## Table of Contents

Welcome/Purpose of this Handbook.................................................................................. 1
Entering the Program......................................................................................................... 2
   Admission Requirements .......................................................................................... 2
   Acceptance Categories .......................................................................................... 2
   Prerequisites ......................................................................................................... 3
English Language Proficiency ................................................................................ 4
Computer Proficiency ............................................................................................. 5
Foreign Language Requirement ............................................................................. 5
Transfer Credits ...................................................................................................... 5
Direct Admission to the PhD Program ................................................................. 6
Duplication of Degrees ........................................................................................... 6
Combined Bachelor’s/Master’s ............................................................................... 6
South Carolina Residency ...................................................................................... 6
University Employee Enrollment ............................................................................. 7
Admission Procedures ............................................................................................ 7
International Students ........................................................................................................ 7
   Student Expenses .................................................................................................. 7
   Student Visa ........................................................................................................... 7
   Social Security Number ........................................................................................ 8
   Costs ...................................................................................................................... 8
   Financial Assistance ............................................................................................... 8
Employment Paperwork ............................................................................................... 9
CU Student XID, Username and Tiger 1 Card ............................................................... 9
   XID ......................................................................................................................... 9
   Username ............................................................................................................. 9
   Tiger 1 Card ......................................................................................................... 9
Housing, Area Information ................................................................................................. 9
   Housing .................................................................................................................. 9
   CAT Bus ................................................................................................................. 10
   Groceries, Services, Shopping ........................................................................... 10
   Orientation .............................................................................................................. 10
Getting Through the Program .......................................................................................... 10
   Student Responsibilities ......................................................................................... 10
   Academic Integrity .................................................................................................. 10
   Academic Research ................................................................................................ 12
   Best Practices for Graduate Student-Faculty Mentor Relationship ................. 13
Requirements for the Doctoral Degree - Food Technology ............................................ 14
Requirements for the Master’s Degree - Food, Nutrition & Culinary Sciences .......... 22
   Thesis ...................................................................................................................... 22
   Non-thesis .............................................................................................................. 25
Requirements for the Master’s Degree - Packaging Science ........................................... 28
Academic Requirements ............................................................................................... 29
Advisory Committee ................................................................................................. 31
Assistantships/Financial Support ................................................................................... 33
Employment Related Information .................................................................................. 34
Process and Procedures ............................................................................................... 36
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guidelines for Faculty</td>
<td>38</td>
</tr>
<tr>
<td>Research and Laboratory Work</td>
<td>39</td>
</tr>
<tr>
<td>Special Equipment, Supplies Required</td>
<td>40</td>
</tr>
<tr>
<td>Safety Check-in for Laboratory Personnel</td>
<td>44</td>
</tr>
<tr>
<td>Administrative Policies &amp; Procedures</td>
<td>48</td>
</tr>
<tr>
<td>Administrative Services</td>
<td>52</td>
</tr>
<tr>
<td>Campus Facilities and Resources</td>
<td>57</td>
</tr>
</tbody>
</table>

**Appendices**

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix A</td>
<td>60</td>
</tr>
<tr>
<td>Appendix B</td>
<td>67</td>
</tr>
<tr>
<td>Appendix C</td>
<td>68</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Checklist/ Worksheet of Requirements</td>
<td>70</td>
</tr>
<tr>
<td>Statement of Acknowledgement</td>
<td>73</td>
</tr>
<tr>
<td>Key Policy</td>
<td>74</td>
</tr>
</tbody>
</table>
INTRODUCTION

Welcome/Purpose of this Handbook
Welcome to the Department of Food, Nutrition, and Packaging Sciences 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 the Food, Nutrition, and Packaging Sciences Department, 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, developed through the years and in conjunction with the Graduate School, have proven to be beneficial for both students and faculty in the department. 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 and comply with the contents of this handbook.

The rules and regulations outlined in this handbook provide additional guidance and are subordinate to those described in the Graduate School Announcements, which you can find using 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:

Dr. Paul Dawson, Graduate Program Coordinator
pdawson@clemson.edu
226 Life Sciences Facility
864.656.1138

The Program Coordinator promotes the program, orchestrates recruiting activities and makes recommendations regarding graduate admission offers. The Program Coordinator also 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 Program Coordinator is your first contact should any issue arise regarding your academic progress or the program curriculum.

Department Administrative Assistant:

Ms. Kim Collins
kcllns@clemson.edu
223 Poole Agricultural Center
864.656.3397

For a complete listing of faculty and staff, see Appendix B.
ENTERING THE PROGRAM

Admission Requirements
Minimum requirements to be considered for admission to graduate study in MS in Food, Nutrition and Culinary Sciences, MS in Food, Nutrition and Culinary Sciences Non-thesis, MS in Packaging Science, or PhD in Food Technology 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 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. The GRE subject tests are not required for admission.

Admission to the MS in Food, Nutrition and Culinary Sciences, MS in Food, Nutrition and Culinary Sciences Non-thesis, MS in Packaging Science, or PhD in Food Technology 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 the Department of Food, Nutrition, and Packaging Sciences 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 MS in Food, Nutrition and Culinary Sciences, MS in Food, Nutrition and Culinary Sciences Non-thesis, MS in Packaging Science, or PhD in Food Technology begins with your submission of an official application to the Clemson University Graduate School via their website at www.grad.clemson.edu/Admission/.

Upon receipt of all admission materials, the Graduate School will forward your application to the Department of Food, Nutrition, and Packaging Sciences for review. Applicants must meet all admission requirements of the Graduate School, the Department of Food, Nutrition, and Packaging Sciences, and MS in Food, Nutrition and Culinary Sciences, MS in Food, Nutrition and Culinary Sciences Non-thesis, MS in Packaging Science, or PhD in Food Technology before official acceptance will be granted.

An additional requirement for admission is identification of a research advisor prepared to accept the applicant as an advisee.

Acceptance Categories
Students are accepted into the program as either full or conditional status. Each indicates a different level of performance on the admission criteria.

Full Status: Your credentials equal or exceed every minimum admission criterion prescribed for the applied-for degree.

Conditional Status: At least one piece of required application materials has not been received by the Graduate School. Notice of conditional acceptance may be given prior to receipt of a missing item, but any and all missing materials must be received prior to or during your first semester of enrollment. Upon receipt, you may be admitted to either full or provisional status. Conditional status may also be granted to highly qualified applicants prior to receipt of the degree they are currently pursuing;
however, all requirements for that degree must be completed prior to enrolling in the proposed
graduate program at Clemson.

Prerequisites
The following criteria are used to determine each applicant's suitability for either the Food, Nutrition
and Culinary Sciences MS or the Food Technology PhD graduate programs. These criteria are used
as guidelines, thus applicants may be considered competitive by Graduate Admission Committee
(GAC) even if one or more requirements are not absolutely met.

GRE Score: Combined scores of the two objective sections (verbal and quantitative) of the Graduate
Record Examination (GRE) should be 1000 or higher if taken prior to 8/1/2011 and 300 if taken on or
after 8/1/2011. Applicant score on the analytical writing section of the GRE should be 4.0 or higher.
Any applicant with a total GRE score (Verbal and Quantitative combined) or an analytical writing
score below these levels must be able to submit exceptional supporting materials to have a
competitive application (transcript, reference letters, and other supporting documents such as
published papers).

GPA: A cumulative grade point average of 3.0 from undergraduate degree institution and Master's
degree institution (if applicable).

TOEFL (international students): Because of the strong communication component of graduate
degree programs, non-native speakers of English should have a minimum TOEFL score of 80. IELTS
can be taken in lieu of TOEFL. Minimum score accepted on the IELTS is 6.5.

Financial Support: International students must also submit documentation of adequate financial
support for their studies.

Letters of Recommendation: Strong letters from recommenders that speak to an applicant's
academic skills and research potential are essential to a competitive application: 3 required for PhD
applicants; 2 required for MS applicants.

Statement of Purpose: A strong statement of purpose that outlines an applicant's reasons for
seeking graduate education, research areas of interest, research experience and long-term career
goals that incorporate the importance of a graduate degree program are essential to a successful
application.

As a guideline for those entering the Food, Nutrition and Culinary Sciences MS program, the Food
Science undergraduate major has the following course requirements:

| General Biology (2 semesters) | General Chemistry (2 semesters) |
| Physics (1 semester) | Organic Chemistry (1 semester) |
| Biochemistry (1 semester) | Microbiology and Food Microbiology (1 semester each) |
| Food Chemistry (2 semesters) | Food Processing (1 semester) |
| Human Nutrition (1 semester) | Undergraduate Research (6 semesters) |
Students wishing to qualify for an internship after graduation leading to become a Registered Dietician are also required to complete Human Anatomy/Physiology, Human Nutrition courses (4 semesters), and a Practicum.

Not meeting the undergraduate degree requirements will not exclude an applicant from the Program, but rather, some missing requirements can be listed as "undergraduate deficiencies" that will need to be completed as part of the student's graduate degree program. Which courses will be used to make up these deficiencies is determined by the student and his or her advisory committee.

Students should have a background in science equivalent to that required for the bachelor's degree in food science, nutrition, packaging science or a related field at Clemson, and must present evidence of such competence via transcripts, etc. Many MS in Food, Nutrition and Culinary Sciences, MS in Food, Nutrition and Culinary Sciences Non-thesis, MS in Packaging Science, or PhD in Food Technology graduate courses presume a working knowledge of corresponding undergraduate material. In addition, you may be required to provide evidence of such knowledge during your final oral examination and/or defense.

If course deficiencies are specified as a condition of your admission, it is important that you take the necessary courses early in your program in order to provide you with background for graduate-level courses. Normally, you remove these deficiencies by taking and passing the required courses during a regularly scheduled course offering. These courses do not count toward the total number of semester hours of graduate credit required for graduation.

**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) coursework from one of Clemson’s ESL affiliates. International students who are applying for a graduate assistantship are encouraged to submit scores from the Test of Written English (TWE), which is administered simultaneously with the TOEFL at most locations.

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 English Department has worked with the Emeritus College to build a mentorship and language partner program in which international students will work individually with an Emeritus faculty member on their language abilities—speaking/listening; reading/writing; cultural awareness; disciplinary jargon/terminology. This program matches individuals of similar disciplines and the faculty will work with students according to their individual needs and skill level.

The English Department has constructed a general rubric for interactions and provided support materials for the faculty mentors, so the Emeritus faculty will be guided through the process of language learning according to established and successful practices. Each interaction will also carry a written assessment that comments on the student's progress and these assessments will be provided to the home department as well as to the English Department.
To gauge international students’ oral/aural facility with English (SPEAK Test), the Emeritus College will administer this test in the Language Lab on the ground floor Daniel Hall.

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 if positions are available.

**Computer Proficiency**
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.

At a minimum, you should be comfortable using the basic functions of the following software programs: Microsoft Word, Microsoft Excel

**Foreign Language Requirement**
The MS in Food, Nutrition and Culinary Sciences, MS in Food, Nutrition and Culinary Sciences Non-thesis, MS in Packaging Science, or PhD in Food Technology 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 Program Coordinator, 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 the student’s grade point ratio. 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, the number of credit hours that may be transferred from an accredited institution will not be greater than one-third of the graded coursework required for a master’s degree. For the doctoral degree, as many as 48 semester credit hours of work may be transferred. 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 coursework in which you received a grade lower than a B or its equivalent. 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. Coursework 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).

Direct Admission to the PhD Program
Students must meet all admission requirements; have a major professor and funding before being considered for direct admission into the PhD program. If you have a bachelor's degree in a field approved by the department, but not a master's degree, you may apply directly to the PhD program. You must satisfy the core course requirements for the master's degree in your subject area before you complete your degree, and may receive a one-semester delay in all deadlines associated with the PhD comprehensive examination. If you fail the comprehensive exam, you will be permitted to continue as a master's student provided you have met all the requirements to qualify for a MS degree, but will not be eligible to reapply to the PhD program.

If you are enrolled in the master’s program, you may be accepted directly into the PhD program prior to completion of your master’s degree with the consent of your Major Advisor, and Graduate Committee and approval by the Graduate Program Coordinator and Department Chair.

Duplication of Degrees
The holder of a master’s degree in a given field, received at another institution, may not become a candidate for another master’s degree in the same field at Clemson.

Combined Bachelor's/Master’s
To complete the Combined Bachelor’s/Master’s process, the time requirement is a minimum of five years. If you want to qualify for the Bachelor’s/Master’s track in Food, Nutrition and Culinary Sciences or Packaging Science you should express your interest during the spring semester of your sophomore year.

During the following fall semester, juniors who qualify and are interested can explore potential major advisors and project availability. When you find an appropriate faculty sponsor, you must apply for admission to the Graduate School by completing Form GS6BSMS (www.grad.clemson.edu/forms), including obtaining all required signatures.

The GS6BSMS requires identifying up to 12 credit hours of graduate coursework that will replace bachelor’s degree requirements. Upon acceptance, you will receive conditional admission, dependent on your successful completion of your undergraduate degree. It is highly recommended that you initiate your MS research project in your senior year therefore identifying a major faculty advisor should begin in the junior year.

With your major advisor, you will select an Advisory Committee at the beginning of the following fall semester. Your Advisory Committee will approve your plan of study (Form GS2) and research prospectus in that same term. You should complete your final graduate courses and thesis defense during the spring semester of that same academic year. Combined BS/MS graduates must satisfy the same requirements as MS graduates.

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 has 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/financial-aid/residency. Questions should be addressed to the Office of Residency Classification (G-01 Sikes Hall, 864.656.2280).

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 master’s degree within six years of commencing the program; the PhD must be completed within five years of satisfactory completion of your comprehensive examination.

Admission Procedures
Upon your completion of the online application and receipt of all admission materials, your application is reviewed by the Program Coordinator. Your application status can be checked at www.grad.clemson.edu/admission/.

The Program Coordinator 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 Program Coordinator and Graduate Committee 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, the Program Coordinator 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 funding to cover a minimum of one year’s estimated expenses. Follow this link for more details or contact the International Services (E-307 Martin Hall, 864.656.3614). www.clemson.edu/administration/ia/services/students/IS50_Financial_Certification.pdf

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 International Services website at www.clemson.edu/administration/ia/services/index.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 your upon 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 on campus on the dates indicated by the Graduate School. You should then see Kim Collins in 223 Poole Agricultural Center. She will provide you with the paperwork that you must take with your signed Social Security card to the Foreign National Payments Coordinator in the Administrative Services Building 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
- I94
- 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 or 864-656-5591.

Costs
For current tuition and fees, see 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
Assistantships are 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, letters of recommendation, and availability of funding.

Financial support is 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 financial support 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 is 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 Kim Collins, 223 Poole Agricultural Center, at the beginning of your assistantship and complete the following forms: personnel information sheet and I-9 form. Direct deposit and W-4 are completed online. You will need to provide proof of nationality, social security number, etc. (by way of a driver’s license and social security card).

CU STUDENT XID, USERNAME AND TIGER 1 CARD

XID
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 XID is 9 characters you will use on forms and other official University business. It is often referred to as your “XID”.

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 Webmail, Blackboard, and iROAR. 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 www.clemson.edu/campus-life/campus-services/tiger1 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 111 Hendrix Student Center. There is no charge for your first ID card. Always remember to carry your Tiger 1 Card with you at all times.

HOUSING, AREA INFORMATION

Housing
Tiger Properties has been selected as the preferred leasing agent for graduate, family, and international student housing needs. Visit them online or reach them by phone at 864-654-RENT.
The Clemson area offers students a host of off-campus housing choices in a wide range of prices. 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](http://www.catbus.com).

**Groceries, Services, Shopping**
The Clemson area offers a variety of shopping opportunities. There are several grocery stores, banks, commercial laundries and drug stores within just a few miles of campus, many of which are accessible by foot, bicycle or CAT Bus. A wide range of restaurants are also available downtown and along Tiger Boulevard. The greater Upstate area, including Central, Seneca, Easley and Anderson, provides even more products and services along CAT Bus routes or for those students with private transportation. Contact the Clemson Chamber of Commerce for more information ([www.clemsonchamber.net](http://www.clemsonchamber.net)).

**Orientation**
All graduate students are required to attend the Graduate School orientation held on the Sunday before classes start in the fall. The Department of Food, Nutrition, and Packaging Sciences also provides an orientation at the start of each fall semester which you must attend. The date, time and location of the orientations will be provided to you shortly after you receive your admissions acceptance packet.

**GETTING THROUGH THE PROGRAM**

**Student Responsibilities**
The Department of Food, Nutrition, and Packaging Sciences expects you to approach your graduate study in a professional manner. All graduate students are expected to work the number of hours allocated in their assistantship, and graduate students may not always be allowed all breaks/holidays afforded to undergraduate students.

**Academic Integrity**
A university is a community of scholars dedicated to the inquiry into 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.

A summary of the Graduate School’s policy on academic integrity, current as of press time, follows. For a complete text of the policy, including rules and procedures, and specifics related to former students, academic research and revocation of academic degrees, see the “Appeals and Grievances” section of the Graduate School website at [www.grad.clemson.edu/policies/Appeals.php#misconduct](http://www.grad.clemson.edu/policies/Appeals.php#misconduct) and the Graduate School Announcements at [www.registrar.clemson.edu/html/catalogGrad.htm](http://www.registrar.clemson.edu/html/catalogGrad.htm).
i. Definitions, explanations and examples of violations of academic integrity

Cheating. Cheating involves giving, receiving or using unauthorized aid on any academic work submitted for grading including coursework, laboratory assignments, research projects, comprehensive examinations, theses and dissertations or using computer center account numbers that belong to another person without the permission of the account owner. Unauthorized aid includes collaborating with classmates or others when explicitly prohibited, using online paper mills or paying individuals to prepare research papers, reports or projects, submitting identical work to satisfy the requirements of more than one class without the approval of the faculty, or using textbooks, notes, the web and other sources when instructed to work alone.

Fabricating/falsifying information. Fabricating or falsifying information involves actions such as making up data that were not collected, stating that studies were conducted that were not, indicating that original source material was read when information was obtained from secondary or tertiary sources, making up references not used or identifying sources that were not consulted.

Facilitating violations of academic integrity. Facilitating violations of academic integrity involves students intentionally assisting others to violate the principles of academic integrity (for example, allowing friends access to their work, or instructing students on ways to solicit aid on papers, projects, take home exams, tests for state and national licenses, etc.).

Failing to cite contributors. Failing to cite an author or multiple authors involves not giving credit to individuals who have contributed significantly to a work (paper, research project, poster, etc.) and claiming the final product as one’s own.

Plagiarizing. Plagiarizing is theft of the work accomplished by someone else. It includes copying words, phrases, sentence structure, computer code or files, images, or ideas from any source and attributing the work to one’s own efforts. Blatant examples of plagiarism include failure to use quotation marks, to indent text of more than three lines and failure to cite consulted sources either in footnotes, endnotes or within the body of the text of a document. More subtle examples of plagiarism include paraphrasing or using others’ conceptual frameworks for developing creative works without acknowledgement or permission or citing a source within the text but then directly quoting the materials without the use of quotations marks or text indentation. For more information about and examples of plagiarism visit www.plagiarism.org.

Thwarting others’ progress. Thwarting others’ progress involves editing, deleting or otherwise destroying computer files that belong to another person or intentionally stealing or destroying property which prevents others from using it to gain needed information to complete assignments, for example, library materials on reserve, materials on loan by a faculty member or reports and documents made available for student use by external companies, state and federal agencies, etc.

ii. Levels of seriousness of violation

At the graduate level, it is expected that students exhibit sophistication in understanding the tenets of academic integrity. Even so, it is clear that some types of violations are more serious in nature than others and that some types of violations require deliberate, calculated actions on the part of the student. The Graduate School’s policy categorizes academic integrity violations into four levels, ranging from an unawareness or minor misunderstanding, to an intention to defraud or otherwise engage in criminal-type activity. Each level of violation carries one or more sanctions, from verbal reprimand to permanent dismissal from the University; repeated violations, irrespective of the level, may result in more severe sanctions as well.
iii. Graduate Academic Integrity Committee
The authority to resolve cases of violations of academic integrity by enrolled graduate students is vested in the Graduate Academic Integrity Committee (GAIC). The GAIC consists of four tenured faculty members from each of the five colleges, one graduate student from each college. An associate dean of the Graduate School serves as the non-voting administrative coordinator for the GAIC.

iv. Procedures
It is the responsibility of every member of the Clemson University community to enforce the academic integrity policy. Students and staff members should report violations of this policy to the faculty member for the affected course (including the research advisor or internship/practicum/co-op supervisor). When, in the opinion of anyone outside the University, there is evidence that a student has committed a violation of academic integrity, that person should bring the allegation to the attention of the associate dean of the Graduate School. The associate dean will contact the appropriate faculty representative of the student’s program (consistent with the alleged violation).

When, in the opinion of the faculty member, a student has committed a violation of academic integrity, the faculty member will fully document the charge in writing in a statement delivered in a sealed envelope to the associate dean of the Graduate School. At the same time, at his or her discretion, the alleging faculty member is encouraged, but is not required, to privately inform the student charged of the nature of the allegation. Within three working days from the date the associate dean has received a formal charge of an alleged violation, he or she will provide the student with a copy of the charge and the procedures of the GAIC. Those procedures vary depending on the level of the violation and whether the student chooses to pursue a hearing. For more information about the procedures, refer to the Graduate School Announcements at www.registrar.clemson.edu/html/catalogGrad.htm.

Academic Research
The effectiveness of the research infrastructure throughout the world is based on the personal and professional integrity of the people involved. The central assumption to all research endeavors is that researchers have done what they say they have done. The Department of Food, Nutrition, and Packaging Sciences is part of that infrastructure and the research conducted here must withstand the highest scrutiny. Consequently, we must all ensure that our scholarly work is conducted and reported with the highest ethical standards. We must be careful in our recordkeeping and diligent in our efforts to always attribute credit where it belongs. In particular, we must guard against any activity that would bring the integrity of the department or the individuals within it into question. Among the activities to be avoided are:

Falsification of data – ranging from fabrication to deceptively selective reporting of results or methods, including the purposeful omission of conflicting data with intent to falsify results.

Plagiarism – representation of another’s work as one’s own.

Misappropriation of others' ideas – the unauthorized use of privileged information, however obtained.
Best Practices for the Graduate Student-Faculty Mentor Relationship

- Entering a mentoring relationship is voluntary. Mentors and students should discuss their expectations of the mentoring relationship upon entering it.
- Either party has the right to withdraw from the mentoring “contract” if, despite genuine attempts to make it work, the relationship is not satisfactory.
- While often the mentor will have more experience of life or an aspect of work, the relationship should be one of partners who jointly make decisions.
- Meetings should be held in a quiet environment (or environments, for telephone meetings) where both parties feel they can speak freely without being overheard.
- Meetings should be long enough and paced so as to allow the two people to get to know and feel comfortable with each other.
- Information shared in mentoring meetings is subject to standard rules of professional confidence (see below).
- Commitments made should be honored. If meetings are canceled or delayed, adequate warning of non-availability or delay should be given. A postponed meeting should be re-booked promptly.
- Either party has the right to ask for a review of how the mentoring is progressing, or for agreements or plans made at an earlier stage to be reviewed.
- If either party feels unclear about the current status of the mentoring, that party should seek to clarify the views and wishes of the other party.
- Mentors should recognize their limitations and avoid working with the student in ways that exceed those limitations.
- Should either party sense there is a conflict of interest between the mentoring and any other role, this should be made known to the other as soon as is practicable.
Minimum Degree Requirements for the PhD

<table>
<thead>
<tr>
<th>Minimum Degree Requirements for the PhD in Food Technology Program</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total credit hours</strong></td>
</tr>
<tr>
<td><strong>MS or equivalent</strong></td>
</tr>
<tr>
<td><strong>PhD</strong></td>
</tr>
<tr>
<td><strong>Required courses</strong></td>
</tr>
<tr>
<td><strong>Required exams and dissertation</strong></td>
</tr>
</tbody>
</table>

PhD Core Competencies
A doctoral degree in Food Technology requires that graduate students demonstrate competencies in the following areas: Food Chemistry, Food Engineering, Human Nutrition, Food Microbiology and Food Processing/Preservation. While the student usually focuses their research efforts in one of these areas, the degree requires a general knowledge of these 5 areas within their Food Technology PhD. The decision as to how the student demonstrates a basic mastery of these subject areas is at the discretion of the Major Advisor and the Student’s Graduate Committee.

Number of Credit Hours Needed
A doctoral degree program in Food Technology shall consist of a minimum of 30 (MS equivalent) + 30 semester hours of graduate credit approved by the student’s Graduate Advisory Committee. Prerequisite courses must be completed before admission as a graduate student, whereas corequisite courses may be taken concurrently but must be completed before receipt of the doctoral degree.

Core Courses
All doctoral students must register for seminar for two semesters. Seminar taken during the MS degree does not count towards the two required for a PhD. See a complete listing of courses offered in Food Technology and their descriptions at Appendix A.

Courses Outside Discipline
It is expected that a student may choose non-program courses as part of their plan of study. These decisions are normally made with your Major Advisor and approved by your Graduate Advisory Committee, and are designed to enhance your understanding of your emphasis area. Credit received for graduate-level courses taught by other departments may also be counted toward your degree, provided those courses involve subject matter that is relevant to your degree program. You should consult with and receive approval from your Major Advisor before taking such classes with the intention of having them count toward a PhD in Food Technology degree. If you are supported on either a research or teaching assistantship, you must obtain approval from your Major Advisor prior to taking any such class while working toward a PhD in Food Technology degree.
SPECIALIZATIONS/COGNATES WITHIN PROGRAM

Doctoral Comprehensive Examination(s)
The comprehensive examination will serve to assess your ability to apply the knowledge assimilated in coursework to problems in an area of specialization. Examination questions will be prepared by your Graduate Advisory Committee and will normally be selected from material covered in courses typically included in a master's plan of study as well as PhD coursework. Your Major Advisor coordinates all aspects of your comprehensive exam.

You should take these {written and oral} examinations no later than 18 months after you matriculate into the PhD program. Part-time students or students having extenuating circumstances may request a variance on the timing of the exam. You must take written and oral exam(s) as part of your comprehensive examination. Material covered on the comprehensive exam is at the discretion of your Graduate Advisory Committee.

Grading the Comprehensive Exam
All members of the examining committee for a given exam will grade your performance on that exam and report the results to your Major Advisor. Grades of Pass or Fail will be assigned for each exam based on the consensus of each examining committee. You will be required to meet any deficiencies on written exams before proceeding through the PhD program.

Appeal Procedure
Consensus of the faculty in the department is that the outcome of the comprehensive exam process will not be subject to appeal, except where it is the consensus of your Graduate Advisory Committee that procedures set forth were not followed.

Before the end of your second year, you should have developed a research proposal with the assistance of your Advisory Committee. Guidance on the preparation of the research proposal can be found in the later section “Preparation of Research Proposal”. During this oral examination, you will present your dissertation research proposal. The written proposal will be distributed to your Advisory Committee prior to the examination. Your proposal should:
• Introduce your project;
• Clearly state your research objectives;
• Establish uniqueness and originality through literature citations;
• Describe the methodology you will employ;
• Establish the significance of the proposed work.

Results of the Doctoral Comprehensive Examination (Form GS5)
The GS5 is 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 GS5, once you have completed a major share of the prescribed graduate residence doctoral course work (research credits excepted),
and have successfully undertaken the comprehensive examination(s). Your request for admission to candidacy must list each of the major and minor subjects to be offered for the degree and must contain the title of your proposed dissertation. The request must bear the signed approval of your Major Advisor and the department chair.

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

**Graduate School Deadlines**
The Graduate School sets deadlines for the following items. The specific dates are determined according to the academic calendar for the semester in which you plan to graduate.

<table>
<thead>
<tr>
<th>Form/Process</th>
<th>Approximate Deadline*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submit your final GS2 to Enrolled Services</td>
<td>End of the term prior to the term in which you plan to graduate</td>
</tr>
<tr>
<td>Submit GS5 to Enrolled Student Services</td>
<td>Six months prior to defense</td>
</tr>
<tr>
<td>Complete online application for diploma (formerly Form GS4)</td>
<td>Within the first four weeks of the term in which you will graduate</td>
</tr>
<tr>
<td>Written notification of defense submitted to Enrolled Student Services</td>
<td>At least 10 days prior to your defense.</td>
</tr>
<tr>
<td>Submit completed thesis/dissertation electronically for formatting review</td>
<td>Two weeks prior to graduation</td>
</tr>
<tr>
<td>File GS7D with Enrolled Student Services</td>
<td>Two weeks prior to graduation</td>
</tr>
<tr>
<td>All revisions requested by the Manuscript Review Office must be completed and approved by the Manuscript Review Office</td>
<td>One week prior to graduation</td>
</tr>
</tbody>
</table>

*Refer to Graduate School’s website for actual deadline dates [www.grad.clemson.edu/Deadlines.php](http://www.grad.clemson.edu/Deadlines.php). **A copy of all graduate school forms are required to be turned in to the FNPS main office to be placed in your graduate file.

All Graduate School forms are available online at [www.grad.clemson.edu/forms/GeneralForms.php](http://www.grad.clemson.edu/forms/GeneralForms.php).

**Thesis/Project/Dissertation**
The purpose of a thesis or 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 theses and 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)). This guide provides advice on preparing an acceptable and effective report, thesis or dissertation. You should consult this guide before beginning the writing phase of your graduate research. Pay particular attention to formatting requirements.
Planning
Task planning is a very important part of any research program. The deadlines for the tasks depend on the date of anticipated graduation and are presented in the Graduate School Announcements. A list of the deadlines is also available from the Graduate School website, www.grad.clemson.edu/Deadlines.php. Failure to meet any of these deadlines will result in postponement of your graduation.

You must allot sufficient time for writing the thesis or dissertation. It is highly recommended that you fully complete your thesis/dissertation before leaving the University. Many former students who left without completing their thesis/dissertation still have not completed their degree requirements. Experience shows it is very difficult to complete a thesis/dissertation after leaving the University.

Library/Listing/Archives of Previous Manuscripts
Prior students’ manuscripts are available for your review in the library. Many faculty members also maintain copies of manuscripts of students for whom they served as Major Advisor. Your committee members may be able to direct you toward pertinent examples for your review.

Proposal Preparation, Format, Content
The proposal is a persuasive document intended to present a brief, concise argument about the worthiness of your research. You should complete a final draft of the proposal by the end of your first year as a master’s student and by the end of your second year as a doctoral student. The written document should reflect your effort and not that of your Major Advisor. Your Major Advisor may work with you on points of clarification to improve the structure of the document.

Your Major Advisor will review your initial draft and offer suggestions for changes. Upon his/her approval, you or your Major Advisor will distribute copies to the other Advisory Committee members for their comments.

Writing the Special Project Report, Thesis or Dissertation
The writing process usually begins toward the end of the research period. The document must be written in a format that is acceptable to the Graduate School for theses and dissertations. You should follow the formatting rules provided by the Graduate School at www.grad.clemson.edu/Manuscript.php. The Graduate School’s manuscript website provides examples of properly formatted pages, tables and figures. You can format the document yourself, or hire someone to do this for you. It typically takes anywhere from 10-30 hours to format a manuscript at a cost of $10 to $20 an hour. Formatting can be difficult and it is often more efficient to leave this activity to a professional. The Graduate School’s website offers a list of typists available in the Clemson area.

Review and Approval
You should normally complete a final draft of your manuscript for your Major Advisor’s approval at least 3 weeks before your oral examination/defense. Final copies of a version approved by your Major Advisor must be submitted to your Advisory Committee at least 2 weeks 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 1-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 thesis/project/dissertation, you must defend your work to your Advisory Committee in a formal setting. The actual structure and content of your defense is determined by your Major Advisor.

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**
NOTE: these guidelines have changed significantly due to the Graduate School's adoption in August 2006 of electronic submission procedures.

Once you have defended your thesis/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.php](http://www.grad.clemson.edu/manuscript.php)) 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 thesis/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.

For more information about ETD and the formatting process, see [www.grad.clemson.edu/manuscript.php](http://www.grad.clemson.edu/manuscript.php).

Your Major Advisor will be cognizant of departmental practices regarding the quality of the manuscript at the various review stages and of the wishes of the department chair, as an ex-officio committee member, to exercise the option of approving the manuscript in its final form.

**Patent, Copyright/Publishing Information**
Clemson University and the Department of Food, Nutrition, and Packaging Sciences retain full ownership rights to any inventions, discoveries, developments and/or improvements, whether or not patentable (inventions), which are conceived, developed or reduced to practice, or caused to be conceived, developed or reduced to practice by graduate students during the course of their research activities conducted as part of any Graduate School curriculum. Any such invention will be handled by the University in the same manner as set forth in The Faculty Manual of Clemson University ([www.clemson.edu/faculty-staff/faculty-senate/manuals-html](http://www.clemson.edu/faculty-staff/faculty-senate/manuals-html)).

You will retain copyright ownership of your thesis/dissertation. However, the right to publish research will be maintained by the department. Copyright ownership of any research publications will be determined by University policy and by the policies of organizations responsible for publishing or distributing copyrighted materials.

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/curf](http://www.clemson.edu/curf)).
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.

**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 (991) 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.

**FINAL DEFENSE**

**PhD Dissertation Defense**

An oral defense 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.php.) 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 Graduate Advisory Committee. All faculty members will be invited to participate in the defense and to provide comments to your Graduate Advisory Committee.

Successful completion of this defense and your dissertation will result in a recommendation (GS7D Form) by your Graduate Advisory Committee to the Graduate School that the PhD degree be awarded. Unsatisfactory performance on the final defense will result in a requirement for complete re-examination (with or without recommendations for additional work) or dismissal. You must also be prepared to answer basic questions about your discipline 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. The list of specific topics will be given to you after your Graduate Advisory Committee has reviewed your manuscript.

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 defense at least three weeks prior to graduation. We recommend that you set the schedule for the defense with your Graduate Advisory Committee as early in your final semester as possible, to ensure their availability and your completion of the requirement.

Preparation
To prepare for your oral defense, students should focus on the core courses in Food, Nutrition, and Packaging Sciences. Students may be asked any question related to their individual program of study, research or related information. Knowledge of your committee members’ background will be helpful.

Graduation
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/campus-life/campus-services/bookstore/graduationitems.html 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 the FNPS administrative assistant or designee.
• Be sure that all equipment and supplies which you have drawn are returned to stock.
• Be sure that any portion of the laboratory-office that you occupied is clean and ready for another occupant. Please leave your lab-office in the condition you would have liked to have found it originally.
• Return all borrowed materials (books, journals, etc.) to their appropriate location.
• Inform the Program Coordinator that you are leaving and have complied with all regulations, and schedule an exit interview.

**Time Required/Limit**
Failure to meet program and Graduate School deadlines given (see Deadlines section) is grounds for suspension of your stipend, if applicable. 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](http://www.registrar.clemson.edu/html/catalogGrad.htm).)

**Special Program Requirements**
**Departmental Seminars:** During the fall and spring semesters, students and faculty may schedule presentations about their research or other topics of interest to the department. Invited speakers from industry, government, and other academic departments are also included. All students and faculty are encouraged to attend. If you cannot attend a particular seminar, you should inform your Major Advisor ahead of time.

**Publications:** Publications and other methods of disseminating research results are expected activities of graduate students. Doctoral students in the program are expected to publish one or more archival journal papers during the course of their studies. In many ways, the quality of a graduate program is measured by its publications.

**Waiver of Requirements**
The requirements for achieving any graduate degree in Food, Nutrition and Packaging Sciences, as outlined in this handbook, are designed to provide a consistent minimum level of performance for all graduate students. At the same time, flexibility is provided to allow for the diverse areas of study and individual strengths of each student. Most of this flexibility is built into the existing requirements.

A course taken at another institution that is equivalent to one of the core courses or other course requirement of your Advisory Committee may be exempted by your demonstration of competency and/or providing evidence of equivalency to your Advisory Committee and the course instructor. A special examination may be offered to meet these requirements. Substitution of a structured core curriculum course requires the concurrence of your Advisory Committee and the Program Coordinator.

Under extreme conditions, you may petition for a waiver of other requirements. Your petition must be made in writing by your Major Advisor to the Chair of the Department and Graduate Committee and must be submitted at least six months prior to your expected graduation date. The Graduate Committee will not grant a waiver except in truly extraordinary circumstances.
Minimum Degree Requirements for the Master's Degree – Thesis

<table>
<thead>
<tr>
<th>Minimum Degree Requirements for the Master’s in Food, Nutrition and Culinary Sciences Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total hours of coursework</td>
</tr>
<tr>
<td>Core courses required</td>
</tr>
<tr>
<td>Thesis Research 8910</td>
</tr>
<tr>
<td>Exams</td>
</tr>
</tbody>
</table>

Number of Credit Hours Needed
A master’s degree program in Food, Nutrition and Culinary Sciences shall consist of a minimum of 24 semester hours of graduate credit and must include core courses and be approved by the student’s Graduate Advisory Committee. For the Master of Science (M.S.) degree, at least one half of the total graduate credit hours required by the Graduate Advisory Committee, exclusive of thesis research, must be selected from courses numbered 8000 or above.

Prerequisite courses must be completed before admission as a graduate student, whereas co-requisite courses may be taken concurrently but must be completed before receipt of the master's degree.

Core Courses
All master’s students are required to take all core courses below (unless a similar course was previously taken and accepted by the Program Coordinator or Department Chair), constituting a total of 30 credits.

- STAT 8010 Statistical Analysis
- FDSC 8100 Chemical and Biochemical Aspects of Foods
- FDSC 8510 Seminar
- NUTR 8030 Advanced Human Nutrition

See a complete listing of courses offered in Food, Nutrition and Culinary Sciences and their descriptions in Appendix A.

Courses Outside Discipline
It is expected that a student may choose non-program courses as part of their plan of study. These decisions are normally made with your major advisor and are designed to enhance your understanding of your emphasis area. Credit received for graduate-level courses taught by other departments may also be counted toward your degree, provided those courses involve subject matter that is relevant to your degree program.

You should consult with and receive approval from your major advisor before taking such classes with the intention of having them count toward a graduate Food, Nutrition and Culinary Sciences degree. If you are supported on either a research or teaching assistantship, you must obtain approval
from your Major Advisor prior to taking any such class while working toward a graduate Food, Nutrition and Culinary Sciences degree.

Master's Final Defense
Candidates for a master's degree must pass a final defense at least three weeks prior to the date of the convocation at which the degree is to be conferred. The final date for this examination is established each semester by the Graduate School. The examination is conducted by your Advisory Committee, but all faculty members are invited to participate.

You are required to send an abstract title, abstract, date, time and place, along with a listing of your committee members, via email to the Program Coordinator and the Graduate School two weeks prior to your defense. The Program Coordinator will notify the program faculty and other students in the program of the time and place of the examination at least ten days prior to the scheduled time.

The final defense, which is normally oral, demands a broad and penetrating interpretation of your research project, the reading list and/or your major and minor areas. The defense normally begins with a formal, departmental seminar followed by an oral examination administered by your advisory committee members.

Time Required/Limit
Failure to meet program and Graduate School deadlines given (see Deadlines section) is grounds for suspension of your stipend, if applicable. Earlier completion is encouraged.

The department considers four academic semesters sufficient time in which to obtain a master’s degree. The Graduate School requires that all coursework which is to be credited toward any MS must have been enrolled in and completed within six calendar years prior to the date on which the degree is to be awarded. (See the Graduate School Announcements at www.registrar.clemson.edu/html/catalogGrad.htm.)

Special Program Requirements
The program curriculum requires that all resident students enroll for seminar credit.

Professional association membership: Students in Food, Nutrition and Culinary Sciences MS, Packaging Science MS, and Food Technology PhD programs are encouraged to obtain membership in the Institute of Food Technologists, Academy of Nutrition and Dietetics, Research Chefs Association and/or Institute of Packaging Professionals. You are encouraged to actively participate in the national society, as well as with the local chapter.

Internships/Field Placement
While not required in the program, an internship can be a valuable opportunity for both educational enrichment and financial assistance. Campbell’s Soup, Kraft and Sealed Air Cryovac Division are just three examples of organizations that commonly sponsor internships in our field.

Waiver of Requirements
The requirements for achieving a graduate degree as outlined in this handbook are designed to provide a consistent minimum level of performance for all graduate students. At the same time, flexibility is provided to allow for the diverse areas of study and individual strengths of each student. Most of this flexibility is built into the existing requirements.
A course taken at another institution that is equivalent to one of the core courses or other course requirements of your Advisory Committee may be exempted by demonstration of competency and/or providing evidence of equivalency to your Advisory Committee and the course instructor. A special examination may be offered to meet these requirements. Substitution of a structured core curriculum course requires the concurrence of your Advisory Committee and the Program Coordinator.

Under extreme conditions, you may petition for a waiver of other requirements. Your petition must be made in writing by your Major Advisor to the Chair of the Department Graduate Committee and must be submitted at least six months prior to your expected graduation date. The Graduate Committee will not grant a waiver except in truly extraordinary circumstances.

**Graduation**

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/campus-life/campus-services/bookstore/graduationitems.html](http://www.clemson.edu/campus-life/campus-services/bookstore/graduationitems.html) 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 the FNPS administrative assistant or designee.
- Be sure that all equipment and supplies which you have drawn are returned to stock.
- Be sure that any portion of the laboratory-office that you occupied is clean and ready for another occupant. Please leave your lab-office in the condition you would have liked to have found it originally.
- Return all borrowed materials (books, journals, etc.) to their appropriate location.
- Inform the Program Coordinator that you are leaving and have complied with all regulations, and schedule an exit interview.
Minimum Degree Requirements for the Master’s in Food, Nutrition and Culinary Sciences Program

<table>
<thead>
<tr>
<th>Total hours of coursework</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core courses required</td>
<td>STAT 8010, FDSC 8100, FDSC 8510, NUTR 8030</td>
</tr>
<tr>
<td>3 out of 6 of these courses</td>
<td>FDSC 8110, FDSC 8120, FDSC 8150, NUTR 8040, NUTR 8050, NUTR 8070</td>
</tr>
<tr>
<td>Exam</td>
<td>Two-day Final Exam*</td>
</tr>
<tr>
<td>Non-thesis advisor</td>
<td>Dr. Paul Dawson</td>
</tr>
</tbody>
</table>

Master’s students may be permitted to elect the non-thesis option of the Food, Nutrition and Culinary Sciences MS program. In this event, the master’s degree program consists of a minimum of 30 semester hours of graduate coursework, including STAT 8010 and FDSC 8510. A minimum of 15 hours must be at the 8000-level or above.

The program consists of 30 hours of coursework arranged as follows:

**Required Courses (12-13 hours)**
- STAT 8010 Statistical Methods I 4 cr. (3 and 3) OR ED F 8770 Experimental and Non-experimental Research in Education I 3 cr. (3 and 0)
- FDSC 8100: Chemical and Biochemical Aspects of Foods – 4 cr. (4 and 0)
- NUTR 8030: Advanced Human Nutrition, 4 cr. (4 and 0)
- FDSC or NUTR 8510 Seminar, 1 cr.

**3 out these 6 courses (9-10 hours)**
- FDSC 8110: Physical and Thermophysical Properties of Foods, 3 cr. (3 and 0)
- FDSC 8120: Microbiological Aspects of Food Systems, 3 cr. (3 and 0)
- FDSC 8150: Food Service Systems Management, 4 cr. (3 and 3)
- NUTR 8040: Nutrition Education of the Public, 3 cr. (3 and 0)
- NUTR 8050: Metabolic Basis of Medical Nutrition Therapy, 3 cr. (3 and 0)
- NUTR 8070 Trends in Culinary Nutrition, 3 cr. (3 and 0)

7 to 9 additional hours of 6000 or higher courses approved by student’s Graduate Advisory Committee.

*Final Exam (one day core and one day remaining content selected from department courses).

**Examination(s)**
A written examination is required for students in the MS non-thesis option. This written examination covers the major areas of the degree program and includes questions related to coursework. There are four topic areas: 1) Food Engineering/Processing, 2) Food Microbiology/Safety, 3) Food Chemistry/Analysis and 4) Human Nutrition. The student will be required to pass three of these four topic areas with a 70% score on each of three sections. Students will get two attempts to pass each
section and will not have to retake sections that were passed on the first attempt. See also “Nearing Graduation”.

**Time Required/Limit**
Failure to meet program and Graduate School deadlines given (see Deadlines section) is grounds for suspension of your stipend, if applicable. Earlier completion is encouraged.

The department considers four academic semesters sufficient time in which to obtain a master’s degree. The Graduate School requires that all coursework which is to be credited toward any MS must have been enrolled in and completed within six calendar years prior to the date on which the degree is to be awarded. (See the Graduate School Announcements at www.registrar.clemson.edu/html/catalogGrad.htm.)

**Special Program Requirements**
The program curriculum requires that all resident students enroll for seminar credit.

**Professional association membership:** Students in Food, Nutrition and Culinary Sciences MS, Packaging Science MS, and Food Technology PhD programs are encouraged to obtain membership in the Institute of Food Technologists, Academy of Nutrition and Dietetics, Research Chefs Association and/or Institute of Packaging Professionals. You are encouraged to actively participate in the national society, as well as with the local chapter.

**Internships/Field Placement**
While not required in the program, an internship can be a valuable opportunity for both educational enrichment and financial assistance. Campbell’s Soup, Kraft and Sealed Air Cryovac Division are just three examples of organizations that commonly sponsor internships in our field.

**Waiver of Requirements**
The requirements for achieving a graduate degree as outlined in this handbook are designed to provide a consistent minimum level of performance for all graduate students. At the same time, flexibility is provided to allow for the diverse areas of study and individual strengths of each student. Most of this flexibility is built into the existing requirements.

A course taken at another institution that is equivalent to one of the core courses or other course requirements of your Advisory Committee may be exempted by demonstration of competency and/or providing evidence of equivalency to your Advisory Committee and the course instructor. A special examination may be offered to meet these requirements. Substitution of a structured core curriculum course requires the concurrence of your Advisory Committee and the Program Coordinator.

Under extreme conditions, you may petition for a waiver of other requirements. Your petition must be made in writing by your Major Advisor to the Chair of the Department Graduate Committee and must be submitted at least six months prior to your expected graduation date. The Graduate Committee will not grant a waiver except in truly extraordinary circumstances.

**Graduation**
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/campus-life/campus-services/bookstore/graduationitems.html 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 the FNPS administrative assistant or designee.
- Be sure that all equipment and supplies which you have drawn are returned to stock.
- Be sure that any portion of the laboratory-office that you occupied is clean and ready for another occupant. Please leave your lab-office in the condition you would have liked to have found it originally.
- Return all borrowed materials (books, journals, etc.) to their appropriate location.
- Inform the Program Coordinator that you are leaving and have complied with all regulations, and schedule an exit interview.
REQUIREMENTS FOR THE MASTER’S DEGREE- PACKAGING SCIENCE

Minimum Degree Requirements for the Master's Degree

The M.S. degree program in packaging science is designed to prepare the graduate to work independently in the research, development, and application of new packaging materials and processes. A variety of fields of research related to foods, distribution, design, medical and healthcare, polymers, biopolymers, active packaging are available as focus areas of thesis research. The overall curriculum for the M.S. degree is individually designed to augment the student's background and to provide a broad understanding of packaging science along with the selected specialized knowledge in the area of the student's research.

Graduate students may be accepted with backgrounds relating to chemistry, physics, mathematics, biology or engineering. Graduate students with backgrounds in business or graphic communications or other disciplines may accepted on a provisional basis which converts to full acceptance after completing courses equivalent to the basic science and mathematics courses in the department's undergraduate curriculum.

The MS degree in Packaging Science requires 30 hours of coursework, six of which are thesis research, and the completion of an acceptable MS thesis. In addition to PKSC 8910, students register for at least one credit of PKSC 8510.
ACADEMIC REQUIREMENTS

Registration
Prior to registration for your first semester of study, you must report to your assigned advisor or the Program Coordinator. He/she will help you plan your initial program of study. Registration is conducted entirely online via the Registration Portal. The Office of Registration Services provides a wealth of information that you may refer to regarding the steps to be taken in the registration process. See the Registration Services website at www.registrar.clemson.edu/portal/. If you have any further questions, please contact the Graduate Program Coordinator, Dr. Paul Dawson, 226 Life Sciences Facility, pdawson@clemson.edu, or Kim Collins, 223 Poole Agricultural Center, kcollns@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.

Maintaining Academic Standing
A graduate student must maintain a minimum overall average of B (3.0) for 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>Semester</th>
<th>6-Week Session</th>
<th>3-Week Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time Students</td>
<td>18</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>1/4-time Graduate Assistants</td>
<td>15</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>1/2-time Graduate Assistants</td>
<td>12</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>3/4-time Graduate Assistants</td>
<td>12</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Persons employed full-time</td>
<td>9</td>
<td>3</td>
<td>1</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 28 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.

**Honors and Awards**
Election to honor societies signifies research excellence and scholarship. Superior scholars are frequently awarded fellowships. These recognitions aid in documenting a student’s success in their chosen field of study. Your major advisor will inform you of opportunities for nomination.

**Incomplete Coursework**
A grade of Incomplete will be given only if you have not completed the course for some unavoidable reason that is acceptable to the instructor. Unless you complete the requirements for removal of the Incomplete grade within the time period stipulated by University policy, the Student Records Office will automatically change the Incomplete to an F. Extensions of the deadline for completing the coursework 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 unstructured 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 at 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 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 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 a stated prerequisite for a graduate course by audit. Additionally, you may not establish credit through examination in any course for which you were previously registered as an auditor.

**Withdrawing from Courses**
As a graduate student in the Department of Food, Nutrition, and Packaging Sciences, you will be permitted to drop courses in which you are enrolled only in exceptional cases and with the prior approval of the Program Coordinator, 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 for that semester.
Repeating a Course
Under some circumstances, graduate students may repeat courses in which they received a D or F. It is recommended that you repeat a course if you receive a C or less in any course required as a part of the degree program. If you repeat a course for which you received a grade of D or F, you do not receive additional credit. The grades from the two courses are averaged; the D or F is not dropped.

Continuous Enrollment, Leave of Absence
Graduate students who do not maintain continuous enrollment are subject to the requirements in effect at the time you return. 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 below). FDSC 8910 (MS), FDTH 9910 (PhD), and PKSC 8910 (MS) may be used to effect continuous enrollment.

All graduate students in the program are expected to maintain continuous enrollment during fall and spring semesters. The Department of Food, Nutrition, and Packaging Sciences makes every effort to schedule relevant courses such that students can easily maintain 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 the Program Coordinator and the department chair. 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 (excluding summer terms) must apply to the Graduate School for re-entry and obtain approval from their department.

Withdrawing from the Program/University
If for any reason you decide to withdraw from the program, inform your Major Advisor, then the Program Coordinator, 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 major advisor who will also be the chair of the student’s advisory committee. The major advisor must be a tenure-track faculty of the Food, Nutrition, and Packaging Sciences faculty.

Your Major Advisor
You should identify a Major Advisor from among the eligible program faculty with whom you will work throughout the course of your studies prior to admission into the program. 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 preparation of your MS thesis or Ph.D. 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 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. All students must elect either the thesis or the non-
thesis special problem option. Those selecting the thesis option must meet with faculty to select a Major Advisor. Those electing the non-thesis special problem option will be advised by the Program Coordinator.

**Graduate Advisory Committee**
You will form a Graduate Advisory Committee in consultation with your Major Advisor. Your Graduate Advisory Committee will approve your curriculum, supervise your graduate program, administer your comprehensive and/or final examinations, and initiate the recommendation for awarding your degree. Your Major Advisor will serve as the chair of your Graduate Advisory Committee.

A majority of your Graduate Advisory Committee must be regular members of the Food, Nutrition, and Packaging Sciences faculty. If you declare a minor, a member of the faculty of the minor department must be included on your committee. For the master’s degree (thesis option), committee membership must total at least three, while a minimum of four is required for a PhD committee. The Department Graduate Committee will serve as the graduate committee for students that elect the non-thesis MS option.

You are responsible for forming your Graduate Advisory Committee and keeping them apprised of your progress.

You should form your Graduate Advisory Committee promptly after the appointment of your Major Advisor and in all cases during your second semester. For PhD students, the committee formation may be deferred an additional semester while you and your Major Advisor make preliminary decisions about the scope of your research. Appointment is made via form GS2 subject to the approval of the program coordinator, department chair, and 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 by the time you have completed about nine credit hours. Filing the form early in your program limits the possibility of confusion between you and your major advisor on graduation requirements and timelines. In any case, 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.

Graduate 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 program coordinator, major department chair, the minor department chair (if applicable), and the deans of the College and Graduate School. The form is available on the Graduate School's website at [www.grad.clemson.edu/forms/](http://www.grad.clemson.edu/forms/).

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 the necessary Advisory Committee and dean approvals. In extremely rare situations, it may be necessary to change committee membership. In either case, you must submit a revised GS2.
ASSISTANTSHIPS/FINANCIAL SUPPORT

Graduate assistantships may be available in teaching or research. Graduate teaching assistantships include graders, laboratory assistants/instructors and teachers of record. These may be in the form of ¼-time (10 hours per week) ½-time (20 hours per week) or ¾-time (28 hours per week) appointments. Graduate research assistantships are made by individual faculty members to conduct research on specific projects. These may also be 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 chair or Program Coordinator. This letter requires your signature indicating your acceptance of the 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 Department of Food, Nutrition, and Packaging Sciences may use two different sources for funding graduate students: State of South Carolina monies, and funds from contracts, grants and donations. Students supported by state funds normally are assigned teaching assistant duties while those supported by research contract funds are assigned research duties. All assistantships may be subject to time limits as described below (depending upon the degree being pursued) and are contingent upon your satisfactory performance and progress toward the degree.

Assistantships for master’s students (thesis option) will normally extend for a maximum of 2.5 years. The same time limit applies to fellowships awarded to master’s students by the department.

Assistantships for doctoral students will normally extend for 3.5 years beyond the master’s degree. The same applies to fellowships awarded to PhD students by the department.

Continuation of assistantships and fellowships is contingent upon satisfactory academic performance, satisfactory performance of assigned duties associated with the assistantship, as well as funding.

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, the department will endeavor (on an individual basis) to provide financial support to allow continuation of your program. This might involve teaching assistant responsibilities, where appropriate. The foregoing statement should not be construed as an assurance of funding. You are expected to complete your degree program in a timely fashion.

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 (e.g. NSF, Edwards or Alumni fellowships) 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 derived from a similar source. NOTE: You are responsible for submitting the required paperwork to initiate the raise.

**Minimum Enrollment**
A minimum enrollment is required for appointment as a graduate assistant. During the academic year, the minimum enrollment is nine semester hours for all graduate assistants. Minimum enrollment in the summer sessions is three semester hours per session. Undergraduate credits may be included in the minimum provided they are relevant to your degree program and required by your Advisory Committee. Credits in GS799 may be included in the minimum in unusual cases cleared in advance with the Graduate School.

An assistantship may be withdrawn at any time for failure to maintain satisfactory enrollment status or loss of funding.

**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 the 15th and 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 complete direct deposit online upon starting your assistantship. This action is mandatory; no exceptions. Pay stubs will not be given/mailed to you, but are available electronically. To view your pay stub and other employment-related information, go to www.clemson.edu/employment. Click HR Self Service and enter your employee ID and password in the username and password fields and click “Login”. (If you do not know your employee user ID, you can obtain it by presenting a photo ID at the CCIT Help Desk in Martin M-1.) Then select “View Paycheck”. Enter your HR-PIN and press Enter. 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 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.

Federal law 8CFR214.2(f) limits international student employees to a maximum of 20 work hours per week while classes are in session. This includes both graduate and undergraduate international student employees.

Work Product
Computer programs written, data generated, discoveries made, derivations developed, etc., in the course of your assistantship are the property of Clemson University.

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 timeframe 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/employment/benefits/holiday.html.

**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 (research, teaching or administrative) is to support your subsistence 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 do if you receive approval from your Major Advisor.

**PROCESS AND PROCEDURES**

**Schedule of Courses**
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.

See Appendix A for a complete list of courses and their official descriptions. Note that instructors have some leeway in modifying the course and content.

**Department and Graduate School Forms**
You will be required to complete the following forms through the course of your studies. Up-to-date versions of the Graduate School forms are available at www.grad.clemson.edu/forms/GeneralForms.php.

<table>
<thead>
<tr>
<th>Forms to Complete in all Graduate Programs in Food, Nutrition, and Packaging Sciences Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form ID</td>
</tr>
<tr>
<td>GS2 – Plan of Study**</td>
</tr>
<tr>
<td>GS5 – Admission to Doctoral Candidacy (for PhD students only)**</td>
</tr>
<tr>
<td>Diploma Application</td>
</tr>
</tbody>
</table>
GS7M/GS7D – Final Comprehensive Exam and Thesis/Dissertation Approval Form**

Graduate School | Two weeks prior to graduation | Advisory Committee members

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

**A copy of all graduate school forms are required to be turned in to the FNPS main office to be placed in your graduate file.

Sample Timetable(s) of Student Progress
The following table lays out a typical progression through the Food, Nutrition, and Packaging Sciences program.

A Sample Master's Program of Study

<table>
<thead>
<tr>
<th>Year 1 – 1st Semester</th>
<th>Take 3 graduate courses, attend seminars, and attend faculty research presentations.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1 – 2nd Semester</td>
<td>Take 3 graduate courses, attend seminars, and begin work on research project. File GS2 form</td>
</tr>
<tr>
<td>Year 2</td>
<td>Take 2 more graduate courses (or more as needed/desired), attend seminars, and continue working on research project. Present seminar and write and defend thesis if research is completed.</td>
</tr>
<tr>
<td>Year 3 or more (if needed)</td>
<td>Take more graduate courses as needed/desired, attend seminars, continue working on research project, present seminar and write and defend your thesis when research is completed.</td>
</tr>
</tbody>
</table>

A Sample PhD Program of Study

<table>
<thead>
<tr>
<th>Year 1 – 1st Semester</th>
<th>Take 3 graduate courses, attend seminars, and attend faculty research presentations.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1 – 2nd Semester</td>
<td>Take 3 graduate courses, attend seminars, and begin work on research project. File GS2 form</td>
</tr>
<tr>
<td>Year 2</td>
<td>Take 2 more graduate courses (or more as needed/desired), attend seminars. Present your first student seminar. Continue working on research project. Begin taking cumulative exams/prepare for comprehensive exams as required. Write a research proposal/report in preparation for oral portion of comprehensive exam.</td>
</tr>
<tr>
<td>Year 3</td>
<td>Finish written comprehensive exams, complete oral portion of comprehensive exam as required. File the GS5 form. Continue working on research project. Take more graduate courses as needed/desired, attend seminars. Present your second student seminar.</td>
</tr>
<tr>
<td>Year 4 and beyond</td>
<td>Continue working on research project. Take more graduate courses as needed/desired, attend seminars. Present final seminar and write and defend your dissertation when research is completed.</td>
</tr>
</tbody>
</table>

Directed Studies
Directed study is allowed in special circumstances for students whose records indicate that they are already exceptionally well prepared in certain topics. In order to take a directed study, you must:
- Request FDSC 8210 on or before the dates for preregistration for the semester during which you plan to take the directed study.
• Directed studies should not be used when a similar course is in the catalog.
• Approval of directed studies proposals will depend at least in part on the quality of your preceding graduate work. If directed study does occur during your final semester (or summer session), it must be quite clear that no other course being offered at that time can satisfy your curriculum needs.

GUIDELINES FOR FACULTY

Major Advisor
You, the student, have primary responsibility for ensuring that you meet all requirements; your Major Advisor is responsible for ensuring that you have met that responsibility. Your Major Advisor will present any requests for a waiver of a requirement to the faculty for approval. It is also the responsibility of your Major Advisor to ensure that you have access to any safety/protocol training your research plan may require.

Program Coordinator
The Program Coordinator serves an oversight role to 1) maintain departmental graduate student files; 2) assist students and committees in meeting all stated deadlines and requirements; 3) notify the faculty when GS2 forms and research study plans are placed on file for each student; and 4) to moderate disagreements over guidelines. The Program Coordinator also ensures that requests for waivers from the guidelines are presented to the faculty in a timely manner; judges matters of course equivalence; and serves as intermediary during challenges by the faculty of a graduate student’s program or performance. Furthermore, the Program Coordinator determines whether requests for changes in your plan of study (GS2), research study or Advisory Committee composition constitute “minor” changes, and may approve such minor changes on behalf of the faculty or consult with faculty to determine whether requested changes warrant full faculty approval.

Principal Investigator
The Principal Investigator (PI) in a research project must identify any circumstances under which a particular laboratory, field operation, procedure or activity requires prior approval, and must submit a research protocol if needed. The PI is also responsible for ensuring that all University and department safety regulations and protocol standards are met. This responsibility includes sufficient supervision of students and technicians to ensure adherence to these standards.

General Faculty
The Faculty of the department determines the guidelines for all graduate degree programs. The faculty may amend the guidelines for the graduate degree programs by a simple majority of those voting; all faculty will be polled. Any concern by individual faculty members about your plan of study or conduct in the program should be presented to the Program Coordinator as soon as possible. The Program Coordinator will communicate any concerns to your Major Advisor for possible action. If the faculty member who raised the concern still wishes for the matter to be considered by the full faculty, the Program Coordinator will bring the matter before the faculty at a regular meeting.

Professional Development
There are a number of opportunities for you to develop professionally in addition to your course work and research. These include presenting talks and/or posters at regional and national conferences, becoming a student member of professional organizations, and preparing for your eventual job search.
Career Planning
The Michelin Career Center provides information about market conditions and gives assistance in acquiring knowledge about your career opportunities and job requirements. The Center hosts career fairs each fall and spring, and offers workshops in a variety of career-related topics. The Center also provides information about internships, part-time work, and summer work. For more information, see their website at career.clemson.edu or call (864) 656-6000.

Student Government
The Graduate Student Government represents the interests of all graduate students at Clemson. Generally the GSG promotes student participation in University affairs and learning experiences. It also elects representatives to various University boards and committees. Participation in the GSG can provide valuable leadership experience.

RESEARCH & LABORATORY WORK

Animal Research Committee Information
Researchers (graduate students, visiting scientists, post-doctoral associates, professors and others) using live animals in studies or for teaching must take Animal Care and Use training before project initiation. In addition, all research, teaching and testing activities involving live, vertebrate animals must be reviewed and approved by the Animal Research Committee (ARC) prior to initiation of the activities. You must consult with your Major Advisor about the requirements for meeting ARC approval.

Institutional Review Board Information
All primary research with human subjects, conducted either on or off campus and including research involving questionnaires, interviews or other interaction with human subjects, must be reviewed and approved by the Clemson University Institutional Review Board (IRB). You must consult with your Major Advisor about the requirements for meeting IRB approval. You can also obtain more information about conducting research with human subjects from IRB’s website (www.clemson.edu/research/compliance/irb).

If you will conduct research involving human subjects, you must complete an online course for conducting such research. No data collection may begin until IRB has approved your research project, including the research instruments. If you plan to engage in primary data collection for your thesis/dissertation, you should plan your project with the consideration that IRB approval can be time consuming and may involve proposal revisions to meet expected standards.

Institutional Biosafety Committee Information
Any research or testing activity that involves the use of potentially hazardous agents (biological, chemical or DNA) or the construction or use of genetically engineered organisms requires review by the Institutional Biosafety Committee (IBC) before beginning the project. Compliance with IBC’s protocols is required to minimize to the extent practicable all recognizable hazards and to comply with all federal and State laws and regulations, thus providing a safe and healthful work environment for students, employees and visitors. You must consult with your Major Advisor about the requirements for meeting IBC approval. You can also obtain more information about conducting research with hazardous agents from IBC’s website (www.clemson.edu/research/compliance/ibc).
SPECIAL EQUIPMENT, SUPPLIES REQUIRED

Off-campus Research
This policy refers to research actually conducted at an off-campus facility as opposed to research conducted primarily at the University by an off-campus student. The department does not encourage off-campus doctoral research, but in unusual circumstances it may be desirable. It is your responsibility to propose and obtain approval as required by the Graduate School Announcements (www.registrar.clemson.edu/html/catalogGrad.htm). The department requires that your major advisor be a regular tenure-track member of the Department of Food, Nutrition, and Packaging Sciences faculty, but cannot assure the availability of a faculty member willing to serve as major advisor in such a program.

Safety/Hazmats
This section should cover the particular safety policies in effect as well as any training and certification (and documentation thereof) required.

Safety is everyone's business. Graduate students are expected to adhere strictly to all safety regulations.

Training
All Clemson student employees who work in research labs in Poole Agricultural Center, Newman Hall, and Life Sciences Facility must take the appropriate Safety Training and be oriented by the PI responsible for the lab. This section outlines the responsibilities to assure you receive proper training.

General – There is a file in the Food, Nutrition, and Packaging Sciences office containing Safety Training Records for each student employee, grouped by PI. This file should not leave the office. A Safety Training Record must be completed and placed in the departmental safety training file. Student employees with questions about Safety Training can contact the lab PI, or the Departmental Safety Coordinators, Dr. Feng Chen (fchen@clemson.edu) or Dr. Greg Batt (gbatt@clemson.edu).

In-House Training – Some training can be received in the building. Contact the Lab PI or the Departmental Safety Coordinators, Dr. Feng Chen (fchen@clemson.edu) or Dr. Greg Batt (gbatt@clemson.edu). Environmental Health & Safety Training – Training can be received in class form by contacting W. Robert Newberry, Chief EHS Officer (wnewber@clemson.edu), or online at (http://ehs.clemson.edu/).

Individual Responsibilities
Departmental Safety Coordinators: The Safety Coordinators will give overall supervision of Safety Training issues, and perform an accuracy audit of the file twice a year (July and October). The current coordinators are Dr. Feng Chen (fchen@clemson.edu) and Dr. Greg Batt (gbatt@clemson.edu).

Principal Investigators (PIs): The PIs are the faculty members responsible for the research lab. They are ultimately responsible for safety in the lab. The PIs should determine which training is required and assure training is accomplished. PIs should give all new student-employees a lab-specific orientation including safety concerns.

Student employees: You will receive the training, update the office file, and follow the safety procedures.

Food, Nutrition, and Packaging Sciences Graduate Handbook – August 2017
Experimental Work
Before starting experimental work, you are required to complete the appropriate safety training as designated by the Clemson Hazard Communication Plan and the professor in charge of the lab.

Hard-hats and Goggles
Hard-hats must be worn whenever you are working in the designated areas. Safety goggles are stored in each lab and eye protection must be worn when dealing with hazardous chemicals and hazardous equipment. Contact lenses must not be worn in areas where vapors or fumes may be present.

Safety Signs
Safety signs are hung in various places in Poole and Newman Halls and must always be obeyed. Safety signs with a yellow background and red lettering are hung in various places in the facility. When equipment having a sign is operated, the cloth covering the sign must be removed. When the equipment is shut down, the cover should be replaced. If you erect equipment requiring a safety sign, you must arrange with your Major Advisor to have a safety sign hung.

Fire Extinguishers
Only students with proper training may use the fire extinguishers. For details, contact Dr. Feng Chen or Dr. Greg Batt.

Flammable Chemicals
Only the absolute minimum quantity of any flammable chemical is to be stored in any laboratory.

Gas Cylinders
If your work requires the use of a gas cylinder, you must familiarize yourself with the departmental "Standard Operating Procedure" (SOP) on handling these cylinders.

First Aid Kits
First aid kits are located in each laboratory. Seek further aid at Redfern Student Health Center (phone 864.656.2233) if needed.

Safety Shower Chains
Chains on safety showers are not to be coiled around the valve just to keep them out of the way. If so coiled, the shower is not available for emergency use.

Disposal of Solvents
Under no circumstances will organic solvents be dumped down a drain. If you are using solvents, secure a container which can be tightly sealed and store waste in that container until the entire contents can be disposed of by Environmental Health and Safety. University policies concerning hazardous waste storage and disposal must be followed.

Redfern Student Health Center
In the event of serious injury, immediately notify your Major Advisor and/or department chair, and seek assistance from the Student Health Center, (864) 656-2233, or the University Ambulance, 864.656.2244.

All safety aspects of the safety plans must be adhered to. The safety plan can be found in the departmental office of your lab. A copy is also kept in the departmental office.
Laboratory Operating Procedures

The following laboratory operating policies are designed to ensure a safe and secure working environment, and to provide a research environment that nurtures the acquisition of experimental results of the highest quality:

- No food or drink is to be brought into or consumed in any laboratory.
- To facilitate cleaning, do not store anything on laboratory floors.
- Hang only scientific charts and similar educational or reference materials from laboratory ceilings or walls.
- Affix nothing to the glass of the laboratory doors.
- Do not prop open any laboratory doors including the exterior doors.
- Nothing, including carts, is to be stored or left in the hallways.
- The instrument room is to be used exclusively for sample analysis. Prepare samples, standards, etc., in your assigned laboratory and transport them to the instrument room for analysis using a laboratory cart. In addition, do not leave samples in the instrument room for any reason. Use carts to transport samples back to the laboratory of origin.
- Clean all laboratory benches at least weekly; more frequently if needed.
- Leave all laboratories clean and orderly prior to departing for the day.
- When conducting wet research in the laboratories, use plastic containment trays, insofar as possible, to capture spills.
- Date all samples, bottles, standards, etc., and identify contents and person responsible. Properly dispose of the contents and clean the bottles when no longer needed.
- Maintain a record of all hazardous chemicals used.
- Clean all analytical balances after each use.
- Turn off lights whenever vacating a room.
- Post all memos, notices, etc., on the official bulletin board opposite the student carrels.
- Affix suitably sized and inoffensive posters or photos to your carrel walls using non-damaging tape or hangers.
- Keep your carrel clean and free of refuse.
- Place all refuse that you cannot easily place in a trash receptacle in the dumpster located by the parking lot opposite the loading dock.
- Park University vehicles in their assigned spaces near the loading dock. Load and unload field and other equipment at the loading dock.
- Place recycle paper and cans in the appropriate containers in the shipping/receiving room in the basement or in containers in the loading dock area.

Eye and Face Protection

Eye and face protection devices that meet OSHA requirements and American National Standards for industrial eye protection should be the minimum eye protection used for activities where there may be flying or falling particles or chemical splashes. **Either safety or prescription glasses with side shields must be worn in any laboratory at all times**, unless an exception has been made by the departmental representative. Visitors to any laboratory must wear safety or prescription glasses, preferably with side shields. The wearing of contact lenses is strongly discouraged. Soft contact lenses are susceptible to absorption of vapors and may aggravate some chemical exposures, particularly if they are worn for extended periods. Manufacturers of soft lenses generally recommend they not be used in certain atmospheres.
**Body Protection**
Protection of the body from contact with solid and liquid contaminants will require some protective clothing. Such protective clothing may include boots, gloves, pants, coats and head covers. Complete protection of the skin from contact with gases and vapors requires full-body protection such as an encapsulating suit. Whenever in a laboratory, all students, faculty and staff must ensure that arms, legs and torso are covered at all times. For example, you can wear either (a) long pants and a long-sleeved shirt, (b) a knee-length, long-sleeved laboratory coat, or (c) long pants and a waist-length laboratory coat. In addition, you must use rubber and plastic aprons whenever corrosive or irritating chemicals are handled. Because plastic aprons can accumulate static electricity, avoid their use in areas where flammable solvents could be ignited. Discard and replace protective clothing if it cannot be effectively decontaminated. Select clothing materials for resistance to the chemicals to which they will be exposed, and for appropriate resistance to permeations. Glove materials are discussed in the safety plan.

**Footwear**
Wear closed-toed shoes at all times (i.e., sandals, flip flops, and bare feet are *not* permitted). Shoes made of impermeable material such as leather are strongly recommended. Sneakers offer little protection against falling objects or chemical spills. High-heeled shoes pose a hazard and are not to be worn when working in laboratories.

**Hazardous Waste Management**
Legal and regulatory requirements, reinforced by public opinion, spur the handling of hazardous wastes in a responsible way. Even laboratory personnel who work with relatively small amounts of chemicals recognize that the chemical wastes generated during their experiments are their responsibility and that waste management systems are necessary.

The Resource Conservation and Recovery Act of 1976 mandated a system for managing hazardous waste. Regulations adopted by the Environmental Protection Agency (EPA) now extend through South Carolina state law to those who generate, store, transport, treat and dispose of hazardous waste. The South Carolina agency responsible for enforcing EPA regulations is the Department of Health and Environmental Control (DHEC).
SAFETY CHECK-IN FOR LABORATORY PERSONNEL  
DEPARTMENT OF FOOD, NUTRITION, AND PACKAGING SCIENCES

This document must be read and signed by all researchers in the FNPS Department who work in laboratories housed in Poole Agricultural Center and Newman Hall to verify their training of proper chemical hygiene and safety for group and departmental research activities. Researchers include faculty member, staff, visiting scientist, post-doctoral associates, graduate and undergraduate students, and worker hired on an hourly basis.

<table>
<thead>
<tr>
<th>Name (employee/student)</th>
<th>ENTER NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email address</td>
<td></td>
</tr>
<tr>
<td>Cell phone number</td>
<td></td>
</tr>
<tr>
<td>Faculty research lab</td>
<td>FACULTY</td>
</tr>
<tr>
<td>Room number</td>
<td></td>
</tr>
<tr>
<td>Lab supervisor</td>
<td>SUPERVISOR</td>
</tr>
<tr>
<td>Date</td>
<td></td>
</tr>
</tbody>
</table>

Laboratory Safety Manual in Lab: http://ehs.clemson.edu/

I have read the Clemson University Laboratory Safety Manual, and know the location(s) in our research laboratory. If I have any concerns regarding proper chemical hygiene, safety or practice in my laboratory that are not clearly discussed in this plan, I can contact the following:

<table>
<thead>
<tr>
<th>PI/major professor</th>
<th>FACULTY</th>
<th>e-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor (can be major professor)</td>
<td>SUPERVISOR</td>
<td></td>
</tr>
<tr>
<td>Dr. Feng Chen</td>
<td>FNPS Safety - Poole Ag Center</td>
<td><a href="mailto:fchen@clemson.edu">fchen@clemson.edu</a></td>
</tr>
<tr>
<td>Dr. Greg Batt</td>
<td>FNPS Safety - Newman Hall</td>
<td><a href="mailto:gbatt@clemson.edu">gbatt@clemson.edu</a></td>
</tr>
<tr>
<td>Dr. Jeff Rhodehamel</td>
<td>Chair - Dept. of FNPS</td>
<td><a href="mailto:jrhode@clemson.edu">jrhode@clemson.edu</a></td>
</tr>
<tr>
<td>Naomi Kelly</td>
<td>Environ Health Manager II</td>
<td><a href="mailto:nkelly@clemson.edu">nkelly@clemson.edu</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name:</th>
<th>ENTER NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor initials:</td>
<td></td>
</tr>
<tr>
<td>Date:</td>
<td></td>
</tr>
<tr>
<td><strong>Required on-line training</strong></td>
<td><a href="http://www.clemson.edu/facilities/es/training/index.html">www.clemson.edu/facilities/es/training/index.html</a></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td><strong>Accident report form</strong></td>
<td><a href="http://ehs.clemson.edu/">http://ehs.clemson.edu/</a></td>
</tr>
<tr>
<td><strong>Lab closeout policy</strong></td>
<td><a href="http://ehs.clemson.edu/">http://ehs.clemson.edu/</a></td>
</tr>
</tbody>
</table>

**Biological safety**

www.clemson.edu/research/safety/training-gateway.html

This is required for employee and students working with potentially biological hazards. This includes living microorganisms and their toxic products.

<table>
<thead>
<tr>
<th>Name:</th>
<th>ENTER NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor initials confirm completion</td>
<td></td>
</tr>
<tr>
<td>Date completed:</td>
<td></td>
</tr>
</tbody>
</table>

**Biological Safety Cabinets**

www.clemson.edu/research/safety/training-gateway.html

Biological Safety Cabinets are employed for the containment of pathogens and the protection from contaminating microorganisms. All users must be trained in it proper use to ensure proper containment.

<table>
<thead>
<tr>
<th>Name:</th>
<th>ENTER NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor initials confirm completion</td>
<td></td>
</tr>
<tr>
<td>Date completed:</td>
<td></td>
</tr>
</tbody>
</table>

**Blood borne pathogens**

www.clemson.edu/research/safety/training-gateway.html

Because some research activities require the collection of blood samples from animals and human special training and approved laboratory space will be needed.

<table>
<thead>
<tr>
<th>Name:</th>
<th>ENTER NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor initials confirm completion</td>
<td></td>
</tr>
<tr>
<td>Date completed:</td>
<td></td>
</tr>
</tbody>
</table>
Chemical Hygiene & Lab Safety

Completion of the Chemical hygiene and Laboratory Safety is required for all employees and students working in any research lab at Clemson University.

Name: ENTER NAME

Supervisor initials confirm completion

Date completed:

Chemical Fume Hoods Safety

All research laboratories in FNPS have access to chemical fume hoods so all employees and students are required to take this training.

Name: ENTER NAME

Supervisor initials confirm completion

Date completed:

Right to know: Hazard Communications

Many chemicals found in a research laboratory can cause cancer, and death. Every employee and student working in this environment has the right to know these chemicals and to be trained on their proper use.

Name: ENTER NAME

Supervisor initials confirm completion

Date completed:
### Hazardous Waste Training

[www.clemson.edu/research/safety/training-gateway.html](http://www.clemson.edu/research/safety/training-gateway.html)

All research labs will generate hazardous waste that will need to be properly discarded. Every employee and student working in this environment must receive training in the proper disposal of these wastes.

<table>
<thead>
<tr>
<th>Name:</th>
<th>ENTER NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor initials confirm completion</td>
<td></td>
</tr>
<tr>
<td>Date completed:</td>
<td></td>
</tr>
</tbody>
</table>

### Material Safety Data Sheets (MSDS)

[www.clemson.edu/research/safety/training-gateway.html](http://www.clemson.edu/research/safety/training-gateway.html)

MSDS are provided for all chemical purchased for research laboratory use. Every employee and student working in this lab must know where this information can be founds.

<table>
<thead>
<tr>
<th>Name:</th>
<th>ENTER NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor initials confirm completion</td>
<td></td>
</tr>
<tr>
<td>Date completed:</td>
<td></td>
</tr>
</tbody>
</table>

### X-Ray and Radiation Producing Equipment

[www.clemson.edu/research/safety/training-gateway.html](http://www.clemson.edu/research/safety/training-gateway.html)

All research laboratories using any form of radioactive materials must have all their employees and students perform this training.

<table>
<thead>
<tr>
<th>Name:</th>
<th>ENTER NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor initials confirm completion</td>
<td></td>
</tr>
<tr>
<td>Date completed:</td>
<td></td>
</tr>
</tbody>
</table>
Radiological Materials Procedures
The DHEC, through a Radioactive Materials License, regulates the use of radioactive materials in the department. The provisions of the license are implemented through the Clemson University Radiation Safety and Waste Management Manual.

ADMINISTRATIVE POLICIES & PROCEDURES

While some of these sections (e.g., “Department Machine Shop”) do not apply to all programs, most actually do, yet many programs do not communicate them to their students. Providing this information in a handbook eases the burden on administrative staff as well as faculty, and lessens the frustration students experience in just trying to get something done.

Harassment
It is the policy of Clemson University to conduct and provide programs, activities and services to students, faculty and staff in an atmosphere free from harassment. Harassment is unwelcome verbal or physical conduct, based upon race, color, religion, sex, sexual orientation, gender, national origin, age, disability, status as a military veteran or protected activity (e.g., opposition to prohibited discrimination or participation in the statutory complaint process), that unreasonably interferes with the person's work or educational performance or creates an intimidating or hostile work or educational environment. Examples may include, but are not limited to, epithets, slurs, jokes or other verbal, graphic or physical conduct.

Harassment of University faculty, staff, students or visitors is prohibited and shall subject the offender to appropriate disciplinary action, including dismissal from the program.

Employees or students who feel they are victims of any form of discrimination are encouraged to consult the Office Access & Equity (E-103 Martin Hall, 864.656.3181) for advice and assistance in resolving complaints.

In the event a graduate student wishes to appeal the resolution of the Office of Access & Equity, the student must submit a written request for an appeal to the dean of the Graduate School, who in turn will convene an ad hoc committee that will review the process and/or sanction. The committee membership will come from faculty and students already appointed to the Graduate Council.

Sexual Harassment
Title VII of the Civil Rights Act of 1964, as amended, provides that it shall be unlawful discriminatory practice for any employer, because of the sex of any person, to discharge without just cause, to refuse to hire, or otherwise discriminate against any person with respect to any matter directly or indirectly related to employment. Harassment of any employee on the basis of sex violates this federal law. The Equal Employment Opportunity Commission has issued guidelines as to what constitutes sexual harassment of an employee under Title VII.

Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when any of the following occurs:
- Submission to such conduct is made explicitly or implicitly a term or condition of an individual's employment or academic standing;
- Submission to or rejection of such conduct by an individual is used as a basis for employment or for arriving at academic decisions affecting an individual;
• Such conduct unreasonably interferes with an individual's work or academic performance, or creates an intimidating, hostile or offensive working or academic environment.

Sexual harassment of University faculty, staff or students is prohibited and shall subject the offender to dismissal or other sanctions after compliance with procedural due process requirements. In the event a claim of sexual harassment arises, the claimant may use University grievance procedures that have been established for faculty, staff and students as appropriate. This policy also prohibits an employee from sexually harassing a superior and a student from sexually harassing a faculty member.

Amorous Relationships
Amorous relationships that might be appropriate in other circumstances can be inappropriate when they occur between a faculty member, officer or supervisor of the University, and any student or subordinate employee for whom he/she has a professional responsibility.

Those in positions of authority inherently carry the element of power in their relationships with students or subordinates. It is imperative that those with authority neither abuse, nor appear to abuse, this power entrusted to them.

Officers, supervisors and members of the teaching staff should be aware that any romantic involvement with a student or subordinate employee could make them 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. Graduate assistants, research assistants, tutors and teaching assistants who are professionally responsible for students would be wise to exercise special care in their relationships with students they instructor evaluate.

Any questions concerning these statements or Clemson University's Policy on Sexual Harassment should be directed to the Office Access & Equity (E-103 Martin Hall, 864.656.3181).

Drugs
The use, possession, distribution or dispensation of illegal drugs is strictly prohibited. Violation could result in your dismissal from the University.

Alcohol
Alcoholic beverages are prohibited for any activity held in any College of Agriculture, Forestry, and Life Sciences facility unless part of an approved research project.

Smoking
In the interest of the safety and health of all the occupants of our buildings, the following smoking policy will be enforced: 1) no smoking is allowed in any classroom, hallway, laboratory, office or other public spaces; and 2) smoking is permitted outside the building. These rules are necessary not only for health reasons but also for general building safety.

Computer Access and Use
• Graduate students will have access to a computer typically through their research group.
• Computers used in research labs are paid for through research funding by research professors.

Food, Nutrition, and Packaging Sciences Graduate Handbook – August 2017
• Clemson computer support personnel will not work on a computer unless the primary visible language is English.
• Do not connect a computer to the University network without permission from the departmental technician. All computers connected to the University network must have the latest anti-virus software running continuously.
• Some software is available on the Clemson network. Pirated software is not permitted.
• All Clemson University and CCIT rules concerning computers will be followed.

CCIT offers numerous instructional short courses. Visit their website at www.clemson.edu/ccit/learning-tech/ccit_training/ for details.

Email Access, Use
Email is the most common medium used by the department and the University to communicate with you. Many events and information of importance to your success in the program are announced via email. It is very important that you check your email regularly, at least once a day. If you are requested to respond, you should do so in a timely manner. Note that if you have an assistantship, you will have both a student and an employee email account and will be responsible for checking both on a regular basis.

Mailboxes and Personal Mail
Each graduate student is assigned a mailbox, which you should check regularly. All personal mail is to be directed to your home address. The department is not to be used as your mailing address. The department assumes no responsibility for personal deliveries. Graduate students must complete a change of address form with the postal service for any mail items you receive at Clemson and would like to continue to receive after leaving Clemson. If you don’t want to continue receiving the mail items, please have your name removed from the mailing list before you leave Clemson.

Outgoing mail, both U.S. and campus mail, can be placed in the appropriate receptacles in the department mailroom. You must provide adequate postage for any U.S. mail. International mail must be taken to the U.S. Post Office.

Intra-department Communications
Notices of interest to graduate students will be posted in the department or, on occasion, mailed directly to you.

Keys
You will be issued a key to your office and/or laboratory and a building door key. Keys to specific research laboratories will be issued upon obtaining permission from the faculty member in charge of the lab. Students leaving the University through graduation, or for any reason, must return all keys to the department office. A fee will be charged for any unreturned key.

The key(s) issued to you are for your use exclusively. You must never loan keys to anyone else, not even another graduate student. Failure to observe this rule may result in revocation of your key privilege. Unauthorized possession of a key to a University building is prohibited by South Carolina law.

You are responsible for locking all rooms to which you have gained access with a key.
Building Security, Maintenance
As you enter and leave the building, if it is locked, be sure that all doors are locked behind you. During the workweek, doors are normally unlocked.

Report building problems to the department office. If something major is found wrong outside of normal office hours, inform your Major Advisor and/or the department chair after you have called the University Security Office at 864.656.2222.

Copy Machine Use
Graduate students may use the departmental copier for necessary research work. However, excessive use should be avoided. In particular, multiple copies of thesis or dissertation drafts should not be made on the departmental copier. If use becomes excessive, you will be asked to obtain permission from your Major Advisor before each use.

Fax Machine Use
You may use the department's facsimile machine only for official department business purposes with authorization from your Major Advisor. Personal transmissions may be sent using a personal calling card (AT&T, MCI, et al.). Instructions for using a personal calling card are provided above the fax machine in the copy/work room. Personal transmissions may also be sent at the Student Union or other locations in downtown Clemson.

Telephone Use, Long Distance Charges
Your use of departmental office telephones must be restricted to business use and emergencies during business hours. You must inform your friends and family not to call you on the departmental office phone on routine matters.

There are a limited number of telephones in the laboratories. Please keep your cell phone with you while working in the building.

Office Supplies
The department does not furnish office supplies to graduate students for personal use. All research contract-related use of office supplies, including letterhead stationery, must be authorized by your Major Advisor.

Equipment Use/Modification
You may use existing equipment in various laboratories only after obtaining the express permission of the faculty member in charge of the laboratory, or the department chair for equipment in the Food Chemistry, Research Kitchen, Sensory, Sunoco, Cryovac-Flavourmark, or DuPont laboratories. It is a firm rule of the department that no instrument/piece of equipment is to be modified in any way without the express permission of the faculty member in charge of the particular equipment. It is the responsibility of the Major Professor to repair any equipment broken by their graduate students in another professor's laboratory. Thus, it is extremely important for graduate students to clear it with their Major Professor BEFORE using equipment in other laboratories.

You will be personally responsible for any equipment signed out to you. Borrowing/lending of equipment between graduate students is prohibited.
Ordering Supplies and Equipment
If you order equipment or supplies without the permission of your Major Advisor or the department chair, you will be responsible for paying the bill. In addition, students placing orders are responsible for being cognizant of state purchasing regulations, and may be liable for paying the bill in the event of violations. When placing orders over $2,500 (total of the entire purchase — not per item — including tax, shipping and handling), whether over the phone or purchased in town, you must obtain an order number from the administrative assistant prior to making the order or purchase.

Supplies will normally be delivered to the mailroom (room B221 Poole Agricultural Center). Supplies needing refrigeration or to be kept frozen will be placed in the refrigerator or freezer in the departmental mailroom, B221 Poole Agricultural Center. If the contents do not match the packing list, notify your Major Professor ASAP. Do not pick up any box that has not been checked in or any box that does not have either your name or your Major Professor’s name on it.

Student Offices/Desks
It is the goal of the department to provide a desk for each graduate student. However, due to the limited available space, it may not be possible to accommodate each student. Therefore, a priority system is used which first assigns a desk to each graduate assistant and graduate fellow, then to each unsupported master’s thesis student, and then allocates desks to all other students on a temporary use basis. New students should see Kim Collins, 223 Poole Agricultural Center, kcllns@clemson.edu, concerning a desk assignment.

Room Use
Study facilities for graduate students are intended solely for studying and interacting with students. They are not to be used for socializing or temporary housing. Students abusing these privileges will forfeit them.

ADMINISTRATIVE SERVICES

Access to Departmental Files
All departmental files are off limits unless you have expressed permission to use them. Contact the Kim Collins, 223 Poole Agricultural Center, kcllns@clemson.edu, should you need information from a departmental file.

Faculty Offices
Faculty members carry out numerous duties, of which teaching and research are but two. Please observe faculty office hours when posted and arrange appointments in advance whenever possible. Do not enter a faculty member's office unless invited to do so.

Departmental Library
The departmental library is available for use by all students, staff and faculty of the Department. Please see instructions posted in the library for using the materials.

Dress Code
During normal office hours, students are expected to be neatly dressed and maintain acceptable standards of personal hygiene. Laboratory attire should be safe and functional as well as neat. See safety/hazmat regulations for more information about laboratory attire.

Food, Nutrition, and Packaging Sciences Graduate Handbook – August 2017 - 52 -
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).

Step 1. 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 the main department office.
Step 2. Enter travel status according to guidelines outlined herein.
Step 3. Upon completion of travel, complete “Travel Worksheet”, obtain appropriate signatures, and submit to the main department office for reimbursement.

NOTE: Most forms are also available in Microsoft Word format at the department website. If you have trouble using the electronic forms, please see one of the staff for assistance.

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 unnecessary or unjustified in the performance of an assignment are not considered exercising prudence.
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. While on official travel within South Carolina, actual expenses incurred in obtaining meals up to a maximum of $25 per day will be reimbursed. While on official travel outside South Carolina, actual expenses incurred in obtaining meals up to a maximum of $32 per day will be reimbursed. Actual reimbursement amounts depend on your departure and return times, as follows:

<table>
<thead>
<tr>
<th></th>
<th>If You Depart Before</th>
<th>If You Return After</th>
<th>In State</th>
<th>Out of State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakfast</td>
<td>6:30 a.m.</td>
<td>11:00 a.m.</td>
<td>$6</td>
<td>$7</td>
</tr>
<tr>
<td>Lunch</td>
<td>11:00 a.m.</td>
<td>1:30 p.m.</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Dinner</td>
<td>5:15 p.m.</td>
<td>8:30 p.m.</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>$25</strong></td>
<td><strong>$32</strong></td>
</tr>
</tbody>
</table>

If you receive reimbursements for meals on non-overnight travel, this amount could be considered income and be reported on your W-2 tax form. For instance, meals on day trips are subject to tax withholding except when a business purpose for the meal can be documented. If you are claiming reimbursement for such business meals, documentation must include the name and affiliation of the person sharing the meal and the nature of the business discussed.

**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.

Employees are allowed one personal call, of short duration, per day. Charges for long distance telephone calls, telegrams, fax charges or Internet access made on official business will be allowed. A fixed charge by a hotel for telephone service may be reimbursed as part of lodging. It is the responsibility of the traveler and the department to substantiate whether calls are of a business or personal nature and whether they will be reimbursed.

**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.

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**
Automobile transportation may be used when common carrier transportation cannot be arranged satisfactorily, or to reduce expenses when two or more University employees are traveling together.

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. Reimbursement for personal automobiles is as follows:

- $0.56 per mile, if no University-owned vehicle is available. (In order to be reimbursed at this rate, a statement from Transportation Services confirming the non-availability must be attached to the Travel Reimbursement Voucher.)
• $0.56 per mile for travel to and from nearby airports or train depots when official travel is by airplane or train.
• $0.52 per mile when you wish to use your own automobile although a Motor Pool vehicle is 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.

You are advised to make the department chair aware of your travel plans in advance by submitting the Request to Travel Form.

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 (www.grad.clemson.edu/pegas).
Inclement Weather
Cancellation of classes due to inclement weather is determined by University Administration and announced through local radio and television stations. University Administration attempts to alert students of any disruption of scheduled classes by 7 a.m. Separate announcements are made for the main campus and the University Center in Greenville, so you should listen carefully to the specific announcement.

Political, Religious Activities
The University cannot engage in political and religious activities. Therefore, it is departmental policy that no political or religious signs will be displayed. Nor should University email lists/systems be used to transmit political or religious messages.

CAMPUS FACILITIES AND RESOURCES

Emergencies
Call the Clemson University Police Department (864.656.2222) for all major emergencies: fire, medical, police. They will ensure that the proper authorities are dispatched.

In case of fire, exit the building immediately. Use stairwells; do not use the elevator.

Campus Shuttle Bus
Clemson University supplies a shuttle bus to transport students between the main campus and the Research Park during fall, spring and summer semesters. Trips are scheduled from 7 a.m. until 6 p.m. Monday through Friday (except during holidays and Fall Break). The shuttle makes one trip per hour from the Hendrix Center to the Research Park. The shuttle leaves the Hendrix Center on the hour and arrives at the Research Park at approximately 20 minutes after the hour. Stops are at AMRL, Rich Lab and Ceramic and Materials Lab.

Graduate Student Government
The Graduate Student Government (GSG) is a University-wide organization of all graduate students for promoting graduate student interests. At the start of each fall semester, departmental GSG representatives are elected. The biweekly senate meetings are open to all graduate students. See the Graduate School Announcements (www.registrar.clemson.edu/html/catalogGrad.htm) for more information, or contact the GSG office at 864.656.2697. Your active participation in the Graduate Student Government is encouraged.

R.M. Cooper Library
Located on campus adjacent to the reflecting pool, the main library houses more than 1.5 million items, including books, periodicals and microforms. Periodicals can be checked out for a maximum of three days ($1/day late fee) while books can be checked out for six weeks ($0.25/day late fee). The catalog is online and can be accessed from any campus computer. Free online literature searches can be conducted at the main library. An appointment must be made to complete the online search. In addition, the library contains a number of computers and printers as well as copiers, two of which are located in the reference area, and several of which are located on the ground floor.

Additionally, there is a coffee shop and convenience store located within the library. For more information about the library, call 864.656.3024 or the Library Hours Hotline at 864.656.3027.
The library also has two satellite branches. The Emery A. Gunnin Architectural Library, located in Lee Hall, provides materials on architecture, visual arts, city and regional planning, building science and constructions, and landscape architecture. Its extensive slide library can also be helpful to those interested in history, art, etc. The library's Special Collections Unit, housed in the Strom Thurmond Institute building, contains rare books, manuscripts of prominent South Carolinians, and materials relating to the history of Clemson University and South Carolina. A smaller, specialized collection is also located in the Chemistry Library in Hunter Hall.

**Copy Services**
Copiers are available in the Cooper Library on various levels. They are coin operated and cost 10¢ per copy. (If you use your Tiger Stripe Card in the copiers, the copies cost only 5¢ per copy.) Student Services also provides copiers at the Manning Hall Lobby, Calhoun Courts Commons Building basement, and the Students Government Complex.

The Union Copy Center, located on the first floor of the Hendrix Center, provides self-service and counter services to students. For more information and hours, call 864.656.2725.

The Campus Copy Shop located at One Rubin Square, 384 College Avenue, next to Peppinos Pizza, offers self-service copiers. They also do full laser copies, engineering copies, blue-prints, binding, passport photos, lamination, reductions and enlargements, resumes, PMTs, typesetting, etc. They also may be a pickup location for course notes. For more information and hours, call 864.654.3863.

**University Union, Hendrix Student Center, and Brooks Center**
The Edgar Brown University Union, the Hendrix Student Center, and the Brooks Center for Performing Arts provide social, educational, cultural, and recreational activities for members of the University and larger community. Hundreds of varied activities are offered to the campus community each year, including films, videos, concerts, bands, comedy and variety acts, short courses, speakers, game tournaments, cultural arts performances, outdoor recreational trips, group travel, and special events.

**University Bookstore**
The University Bookstore is located on the first floor of the Hendrix Student Center. It stocks all required textbooks and supplies as specified by the various departments, as well as general trade books, greeting cards, computer software, personal care items, etc. The bookstore holds textbook buy-back year-round. The bookstore accepts VISA, MasterCard, and Tiger Stripe. The bookstore also allows students to buy their books on-line: www.whywaitforbooks.com. Once you get there just pick South Carolina, then Clemson, then the name of your department, then your course and section number. Graduate assistants and teaching assistants may be eligible for discounts at the University Bookstore.

**University Health Services**
The Redfern Student Health Center on campus provides health services to University students. Redfern offers a variety of services including: outpatient ambulatory care for illnesses and injury, health education on women's health issues, nutritional counseling, dermatology, and orthopedic clinics. Students are seen at Redfern throughout the day by appointment. A walk-in clinic is available to students who do not have an appointment. ASK-A-NURSE telephone services are also available.
If you have questions about services provided, call Redfern Health Center at 864.656.2233; if you would like to schedule an appointment to see a doctor at Redfern, call the appointment line at 864.656.1541. For service hours or other information, see their website at www.clemson.edu/campus-life/campus-services/redfern.

Fike Recreation Center
Graduate students may use these facilities. Lockers are available at the recreation center. For specific information about the facilities and activities offered, visit www.clemson.edu/campus-life/campus-recreation/fike/index.html.

Sporting Events
Graduate students may purchase season tickets for Clemson football and basketball games. If interested, you should inquire at the IPTAY ticket office (Gate 9, Memorial Stadium) to complete an application. Further information can be obtained from the ticket office (864.656.2118). Baseball games are free with University ID. Tickets for soccer games may be purchased at the gate (usually $3 with University ID).

Campus Parking
Parking on campus is restricted and requires a permit that can be purchased at Parking Services located on the ground level of the Edgar Brown University Union (864.656.2270) or via their website at www.clemson.edu/campus-life/campus-services/parking/.
APPENDICES

Appendix A

COURSE DESCRIPTIONS

Food Science Graduate Courses

FDSC 6010 Food Chemistry I 3 (3) Basic composition, structure, and properties of food and the chemistry of changes occurring during processing utilization. Preq: BIOCH 3050 or consent of instructor.

FDSC 6020 Food Chemistry II 3 (3) Application of theory and procedures for quantitative and qualitative analysis of food ingredients and food products. Methods for protein, moisture, lipid, carbohydrate, ash, fiber, rancidity, color, and vitamin analyses and tests for functional properties of ingredients are examined. Preq: BIOCH 3050 or consent of instructor.

FDSC 6030 Food Chemistry and Analysis 2 (1) Principles of analytical procedures and techniques used to quantitatively and qualitatively determine chemical composition of foods, and elucidate the physio-chemical properties of food materials. Laboratories provide experience in critical thinking, performing food analysis, and analyzing data. Preq: BCHM 3050 and BIOL 4340 and FDSC 2140; or consent of instructor. Coreq: FDSC 6031.

FDSC 6031 Food Chemistry and Analysis Laboratory 0 (3) Non-credit laboratory to accompany FDSC 6030. Coreq: FDSC 6031.

FDSC 6040 Food Preservation and Processing 3 (3) Principles of food preservation applied to flow processes, ingredient functions, and the importance of composition and physical characteristics of foods related to their processing. Product recalls and product development concepts. Preq: BCHM 3050; and one of FDSC 2140 or FDSC 3010; and one of PHYS 1220 or PHYS 2000 or PHYS 2070.

FDSC 6060 Food Preservation and Processing Laboratory 1 (3) Laboratory exercises on preservation methods, equipment utilized, and processes followed in food manufacture. Coreq: FDSC 4040.

FDSC 6070 Quantity Food Production 2 (1) Principles of the production of food in quantity for use in food service systems. Emphasis will be on functions of components of foods and of ingredients in foods on the quality of the final product, on safe production of food, and on proper use of equipment. Coreq: FDSC 6071.

FDSC 6071 Quantity Food Production Laboratory 0 (3) Non-credit laboratory to accompany FDSC 6070. Coreq: FDSC 6070.

FDSC 6080 Food Process Engineering 4 (3) Study of basic engineering principles and their application in food processing operations. Emphasizes the relationship between engineering principles and fundamentals of food processing is emphasized. Preq: CH 120 and FDSC 2140; and one of MTHS 1020 or MTHS 1060; and one of PHYS 1220 or PHYS 2000 or PHYS 2070. Coreq: FDSC 6081.
FDSC 6081 Food Process Engineering Laboratory 0 (3) Non-credit laboratory to accompany FDSC 6080. Coreq: FDSC 6080.

FDSC 6090 Total Quality Management for the Food and Packaging Industries 3 (3) An introduction to the principles of modern quality management with emphasis on quality standards and issues and the practices necessary for food processing and packaging companies to survive in a customer-driven marketplace.

FDSC 6100 Food Product Development 4 (3) A strategic and systems approach to integrated product development practices for developing new food products within a team setting. Focuses on the Stage-Gate process of moving from product idea to launch and application of sensory analysis techniques. Coreq: FDSC 6101.

FDSC 6101 Food Product Development Laboratory 0 (3) Non-credit laboratory to accompany FDSC 6100. Coreq: FDSC 6100.

FDSC 6300 Dairy Processing and Sanitation 3(2) Processing, manufacture and distribution of fluid, frozen, cultured and other dairy products. Emphasizes sanitation in a commercial food processing plant environment, chemical and microbiological aspects, processing procedures, equipment operation, ingredient applications, formulation and functional properties. Preq: BIOL 1040 and 1060 and CH 1020. Coreq: FDSC 6301.

FDSC 6301 Dairy Processing and Sanitation Laboratory 0 (3) Non-credit laboratory to accompany FDSC 6300. Coreq: FDSC 6300.

FDSC 8020 Nutraceuticals and Functional Food 2 (2) Identifies sources, formulations, functional properties, and processing regulations for nutraceuticals and functional foods, and review the chemistry or separation and identification of bioactive ingredients. Preq: FDSC 6010 and FDSC 6020; or consent of instructor.

FDSC 8100 Chemical and Biochemical Aspects of Foods 4 (4) Chemical, biochemical, and functional properties of food components and their interactions in food emulsions, foams, colloids, and gel and solution states; the influences of processing on isolation, utilization, and production of the constituents using techniques based on constituent properties. Preq: BIOCH 6230 and FD SC 4010 or consent of instructor.

FDSC 8110 Physical and Thermophysical Properties of Foods 3 (3) Principles involved in relating physical and thermophysical properties to food quality. Includes standard methods and instruments to determine texture and the relationship of physical properties to sensory evaluation; interrelationships of chemical structure and physical properties in food processing operations. Preq: FD SC 8100 or consent of instructor.

FDSC 8120 Microbiological Aspects of Food Systems 3 (3) Function and characteristics of microorganisms in the utilization and manufacture of food products; food fermentations, microbially induced chemical and physical changes, environmental aspects, and production of food ingredients and resources. Preq: MICRO 4070 or consent of instructor.
FDSC 8150 Food Service Systems Management 4 (3) Management of the procurement, production, distribution, and service of food that meets nutrition guidelines, cost parameters, and consumer acceptance criteria; supervision of customer satisfaction systems, marketing functions, and human resource systems. Coreq: FDSC 6081.

FDSC 8151 Food Service Systems Management Laboratory 0 (3) Non-credit laboratory to accompany FDSC 8150. Coreq: FDSC 8150.

FDSC 8200 Selected Topics in Food Science 1-3(1-3) Special topics in food science not covered in other courses. May be repeated for a maximum of nine credits.

FDSC 8210 Selected Topics 1-4(1-4) Independent research investigation in food science areas not conducted in other courses. May be repeated for a maximum of 12 credits. Preq: Consent of instructor.

FDSC 8510 Food Science Seminar 1(1) Current research and related developments in food science reviewed by faculty, students, and invited lecturers. May be repeated for a maximum of two credits, but only if different topics are covered.

FDSC 8550 Practicum Teaching Experience 1 (1) Students integrate and apply knowledge and skills in assisting a faculty member in the teaching of an undergraduate lecture or laboratory course in food, nutrition and/ or packaging science. To be taken Pass/No Pass. May be repeated for a maximum of two credits.

FDSC 8910 Master's Thesis Research 1-12 (1-12) Master's Thesis Research

Food Technology Graduate Courses
FDTH 8510 Food Technology Seminar 1(1) Current and ongoing research and developments in food technology reviewed by faculty, students, and invited lecturers. Preq: Enrollment in the Food Technology PhD program or consent of instructor.

FDTH 9910 Doctoral Dissertation Research 1-12 (1-12) Doctoral Dissertation Research

Nutrition Graduate Courses
NUTR 6010 Fundamentals of Nutrition 3 (3) Biochemical and physiological fundamentals of nutrition applicable to man and domestic animals. Considers digestive processes and absorption and metabolism of carbohydrates, lipids, proteins, water, minerals, and vitamins. Discusses energy metabolism and comparative anatomy and physiology of digestive systems. Offered fall semester only. Preq: BCHM 3050, CH 2230, or consent of instructor.

NUTR 6240 Medical Nutrition Therapy I 4 (3) Principles of nutritional assessment, education and counseling skills: development of medical nutrition therapy for individuals with obesity and eating disorders, gastrointestinal disorders, metabolic and renal disorders. Preq: BIOL 2220 and BIOL 2230 and NUTR 4510 or consent of instructor. Coreq: NUTR 6241.

NUTR 6241 Medical Nutrition Therapy Laboratory 0 (3) Non-credit laboratory to accompany NUTR 6240. Coreq: NUTR 6240.
NUTR 6250 Medical Nutrition Therapy II 4 (3) Development of medical nutrition therapy for individuals with various disease states, including cardiovascular, hepatic, musculoskeletal, and neoplastic disorders. Also considers sociocultural and ethnic aspects of food consumption and alternative nutrition therapies. Preq: BIOL 2220 and BIOL 2230 and NUTR 4240. Coreq: NUTR 6250.

NUTR 6251 Medical Nutrition Therapy II Laboratory 0 (3) Non-credit laboratory to accompany NUTR 6250. Coreq: NUTR 6250.

NUTR 6260 Community Nutrition 3 (3) Study of the fundamentals of nutrition care delivery in community programs beginning with assessment and problem identification and continuing through the development, implementation, and evaluation of nutrition intervention programs. Preq: NUTR 2030 and NUTR 4510.

NUTR 6510 Human Nutrition 3 (3) Advanced concepts of nutrition, including physiological handling of nutrients, nutrient-nutrient interactions, and principles of nutritional deficiency and over-nutrition. Factors affecting methods of determining nutritional status, development of nutrition standards, and recent advances in human nutrition. Preq or concurrent enrollment: BCHM 3050; or consent of instructor.

NUTR 6550 Nutrition and Metabolism 3 (3) Concepts of metabolism fundamental to understanding normal and therapeutic nutrition will be examined. Bioenergetics as well as metabolism of carbohydrates, lipids, amino acids, vitamins, and minerals as they relate to nutrition will be discussed. Preq: BCHM 3050 and BIOL 2220. Preq or concurrent enrollment: BIOL 2230.

NUTR 7060 Nutrition for Teachers 3 (3) Principles of nutrition applied to nutrition education. Preq: Consent of instructor.

NUTR 8010 Topical Problems in Nutrition 1-3 (1-3) Topics not covered in other courses or by thesis research. Credit varies with problems selected.

NUTR 8020 Special Topics in Nutrition 1-3 (1-3) Topics of special interest or contemporary subjects not examined in other courses.

NUTR 8030 Advanced Human Nutrition 4 (4) Biochemistry and physiology related to human nutrition and their application to formation and adoption of healthy eating patterns. Emphasis is on individual nutrients in the context of healthy eating patterns throughout the life cycle and on recent advances in human nutrition. Preq: BCHM 3050 and NUTR 451; or consent of instructor.

NUTR 8040 Nutrition Education of the Public 3 (3) Analysis of community-based food and nutrition programs to include management, program provision, outcome-based evaluation, and integration of services. Emphasis is on outcome-based nutrition education across the lifespan, management and integration of multiple services for targeted population, and public policy development. Preq: NUTR 4260 or consent of instructor.

NUTR 8050 Metabolic Basis of Medical Nutrition Therapy 3 (3) Integration of metabolism and pathophysiology into medical nutrition therapy recommendations. Preq: BIOL 2220 and BIOL 2230 and NUTR 4250 and NUTR 4250; or consent of instructor.
NUTR 8060 Dietetic Internship 1-6 (1-6) Internship consisting of preceptor-supervised and faculty-led dietetic experiences in community, clinical, and food service settings. Must be taken for six credits during the internship rotations. Preq: Acceptance into Dietetic Internship Program.

NUTR 8070 Current Issues in Culinary Nutrition Science 3 (3) Applies the science and practice of healthy cooking to the foods of today and explores the development of future food products. Students participate in research on current issues relevant to the interconnections between food, its preparation, and the consumer.

NUTR 8510 Nutrition Seminar I 1 (1) Current research and developments in nutrition. Topics, selected by the instructor and students, come from student research and nutrition literature. May be repeated for a maximum of two credits, but only if different topics are covered.

NUTR 8910 Master's Thesis Research 1-12 (1-12)

NUTR 9910 Doctoral Dissertation Research 1-12 (1-12)

Packaging Science Graduate Courses
PKSC 6010 Packaging Machinery 3 (3) Systematic study of types of machinery used to form, fill, seal, and handle various packages, products, and packaging materials. Emphasizes basic mechanical, electrical, pneumatic, and hydraulic components of packaging machinery along with packaging machinery terminology. Discusses methods for machine line optimization and layout. Preq: PKSC 2040, and either PHYS 2080 or PHYS 2210.

PKSC 6040 Mechanical Properties of Packages and Principles of Protective Packaging 3 (3) Study of mechanical properties of products and packages and standard methods of determining these properties. Focuses on the functional properties of packages related to shock and vibration isolation and compression. Preq: MTHS 1060 and PKSC 2040; and of PHYS 1220 or PHYS 2070; or consent of instructor.

PKSC 6160 Application of Polymers in Packaging 4 (3) Detailed study of polymer science and engineering as applied to packaging science. Includes polymer morphology, rheology, physical properties, processing methods, and polymerization. Emphasizes relationships among processing, structure, and properties. Preq: PKSC 2040; and one of CH 2010 or CH 2230; and one of PHYS 1220 or PHYS 2070; or consent of instructor. Coreq: PKSC 6160.

PKSC 6161 Application of Polymers in Packaging Laboratory 0 (3) Non-credit laboratory to accompany PKSC 6160. Coreq: PKSC 6160.

PKSC 6200 Package Design and Development 3 (2) Study of principles and methods practiced in designing and developing packages and packaging systems and of methods used to coordinate and analyze package development activities including interfacing with product development, manufacturing, marketing, purchasing, and accounting. Preq: Second Semester Senior standing; and PKSC 3200 and PKSC 3680 and PKSC 4010 and PKSC 4040 and PKSC 4160 PKSC 300 PKSC 4400 PKSC 4640, or consent of instructor. Coreq: PKSC 6201.

PKSC 6201 Package Design and Development 0 (3) Non-credit laboratory to accompany PKSC 6200. Coreq: PKSC 6200.
PKSC 6230 3D Parametric Design Online 3 (3) Provides an overview of the techniques used in designing 3D parametrics solid parts for packaging science applications. The course begins with a basic overview of design software and progresses to cover advanced applications, including simulation, surfacing, tooling, photorendering and sustainability. Additionally, this course prepares students for a professional certification exam. Recommended for students who have experience with design software.

PKSC 6240 Structural Packaging Design Online 3 (3) Provides a comprehensive overview of how to design structural packaging for paperboard and corrugated mediums. This course begins with a basic overview and transitions into covering advanced applications. Access to design software (vector-based 2D CAD software, such as Illustrator or ArtiosCAD) is required. Recommended for students with design software experience.

PKSC 6300 Converting for Flexible Packaging 3 (1) Study of materials, methods, processes, and equipment used in converting web materials for flexible packaging. Laboratory provides hands-on experience preparing and operating pilot-scale converting equipment. Preq: PKSC 2040 consent of instructor. Coreq: PKSC 6301.

PKSC 6301 Converting for Flexible Packaging Laboratory 0 (6) Non-credit laboratory to accompany PKSC 6300. Coreq: PKSC 6300.

PKSC 6400 Packaging for Distribution 3 (3) Packages are exposed to various shipping methods and numerous hazards during distribution. To ensure adequate product protection, packaging professionals need to understand the fundamental principles of distribution packaging design. Topics include ASTM and ISTA packaging test methods, packaging design guidelines for distribution hazards, and protective packaging materials. Preq: PKSC 4040 or consent of instructor.

PKSC 6540 Product and Package Evaluate Laboratory 1 (30) Laboratory experiments to determine properties of packaging materials and to evaluate the response of packages and products to shock, vibration, and compression. Students operate standard testing equipment and become familiar with industry-recognized test methods and standards. Preq or concurrent enrollment: PKSC 6040.

PKSC 6640 Food and Health Care Packaging Systems 4 (3) Characteristics, engineering properties, and applications of various materials and systems used in the packaging of foods, pharmaceuticals, and medical devices. Packaging systems for specific food and medical applications are considered. Laboratory and field exercises on food and medical packaging operations and packaging materials are included. Emphasis is on evaluation methods. Preq: One of PKSC 2010 or FDSC 2140, and PKSC 2040, or consent of instructor. Coreq: PKSC 6641.

PKSC 6641 Food and Health Care Packaging Systems Laboratory 0 (3) Non-credit laboratory to accompany PKSC 6640. Coreq: 6640.

PKSC 8080 Biopolymers in Packaging 3 (3) In-depth study of the chemical characteristics of biological-based polymers and how these materials can be used in packaging. Students review literature, organize, and present material. Preq: Consent of instructor.
PKSC 8170 Packaging Materials: Science and Technology 3 (3) In-depth study of the structure, properties, manufacturing processes and applications of packaging materials. A classical materials science approach is utilized to contrast metals, ceramics, polymers and composites in packaging applications. Course sections include structure, properties and manufacturing of packaging materials. Preq: Consent of instructor.

PKSC 8210 Selected Problems 1-4 (1-4) Independent research investigations in packaging science related to packaging materials, machinery, design, and applications in areas not covered in other courses. May be repeated for credit. Preq: Consent of instructor.

PKSC 8220 Selected Topics 1-4 (1-4) Selected topics in packaging science not covered in details or contained in other courses. May be repeated for credit. Preq: Consent of instructor.

PKSC 8510 Packaging Science Seminar 1 (1) Current research and related developments in packaging science reviewed by faculty, students, and invited lecturers. May be repeated for a maximum of four credits. Preq: Consent of instructor.

PKSC 8910 Master's Thesis Research 1-9 (1-9) Research on a master's thesis topic
Appendix B

**FACULTY**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Office</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Felix H. Barron</td>
<td>Professor</td>
<td>220 P&amp;A</td>
<td>656-5694</td>
<td>fbarron</td>
</tr>
<tr>
<td>Gregory S. Batt</td>
<td>Assistant Professor</td>
<td>228 P&amp;A</td>
<td>723-0740</td>
<td>gbatt</td>
</tr>
<tr>
<td>Heather P. Batt</td>
<td>Senior Lecturer</td>
<td>229 P&amp;A</td>
<td>650-5202</td>
<td>batt</td>
</tr>
<tr>
<td>Feng Chen</td>
<td>Professor</td>
<td>208 P&amp;A</td>
<td>656-5702</td>
<td>fchen</td>
</tr>
<tr>
<td>Aubrey D. Coffee</td>
<td>Senior Lecturer</td>
<td>205 P&amp;A</td>
<td>656-1201</td>
<td>acoffee</td>
</tr>
<tr>
<td>Margaret D. Condrasky</td>
<td>Professor</td>
<td>216 P&amp;A</td>
<td>656-6554</td>
<td>mcondra</td>
</tr>
<tr>
<td>Kay D. Cooksey</td>
<td>Professor</td>
<td>239 P&amp;A</td>
<td>656-4613</td>
<td>kcookse</td>
</tr>
<tr>
<td>Sara L. Cothran</td>
<td>Lecturer</td>
<td>210 P&amp;A</td>
<td>508-0875</td>
<td>stanci</td>
</tr>
<tr>
<td>Duncan O. Darby</td>
<td>Associate Professor</td>
<td>227 P&amp;A</td>
<td>656-6937</td>
<td>ddarby</td>
</tr>
<tr>
<td>Paul L. Dawson</td>
<td>Professor</td>
<td>226 LSF</td>
<td>656-1138</td>
<td>pdawson</td>
</tr>
<tr>
<td>E. Lacey Durrance</td>
<td>Lecturer</td>
<td>215 P&amp;A</td>
<td>656-2148</td>
<td>edurran</td>
</tr>
<tr>
<td>Angela M. Fraser</td>
<td>Associate Professor</td>
<td>206 P&amp;A</td>
<td>656-3652</td>
<td>afraser</td>
</tr>
<tr>
<td>Vivian J. Haley-Zitlin</td>
<td>Associate Professor</td>
<td>211 P&amp;A</td>
<td>656-7716</td>
<td>vivianh</td>
</tr>
<tr>
<td>R. Andrew Hurley</td>
<td>Associate Professor</td>
<td>323 HA Smith</td>
<td>650-4954</td>
<td>ruperth</td>
</tr>
<tr>
<td>Elliot D. Jesch</td>
<td>Assistant Professor</td>
<td>217 P&amp;A</td>
<td>633-0874</td>
<td>ejesch</td>
</tr>
<tr>
<td>Xiuping Jiang</td>
<td>Professor</td>
<td>228 LSF</td>
<td>656-6932</td>
<td>xiuping</td>
</tr>
<tr>
<td>Robert M. Kimmel</td>
<td>Associate Professor</td>
<td>232 P&amp;A</td>
<td>656-6534</td>
<td>kimmel</td>
</tr>
<tr>
<td>John U. McGregor</td>
<td>Professor</td>
<td>209 P&amp;A</td>
<td>650-0817</td>
<td>johnny</td>
</tr>
<tr>
<td>Robert T. Moore</td>
<td>Senior Lecturer</td>
<td>230 P&amp;A</td>
<td>678-910-6588</td>
<td>bmoore1</td>
</tr>
<tr>
<td>Julie K. Northcutt</td>
<td>Professor</td>
<td>226 LSF</td>
<td>656-3688</td>
<td>jknorth</td>
</tr>
<tr>
<td>Anthony L. Pometto</td>
<td>Professor</td>
<td>238 P&amp;A</td>
<td>656-4382</td>
<td>pompeto</td>
</tr>
<tr>
<td>E. Jeffery Rhodehamel</td>
<td>Dept. Chair/Professor</td>
<td>222 P&amp;A</td>
<td>656-1211</td>
<td>jrhode</td>
</tr>
<tr>
<td>Tyler T. Stuettgen</td>
<td>Lecturer</td>
<td>234 P&amp;A</td>
<td>552-0658</td>
<td>tsuett</td>
</tr>
<tr>
<td>W. Scott Whiteside</td>
<td>Professor</td>
<td>226 P&amp;A</td>
<td>423-0727</td>
<td>wwhtsd</td>
</tr>
</tbody>
</table>

**STAFF**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Office</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robert E. Bennett</td>
<td>Eng/Associate Eng II</td>
<td>118 Newman</td>
<td>557-5351</td>
<td>rbennet</td>
</tr>
<tr>
<td>Krissy D. Boggs</td>
<td>Fiscal Technician II</td>
<td>225 P&amp;A</td>
<td>656-4609</td>
<td>boggss7</td>
</tr>
<tr>
<td>Glenda S. Brown</td>
<td>Admin Assistant</td>
<td>224 P&amp;A</td>
<td>656-5698</td>
<td>gbwn</td>
</tr>
<tr>
<td>Kimberly R. Collins</td>
<td>Admin Assistant</td>
<td>223 P&amp;A</td>
<td>656-3397</td>
<td>kcllns</td>
</tr>
<tr>
<td>Inyee Y. Han</td>
<td>Research Specialist III</td>
<td>116 Newman</td>
<td>656-4033</td>
<td>ihan</td>
</tr>
<tr>
<td>Pat G. Marcondes</td>
<td>Research Associate</td>
<td>118 Newman</td>
<td>650-5830</td>
<td>patm</td>
</tr>
<tr>
<td>Tanner L. Fogle</td>
<td>Research Associate</td>
<td>109B Newman</td>
<td>803-747-6503</td>
<td>tfoglei</td>
</tr>
</tbody>
</table>
Appendix C

SUPPORT SERVICES

Grievance Policy and Ombudsman Information

It is the policy of the Graduate School to address all grievances of an academic nature filed by enrolled graduate students. Graduate student grievances are heard by the Graduate Academic Grievance Committee (GAGC). The GAGC typically consists of three faculty representatives from each of the five colleges and one graduate student representative from each college. A six-member Initial Grievance Review Board (IGRB) is formed from among GAGC members and is responsible for determining which grievances will go forward to the GAGC.

Procedure

Grievances must be filed with the Graduate School within 60 days of the alleged act and may involve the following: violations of program, department, college or Graduate School policies related to final grades in courses or research (891 or 991); violations of program, department, college or Graduate School policies related to the completion of any academic requirement including theses and dissertations, and oral or written comprehensive examinations; and graduate student assistantship employment including offers of assistantship appointments made during recruiting not honored after enrollment.

At any time prior to filing a grievance, the student may consult with the University ombudsman charged with mediation in cases involving graduate students. Any student wishing to file a complaint must first make every attempt to resolve it within the college. The student must first take the complaint to the faculty or staff member(s) involved. If no resolution can be reached, the student should request assistance from the department chair and the dean of the college.

If the grievance remains unresolved, the student may file the complaint with the Graduate School. The student must first meet with the associate dean of the Graduate School charged with oversight of the GAGC. The associate dean will describe the grievance process to the student. If the student wishes to proceed with the grievance, the associate dean will provide the student with Graduate School Form GSG-A, “Request to File a Grievance,” which will enable the student to provide a written statement detailing the issue and his or her attempts to resolve it at the college level by documenting a) the dates of consultations at the college level, b) the names of those persons consulted, and c) the signature of the collegiate dean attesting that no resolution could be reached. The student must return the fully executed Form GSG-A to the Graduate School within 30 days of receipt from the associate dean. Students who fail to file the grievance within this timeframe forfeit their opportunity to proceed.

The student may seek external counsel (an advisor, an attorney, etc.) to assist with preparation of materials to submit to the GAGC. The student may request such individual accompany him or her to the hearing and may wish to proceed to prepare for this event. Questions concerning possible impacts on the student’s graduate status should he or she not be successful in the grievance may be discussed at this time with the associate dean of the Graduate School.

The IGRB will determine if the complaint, as submitted on Form GSG-A constitutes a grievance under the Graduate School’s policies. Grievable complaints will be addressed by a subcommittee.
of the GAGC appointed for the purpose of addressing the complaint in question. The subcommittee will convene an informal, closed hearing to recommend a resolution to the grievance. For more information about the procedures, refer to the Graduate School Announcements at www.registrar.clemson.edu/html/catalogGrad.htm.

University Ombudsman
The ombudsman is an independent, confidential resource that provides assistance to faculty, graduate students and post-doctoral students 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 who find themselves in a dispute.

The ombudsman strives to ensure that faculty, graduate students and post-docs receive fair and equitable treatment within the University system. He provides an independent point of view in an informal and confidential environment. The ombudsman will not identify you or discuss your personal concerns with anyone without your permission. Private confidential meetings can be arranged at your convenience. All communications will be treated with strict confidentiality. The ombudsman works toward resolutions based on principles of fairness. He is neither an advocate for faculty, administration or students, nor an agent of the University, but is an advocate of fair processes.

The Office of the Ombudsman provides fair and impartial counseling to faculty members, graduate students and post-docs by: 1) addressing problems and concerns, and identifying and evaluating options to reach resolutions; 2) providing available resources within the University, particularly as to policies and procedures; 3) serving as a neutral party in conflict resolution; 4) opening lines of communication through mediation; and 5) recommending changes in University policies and procedures when necessary. The ombudsman assists in issues of harassment, academics, unfair or inequitable treatment, or any other University policy that you feel has been applied unfairly or erroneously.

The ombudsman, as a designated neutral, has the responsibility of maintaining strict confidentiality concerning matters that are brought to his attention unless given permission to do otherwise. The only exceptions, at the sole discretion of the ombudsman, are where there appears to be imminent threat of serious harm. The ombudsman must take all reasonable steps to protect any records and files pertaining to confidential discussions from inspection by all other persons, including management.

The ombudsman will not testify in any formal judicial or administrative hearing about concerns brought to his attention. When making recommendations, the ombudsman has the responsibility to suggest actions or policies that will be equitable to all parties.

Concerns can be directed to the University ombudsman by letter, walk-in, appointment or telephone: R. Gordon Halfacre, University Ombudsman for Faculty and Graduate Students and member of the Ombudsman Association, 101 Clemson House; telephone (864) 656-4353; email ombudsman@clemson.edu.
Counseling Services
The demands of graduate school can sometimes seem overwhelming. If you feel you could benefit from talking to a counselor — about grad school stress or any other issue — you may be eligible to receive services from the Counseling and Psychological Services program (CAPS), located in Redfern Health Center. To learn about their current programs, visit the CAPS website at www.clemson.edu/campus-life/campus-services/redfern/mental-health or call them at 864.656.2451.

CHECKLIST/WORKSHEET OF REQUIREMENTS

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

| Checklist for Master’s Students in all Graduate Programs in Food, Nutrition, and Packaging Sciences Department |
|---|---|---|---|
| What | When to Complete | How/Who | Date Completed |
| Selection of a Major Advisor | Before admission | Notify Program Coordinator | |
| Appointment of Advisory Committee | Before the end of your first semester | In consultation with your Major Advisor | |
| Preparation of curriculum | Before the end of your first semester | In consultation with your Major Advisor and Advisory Committee | |
| File plan of study | Beginning of your second semester* | Form GS2** | |
| Approval of thesis proposal | Beginning of your second semester | Advisory Committee signs proposal; you file proposal with Program Coordinator | |
| Apply for diploma | Beginning of final semester* | You fill out online via iROAR | |
| Order cap and gown | Beginning of final semester | You order through bookstore | |
| Submit your thesis | 1st draft at least 12 weeks before date of final exam; final (approved) copies at least 2 weeks prior to exam | You supply to your Advisory Committee | |
| Final Examination | At least 3 weeks prior to graduation* | Major Advisor files GS7 with Graduate School** | |
| Submit your manuscript to Graduate School for formatting review | At least 2 weeks prior to graduation* (earlier is better) | You submit online at dissertations.umi.com | |
| All formatting revisions completed, approval of manuscript by Graduate School | At least one week prior to graduation* | Via email and website; the manuscript review office will notify you of any revisions required and how to submit them | |

* See specific deadline dates for Graduate School forms at www.grad.clemson.edu/Deadlines.php.
<table>
<thead>
<tr>
<th>What</th>
<th>When to Complete</th>
<th>How/Who</th>
<th>Date Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection of a Major Advisor</td>
<td>Before admission</td>
<td>Notify Program Coordinator</td>
<td></td>
</tr>
<tr>
<td>Appointment of Advisory Committee</td>
<td>Before the end of your first semester</td>
<td>In consultation with your Major Advisor</td>
<td></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>
<td></td>
</tr>
<tr>
<td>File plan of study</td>
<td>Beginning of your second semester*</td>
<td>Form GS2**</td>
<td></td>
</tr>
<tr>
<td>Approval of dissertation proposal</td>
<td>Within approximately one year of completing core classes</td>
<td>Advisory Committee signs proposal; you file proposal with Program Coordinator</td>
<td></td>
</tr>
<tr>
<td>Comprehensive exam – written</td>
<td>After completion of core classes</td>
<td>Advisory Committee</td>
<td></td>
</tr>
<tr>
<td>Comprehensive exam – oral</td>
<td>After proposal is accepted and not later than 12 months after completing core classes</td>
<td>Advisory Committee</td>
<td></td>
</tr>
<tr>
<td>Admission to doctoral candidacy</td>
<td>Upon completion of comprehensive oral exams and at least six months prior to graduation</td>
<td>Form GS5**</td>
<td></td>
</tr>
<tr>
<td>Minimum of 12 hours of doctoral research completed</td>
<td>At least six months prior to graduation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply for diploma</td>
<td>Beginning of final semester*</td>
<td>You fill out online via iROAR</td>
<td></td>
</tr>
<tr>
<td>Order cap and gown</td>
<td>Beginning of final semester</td>
<td>You order through bookstore</td>
<td></td>
</tr>
<tr>
<td>Submit your dissertation – 1st draft</td>
<td>At least 8 weeks before date of final examination</td>
<td>You supply to Advisory Committee members</td>
<td></td>
</tr>
<tr>
<td>Submit your dissertation – final</td>
<td>Approved copies at least 2 weeks prior to final examination</td>
<td>You supply to Advisory Committee members</td>
<td></td>
</tr>
<tr>
<td>Final Examination</td>
<td>At least 3 weeks prior to graduation*</td>
<td>Major Advisor files GS7 with Graduate School**</td>
<td></td>
</tr>
<tr>
<td>Task</td>
<td>Deadline</td>
<td>Action</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Submit your completed manuscript to Graduate School for formatting review</td>
<td>At least 2 weeks prior to graduation* (earlier is better)</td>
<td>You submit online at dissertations.umi.com</td>
<td></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>
<td></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).

** A copy of all graduate school forms are required to be turned in to the FNPS main office to be placed in your graduate file.
Statement of Acknowledgement

Graduate students in the Department of Food, Nutrition, and Packaging Sciences must abide by all policies outlined in this Graduate Student Handbook unless agreed upon in advance in consultation with the Major Advisor and the Department Chair. In such instances, variations from these policies must be written and signed by the student, the Major Advisor and the Department Chair. Copies of these changes are to be retained in the main office of the FNPS Department until the student graduates and/or leaves the department.

Your signature below affirms that you have read and understand all of the guidelines listed in the Graduate Student Handbook of the Department of Food, Nutrition, and Packaging Sciences.

Graduate Student’s Signature: ___________________________ Date: ______________

Major Advisor’s Signature: ___________________________ Date: ______________

Department Chair’s Signature: ___________________________ Date: ______________

PLEASE RETURN THIS DOCUMENT TO:

Dr. Paul L. Dawson
Graduate Program Coordinator
Food, Nutrition, and Packaging Sciences
Clemson University
223 Poole Agricultural Center
Clemson, SC 29634-0316

Contact Information:
E-mail: pdawson@clemson.edu
FAX: 864.656.0331
Key Policy

Graduate students in the Department of Food, Nutrition, and Packaging Sciences (FNPS) must abide by the departmental key policy.

Key Policy Statement

You must be an employee or student in the department to receive and use keys to departmental rooms and labs. If you leave the department, you must turn in your keys. Failure to return these keys promptly can and will be justification to turn over your name and address to Clemson University Police.

If you lose a key or keys, you must report this to the department chair/administrative assistant immediately. It will be reported to the police. Because of the breach of security when a key is lost, it is possible that the lock core must be changed and new keys cut for the new core. Lost keys are subject to a $25.00/lock core replacement charge, plus a $1/key replacement cost for that particular door – it could be very costly to replace a lost key.

I understand that the keys issued to me are for my use only and will not be duplicated, loaned or given to anyone else when I leave. Upon completion of my employment and/or studies in the FNPS Department, all keys that have been issued to me will be promptly returned.

Your signature below affirms that you have received, read and will comply with the key policy of the Department of Food, Nutrition, and Packaging Sciences.

Graduate Student’s Signature: _______________________________ Date: ________________

Major Advisor’s Signature: _______________________________ Date: ________________

Department Chair’s Signature: _______________________________ Date: ________________

PLEASE RETURN THIS DOCUMENT TO:

Dr. Paul L. Dawson
Graduate Program Coordinator
Food, Nutrition, and Packaging Sciences
Clemson University
223 Poole Agricultural Center
Clemson, SC 29634-0316

Contact Information:
E-mail: pdawson@clemson.edu
FAX: 864.656.1138