the degree with either a Master’s degree or equivalent expertise (18 credit hours at the graduate level) in a STEM discipline must meet the following minimum requirements to complete the ESED PhD.

<table>
<thead>
<tr>
<th>Minimum degree requirements for the ESED PhD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total credit hours earned:</td>
</tr>
<tr>
<td>Total hours of ESED coursework:</td>
</tr>
<tr>
<td>Total hours of courses outside ESED:</td>
</tr>
<tr>
<td>Doctoral research credit hours (ESED 9910):</td>
</tr>
<tr>
<td>Exams:</td>
</tr>
</tbody>
</table>
Engineering & Science Education PhD Sample Curriculum:

Students will be required to take a minimum of eleven (11) credits from core ESE courses, which include the following eight (8) required credit hours:

- **ESED 8000 - Seminar in Engineering and Science Education 1(1,0)**

- **ESED 8200 OR 8210 - Teaching Undergraduate Engineering OR Science 3(3,0);** Designed for engineering or science graduate students seeking a career in academe. Includes both discussion and practice of effective teaching techniques, assessments, and technologies, as well as an overview of current engineering and science education research.

- **ESED 8610 - Teaching/Mentoring Practicum in Engineering and Science Education 1(1,0);** Practicum that includes teaching or mentoring undergraduates in Engineering and Science. May be repeated for a maximum of three credits.

- **ESED 8710 Engineering and Science Education Research Methods 3(3,0);** Introduces methods and tools available for conducting pedagogically sound engineering and science education research. Quantitative, qualitative, and mixed methods are discussed and practiced.

Plus a minimum of three (3) credit hours from the following:

- **ESED 8700 OR ED F 9550 – Theoretical Basis of Instruction 3(3,0);** Establishes a foundation in theories of learning with a particular focus on their application to the teaching and learning of science, technology, engineering, and mathematics.

- **ESED 8250 – Engineering and Science Student Strategies 3(3,0);** Provides evidence-based information on effective strategies for teaching, learning and mentoring, focusing on relationships between students’ motivation, prior knowledge, problem solving skills, cognition and metacognition in undergraduate engineering and science courses.

- **ESED 8750 - Current Topics in STEM Education Research 3(3,0);** Designed for doctoral students who are interested in STEM education research. The two main objectives of this course are: (1) to guide students through current topics in STEM education research fields (including physics education, chemistry education, engineering education, and mathematics education research); (2) to provide students an opportunity to investigate a current STEM education research topic of their own choosing in depth. Research topics will be drawn from across STEM education disciplines and will be representative of the research techniques/methodologies that are in practice in these fields today.
• ESED 8880 - Preparing for the Professoriate 3(3,0); Designed to mentor students in preparing to obtain a faculty position and achieving tenure in science and engineering disciplines. Students will develop a professional portfolio and prepare for the application/interview process.

• ESED 8790 - Current Topics in STEM Education Policy 3(3,0): This course provides a foundation for engineering and science doctoral students to critically analyze current topics (and pertinent historical precedence) in U.S. policy affecting STEM education at multiple levels of the educational system. Students will learn to communicate issues related to STEM education policy to various audiences and stakeholders.

Additional Requirements:

• As directed and approved by each student’s doctoral committee, students will take a minimum of three (3) additional credit hours in supporting areas which include (but are not limited to): education, psychology, sociology, or statistics.

• Enrollment in ESED 9910 – Doctoral Thesis Research and Writing (18 credit hours)

• Disciplinary requirement – 18 credit hours at the graduate level in a single STEM discipline (i.e., mechanical engineering, physics, chemistry, etc.), unless a student holds an M.S., M.E., or higher in a STEM discipline.

• Qualifying and Comprehensive Examinations - In addition to the regular course requirements detailed above, students in the ESED PhD program will be required to pass a qualifying examination as well as a comprehensive dissertation examination before undertaking their dissertation research. The qualifying examination must be scheduled within 12 months after completing required coursework. Upon successfully passing the qualifying examination, the comprehensive dissertation examination will follow within another 12 months.

Special program requirements

Departmental Seminars:

All graduate students should enroll in ESED 8000 during their first semester in residence, and attend on a regular basis thereafter while in enrolled in the PhD program. Time and place may vary from the schedule to suit outside speakers. All graduate students will generally be required to make at least one presentation per year when enrolled in the PhD program.
Teaching Practicum:

ESED graduate students are required to gain teaching experience with undergraduates in a science or engineering discipline. Graduate students may serve as co-instructors or teaching assistants in undergraduate science or engineering courses for at least one full semester. This experience must involve significant face-to-face time with students and involvement in the design of course or project activities. In the case of teaching assistants, the experience must go beyond grading papers or reports. Students should co-enroll in ESED 8610 (Teaching/Mentoring Practicum) during the semester they are teaching. Graduate students are also encouraged to mentor undergraduate research or design activities whenever appropriate, with the approval of your Major Advisor.

Doctoral Qualifying Examination

The ESED program requires that each student pass a qualifying examination given by your Advisory Committee testing theoretical knowledge in the discipline of STEM education research and understanding of scholarly literature no later than 12 months after you complete the required coursework. Part-time students may request a variance on the timing of the exam. The exam topics include, but are not limited to, theories of learning, theoretical frameworks for education research, and statistical methods. At the discretion of the Advisory Committee, the qualifying exam may also include topics from the student’s engineering or science discipline, depending on the student's background and research focus areas. Your Major Advisor will coordinate all aspects of your qualifying exam.

The qualifying exam will consist of both written and oral sections. The written section will contain at least four questions written by the Advisory Committee. Students will have an allotted time (typically four hours) to write responses to the questions, which may be broken up into more than one session. Students may use a computer to compose responses, and are allowed to use external sources such as the internet, textbooks or journal articles in composing their responses. Within one week, the questions will be assessed, and the oral section of the exam will be given. The oral section will expand on topics from the written exam, and may include other STEM education topics at the discretion of the Advisory Committee.

Assessing the Qualifying Examination:

Members of the Advisory Committee will assess your performance on the written and oral exam questions using the rubric in the table on page 20, “Item 1 – Qualifying Exam”. The first four items in the rubric (Theoretical frameworks, Quantitative and/or mixed research methods, Qualitative and/or mixed research methods, and Application of research to practice) are intended to assess the questions on the written exam and the names of these items are subject to change at the discretion of the student’s Major Advisor. Writing skills will be assessed with the understanding that the written responses were constructed within a limited time period (roughly 1 hour per question). Oral presentation skills will reflect the student’s ability to elaborate on written responses and communicate well-reasoned responses to other questions posed during the oral
portion of the exam. Results of the Qualifying Exam will be reported to your Major Advisor. Grades of Pass, Conditional Pass and Fail will be assigned for each question based on the consensus of the committee.

- If you receive a Pass grade on all questions, you may continue in the PhD program.
- Conditional Pass qualifies as a Pass, but carries committee-determined stipulations such as taking additional graduate level courses selected by the committee and achieving an A in that course.
- If you receive a Fail grade on one or two questions on your first attempt, you must retake that portion of the exam within twelve months. If you receive a Fail grade on a second attempt, you will not be permitted to continue in the PhD program. If you receive a Fail grade on more than two questions on your first attempt, you will not be permitted to continue in the PhD program.

Appeal Procedure:

Outcomes of the qualifying exam process will not be subject to appeal, except where it is the consensus of your Advisory Committee that procedures set forth were not followed.

Doctoral Comprehensive Examination (Defense of research proposal)

The comprehensive examination will serve to examine your ability to apply the knowledge assimilated through coursework and preliminary research projects to STEM education research. The examination comprises a written doctoral dissertation proposal and oral examination.

You should take this examination within 12 months of successfully completing the qualifying exam. Part-time students may request a variance on the timing of the exam.

The dissertation proposal will be written in the style and form of a grant proposal to an external funding agency such as the National Science Foundation (NSF), as directed by your Advisory Committee. If no format is specified by the Advisory Committee, guidelines for NSF proposals should be followed; these can be found at http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpg.

Results of the Doctoral Comprehensive Examination (Form GS5D)

Members of the Advisory Committee will assess your performance on the written proposal and oral defense using the rubric in the table on page 20, “Item 2 – Proposal Defense/Comprehensive Exam”. The first four items in the rubric (Research topic knowledge, Theoretical knowledge, Research design and methods, and Data analysis are intended to assess knowledge, information and insights that would be expected in a competitive research proposal; the names of these items are subject to change at the discretion of the student’s Major Advisor. Writing skills will be assessed with the
understanding that the written responses were constructed within a page limit (15 pages, not including references). Oral presentation skills will reflect the student’s ability to elaborate on written work and communicate well-reasoned responses to other questions posed during the oral portion of the exam. Results will be reported to your Major Advisor. The GS5D form will be filed after successful completion of the comprehensive examination. Satisfactory completion of the comprehensive examination will result in a change of status from PhD student to PhD candidate.

Admission to Doctoral Candidacy

Admission to the Graduate School does not qualify a student as a candidate for a doctoral degree. Such candidacy depends on the acceptance by the dean of the Graduate School of a written request for admission to candidacy. You should file this request, Form GS5D (Results of the Doctoral Comprehensive Exam and Candidacy Form), once you have completed a major share of the prescribed graduate course work (research credits excepted), and have successfully undertaken the comprehensive examination(s). Your request for admission to candidacy must list your major and must bear the signed approval of your Major Advisor and Advisory Committee members.

You must be admitted to candidacy for the PhD degree at least six months prior to your dissertation defense.

Time required/limit

Failure to meet program and Graduate School deadlines given (see Deadlines section) is grounds for suspension of your stipend. Earlier completion is encouraged. Note that the Graduate School requires that doctoral candidates complete certain milestones within the five-year period prior to graduation. (See the Graduate School Announcements at www.registrar.clemson.edu/html/catalogGrad.htm.)

A doctoral student should have completed the dissertation by the time you have accumulated 32 - 50 credit hours, exclusive of research. If you do not meet these requirements, you will not be allowed to enroll for further credit except for ESED 9910, and you should not expect any further financial support from the department or the University.

Residence for Doctoral Degree

Residence is a necessary concept in graduate education, particularly in the preparation of the dissertation. The purpose of residence is to require you to spend a specified minimum amount of time in direct personal association with members of the faculty of the University and under direct advisement of your Major Advisor and Advisory Committee, and to participate in other normal activities pertinent to graduate education such as seminars and close association with other student researchers.
To receive the Doctor of Philosophy degree, you must complete at least 15 hours of graduate credit including research credit hours (9910) on the Clemson University campus in a continuous 12-month period.

For students employed substantially more than ½-time, a statement specifying the manner in which the residence requirement is to be satisfied shall be formulated by your Advisory Committee and included in your curriculum. Also, upon completion of the final examination, your Advisory Committee will forward to the Graduate School a statement approved by the department chair and college dean certifying that residence requirements have been met.

Exceptions to the residence requirement may be granted by the dean of the Graduate School. Major Advisors seeking an exemption to this policy must submit an academic plan for the student that is signed by the Major Advisor and the department chair.

**Doctoral Dissertation**

The purpose of a dissertation is to demonstrate your capability to:

- Formulate a research problem;
- Demonstrate knowledge relevant to a meaningful resolution of a specific problem;
- Effectively plan the work leading to the completion of the problem;
- Report the results of your research in concise, precise professional style.

**General guidelines**

All dissertations shall be prepared in accordance with guidelines established by the Graduate School (see [www.grad.clemson.edu/Manuscript.php](http://www.grad.clemson.edu/Manuscript.php)), which you should consult before beginning the writing phase of your graduate research. This website provides examples of properly formatted pages, tables and figures.

**Writing the dissertation**

The writing process may begin at any point in the research process; the earlier, the better. You should normally complete a final draft of your manuscript for your Major Advisor’s approval at least four weeks before your oral defense. Final copies of a version approved by your Major Advisor must be submitted to your Advisory Committee at least two weeks (ten working days) before your defense. It is within the rights of any committee member to refuse to meet for your defense if they have not been given the two-week review period. Your final examination must be administered at least three weeks prior to the date on which your degree is to be conferred.

As you near completion of your dissertation, you must defend your work to your Advisory Committee in a formal setting. This will include an oral presentation and oral
examination. Your committee will typically ask questions relevant to your dissertation topic, and provide comments about and/or edits to the dissertation.

As a result of their review of the written document and your oral examination/defense, your Advisory Committee may require that you do more work. After completion of that work and a successful final oral examination, your Advisory Committee will provide any comments or corrections that you must make to your manuscript. After you make the corrections, you must submit your manuscript electronically to the Graduate School for formatting review (see below).

**Formatting guidelines and electronic submission**

Once you have defended your dissertation, you must submit it electronically to the Manuscript Review Office of the Graduate School for formatting review. The Graduate School enforces specific formatting guidelines to ensure that your manuscript is considered credible and professional. Templates, examples and specific guidelines are provided on the Graduate School website (www.grad.clemson.edu/manuscript) to assist you in formatting. You will not be allowed to graduate until the Manuscript Review Office has approved your final manuscript.

The Manuscript Review Office uses an electronic dissertation submission process (ETD). Hard-copy (i.e., paper) manuscripts will not be accepted. Not only does this process make your manuscript more accessible, but it also costs you much less due to the minimization of printing costs.

**Supporting information and documents related to dissertation research**

All graduate students should keep a formal notebook for recording research procedures and results. Students are urged to study the recommendations for maintaining proper research records that are listed at the University’s Patent Policy page (www.clemson.edu/extension/Policy/misc/patents.htm).

All data, research notebooks and related materials (slides, pictures, graphs, publication reprints, etc.) generated by any graduate student within the department are the property of the department and will remain in the department after your graduation/departure. You must collect these materials and submit them to your Major Advisor before you graduate/depart. The major advisor will have final authority on the disposition of any or all of these materials.

**PhD Dissertation Defense**

An oral examination given at least three weeks before graduation will serve to examine your dissertation research. (See deadlines set by the Graduate School for the specific date for each term at www.grad.clemson.edu/deadlines.html.) You are required to provide a broad and penetrating interpretation of your research project and conclusions. Your committee members should receive a final draft copy of the dissertation at least
ten working days before the examination. This examination will be conducted under the authority of your Advisory Committee. All ESED faculty members will be invited to participate in the examination and to provide comments to your Advisory Committee.

Members of the Advisory Committee will assess your performance on the written dissertation and oral defense using the rubric in the table on page 20, “Item 3 – Dissertation Defense”. The first four items in the rubric (Research topic knowledge, Research design and methods, Interpretation of results, and Conclusions supported by evidence are intended to assess knowledge, information and insights that would be expected in a publication-ready manuscript; the names of these items are subject to change at the discretion of the student’s Major Advisor. Writing skills will be assessed based on the quality of the manuscript in terms of being publication-ready. Oral presentation skills will reflect the student’s ability to elaborate on written work and communicate well-reasoned responses to other questions posed during the oral portion of the exam. Results will be reported to your Major Advisor. Successful completion of this examination and your dissertation will result in a recommendation (GS7 Form) by your Advisory Committee to the Graduate School that the PhD degree be awarded.

Unsatisfactory performance on the final examination will result in a requirement for complete re-examination (with or without recommendations for additional work) or dismissal.

Expectations

Only two attempts to pass the oral exam will be granted.

The oral exam is based on:

1. An oral defense of your research
2. General questions related to your research
3. Basic questions about engineering and science education research beyond your area of specialization.

You will be expected to have an in-depth knowledge in your selected research area. In addition, you are also expected to be ready to answer all pertinent questions in the area based on the courses taken at the time of the examination that the panel deems relevant to the area of the proposed area of research. You must also be able to critique/defend approaches and methodologies you used and others cited in the literature.

Timing

You must complete your final examination(s) at least three weeks prior to graduation. We recommend that you set the schedule for the exam(s) with your Advisory Committee as early in your final semester as possible, to ensure their availability and your completion of the requirement.
Rubric for Engineering and Science Education Ph.D.

GRADUATE STUDENT WRITTEN AND ORAL EXAMINATIONS

The major professor, in consultation with the graduate committee, shall use the examination results to evaluate specific strengths and weaknesses of the candidate and his/her graduate program in the areas indicated below. Circle one score, using a 5-pt. scale (5=Excellent, 4=Very Good, 3=Good, 2=Fair, 1=Unsatisfactory).

Student Name:__________________________________ ID# ____________________________________

<table>
<thead>
<tr>
<th>Item 1 - Qualifying Exam</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Theoretical frameworks:</td>
<td></td>
</tr>
<tr>
<td>2. Quantitative and/or mixed research methods:</td>
<td></td>
</tr>
<tr>
<td>3. Qualitative and/or mixed research methods:</td>
<td></td>
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<tr>
<td>4. Application of research to practice</td>
<td></td>
</tr>
<tr>
<td>5. Writing skills:</td>
<td></td>
</tr>
<tr>
<td>6. Oral presentation skills:</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Item 2 - Proposal Defense/Comprehensive Exam</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Research topic knowledge:</td>
<td></td>
</tr>
<tr>
<td>2. Theoretical knowledge:</td>
<td></td>
</tr>
<tr>
<td>3. Research design and methods:</td>
<td></td>
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<tr>
<td>4. Data analysis:</td>
<td></td>
</tr>
<tr>
<td>5. Writing skills:</td>
<td></td>
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<tr>
<td>6. Oral presentation skills:</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Item 3 - Dissertation Defense</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Research topic knowledge:</td>
<td></td>
</tr>
<tr>
<td>2. Research design and methods:</td>
<td></td>
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<tr>
<td>3. Interpretation of results:</td>
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<tr>
<td>4. Conclusions supported by evidence:</td>
<td></td>
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<tr>
<td>5. Writing skills:</td>
<td></td>
</tr>
<tr>
<td>6. Oral presentation skills:</td>
<td></td>
</tr>
</tbody>
</table>
**Application for Diploma**

You must submit a formal application for a diploma to the Graduate School. You must complete this form online in the first four weeks of the semester in which you intend to graduate. Early submission is not accepted (e.g., do not complete the form in January if you do not plan to graduate until August or December, only if you plan to graduate in May). If you miss the deadline, you must contact Enrolled Services to receive a hard-copy version of the application; late fees will accrue at $25 the first day after the deadline and an additional $5 each business day thereafter to a maximum of $125. If you submit the form and, for some reason, do not graduate in that semester, you must re-submit in each term in which you hope to graduate thereafter.

If your name in the student database is not as you want it to appear on your diploma (due to marriage, etc.), you must contact Enrolled Services prior to submitting the Diploma Application form online. Any degree/major changes via form GS2 must also be processed before you submit the Diploma Application.

There is no fee to receive a diploma if you attend the graduation ceremony or agree to pick up your diploma in the Enrolled Services office in Sikes Hall. There is a $10 fee assessed if you request that your diploma be mailed to you.

For more information, contact Enrolled Services at (864) 656-5339, if your last name begins with A-L, or (864) 656-5341 if your last name begins with M-Z.

If you choose to participate in graduation ceremonies, you should make arrangements for cap and gown purchase (or rental, if preferred, for PhD gowns) at this same time. See the Clemson University Bookstore’s website at [www.clemson.edu/bookstore/gsupplies.htm](http://www.clemson.edu/bookstore/gsupplies.htm) for deadlines and more information.

**Final Check-Out/Exit Interview**

When you leave the University due to graduation or any other reason, you must do the following pertaining to the department:

- Turn in all keys to your Major Advisor.
- Be sure that any portion of the graduate student office that you occupied is clean and ready for another occupant.
- Return all borrowed materials (books, journals, etc.) to their appropriate location.
- Inform the Graduate Curriculum Committee that you are leaving and have complied with all regulations, and schedule an exit interview.
**Academic Requirements**

**Maintaining good academic standing**

A graduate student must maintain a minimum overall average of B (3.0) in all courses taken. If at any time you fail to satisfy this requirement, you will be automatically placed on probation for one semester during which time you will not be eligible for financial aid/assistantship. You are permitted only one probationary semester during the entire course of your graduate program. In addition, a failing grade (D or F) in a course in your major area may be cause for dismissal regardless of your overall average.

The awarding of an advanced degree does not merely attest to completion of academic requirements in courses, seminars and research activities, but also to the acquisition of acceptable professional standards, including standards of ethics (see the University's [Academic Integrity Policy](#)). Violations of professional standards may result in disciplinary action, including dismissal from the program.

**Maximum enrollment**

The upper limits on graduate student enrollment per semester, as outlined in the table below, refer to graduate and undergraduate credits combined and should be attempted only by the most qualified students. Should the six-week and three-week sessions run concurrently, the total credits are not permitted to exceed the upper limit for the six-week session. Graduate students paid solely on an hourly basis are not classified as graduate assistants but are subject to the same limitation in credit loads.

<table>
<thead>
<tr>
<th>Student Category</th>
<th>Maximum Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Semester</td>
</tr>
<tr>
<td>Full-time Students</td>
<td>18</td>
</tr>
<tr>
<td>1/4-time Graduate Assistants</td>
<td>15</td>
</tr>
<tr>
<td>1/2-time Graduate Assistants</td>
<td>12</td>
</tr>
<tr>
<td>3/4-time Graduate Assistants</td>
<td>12</td>
</tr>
<tr>
<td>Persons employed full time</td>
<td>9</td>
</tr>
</tbody>
</table>

Quarter-time, half-time and three-quarter-time graduate assistants are defined as those who contribute an average of 10, 20 and 30 clock hours per week, respectively, of service to the University for the entire semester. A person employed full time is defined as anyone employed five full working days per week regardless of the employer(s). A graduate student who becomes employed full time while the assistantship is in force must notify the Graduate School and the department providing the assistantship.

**Incomplete coursework**

A grade of Incomplete (I) will be given only if you have not completed a course for some unavoidable reason which is found to be acceptable by the course instructor. Unless you complete the requirements for removal of the I grade within the time period
stipulated by University policy, the Student Records Office will automatically change the I to an F. Extensions of the deadline for completing the course are granted only in extreme circumstances. Students who have Incompletes cannot graduate, even if the incomplete courses are not part of your GS2 plan of study. Special courses that constitute multi-semester projects are exempt from this rule. Incomplete grades for those courses may be given until the project is complete.

**Enrollment on a Pass/Fail basis**

The only graduate courses that may be taken on a pass/fail basis are thesis and dissertation research and a small number of courses in which the pass/fail grading system appears in the course description.

**Auditing courses**

Permission for a student to audit a particular graduate course is left to the discretion of the chair of the department, the coordinator of the program offering the course and/or the instructor. The principal factors involved in granting such permission are that the auditor must possess the necessary academic background and space must be available. Audited courses do not carry credit and the fact that a course has been audited is not noted on your official record. Graduate auditors are not required to stand for tests or exams. However, the instructor, at his/her own discretion, may demand the auditor’s participation in class to whatever extent deemed desirable. You may not satisfy by audit alone a stated prerequisite for a graduate course. Additionally, you may not establish credit through examination in any course for which you were previously registered as an auditor.

**Withdrawing from courses**

As an ESED graduate student, you will be permitted to drop courses in which you are enrolled only in exceptional cases and with the prior approval of your Major Advisor and the course instructor. If you drop a course when you have an assistantship, and your course load drops below nine credit hours, your assistantship may be revoked.

**Repeating a course**

You may not repeat any graduate course in an attempt to achieve a higher grade.

**Continuous enrollment, leaves of absence**

Graduate students who do not maintain continuous enrollment are subject to the requirements in effect at the time of returning. Only students who are enrolled are eligible to use University facilities and human resources. Note that you must meet minimum enrollment requirements to be eligible for financial aid (see [Assistantships/Financial Support](#)).
All graduate students in the ESED program are expected to maintain continuous enrollment during fall, spring and summer semesters. The ESED Department makes every effort to schedule relevant courses so that students can easily maintain their enrollment.

To prevent the possibility of termination of financial support, you must request and be granted a leave of absence from the department. Your request must be approved by both your Major Advisor and the department chair. Such leaves may be granted to students doing extended specialized training, field placements, or attending another university for specialized course work. Otherwise, a leave of absence will be granted only in exceptional cases. If you have an assistantship or fellowship and take a leave of absence, you are not guaranteed financial support upon your return, even if you did not use up all your support before your leave.

Students failing to maintain continuous enrollment must apply to the Graduate School for re-entry.

Withdrawing from the program/University

If for any reason you decide to withdraw from the program, inform your Major Advisor, who will inform you of the procedures to be followed to officially withdraw from the University. Failure to follow the procedures may result in your owing tuition and other fees to the University. This applies to both domestic and international students.

Advisory Committee

Each graduate student must have a faculty advisor who will also be the chair of the student’s advisory committee. The advisor must be a regular member of the ESED faculty or, in special circumstances only by approval of the Graduate Curriculum Committee, an adjunct faculty of ESED.

Your Major Advisor

The selection of your Major Advisor is one of the most important decisions you will face as a graduate student. Your Major Advisor helps plan your curriculum and guides your research activities and the preparation of your dissertation. Choose carefully: to facilitate your progress through the program as well as the quality of the program itself, a change of Major Advisor will be permitted only under the most unusual of circumstances.

During each semester, you should meet with your Major Advisor to discuss your research project on a regular basis. Students funded under a teaching assistantship will be contacted by the department chair or an instructor regarding their assignment.
Advisory Committee

You will form an Advisory Committee in consultation with your Major Advisor. Your Advisory Committee will approve your curriculum, supervise your graduate program, administer your qualifying and comprehensive examinations, and initiate the recommendation for awarding your PhD. Your Major Advisor will serve as the chair of your Advisory Committee.

A majority of your Advisory Committee (50% or more) must be regular or adjunct members of the ESED faculty. Committee membership must total at least four.

You are responsible for forming your Advisory Committee and keeping them apprised of your progress. You should form your Advisory Committee at least two semesters after you matriculate into the program. Appointment is made via form GS2 by the department chair, subject to the approval of the deans of the college and the Graduate School.

Plan of study (GS2)

Your graduate degree curriculum should be planned very early in your program, and the graduate degree curriculum form (form GS2) should be filed soon after you have formed your Advisory Committee and consulted with them, usually by the end of your first year in the program. You must file a form GS2 with the Graduate School no later than the last day of classes of the term before the term in which you plan to graduate. The GS2 represents the formulation of an individual student’s curriculum as approved by your Advisory Committee. It must adhere to Graduate School as well as departmental policies. Courses in excess of those required for the degree should not be listed on the GS2. Any questions concerning undergraduate deficiencies, transfer of graduate credit from other institutions, special program requirements, etc., should be resolved before the GS2 is submitted.

Advisory Committee approval of your plan of study is indicated by their signatures on the GS2. The form must also be approved by the major department chair, and the Deans of the College and Graduate School. Instructions for completing the GS2 form is available on the Graduate School’s website at http://www.clemson.edu/graduate/students/gs2-hints.html.

You must complete any class listed on your GS2 before graduation; if you fail to do so, you must file a revised GS2. Prior to graduation, you may revise your degree curriculum as needed, subject to Advisory Committee approval. In some situations, it may be necessary to change committee membership. In either case, you must submit a revised GS2.
Assistantships/Financial Support

Description of assistance available

Graduate research assistantships are available through individual faculty members to conduct research on specific projects. These may be either ¼-time, ½-time, or ¾-time appointments.

Fellowships are available from organizations outside Clemson University. Information on these opportunities is available from the department and from the Graduate School website (www.grad.clemson.edu/fellowships.php).

Your responsibilities and details of your financial support are included in your official offer letter from the department. This letter requires your signature indicating your acceptance of any terms. Teaching assistants will receive a separate communication with more detail as to their specific assignments, such as course sections, etc. To maintain your assistantship, you must complete the duties in a satisfactory manner and make satisfactory progress toward your degree.

Assistantship funding

The ESED program uses primarily external funding sources for graduate students (research grants and contracts). Students supported by research funds are assigned research duties. All assistantships may be subject to time limits as described below and are contingent upon your satisfactory performance and progress toward your degree.

- Assistantships for doctoral students will normally extend for 3 years beyond the Master’s degree.
- Continuation of assistantships is contingent upon satisfactory academic performance, as well as satisfactory performance of assigned duties associated with the assistantship.
- All research contract- and grant-supported graduate assistantships are subject to continued funding by the contracting agency. If a research contract or grant is terminated before you have completed your degree program, your advisor will endeavor (on an individual basis) to provide financial support to allow continuation of your program. This should not be construed as an assurance of funding. You are expected to complete your degree program in a timely fashion.
- All graduate students holding graduate assistantship appointments at Clemson University shall be compensated based on a standard full-time (100%) equivalent (FTE) rate (12-month basis) established by the department. This rate shall also serve as the basis for all rate adjustments described below. Generally, appointments shall be ½-time appointments (50% of the standard FTE rate).
- Compensation at a rate exceeding the standard FTE rate is allowed according to the following guidelines:
  - Funds for such additional compensation may be derived from a fellowship, traineeship or similar form of award in which the awardee is selected
competitively from a group of applicants on the basis of scholarly excellence. In this case, such additional compensation is limited to a maximum of 25% of the standard FTE rate. In the event that such an award exceeds this limit, the assistantship appointment shall be diminished in like proportion such that the total compensation does not exceed 75% of the standard FTE rate.

- Funds for such additional compensation may also be derived from a research grant or contract provided you had a significant intellectual role in preparing the research proposal leading to the grant or contract, as judged by your Major Advisor. In this case, such additional compensation is limited to a maximum of 25% of the standard FTE rate.

- Upon each anniversary of your matriculation, your Major Advisor may, at his/her discretion, reward you for exceptional performance by increasing your pay rate in an amount not to exceed 15% of the standard FTE rate using either incentive, research contract or other funds. NOTE: You are responsible for submitting the required paperwork to initiate such a raise.

- The maximum compensation limit does not apply to students who do not hold an assistantship appointment at Clemson University.

Minimum enrollment

A minimum enrollment is required for appointment as a graduate assistant. During the academic year, the minimum enrollment is 9 credit hours per semester for all graduate assistants. Minimum enrollment in the summer sessions is 3 credit hours per session. Undergraduate credits may be counted in the minimum provided they are relevant to your degree program and approved by your Advisory Committee. An assistantship may be withdrawn at any time for failure to maintain satisfactory enrollment status.

Employment-related information

Income taxes
The State of South Carolina, as well as the U.S. government, levies an income tax. Therefore, as a general rule, state and federal taxes will be withheld from your pay and you will need to file income tax returns with both the state and federal taxing agencies.

Paydays
Paydays are twice per month, generally on the 15th and on the last day of the month. When you go on the payroll for the first time, you will have a two-week lag before you will be paid. This “lag pay” is paid out after your termination from your position.

Paperless pay
Stipend checks must be direct-deposited through the University system. You must fill out an “Authorization for Deposit of Net Pay” Form upon starting your assistantship. This action is mandatory; no exceptions. Pay stubs will not be given/mailed to you, but are available electronically through MyCLE (bb.clemson.edu). To view your pay stub and other employment-related information, enter your employee ID and password in the username and password fields and click “Login”. Then select “View Paycheck” from the
CU Faculty & Staff Resources list. Re-enter your employee ID and password to sign in to PeopleSoft. Your most recent pay stub will appear.

Work injury protocol
Should you be injured during the course of your employment responsibilities, you must immediately report the injury to your supervisor. Your supervisor should then immediately call the workers’ compensation insurance company. Their medical manager will gather information about the accident and direct you to a healthcare facility or physician for treatment. No coverage will be provided for work-related claims unless reported by your supervisor before you receive medical treatment at the authorized provider. In the event of severe injury/emergency, call 911 first, and then execute the above procedures.

Workload
The normal ½-time graduate assistantship workload is 20 hours per week (average). Students cannot work over the maximum of 28 hours a week (20 hours for international students). Students are sometimes hired for 12.5% (5 hours), 25% (10 hours), 37.5% (15 hours) and 75% (28 hours) of full-time work, under appropriate circumstances. You should be aware of both your academic and work obligations, and are encouraged to discuss any problems with faculty. Students receiving assistantships must log their hours weekly in the “Time Capture” system, which is a requirement of the Affordable Care Act (ACA; a federal law that all US universities must comply with as of 2013) to ensure that they are not working over 28 hours. More information on the ACA, the Time Capture system and a link to the Time Capture system can be found on this Human Resources website: http://www.clemson.edu/employment/benefits/aca_updates.html.

Reduction of pay
Normally, your agreed-upon workload will be submitted as hours worked for each payroll period. However, if the amount of work you perform consistently deviates below the required workload, your pay will be reduced accordingly. Due to the procedure in which time sheets are currently used, it may be necessary to implement any pay reductions in the pay period following the one in which the work deficiency actually occurred. Pay also may be withheld from students who violate the vacation policy (see below).

Vacation policy
As a rule, graduate assistants do not accrue paid vacation time. Your work time frame should not be perceived to be the same as the semester class schedule. Generally, graduate assistants work on the same calendar as faculty with 12-month appointments unless different work expectations are distinctly articulated in your offer letter. In the event of a death in your immediate family, illness of a close family member or personal illness or hardship, you may request up to four weeks leave without pay per semester and one week of leave without pay per summer session from your immediate supervisor.
Military leave policy
The Graduate School has ruled that a graduate student on military leave, for example summer camp, will not receive a stipend for the period of that leave. Students planning to take military leave should notify the departmental secretary of the inclusive dates. Short periods of about one week can be taken as regular vacation with no interruption in pay. Students leaving the campus for six weeks to attend summer camp must obtain written permission from the dean of the Graduate School to be excused from the continuous enrollment provision.

Holidays
Graduate students are entitled to take as holidays the days on which the University is officially closed. See the official University holiday schedule at www.clemson.edu/humanres/Payroll_Benefits/holidays.htm.

Termination of pay
Pay for any session will end when you leave Clemson or are no longer available for work assignments. Normal termination dates for the spring and fall semesters for students not continuing into the next session is graduation day. Any deviations from these dates must be approved by your Major Advisor or the department chair.

Outside employment
One of the purposes of a graduate assistantship is to support you during your graduate studies. Therefore it is the policy of the department to disallow you from outside employment if you hold more than a ½-time assistantship. Exceptions to this policy include temporary consulting and/or tutoring jobs, which you may undertake if you receive prior approval from your Major Advisor.
Process and Procedures

Schedule of courses

The following table shows the rotation schedule for graduate courses in ESED. You should schedule any courses you take outside of the discipline around this schedule in order to ensure that you do not miss an opportunity to take a course that is required by the program or your Advisory Committee.

The following table lays out a typical progression through the ESED program.

| Year 1 – 1\textsuperscript{st} Semester | Take 3 graduate courses, attend seminars, attend faculty research presentations, choose a Major Advisor. |
| Year 1 – 2\textsuperscript{nd} Semester | Take 3 graduate courses, attend seminars, begin work on research project. |
| Year 2 | Form Advisory Committee and file GS2 form. Take graduate courses (as needed/desired), attend seminars. Present your first student seminar. Continue work on research project. Take qualifying exam as required. Write a research proposal and oral presentation for the comprehensive exam. |
| Year 3 and beyond | Finish qualifying and comprehensive exams as required. File the GS5 form. Continue working on research project. Take more graduate courses as needed/desired, attend seminars. Write and defend your dissertation when research is completed. |

Checklist/Worksheet of requirements

Use the following worksheet to track your completion of program requirements.

<table>
<thead>
<tr>
<th>What</th>
<th>When to Complete</th>
<th>How/Who</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection of a Major Advisor</td>
<td>Before the end of your first semester</td>
<td>Notify Graduate Curriculum Committee Chair</td>
</tr>
<tr>
<td>Appointment of Advisory Committee</td>
<td>By the end of your first year</td>
<td>In consultation with your Major Advisor</td>
</tr>
<tr>
<td>Preparation of curriculum</td>
<td>Before the end of your first semester</td>
<td>In consultation with your Major Advisor (and Advisory Committee)</td>
</tr>
<tr>
<td>File plan of study</td>
<td>By the end of your first year*</td>
<td>Form GS2</td>
</tr>
<tr>
<td>Minimum of 32 credit hours completed</td>
<td>Within six calendar years prior to graduation</td>
<td>Form GS2</td>
</tr>
<tr>
<td>Event</td>
<td>Timing</td>
<td>Responsible Party</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>Qualifying exam</td>
<td>Within one year of completion of core classes</td>
<td>Advisory Committee</td>
</tr>
<tr>
<td>Comprehensive exam - Approval of dissertation proposal</td>
<td>Within one year of completing qualifying exam</td>
<td>Advisory Committee approves proposal; file proposal with Graduate Curriculum Committee</td>
</tr>
<tr>
<td>Admission to doctoral candidacy</td>
<td>Upon completion of comprehensive exam (at least six months prior to graduation)</td>
<td>Form GS5D</td>
</tr>
<tr>
<td>Minimum of 18 hours of doctoral research completed</td>
<td>Prior to graduation</td>
<td></td>
</tr>
<tr>
<td>Apply for diploma</td>
<td>Beginning of final semester*</td>
<td>You fill out online via Graduate School website</td>
</tr>
<tr>
<td>Order cap and gown</td>
<td>Beginning of final semester*</td>
<td>Order through bookstore</td>
</tr>
<tr>
<td>Submit your dissertation – 1st draft</td>
<td>At least 8 weeks before date of final examination</td>
<td>You submit to Major Advisor</td>
</tr>
<tr>
<td>Submit your dissertation – final</td>
<td>Approved copies at least 2 weeks prior to final examination</td>
<td>You submit to Advisory Committee members</td>
</tr>
<tr>
<td>Final Examination (dissertation defense)</td>
<td>At least 3 weeks prior to graduation*</td>
<td>Major Advisor files GS7 with Graduate School</td>
</tr>
<tr>
<td>Submit your completed manuscript to Graduate School for formatting review</td>
<td>At least 2 weeks prior to graduation*</td>
<td>You submit online at dissertations.umi.com</td>
</tr>
<tr>
<td>All formatting revisions completed, approval of manuscript by Graduate School</td>
<td>At least one week prior to graduation*</td>
<td>Via email and website; the manuscript review office will notify you of any revisions required and how to submit them</td>
</tr>
</tbody>
</table>

* See specific deadline dates for Graduate School forms at [www.grad.clemson.edu/Deadlines.php](http://www.grad.clemson.edu/Deadlines.php).
Administrative Policies and Procedures

Student offices/desks

The ESED department will provide a desk for each graduate student, depending on available space. New students should meet with their Major Advisor concerning a desk assignment.

Student travel

Department-specific travel information and guidelines from the Clemson University Travel Guidelines Index have been incorporated into this section. The complete Guidelines Index, including authority references and guidelines specific to University administration, is available at www.clemson.edu/procurement (CU Dept Info, Travel Guidelines).

Complete “Request to Travel" form, obtain appropriate signatures (PI or faculty member responsible for the account number to which it will be charged) and submit to your Major Advisor.

Traveler's responsibilities

When you file for reimbursement of travel expenses you are stating that:

- You have followed the University's travel policies;
- You have not nor will not receive reimbursement for these expenses from any other entity outside the University;
- None of the expenses are of a personal nature;
- All supporting documentation is on file with your department or business officer.

NOTE: Under the Progressive Discipline Policy of the University, any employee who falsifies records or documents or willfully violates written rules, regulations or policies can be suspended or terminated from their job.

You must file travel reimbursements within 60 calendar days of the completion of the trip and within the same fiscal year in which the trip occurred. Multiple trip reimbursement requests for trips of a repetitive nature should be claimed on a travel log form. These requests should be submitted at least quarterly. Reimbursement will be made only upon completion of the travel. Any reimbursement request that is not submitted when due will require you to submit and receive approval of a written request stating the reason for the delay with approval by the dean/department chair or the business officer and the Director of Procurement Services.

All travel vouchers submitted for reimbursement are required to have the signature of the traveler and one other person authorized to spend funds from the account numbers that appear on the travel voucher. All signatures must be original. No stamped signatures will be accepted.
Travelers are expected to exercise the same judgment when making travel arrangements and expenditures that a prudent person would exercise if traveling on personal business and expending personal funds.

- Excess costs, circuitous routes, delays or luxury accommodations not needed for the performance of an assignment are to be avoided.
- Travel by commercial airlines will be in coach or tourist class, except where exigencies require otherwise.
- Transportation to or from points of arrival and departure will be by the most economical method.

**Expenses for spouses**
Reimbursements to an individual may cover only those expenses pertaining to that individual. It may not include expenses pertaining to other individuals, regardless of who paid the expense. Travel expenses for spouses, friends or other individuals not traveling on official University business are *not* reimbursable.

**Unauthorized costs**
You will be responsible for unauthorized costs and any additional expenses incurred for personal preference or convenience. No reimbursement for reduced fare advance purchase tickets will be made directly to employees prior to the completion of travel if charged on a personal credit card, since direct payment by the University is available using the Departmental Purchase Card.

**Meals**
You must be in travel status (more than 10 miles from your residence or official headquarters) to be eligible for reimbursement of meals. Actual reimbursement amounts depend on your departure and return times, and whether official travel was *within* or *outside* South Carolina. Policies and reimbursement rates are posted at [http://www.clemson.edu/cfo/procurement/travel/employeeguidelines.html](http://www.clemson.edu/cfo/procurement/travel/employeeguidelines.html)

**Lodging**
Lodging expenses will be allowed subject to the following limitations, provided an original, itemized receipt is furnished. Lodging arrangements and any required deposits are your responsibility and will be reimbursed as part of the lodging expenses upon completion of the trip.

- Actual lodging expenses will be reimbursed; however, more moderately priced accommodations must be made when a choice is available. Employees should request a state or government rate when available.
- No reimbursement will be made for overnight lodging within 50 miles of your residence or official headquarters.
- The expense for shared lodging may be reimbursed to one employee if only one original itemized receipt is obtained. If the room is shared with other than a University employee, the single room rate will apply.
- All necessary and reasonable tips for baggage handling will be reimbursed.
Miscellaneous expenses
Movies, bar bills, laundry, room service, safes and security insurance, health or spa
fees, etc., will not be subject to reimbursement on the travel expense report. These are
considered personal in nature and are your responsibility.

Foreign travel
Travel outside the continental United States, Alaska, Hawaii, Canada, Puerto Rico or
the Virgin Islands require approval prior to departure. Foreign travel funded from
sponsored program activities must be approved in advance by Sponsored Programs
Accounting.

While on foreign travel, actual lodging expenses will be reimbursed. Fees for the
purchase of traveler's checks, passports and visas will be reimbursed provided a receipt
is furnished. All expenses claimed must be converted to U.S. dollars and the conversion
rate and computation should be shown on each receipt.

When an employee is on foreign travel, meal expenses not exceeding federal rates will
be reimbursed. These rates are listed at the following website:
http://aoprals.state.gov/web920/per_diem.asp.

The Provost Advisory Council approved a risk management recommendation to require
all Clemson students to obtain international travel insurance when traveling abroad.
This applies to both faculty-led and semester abroad programs. The cost is $31 per
month and includes $100,000 basic medical (no deductible), medical evacuation/
repatriation and up to $2,000 to transport a family member to a patient hospitalized for
more than six days. Faculty and staff traveling with student groups may also be covered
under the student policy at this cost. Contact the Office of Risk Management at (864)
656-3354 for additional information.

Travel by automobile
University employees may use their own automobile for official travel provided the
University would incur no added expenses above that of other forms of transportation
available. Taxi fares and reasonable tolls will be reimbursed to the individual. Receipts
must be furnished if claiming airport, hotel or parking garage parking of more than
$5.00. No reimbursement will be made to operators of state-owned vehicles who must
pay fines for moving or non-moving violations.

Rental cars
Travelers should check with several car rental agencies for the most competitive rates.
Address insurance requirements with the rental agency. If you do not take the insurance
from the vendor, your personal insurance will be required to provide the coverage.
Clemson University will only cover you if the rental is in Clemson University's name.
Most national car rental companies require a personal credit card which obligates the
person renting the vehicle.
Registration fees
Registration fees in the amount necessary to qualify you to attend conventions, meetings, conferences, etc., are allowed. These fees can be paid using the Departmental Purchase Card or by completing a Direct Purchase Voucher (DPV) and sending it to Accounts Payable at least ten days to two weeks before the deadline of the meeting. If this is not prepaid, and is paid at the time of registration of the meeting, reimbursement will be made after the trip is completed. You must have a detailed receipt that indicates the means of payment.

Receipts
Student travelers must submit a receipt for each expense of $5.00 or more, except for meals, taxi fare, tolls and portage. All receipts and paid bills should be originals. If originals are not available, a memorandum, approved at the next level in the approval process, must accompany the travel voucher when it is submitted.

Travel awards
The Graduate Student Government (GSG) awards amounts of up to $500 to full-time graduate students toward their attendance at conferences and other professional development events. See the GSG website for application information (people.clemson.edu/~qsg/).