GRADUATE STUDENT HANDBOOK

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THE OHIO STATE UNIVERSITY

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I. INTRODUCTORY INFORMATION

A. Relationship to the Graduate School Handbook

This FST graduate student handbook supplements the Graduate School Handbook. It outlines specific rules, procedures, policies, and requirements that apply to graduate students, faculty, and programs in the Food Science and Technology graduate program. Reference is made to the appropriate section of the Graduate School Handbook when rules are identical.

B. Degrees Offered and Areas of Specialization

The Department offers programs leading to the Master of Science (M.S.) degree and the Doctor of Philosophy (Ph.D.) degree with options as follows:

- M.S. Degree: Food Science and Technology. For the M.S. Degree, both thesis and non-thesis plans are available. M.S. non-thesis is intended as a terminal degree.
- Ph.D. Degree: Food Science and Technology.

C. Department Faculty and Their Research Areas

Additional information on faculty can be found on the OSU Food Science and Technology Department website. The following faculty members serve as advisors and members of students’ advisory committees.

Valente B. Alvarez, alvarez.23@osu.edu  Dairy and food processing, research, and extension. Industry-related research projects on new technologies, product development, ingredient functionality, product quality, and shelf life. Food safety, GMPs, and HACCP training.

Bala Balasubramaniam, balasubramaniam.1@osu.edu  Food engineering with emphasis on microbial safety. Pasteurization and sterilization aspects of advanced food technologies such as high pressure processing. Kinetic models for bacterial destruction. In-situ food property measurement under pressure. Establishing criteria for safe processing parameters for novel food processing technologies for pathogen reduction.

Sheryl A. Barringer, barringer.11@osu.edu  Flavor volatiles. Coatings: electrostatic, nonelectrostatic, liquid, and powder. Fruit and vegetable processing, especially tomatoes.

M. Monica Giusti, giusti.6@osu.edu  Functional foods, phytonutrients, natural colorants. Chemistry and functionality of flavonoids, with emphasis on anthocyanins as food colorants and functional foods and other phenolic compounds, such as isoflavones and proanthocyanidins.

W. James Harper, harper.9@osu.edu  J.T. Stubby Parker Endowed Chair in Dairy Foods. Flavor and functionality of dairy products.
Ronald D. Harris, harris.568@osu.edu  Food product development, management of R&D, decision sciences, operations management.  Adjunct. Not a primary graduate advisor.

Dennis R. Heldman, heldman.20@osu.edu  Dale A. Seiberling Endowed Professor in Food Engineering.  Food engineering, with emphasis on process design to achieve maximum efficiency and optimum product quality.  Application of simulation models to ensure food safety, while improving product quality attributes.

Gonul Kaletunc, kaletunc.1@osu.edu  Physical properties of pre and post processed foods and biomaterials.  Courtesy appointment with Food, Agricultural and Biological Engineering.

Lynn Knipe, knipe.1@osu.edu  Processed meat extension for the Ohio meat industry.  Muscle quality and ingredient functionality in further processed meats.  Meat product safety, particularly intervention practices against pathogens in production, retail, food service, and consumer handling and preparation.


Ken Lee, lee.133@osu.edu  Mineral nutrient interactions in processed foods.  Food safety and food security.  Director of the Ohio State Food Innovation Center.

Jeffrey T. LeJeune, lejeune.3@osu.edu  Preharvest control of food borne pathogens.  Shiga toxin-producing E. coli, Salmonella, Campylobacter, and antibiotic resistant bacteria.  Courtesy appointment with Food Animal Health.

Jianrong Li, li.926@osu.edu  Food and waterborne viruses, viral detection, food safety, viral replication and gene expression, vaccine and anti-viral drug development.  Joint appointment in the Department of Environmental Health Sciences, College of Public Health.

John H. Litchfield, litchfield.3@osu.edu  Industrial microbiology and enzyme technology.  Adjunct. Not a primary graduate advisor.

Farnaz Maleky, maleky.1@osu.edu  Material science of food.  Nano-engineering of food systems.  Food structuring and process development.  Mathematical modeling of food physical processes.  Lipid crystallization.  Physical chemistry of lipid.  Mechanical and structural properties of lipid.

Michael E. Mangino, mangino.2@osu.edu  Protein structure to function in food proteins.  Emeritus.  Not a primary graduate advisor.

Melvin Pascall, pascall.1@osu.edu  Food packaging with emphasis on integrity, modified atmospheric packaging, nano technology and plastics, migration/scalping and packaging material
sanitization and food safety.

**Luis E. Rodriguez-Saona, rodriguez-saona.1@osu.edu** Application of Fourier Transform infrared (FT-NIR and mid-IR) spectroscopy in the field of food safety and quality assurance. Topics of interest are the development of predictive models for the rapid detection, identification and classification of chemical & microbial contaminants and food components with biological activity.

**Linda Saif, saif.2@osu.edu** Development of vaccines to enteric and respiratory viruses. Diagnosis of enteric viral infections in animals that may be relevant to food. Courtesy appointment with Food Animal Health.

**Sudhir K. Sastry, sastry.2@osu.edu** Mathematical modeling of heat transfer and verification of chemically heated products. Courtesy appointment with Food, Agricultural and Biological Engineering.

**Steven Schwartz, schwartz.177@osu.edu** Carl E. Haas Endowed Chair. Carotenoids, phytochemicals and functional foods related to chronic disease prevention. Faculty member in Food Science and OSU Interdisciplinary Graduate Program in Nutrition & Comprehensive Cancer Center.

**Christopher T. Simons, simons.103@osu.edu** Sensory evaluation and psychophysics. Methodology development. Neural and physiological underpinnings of sensation, reward and consumer decision. Functional and cognitive benefits of flavors and food ingredients.

**Yael Vodovotz, vodovotz.1@osu.edu** Bread staling. Physico-chemical properties of carbohydrate systems and functional foods. Water mobility and functional properties of food components. Material properties of biopolymers and bioplastics

**Hua Wang, wang.707@osu.edu** Antibiotic resistance. Microbial ecosystems in foods and hosts. Biofilms. Lactic acid bacteria and *Listeria monocytogenes*. Rapid detection of food borne pathogens and spoilage microorganisms.

**Macdonald Wick, wick.13@osu.edu** Meat biochemistry. Courtesy appointment with Animal Sciences.

**S.T. Yang, yang.15@osu.edu** Fermentation and bioseparation research, bio reactor design, enzyme technology, and metabolic engineering. Courtesy appointment with Chemical Engineering.

**Ahmed E. Yousef, yousef.1@osu.edu** Food microbiology and microbial safety of food processed by novel technology.
II. GRADUATE STUDIES COMMITTEE

The Department's Graduate Studies Committee is selected and operates according to the rules of the Graduate School Handbook. 

A. Graduate Faculty Membership

The faculty elects the Graduate Studies Committee Chair for a three-year term. Upon petition by five members of the faculty, an election for the Chair can be held. The Department Chair appoints the members of the Committee as recommended by the Graduate Studies Committee Chair.

In addition to the Chair, the Graduate Studies Committee consists of the department chair, one senior faculty member, one junior faculty member, and one other member. Committee members serve for two years and may be reappointed.

B. Role and Responsibility

The role and responsibility of the Department's Graduate Studies Committee are listed in the Graduate School Handbook.

C. Petition/Appeal Process

Petition/Appeals by students regarding the Department's graduate programs, policies, and rules must be made in writing to the Graduate Studies Committee. If necessary, the Committee will conduct a hearing with the student and the student’s advisor. The outcome will be reported in writing to the parties involved.

Should the student decide to continue the Petition/Appeal to the Executive Committee of the Graduate Council, the Graduate Studies Committee Chair will report the Committee’s position to the Executive Committee.

III. ADMISSION

Departmental graduate admission policies and procedures follow those of the OSU Graduate School and the University. Additional specific information is listed below:

A. Criteria and Credentials

To enter the graduate program, students must have at least one semester of college level calculus, biology, microbiology, physics, chemistry through organic chemistry, and biochemistry, or have obtained the equivalent through training or experience.
The GRE general test, with appropriate evidence of performance, is required of all applicants.

Admission to graduate school is competitive. Average scores for our current students are 56th percentile verbal, 78th percentile quantitative, and 48th percentile written with an undergraduate GPA of 3.4. The minimum GPA for admission is 3.0 (on a 4-point scale) in all previous undergraduate and graduate work. Applicants with lower graduate grade-point averages may be admitted conditionally, by petition to the Graduate School. Past performance in basic science courses (math, chemistry, physics), scores in the analytical and written portions of the GRE, and recommendations from previous instructors or advisors are important criteria for admission.

Qualified students may be denied admission when their academic goals are not aligned with those of the Department or when advisors, space, or facilities to accommodate the students are unavailable.

Students who wish to transfer to the Food Science and Technology Graduate Program from another academic unit must meet the admission criteria listed above. A student wishing to transfer must submit a letter from a faculty member stating which faculty member will serve as the student's advisor. Graduate-level courses completed in the other academic units are accepted toward the Food Science and Technology degree if these courses meet the Food Science and Technology program requirements.

To apply, students must fill out an online application form and have their GRE scores, TOEFL scores (if applicable) and a copy of their official transcripts from all university-level schools attended sent directly to the OSU Graduate Admissions Office. Students will also be required to upload three (3) letters of recommendation, a current resume/CV and a Statement of Intent. The letters of recommendation should be on company letterhead. The letter of intent should describe the area of research the student would like to pursue, as well as any relevant internships or research experience.

B. Application Deadlines.

Application deadlines for admission to the Department are those set by the University. All application material must be submitted by the deadline to assure a decision regarding admission for the desired term. Complete applications received by November 30 (for international applicants) or January 7 (for domestic applicants) will be considered for university fellowship nomination.
IV. ADVISOR

A. Assignment of Advisor

Graduate students are assigned an advisor when admitted into the program. The Graduate Studies Committee Chair will serve as temporary advisor if the student does not have an assigned advisor.

When a student wishes to change his/her advisor, the consent of both the present and the prospective advisors should be obtained. The Graduate Studies Committee should be informed in writing. If consent of one or both advisors cannot be obtained, the student may petition the Committee in writing. Action of the Committee will be based on consultation with the student and his/her present and prospective advisors. The Graduate Student Petition for Change of Advisor form can be found at the end of this handout.

B. Role and Responsibility.

The graduate advisor provides counsel and advice to the student on: course selections, individual program development, selection of research and Individual Study topics, and execution of the student’s research and educational goals. The graduate advisor also assists with all other student requests that require assistance.

Early in the student's program, an additional two-member (for MS) or three-member (for PhD) Advisory Committee will be appointed upon recommendation of the advisor and student and approval of the Graduate Studies Committee. The Advisory Committee serves to: (1) approve the student's course program and changes in the program; (2) consult on progress in research; and (3) participate on the student's Examination Committee. All students must have their course program approved by their Advisory Committee before the end of their first term of enrollment. A copy of the approved course program must be provided to the Graduate Studies Committee Chair. Students who fail to meet this requirement will be denied further registration.

V. COURSE REGISTRATION AND SCHEDULING

The Department's rules with respect to registration, scheduling, course load, and changes in schedule are the same as those stated in the Graduate School Handbook. Throughout this document, credit hours refers to graduate-level credits only (5000 and above in FST, 4000 and above in other departments). Undergraduate credits do not meet department or University requirements for graduate programs. English as a second language courses (any courses in EDUTL) do not count towards the department requirements.

In this Department, 18 credit hours per semester is considered a full-time course load. All Graduate Fellows, GRAs and GTAs must enroll for 18 credit hours per semester (Fall and Spring) and for 8 credit hours during the Summer term (including May and Summer sessions).
The Department shall maintain a file on each student and it must contain: all application materials; a record of the student's academic performance at The Ohio State University; copies of the approved course schedule and research proposal; copies of all official correspondence and forms from, to, or about the student from the advisor, the Graduate Studies Committee, the Department, the Graduate School, and other faculty members and administrative units of the University.

VI. COURSE CREDIT, MARKS, POINT-HOUR RATIO

A. Course Credit

Rules in the Graduate School Handbook apply.

B. Marks (Grades)

Rules in the Graduate School Handbook apply with the exception that EM credit may be earned only in undergraduate courses. EM credit will be awarded for grade B or better performance.

All formal courses offered by the Department, Group Studies and Seminar are graded A-E. All Individual Studies and Research courses are graded S/U.

Credit for work at other institutions may be transferred as outlined in the Graduate School Handbook.

C. Point-Hour Ratio.

Rules in Graduate School Handbook apply. A course may be repeated with the advisor's approval when mastery of the subject matter is critical to the student's performance in major area courses and research, or if the grade in the course was the result of absence beyond the student's control.

A Fresh Start option may be granted to students enrolling after a five-year absence upon petition to the Graduate Studies Committee.

VII. ACADEMIC STANDING

Rules in the Graduate School Handbook Academic and Professional Standards apply with respect to good standing, probation, dismissal, reinstatement, reasonable progress, and denial of further registration.
A. Required committee meetings.

With regard to reasonable progress, a course program must be developed and approved by the Advisory Committee within the first term of the student's program. This course program should identify likely dates for Preliminary, General, and Final Oral Exams, as well as the expected graduation time. The student and advisor are expected to meet regularly to determine goals for Thesis/Dissertation research progress. A student who meets or demonstrates good faith in reaching established goals in coursework and research is considered to be making reasonable progress.

B. Internships.

Any internships must be arranged with advisor approval and be accompanied by a written agreement that lists the impact of the internship on time to graduation, course credits, stipend (if applicable), proprietary information, and publication rights.

VIII. REQUIRED SAFETY TRAINING

All students, staff, and faculty are required to complete safety training their first term at OSU. The course is offered every fall during new student orientation in the Parker Food Science building, and can also be taken online at the Environmental Health and Safety web page by selecting Lab Standard Training. You are also required to complete OSU BEAP (Building Emergency Action Plans) training. Once completed you need to give the Academic Program Coordinator, and your lab safety manager, a copy of the certificates indicating you have passed. Depending on the work performed in your laboratory, you may be required to go through additional safety training.

IX. REQUIRED HUMAN SUBJECTS APPROVAL

If you want to conduct human research at OSU, you MUST first pass an online course and obtain approval from the Office of Responsible Research Practices. Human research includes surveys, taste tests, and other related activities. There are 3 levels of review a study involving humans can undergo: full-board, expedited, and exempted. Only a few categories of research qualify as exempted research. Fortunately, most surveys or sensory evaluation studies falls into the category of exempted research. Specifically, much of this work falls into category #6, which is defined as:

Taste and food quality evaluation and consumer acceptance studies,
\[ \text{a. if wholesome foods without additives are consumed; OR} \]
\[ \text{b. if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the Food and Drug Administration or approved by the} \]
Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture.

HOWEVER, just because your proposed research falls into the "exempted" category, this does not mean that you do not need to obtain approval. YOU cannot decide your proposal is exempt, you can only suggest that it should be. It is up to the ORRP to determine if it actually is. Their policy is summarized in the following quote, taken from their website:

“Research involving human subjects may be exempt from federal regulations requiring IRB review. The Ohio State University Human Research Protection Program (HRPP) is responsible for determining whether research involving human subjects meets the criteria for exemption in accordance with applicable regulations. Investigators may not make this determination”.  

Exempt research is generally short term in nature. It usually is performed "as written," meaning the investigators do not plan to make changes in the research design, the selection of subjects, the informed consent process, or the instrumentation during the course of the study.

A determination that research is exempt does not absolve the investigators from ensuring that the welfare of human subjects participating in research activities is protected, and that methods used and information provided to gain subject consent are appropriate to the activity. Investigators may not solicit subject participation or begin data collection until they have received approval from the appropriate Institutional Review Board OR written concurrence that research has been determined to be exempt.

If you are going to conduct research on humans, you MUST take and pass a web-based course. This applies to the faculty advisor AND the graduate student performing the test. This course can be accessed from: http://orrp.osu.edu/irb/training/citi.cfm. The actual course is located at www.citiprogram.org. You have to create a username and password to enter the site and your employee number (found on your pay stub; if you do not have an employee ID# put eight zeros (00000000) for employee ID#) is required to sign up. For most people in this department who conduct taste tests and surveys, it will be sufficient to complete the basic course for social and behavioral researchers (group 2). More advanced nutrition studies may require completion of the biomedical course (group 1). A refresher course is required every 3 years. The entire course takes 2-3 hours but is broken down into modules and you can enter and exit the site as often as you like if you do not want to complete it all at once.

To apply for Exempted Approval, you will need to download the Exempt Application Form. Specific questions regarding exempt applications should be directed to Cheri Pettey (Phone: 614-688-0389 / E-mail: pettey.6@osu.edu). Allow three weeks for processing of this application.

For research that is not exempt, you will need to download the "Behavioral and Social Science Research" form at: http://orrp.osu.edu/irb/initialreview/index.cfm. Questions regarding this form should be directed to exemptinfo@osu.edu or Phone (614) 688-0389, fax (614) 688-0366.
X. MASTER'S DEGREE PROGRAMS

Rules governing the Department's Master's Degree Programs are outlined in the Graduate School Handbook. The FST graduate program does not have a foreign language requirement. Specific conditions are stated below.

A. Program of Study

The student must have an advisor and an Advisory Committee. The Advisory Committee typically consists of 3 members of the graduate faculty, including the advisor. At least one of these committee members must be a full (not adjunct or courtesy) member of the Food Science and Technology department. Once the student and his/her advisor agree on a list of courses, the student will meet with his/her Advisory Committee to discuss and approve the course outline. This is also a good opportunity to discuss research plans with the committee. This course plan must be approved by the student’s Advisory Committee and submitted to the Graduate Studies Coordinator before the end of the first term of enrollment. Please, use the Course Plan form at the end of this handout. Students from non-traditional backgrounds can propose alternative course plans that vary from A through E below, and these are subject to approval by the Graduate Studies Committee. There are two options for the M.S. degree: M.S. Thesis and M.S. Non-thesis. Most students, and all students receiving a stipend or fellowship, pursue the M.S. Thesis degree. Other students, including part-time students, may choose to pursue an M.S. Non-thesis degree, which is a terminal degree and cannot be followed up with a Ph.D. degree.

M.S. Thesis

Students in the M.S. thesis program must take a minimum of 12 semester course credit hours in the Food Science and Technology Department, a minimum of 20 semester course credit hours at The Ohio State University, and a minimum of 30 total semester credits (including FST 7999 Thesis Research). Any credits taken under the quarter system are multiplied by 2/3 to calculate the number of credits under the semester system. Courses from FST must be 5000 level or above, and courses from other fields should be 4000 level or above to receive graduate course credit. Students must register for the 10XX section of those courses for them to count towards graduate course credit. Sections identified with a 00XX number are undergraduate level only. In addition, a minimum of 4 credit hours should be 6000 level and above with at least 2 of those being from FST. FST 7193/8193 (individual studies), and 7999/8999 (research credits) do not count toward the course credit requirements. English as a second language courses (any courses in EDUTL) do not count toward the graduate course credit requirement.

All students who plan to obtain a graduate degree from our Food Science and Technology graduate program must achieve a minimum competency in the following 5 categories. This competency can be achieved by a passing grade (B or higher) in at least one course from each of the following 5 categories, or is demonstrated by equivalent knowledge acquired from other sources such as: a similar course completed elsewhere, demonstrated proficiency, or real world practical experiences. The equivalence must be indicated in the course plan by the student’s advisor and approved by the Advisory Committee. Courses listed below with no prefix are in the following:
Food Science and Technology department. Courses below the 4000 level do not receive graduate credit but can add competency.

A. Chemistry: 5600, 5610  
B. Engineering and Processing: 5400, 5410, 5420, 5430, FABENG 3481, or MEATSCI 4510  
C. Microbiology: 5536  
D. Nutrition and Biochemistry: HUNTR 2310, HUNTR 4609, BIOCHEM 4511  
E. Integrated: 5710, 5720, 5730

Every student must take FST 8991 Seminar twice: once in the Autumn semester and once in the Spring semester. Students should take the autumn seminar their first autumn, and the spring seminar their second spring. Students will be presenting their research data during the spring seminar. It is highly recommended that all students take a statistics course.

Once the student and his/her advisor have agreed upon a list of courses, the student will meet with his/her Advisory committee to discuss and approve the course outline. This meeting must take place during the first term of enrollment. The course plan form (found at the end of this handout) will be approved by the Advisory committee and submitted to the Academic Program Coordinator.

**M.S. Non-thesis**

Students in the M.S. Non-thesis program must take a minimum of 14 semester course credit hours in the Food Science and Technology department, a minimum of 26 semester course credit hours at The Ohio State University, and a minimum of 30 total credit hours. Included in the 30 total credit hours are 4 credit hours of independent study, FST 7193. Any credits taken under the quarter system are multiplied by 2/3 to calculate the number of credits under the semester system. Courses from FST must be 5000 level or above, and courses from other fields should be 4000 level or above to receive graduate course credit. Students must register for the 10XX section of those courses for them to count towards graduate course credit. Sections identified with a 00XX number are undergraduate level only. In addition, a minimum of 4 credit hours should be 6000 level and above with at least 2 of those being from FST. English as a second language courses (any courses in EDUTL) do not count toward the course credits. FST 7193/8193 (independent studies) and 7999/8999 (research credits) do not count toward the course credits. M.S. Non-thesis students may not receive a graduate stipend or fellowship.

All students who plan to obtain a graduate degree from our Food Science and Technology graduate program must achieve a minimum competency in the following 5 categories. This competency can be achieved by a passing grade (B or higher) in at least one course from each of the following 5 categories, or is demonstrated by equivalent knowledge acquired from other sources such as: a similar course completed elsewhere, demonstrated proficiency, or real world practical experiences. The equivalence must be indicated in the course plan by the student’s advisor and approved by the Advisory Committee. Courses listed below with no prefix are in the Food Science and Technology department. Courses below the 4000 level do not receive graduate credit but can add competency.
A. Chemistry: 5600, 5610
B. Engineering and Processing: 5400, 5410, 5420, 5430, FABENG 3481, or MEATSCI 4510
C. Microbiology: 5536
D. Nutrition and Biochemistry: HUNTR 2310, HUNTR 4600, BIOCHEM 4511
E. Integrated: 5710, 5720, 5730

Every student must take FST 8991 Seminar twice: once in the Autumn semester and once in the Spring semester. Students should take the autumn seminar their first autumn, and the spring seminar their second spring. Students will be presenting original research data (their own data when possible) during the spring seminar. It is highly recommended that every student take a statistics course.

Once the student and his/her advisor have agreed upon a list of courses, the student will meet with his/her Advisory committee to discuss and approve the course outline. This meeting must take place during the first term of enrollment. The course plan form (found at the end of this handout) will be approved by the Advisory committee and submitted to the Academic Program Coordinator. Students from non-traditional backgrounds can propose alternative course plans that vary from A through E above, subject to approval by the Graduate Studies Committee.

B. Plans, Requirements, Time Limit.

As indicated above, the Department offers the M.S. Thesis and M.S. Non-thesis, for which a minimum of 30 semester credit hours are required. Normally, students pursuing M.S. Thesis can expect to take 40-60 credit hours of research in addition to the required hours of course work.

There are no teaching or internship requirements for this Department’s graduate students. However, to the extent possible, students who have GRA appointments are expected to assist with teaching for at least one semester per year.

Graduate students who wish to transfer to this Department from other institutions must complete 80% of their credits at The Ohio State University. All students must register for at least 3 credit hours during the semester of graduation.

If credits are being transferred from another university to count toward a graduate degree, they should be transferred at the time the student is admitted but no later than the end of the second term of enrollment in the Graduate School.

The overall time limit for acquiring a M.S. Degree in Food Science and Technology is five (5) years.

C. Master’s Examination and Thesis.

The term you expect to graduate you will need to submit an Application to Graduate to the Graduate School, signed by your advisor and the Graduate Studies Committee Chair, no later
than the third Friday of that term. Students will need to update the copy of their approved course plan and get their advisor’s signature indicating that the course plan was completed in order to get the GSC chair’s signature on the Application to Graduate.

The Examination Committee for the M.S. degree in Food Science and Technology consists of at least three faculty members, including the candidate's advisor. Normally the student's Advisory Committee constitutes the Examination Committee. Changes in the Examination Committee may be made upon request from the student, advisor, or members of the Graduate Studies Committee and with the approval of the Graduate Studies Committee.

The student must submit a copy of their thesis to their committee, either electronically or printed, and announce their public exit seminar a minimum of 7 days before their defense.

**M.S. - Thesis**
The M.S. thesis examination begins with a research presentation. The presentation should be announced at least 7 days in advance and will be open to the public. The presentation lasts a maximum of 45 minutes and includes a 20-35 minute presentation followed by a maximum of 10 minutes of questions. The exam continues with a closed-door examination by the student’s committee, lasting 60-90 minutes. The start of the presentation to the end of the examination is two hours. The committee is required to attend the entire exam, including the presentation. The closed-door portion of the exam includes a defense of the thesis and general subject matter examination. The subject matter portion covers principles of food science and/or nutrition, which should be familiar to the candidate from course work.

**M.S. Non-Thesis**
The M.S. non-thesis examination consists of a four-hour written section and an oral examination, including a public presentation. The written portion is designed to test the student's knowledge of food science and other subject matter when a substantial portion of the student's program has consisted of outside courses. The questions are submitted by faculty members to the student’s advisor, who prepares and administers the examination. The student's answers are evaluated individually by the faculty members who have submitted the questions and overall by the Examination Committee.

The M.S. non-thesis examination begins with a presentation. The presentation can be on the research project or a literature review, should be announced at least 7 days in advance, and will be open to the public. The presentation lasts a maximum of 45 minutes and includes a 20-35 minute presentation followed by a maximum of 10 minutes of questions. The exam continues with a closed-door examination by the student’s committee of no less than 1 hour. The start of the presentation to the end of the examination is two hours. The committee is required to attend the entire exam, including the presentation. The closed-door portion of the exam includes a defense of the student's individual study project review. A typewritten synopsis of the project, with premise, objectives, procedures, and results, must be submitted to the members of the Examination Committee 7 days prior to the scheduled examination date. The remainder of the oral examination is devoted to subject matter for clarification and supplementation of answers to the written questions.
Other rules of the Department with respect to the M.S. examination and the thesis, including judgment and decisions on the student's performance, are covered in the Graduate School Handbook.

XI. DOCTORAL DEGREE PROGRAMS

The rules outlined in the Graduate School Handbook apply specifically to the Department's Doctorate Degree programs. Selected rules and conditions are highlighted as follows:

A. Program of Study

The Food Science and Technology Department offers programs leading to the Doctoral Degree. Students entering the Ph.D. program are expected to hold an M.S. Degree; however, direct admission to the Ph.D., and transfer from the M.S. program without completing the M.S., may occur with permission of the Graduate Studies Committee. The petition from the advisor must include the advisor’s recommendation and proof of research experience. The current GPA of the student must be over 3.5. The student should have been enrolled in the OSU FST M.S. program for less than a year to transfer into the Ph.D. program. Students entering the Ph.D. program without an M.S. degree are expected to complete the course and total credit requirements for both an M.S. and Ph.D. in FST at OSU.

The student will select a program of courses early in his/her career in consultation with his/her advisor. This course plan should use the format found at the end of this handbook and must be approved by the student’s Advisory Committee and submitted to the Academic Program Coordinator before the end of the first term of enrollment. The course plan should identify probable dates for proposal, candidacy, and final oral examinations. The advisory committee consists of 4 members of the graduate faculty. At least one of these committee members must be a full (not adjunct or courtesy) member of the Food Science and Technology department.

The Department does not have language or internship requirements for graduate students. However, Ph.D. students must participate in the laboratory instruction program at least twice before graduation; see the section on teaching. Students are allowed to pursue internship opportunities with preapproval; see the section on internships.

Doctoral Degree Course Requirements

Students in our doctorate program must take at least 80 total semester credits at OSU, which includes 8999 (research) credits, or 50 total credits if they have transferred credit for their M.S. Students entering the Ph.D. program with an M.S. from another university can request that 30 credit hours from their M.S. program be counted toward the 80 semester hours needed for the Ph.D. This request should be made during the first term of attendance at OSU but must be made before the end of the second term.
Ph.D. students are required to take at least 20 semester course credits at OSU beyond their M.S. degree, and at least 12 of these must be in FST at OSU. Any credits taken under the quarter system are multiplied by 2/3 to calculate the number of credits under the semester system. FST 7193/8193 (independent studies), and 7999/8999 (research credits) do not count toward course credits. English as a second language courses (any courses in EDUTL) do not count toward the course credits. Students must meet the same minimum competencies as an M.S. student. See the M.S. competency requirements for the 5 categories.

In addition, Ph.D. students are required to achieve a passing grade (B or higher) in at least 8 credits from 6000 and 7000 level courses. At least 4 of these credits must be in the FST department. It should be noted that the 7000 level courses are not intended to fulfill the minimum competency requirements for the M.S. degree. Seminars do not count toward the required 6000 and 7000 level course credits. Each student must take FST 8991 Seminar twice: once in the Spring Semester and once in the Autumn Semester. Students should take the autumn seminar their first autumn, and the spring seminar their second or later spring. Students will be presenting their research data during the spring seminar. Courses taken during the M.S. degree can be used to count toward the requirements for 6000 and 7000 level courses but not toward the seminar courses.

B. Required Teaching Experience

All students graduating with a Ph.D. are expected to have teaching experience and be prepared for a possible teaching career. Students in our doctoral program are required to have participated in the departmental teaching training program at least twice before graduation. Students in this training will work closely with a faculty instructor responsible for teaching a class and participate in teaching activities as required by that particular course and instructor. Students on assistantships or other departmental funding are required to participate in the teaching training program annually, and those experiences count toward the minimum two that are required. Students not receiving any funding and graduating in 2013 are exempt from this requirement, but are strongly encouraged to participate if they plan on a teaching career.

C. Proposal Defense

Doctoral student must prepare a research proposal which will be defended before the student's Advisory Committee. The proposal must be received by the committee a minimum of one week before the exam. The proposal should focus on proposed future research and cannot include completed research, except as preliminary results. We recommend using the format of the OARDC SEEDS proposals (Graduate Research Competition OARDC SEEDS Grant Program) as a guideline, but other formats can be acceptable as long as the focus is on future work. After the proposal is defended before the Advisory Committee, a Graduate Student Approval of the Research Proposal Form must be signed and turned into the Academic Program Coordinator; a copy of this form can be found at the end of this handbook. The proposal defense must be completed within 2 years of the start of the Ph.D. program and prior to scheduling the Candidacy Examination.
D. Candidacy Examination

Students in our Ph.D. program should complete the Candidacy Examination once they have completed all of their classes. The proposal defense must be completed before the candidacy exam is scheduled. The candidacy exam cannot be attempted less than a year and a half after entry into the graduate program, unless a petition to the graduate studies committee is approved.

The objective of the Candidacy Examination is to test students’ knowledge in the food science and technology field and their ability to integrate and apply this knowledge. Students are encouraged to form study groups to prepare for the examination.

The Candidacy Examination consists of a written and oral portion. The written exam will be administered by the Examination committee, often (but not necessarily) the same as the Advisory committee. The student’s candidacy Examination committee oversees the entire exam, and the composition of the candidacy Examination committee should not change between the written and oral portions of the exam. Every Examination Committee member will submit questions and grade them. The exam can be closed book (6-8 hrs) or open book (up to 3 days). The student's answers to all questions will be photocopied and distributed to the Candidacy Examination Committee for evaluation.

If, based on evaluating the written portion, the Examination Committee members see no possibility for a satisfactory overall performance on the Candidacy Examination the student may waive the right to take the oral portion. The Examination Committee may not, however, deny a student the opportunity to take the oral portion. If the student decides to waive the right to take the oral portion, a written statement requesting the waiver (II.6.9.7.3) must be presented to the Advisory Committee. In such a case, the Examination Committee records an "Unsatisfactory" on the Candidacy Examination Report form and returns it to the Graduate School along with a copy of the student’s waiver request.

The oral portion of the exam will be administered by the Examination committee and will typically last 2 hours. The oral exam will be related to the questions in the written exam but not limited to them. The student should NOT prepare any type of presentation for the exam. The oral portion of the examination must be completed within one month after completion of the written portion of the examination.

The candidacy exam tests for a basic understanding of food science and the ability to critically analyze complex problems related to food. Therefore, the student should have a thorough understanding of food chemistry, microbiology, and engineering. At minimum, the student should have successfully completed core food science courses and should be able to effectively address candidacy exam questions relevant to these courses. The candidacy exam also tests the student's understanding of a particular specialization within the food science discipline. Familiarity with theories, research methods, and data analysis and interpretation, within the student's specialization, is essential for passing the candidacy exam.
If the candidacy exam is considered unsatisfactory, the Examination committee will provide feedback on ways to improve performance (for example, recommend additional work or classes). The student is allowed to take the candidacy exam for a second time with participation of a graduate school representative on the oral examination. In accordance with Graduate School rules, the student will be given one copy of the examination and will type the answers for the Graduate School Representative. Chemical and mathematical equations and diagrams may be hand written. The student's advisor will ensure versions of the written exam are consistent with the original handwritten version.

Graduate students must obtain their advisor’s signature on their course plan indicating that the required classes have been taken and submit the signature to the Academic Program Coordinator. This must happen before the candidacy exam is scheduled.

E. Candidacy

The Department's requirements for candidacy for the Ph.D. degree, including time limits and readmission for candidacy are listed in the Graduate School Handbook.

F. Dissertation

The student's advisor and Dissertation Advisory committee must approve the subject of the dissertation research.

Other Departmental rules governing the dissertation, including committee selection, draft approval, format, and approval and submission of the final copy are outlined in the Graduate School Handbook.

G. Final Oral Examination

During the term you expect to graduate, you will need to submit an Application to Graduate - Doctoral to the Graduate School, signed by your advisor and the Graduate Studies Committee Chair, no later than the third Friday of that term. Students will need to update the copy of their approved course plan form and get their advisor’s signature indicating that the course plan was completed in order to get the GSC chair signature on the Application to Graduate.

The student must submit a copy of their dissertation to their committee, either electronically or printed, a minimum of 3 weeks before their defense. In addition, the dissertation must be given to the committee a minimum of 1 week before the committee is asked to sign the Doctoral Draft Approval/ Notification of Final Oral Examination form.

The final oral examination begins with a research presentation. The research presentation should be announced at least 7 days in advance and will be open to the public. The presentation lasts a maximum of 45 minutes and includes a 20-35 minute presentation followed by a maximum of 10 minutes of questions. The exam continues with a closed-door examination by the student’s committee, lasting 60-90 minutes. The start of the presentation to the end of the examination is
two hours. The committee, including the graduate school representative, is required to attend the entire exam, which includes the presentation. The closed-door portion of the exam tests the student on originality, independence of thought, and ability to synthesize and interpret information. This examination is based on, but not limited to, the student’s dissertation.

Other rules pertaining to the Final Oral Examination, including selection of the Examination Committee, action by the Graduate School Representative, postponement, and the decision with respect to the student's performance and repeat of the examination, are stated in the Graduate School Handbook.

XII. GRADUATE ASSOCIATES

A. Graduate Associate (GA) Responsibilities

Graduate Associates in the Department have both teaching and research responsibilities. The GA (GTA or GRA) assists in teaching by helping with preparation for courses, grading, and conducting of laboratory experiments. The level of responsibility given to the GA depends on his/her level of experience.

The GA assists in research by performing work as assigned by the faculty member in charge of the project. This faculty member also usually serves as the student's advisor. The commitment is 20 hours per week, 52 weeks a year, excluding federal holidays. The research performed may or may not be part of the student’s thesis.

In addition to their research and teaching responsibilities, GAs are expected to take classes toward their degree. See the section on course requirements.

Performance evaluations of GAs are made by the major advisor and reported to the Department Chair. The evaluations are used in determining annual stipend increases.

B. Eligibility Requirements

A student must be registered for 18 credit hours in order to be eligible to be a GA. Students are only paid as a GA if they are registered for 18 credit hours.

Normally, to be eligible for a GA appointment, a student must pursue a graduate degree in a Departmental program. Students pursuing a graduate degree in other OSU departmental programs may be considered when positions cannot be filled from within the Department due to a lack of students or a specific expertise among the students.

If a student’s GPA falls below 3.0, any department assistantship will end immediately, including the tuition payment.
Graduate students admitted conditionally are not eligible for GA appointments until they achieve or are nearly achieving Regular status.

Other rules of GA appointment eligibility are listed in the Graduate School Handbook.

C. **Terms of Appointment**

The majority of GA appointments are for three terms. Appointments for less than a year or less than 50% are not allowed except by petition to the Graduate Studies Committee and Graduate School. Offers of appointment and reappointment are made in writing at the beginning of every autumn semester or as early as possible prior to the start of the appointment. The offer shall include a statement of the general responsibilities associated with the appointment.

D. **Stipends**

Stipends for new and renewed GAs in the Department are determined according to the University's annually established levels.

Instruction and general fees and non-resident fees, when applicable, are authorized by the department or University for all GAs on at least a 50% appointment, for the duration of the appointment.

E. **Other Forms of Financial Support, Including Outside Jobs.**

All graduate students on a 0.50 FTE or higher paid appointment (GRA, GTA, or Fellowship) may not have any other employment. Exceptions are by advisor petition to the Graduate Studies Committee. Exceptions for Fellows also require Graduate School approval. International students should check with the Office of International Education to determine their eligibility.

Fellowships for qualified applicants are available from the Ohio Agricultural Research & Development Center (OARDC) and the OSU Graduate School. Occasionally, the Department has a need for graduate students to perform part-time service anywhere from one week to a few months. Students who are not appointed as GAs are offered the opportunity to fill this need at an hourly pay-rate equivalent to the minimum GA stipend, however these assignments do not provide fee authorizations.

F. **Criteria for Reappointment or Termination of GA**

The Department's criteria for reappointment or termination of GAs are listed in the Graduate School Handbook.

G. **Grievance Procedures**

Grievance procedures are handled as stated in the Graduate School Handbook.
H. Benefits

Benefits for GAs in the Department are listed in the Graduate School Handbook.

Specifically, with respect to Time Off, GAs who have been assigned to assist with laboratory classes are expected to report to the Instructor in charge one week before the beginning of the semester.

GAs who are appointed to research assignments are expected to work during the semester breaks. Such GAs are entitled to 10 working days of Time Off following one full year of service. Time Off cannot be accrued.

XIII. DESK ASSIGNMENTS

The Graduate Studies Committee assigns students to desks in the common areas of 266 Parker and 48 Howlett. The desks in 220, 230, 240, 320, 330, 340 Parker and 48, 59D, 144A Howlett will be assigned by priority to the professors proximate to the lab. However, if any of the desks, including half circle desks, in any given semester are not assigned to a full time graduate student pursuing a degree in the Department, these desks can be reassigned. The relevant professor will be notified before the assignment is made so that they have the option of first rearranging their other students. Once that student is assigned, they should not be asked to move until they graduate, unless the student requests another desk.

XIV. OUTSTANDING TEACHING ASSISTANT AWARD

Objectives:

- To motivate and encourage graduate students to contribute to our excellent teaching program for our students.
- To provide graduate students the teaching opportunity experience and the advantages of award recognition for obtaining academic faculty positions after their graduate study.

Selection Criteria:

Graduate students assisting with laboratory instruction should be nominated and evaluated by students for the award. There will be two categories of recognition: (1) the Departmental Teaching Award with an individual plaque, name on the Departmental Award Display Plaque, and cash award of $500; and (2) the Teaching Award of Merit. The Departmental Teaching Award will be given to student(s) with 80% of the students rating them in the top 25% and 70% of the students voting “yes” to the candidate who deserves the award. The Teaching Award of Merit will be given to all students with 70% of the students rating them in the top 25%, and 60% of the students voting "yes" to the candidate who deserves the award.
**Evaluation Sheet:**

(1) Ranks among TAs at the University:  
Top 5%, Top 25% Top 50% Below 50%

(2) Should the nominee receive award? Yes ? No

A student can receive a maximum of two teaching awards during their entire graduate study.

Nominations should be submitted to the Chair, Graduate Student Teaching Award Committee. The Chair should solicit nominations through memo and e-mail by the second and seventh week of the semester.

The Department Chair and Chair of the Graduate Student Teaching Award Committee will present the award to the winner in his/her classroom the end of the semester.

**Evaluation:**

The student evaluation will be administrated and tabulated by a staff member. The staff member should keep records until the end of the following semester. Copies of the evaluation results will be sent to the students to assist them in maintaining their strengths and improve their weaknesses.

**XV. OUTSTANDING RESEARCH AWARD**

**Objective:**

- To motivate and encourage graduate students to publish high quality research in a timely manner.

**Selection Criteria:**

- **M.S. candidate:**
  - 2 1/2 years after starting M.S. program—2 accepted publications.

- **Ph.D. candidate with M.S. degree:**
  - 4 years after starting Ph.D. program—4 accepted publications.

- **Ph.D. candidate without M.S. degree:**
  - 5 years after starting Ph.D. program—4 accepted publications.

**Journal and Paper criteria:**

Original papers or reviews in peer-review journals or book chapters in food science and related publications. The Research Award Committee will decide the appropriateness of the work if there is any uncertainty.
Awards:
1. Individual Plaque and $500 Cash Award
2. Departmental Award Display Plaque

Award selection: Any student who meets the selection criteria will receive the award

Implementation: Effective immediately

XVI. OTHER COMPETITIONS, AWARDS AND RECOGNITION

As a part of our graduate student program, students will have many opportunities to participate in competitions and be recognized for their excellence. Some of those opportunities, which are open to all our students, are highlighted below. While the exact dates will change each calendar year (and can be checked using the links provided), the general timeline will remain the same.

Hayes Forum
The Edward F. Hayes Graduate Research Forum is co-sponsored by the Council of Graduate Students, the Graduate School, and the Office of Research. The competition takes place each year during Spring semester. The benefits of participating in this competition are as follows:

- Encourages graduate students to share their research with the academic community
- Recognizes outstanding graduate student research at Ohio State
- Facilitates exchange between students, faculty, administration, and the public
- Provides a significant professional development experience for graduate students

OARDC poster competition
This poster competition takes place in conjunction with the annual OARDC Research Conference which, in 2013, occurred on April 25. The poster title and abstract submission deadline was March 5 (online). Posters (in PDF format) needed to be submitted online by March 15.

OARDC grants competition
The OARDC Research Enhancement Competitive Grants Program, Graduate Research Competition, provides funding for innovative research relevant to Ohio’s Agriculture. The next round of applications will be due on February 4, 2014. Please visit the OARDC SEEDS website to view FY 2013’s application and eligibility requirements.

IFTSA
IFT Student Association Competitions provide student members of IFT the unique opportunity to compete individually or on teams. Competition details are found in the IFTSA website.
<table>
<thead>
<tr>
<th>COMPETITION/AWARD</th>
<th>DEADLINE (2014)</th>
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<tbody>
<tr>
<td>Chapter of the Year</td>
<td>May 1</td>
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<tr>
<td>College Bowl</td>
<td>Contact area rep - TBD</td>
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<td>Developing Solutions for Developing Countries</td>
<td>January 15</td>
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<tr>
<td>Disney - IFTSA Product Development Competition</td>
<td>February 15</td>
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<tr>
<td>Excellence in Leadership Award</td>
<td>March 1</td>
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<tr>
<td>Heart Healthy Product Development Competition</td>
<td>January 7</td>
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<tr>
<td>IFTSA &amp; Mars Product Development Competition</td>
<td>February 1</td>
</tr>
<tr>
<td>Graduate Research Paper Competition</td>
<td>January 8</td>
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<tr>
<td>Undergraduate Research Paper</td>
<td>March 1</td>
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</table>

**IFT Graduate Research Paper Competition**

IFT, in coordination with Phi Tau Sigma, hosts an annual Graduate Research Paper Competition. This year the deadline to submit paper is January 8, 2014. Students entering the competition must be IFT members by the date of submission. Please see the IFT website ([www.ift.org](http://www.ift.org)) for details.

**OVIFT poster competition**

The Ohio Valley section of the IFT sponsors a student poster competition, typically held in March or April, together with the OVIFT Suppliers Expo or the Annual OVIFT Symposium. Submission of a poster abstract has traditionally been due about 10 days prior to the event. Information about opportunities for students through OVIFT can be found at [OVIFT web-site](http://www.ift.org).

**Russell Klein OSUN poster and oral competition**

This competition takes place in during the spring. Information about entering the completion is announced at the beginning of the Spring semester in the blog posts of the Council of Graduate Students which can be found at [http://cgs.osu.edu/blog/](http://cgs.osu.edu/blog/).
**Department of Food Science and Technology**

**MS Course Plan** to be completed the first term of enrollment and filed with the Academic Program Coordinator for (Student’s Name): ____________________________ Date: __________

Committee Members: ____________________________ (Adviser)
(type and sign) __________________________________________

I. List the courses to be taken each term, as well as research credit hours. Each semester the credits should add up to 18 (for full time status), or 8 credits for Summer term. Include expected graduation.

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<th>Term</th>
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Total # of course credit hours (at least 20): ______

Total # of credits for degree (at least 30): ______

Write below what FST courses or equivalents that will fulfill the 5 competencies requirements:

<table>
<thead>
<tr>
<th>Competency</th>
<th>food chemistry</th>
<th>engineering/processing</th>
<th>microbiology</th>
<th>nutrition and biochemistry</th>
<th>integrated</th>
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<tr>
<td>Course</td>
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II. During the term you expect to graduate, you will need to submit an Application to Graduate to the Graduate School. Bring an updated copy of this course plan with your advisor’s signature below in order to get the GSC chair signature on the Application to Graduate.

The student has completed his / her coursework as approved by the advisory committee

__________________________________________      _______________
(Major advisor)                                date
Ph.D. Course Plan to be completed the first term of enrollment and filed with the Academic Program Coordinator for (Student’s Name): ___________________________ Date: __________

Expected Area of Research: _____________________________________________________________

By signing below, the Advisory Committee approves the student’s proposed course work:

Committee Members: ____________________________________________________________ (Advisor)
(type and sign)

I. Write below what FST courses or equivalents that will fulfill the 5 competencies requirements:

<table>
<thead>
<tr>
<th>Competency</th>
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<th>engineering/processing</th>
<th>microbiology</th>
<th>nutrition and biochemistry</th>
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II. TRANSFERRED CREDITS: If you completed an M.S. degree and plan to use some of those credits towards your 80 credit minimum requirement for our Ph.D. program, list those courses below (max of 30 M.S. credits can be transferred). Grades must be B or higher to count. If you are choosing this option, make sure to fill the proper paperwork with the Graduate School.

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<th>Course from MS:</th>
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TOTAL

Total number of credits from M.S. to count towards the Ph.D.: ______

M.S. GPA: ________

III. List courses and research credits planned per term. Include expected terms for proposal defense (must complete by the 2nd year and before the candidacy exam), candidacy exam (after courses are completed) and graduation. Before candidacy, total credits should be 18/semester or 8/Summer (for full time status). After candidacy, total credits should be 3.
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<td>Total course credit hours (at least 20 after MS):</td>
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<td>Total credits for degree (at least 80):</td>
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IV. The term you expect to graduate you will need to submit an Application to Graduate to the Graduate School. Bring an updated copy of this course plan with your advisor’s signature below in order to get the GSC chair signature on the Application to Graduate.

The student has completed his/her coursework as approved by the advisory committee

_________________________  ____________
(Major advisor)            date
Graduate Student Research Award
Application Form

Date: __________________

Student Name: __________________

Advisor: ________________________ Advisor signature: __________________

Thesis or Dissertation Title: ____________________________________________

Starting Date for Graduate Program (Transcript Record)

M.S.: ________________________ Ph.D: ________________________

Attach a copy of the published paper, galley proofs, or an acceptance notification.

Selection Criteria: (Publications from M.S. work do not count toward Ph.D criteria)

M.S. candidate:

2 1/2 years after starting M.S. program—2 accepted publications:

Ph.D. candidate with M.S. degree:

4 years after starting Ph.D. program—4 accepted publications.

Ph.D. candidate without M.S. degree:

5 years after starting Ph.D. program—4 accepted publications.

To be submitted to Chair, Research Award Committee
Graduate Student Approval of the Research Proposal Form

According to the FST Graduate Program Handbook, all Ph.D. candidates are required to prepare and defend, within 2 years of starting their Ph.D. program, a research proposal before their Advisory Committee. This must be done prior to the Candidacy Examination.

This form certifies that (Ph.D. candidate’s name) ______________________________________________________

has satisfactorily completed the Proposal Defense on _______________ date

Proposal Title: ________________________________________________________________

Advisory Committee:

____________________________________________________________
Signature - ADVISER date

____________________________________________________________
Signature date

____________________________________________________________
Signature date

____________________________________________________________
Signature date

____________________________________________________________
Signature date

Please give a copy of this form to your advisor and to the Academic Program Coordinator.
Graduate Student Petition for Change of Advisor Form

Students may submit a change of advisor petition for consideration to the Graduate Studies Committee. If approved, an advisor change will occur at the end / beginning of a term. This form must be turned in to the graduate program at least a week before the change becomes effective. The student should be aware that changing advisors may affect funding and their graduation timeline. The student is responsible for securing the signature of the new advisor and turning the petition into the Academic Program Coordinator.

This form certifies that (student’s name)________________________________________________________
currently advised by (current advisor) __________________________________________________________
will be advised by (new advisor) ________________________________________________________________
effective (term / year) ________________________________

________________________________________________________________________________________
Student’s signature date

________________________________________________________________________________________
New Advisor’s Signature date

________________________________________________________________________________________
Graduate Studies Chair Signature date

________________________________________________________________________________________
Signature date

Please give a copy of this form to the Academic Program Coordinator.
Evaluation of
Public Seminar, Thesis or Dissertation, and Defense

Circle One: M.S.  Ph.D.

Name of Student: _____________________________________________

Please rate each attribute on the following scale:
  5 rating = exceptionally competent
  4 rating = highly competent
  3 rating = competent
  2 rating = somewhat deficient
  1 rating = strongly deficient
  N/A = unable to determine

(Please evaluate all of the criteria.)

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Rating</th>
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<tbody>
<tr>
<td>Understanding of basic principles of chemistry</td>
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<tr>
<td>Understanding of basic principles of microbiology</td>
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<tr>
<td>Understanding of basic principles of process engineering</td>
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<td>Analysis &amp; application of information in chemistry, microbiology and process engineering</td>
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<tr>
<td>In depth review of the literature related to the research problem</td>
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<td>Literature is appropriately related to the research findings</td>
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<td>Quality of the research results</td>
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<td>Defense of the research results</td>
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<td>Quality of the oral presentation</td>
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<td>Quality of the written thesis or dissertation</td>
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<td>Overall assessment</td>
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</table>

Comments:

At the conclusion of the defense, each committee member should fill out this response sheet. Comments are optional to explain the reasoning behind the scores provided. This document must be completed regardless of the outcome of the defense. Completed forms are to be turned in to the Academic Program Coordinator, not the student.
Graduation Checklist: This is a typical graduation plan. See the [FST Graduate Student Handbook](#) and [Graduate School Handbook](#) for complete details.

- **Form and meet with Advisory Committee to approve course plan before the end of the first term. Submit copy of signed course plan to the Academic Program Coordinator.**

- **Meet with advisory committee occasionally to discuss research progress.**

- **Maintain a GPA higher than 3.0.**

- **If on a GRA, fellowship, or other stipend, register for 18 credits per semester, and 8 in Summer.**

- **Enroll in seminar (FST 8991) two times, once each in Autumn and Spring.**

- **For PhD, pass your Proposal Defense before the end of the second year and before scheduling your candidacy exam. Give your proposal (focused on future work) to the committee a week before the exam. Submit signed Proposal Defense form to the Academic Program Coordinator.**

- **For Ph.D., complete candidacy exam.**
  - Form your Examination Committee, usually the same as your Advisory Committee.
  - Normally all of your classes in your course plan should be completed.
  - Take the written examination, coordinated by your advisor, a month before the oral exam.
  - Submit date for the oral portion of the candidacy exam to the graduate school at least two weeks before the exam, using this form: [Notification of Doctoral Examination](#).
  - After passing the exam, submit signed Candidacy Examination Report form to the graduate school with a copy to the Academic Program Coordinator.
  - Please note that the candidacy exam must be completed at least two semesters prior to graduation.

- **Complete at least 30 total and 20 course credits for MS, 80 total and 20 course credits for a PhD.**

- **Submit research results for publication.**

- **Submit Application to Graduate form ([Graduate School Forms](#)), signed by the Grad Studies Committee Chair to the Grad School at the start of the term you intend to graduate (no later than the third Friday of that term) with copy to our Academic Program Coordinator. You will need to update your course plan to indicate that you completed your approved course plan. DO NOT mail this form unless you allow a week for delivery. If you are unable to graduate that term, notify the Graduate School promptly.**

- **Submit thesis or dissertation to your research committee at least 1 week (M.S.) or 3 weeks (Ph.D.) before the date of the final oral exam. For Ph.D., this gives the committee 1 week to read it before they sign the Draft Approval form ([Graduate School Forms](#)). Have the thesis or dissertation checked by the Graduate School for formatting, according to the rules in the [Graduate School Handbook](#).**

- **For PhD, submit Dissertation Draft Approval form, signed by your committee, to the Graduate School at least two weeks before the final oral exam. Give our Academic Program Coordinator a copy.**

- **Pass final oral exam, and submit the Final Oral Examination or Master’s Examination Report form to the Grad School with a copy to the Academic Program Coordinator by the deadline (about 10 days before the last day of class, depending on the term.)**

- **Submit final, bound thesis to your advisor. Submit Final or Thesis Approval form and fees to the graduate school by the deadline (near the last day of class, depending on the term.)**

- **Submit thesis or dissertation electronically. Instructions at [Graduate School Forms and Guidelines](#).**

- **GRAs end the last day of December, April or August. Get approval before accepting work before that date. If you will continue to work at OSU after graduation and you are not registered as a student, you must be appointed to an hourly or salaried appointment. International students must resolve I-20 & practical training issues.**