# Graduate Handbook

# 2024-2025











#### Vision

OSU Food Science & Technology is a primary resource for food science knowledge, research, innovation, and talent in the Pacific Northwest and beyond.

#### Mission

Our mission is to provide relevant, cutting-edge training in food science and technology, and perform world- class research, within a supportive framework that values diversity. Specifically, we aim to:

- Develop knowledgeable critical thinkers who contribute to the food community through leadership, service, and life-long learning.
- Conduct relevant and impactful basic and applied research that proactively address challenges important to Oregon and the world.
- Lead and advocate for programs that promote growth for our industry partners and provide positive community impact.

This "Graduate Handbook" is intended to outline the requirements specific to the M.S. and Ph.D. degrees in Food Science and Technology (FST). Some of the information in this document may be found in further detail in the on-line "Graduate Catalog" <a href="https://catalog.oregonstate.edu/college-departments/graduate-school/">https://catalog.oregonstate.edu/college-departments/graduate-school/</a> Some information that is applicable to all University Graduate program may be found only in the "Graduate Catalog" and is not repeated here. The on-line "OSU Graduate Student Success Guide" is a resource from the Graduate School to aid students in adjusting and complying with University requirements. The Food Science and Technology Program check-off sheets (found in the appendix to this handbook) are intended to aid students in complying with FST departmental requirements and deadlines.

Graduate students should obtain or review the following publications or resources:

- 1. The Food Science and Technology "Graduate Handbook" -
- 2. **VERY IMPORTANT TO USE**: OSU Graduate Student Success Guide on the web at https://gradschool.oregonstate.edu/current-students
- 3. The Oregon State University Graduate Catalog. ONLY on the web at <a href="https://catalog.oregonstate.edu/college-departments/graduate-school/">https://catalog.oregonstate.edu/college-departments/graduate-school/</a>
- 4. Graduate Student Thesis Guide: http://gradschool.oregonstate.edu/success/thesis-guide

Students: Please note that it is <u>vour responsibility</u> to adhere to the requirements and deadlines of the OSU Graduate School and the graduate program of the Department of Food Science and Technology.

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#### PROCEDURES FOR ENTERING STUDENTS

#### Registration

Consult the current Schedule of Classes for information and detailed instructions on registration procedures. <a href="http://oregonstate.edu/registrar/registration">http://oregonstate.edu/registrar/registration</a>

#### Student Identification Card:

The <u>ID Center</u>, located in the Memorial Union room 103, service hours: 9:00 a.m.-3:00 p.m. Monday - Friday. <a href="http://fa.oregonstate.edu/business-affairs/idcenter">http://fa.oregonstate.edu/business-affairs/idcenter</a>

About the OSU ID Card: https://publicsafety.oregonstate.edu/about-osu-id-card

#### **Payment of Tuition and Fees**

<u>Tuition and Fees Schedule</u> If appointed as a graduate assistant, per the appointment letter, tuition is waived and 90% of <u>mandatory</u> fees are remitted for the term of appointment. If on a fellowship tuition and fee remission will be specified in the letter of offer.

To view your OSU student account go to: <a href="http://mybill.oregonstate.edu">http://mybill.oregonstate.edu</a>.

#### **Payroll**

If appointed as a Graduate Assistant (GA).you will receive an offer letter and hiring documents via DocuSign. Once complete, you will receive a welcome email with instructions to complete the I-9 form, background check information, obtaining an ID card, signing up for an ONID account, and other information.

If you are on a Fellowship the stipend schedule will be outlined in your letter of offer <a href="https://gradschool.oregonstate.edu/finance/graduate-fellowships-and-scholarships">https://gradschool.oregonstate.edu/finance/graduate-fellowships-and-scholarships</a>

#### Insurance

Health insurance is mandatory for graduate assistants. All graduate assistants will be enrolled in the University's health plan for "employee only" coverage. You must submit the necessary paperwork within 30 days of employment start date to enroll additional dependents in health coverage. You may waive University-provided health insurance only if you have group coverage that is deemed comparable under the university plan (health, vision, and dental). Insurance for summer months is prepaid over the academic year. https://hr.oregonstate.edu/graduate-student-insurance-plans, gradhealth@oregonstate.edu, 541-737-7568.

#### **ONID Accounts**

Sign up for ONID <u>here</u> (OSU Network Identifier). You will be able to sign up for ONID once you are officially admitted as a Graduate Student.

Once you have on ONID account, you will also receive an Exchange email address in the form of <a href="mailto:firstname.lastname@oregonstate.edu">firstname.lastname@oregonstate.edu</a>. All of your ONID email will be forwarded to that address. To check webmail log into Exchange: <a href="https://is.oregonstate.edu/exchangeonline/device-setup">https://is.oregonstate.edu/exchangeonline/device-setup</a>

#### ONID accounts provides:

- E-mail addresses your official University e-mail address (required in some classes)
- File storage (2 GB per user)
- Personal Web Pages
- UNIX Shell access

- Access to other services <u>OSU Online Services</u>, wireless network (<a href="https://gradschool.oregonstate.edu/graduate-education-toolkit/belp-docs">https://gradschool.oregonstate.edu/graduate-education-toolkit/belp-docs</a>), ResNet for housing <a href="https://uhds.oregonstate.edu/resnet">https://uhds.oregonstate.edu/resnet</a>, <a href="https://uhds.oregonstate.edu/resnet">IS computer labs</a>, <a href="https://uhds.oregonstate.edu/resnet">Interlibrary</a>
   Loan and Scan & Deliver, Canvas Login ONID e-mails are more secure than personal e-mail addresses.
- ONID FAQ : <a href="https://onid.oregonstate.edu/">https://onid.oregonstate.edu/</a>

#### Exchange accounts provides:

- · Access to department room calendars
- Email account address that is professional
- Use of outlook to manage email
- ONID email forwards to Exchange

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# LEARNING GOALS FOR GRADUATES (LGGs) of OREGON STATE UNIVERSITY

https://leadership.oregonstate.edu/provost/initiatives/learning-goals-graduates-lggs-oregon-state-university

- 1. Competency and Knowledge in Multiple Fields As an OSU graduate, you will show a depth of knowledge in one or more majors as it relates to its history, problems., strategic thinking processes and ways of knowing, and vocabulary. You will show a breadth of knowledge across the disciplines, which include the humanities and arts, science, social science and mathematics, from both technical and critical orientations.
- 2. **Critical Thinking** As an OSU graduate, you will evaluate and synthesize information from multiple sources and perspectives to make informed decisions and solve problems.; you will exhibit intellectual curiosity, including the disposition and ability to engage in evidence-based reason and critical thinking.
- 3. Pluralism and Cultural Legacies As an OSU graduate, you will acquire knowledge and appreciation of the diversity of human cultural, historical and social experiences, and be able to reflect on how your individual life experience relates to the complex nature of human conditions in other places and times.
- **4. Collaboration** As an OSU graduate, you will develop the ability to be a positive contributor to situations requiring shared responsibility toward achieving a common goal.
- 5. Social Responsibility and Sustainability As an OSU graduate, you will develop the capacity to construct an engaged, contributing life, and to engage in actions that reflect an understanding of the values of service, citizenship, social responsibility and demonstrate global competence by understanding the interdependent nature of local and global communities.
- **6.** Communication As an OSU graduate, you will be able to present and evaluate information, as well as to devise and exchange ideas clearly and effectively so that you can communicate with diverse audiences ina variety of situations.
- 7. **Self-Awareness and Life-Long Learning –** As an OSU graduate, you will develop awareness of and appreciation for your personal strengths, values, and challenges, and you will cultivate the ability to use that knowledge to guide your future learning and development.

(approved by Faculty Senate: 6/10/2010)

# GENERAL RESPONSIBILITIES OF GRAD STUDENTS

# **Equipment and Facilities**

Not all labs have equal equipment. <u>Never</u> assume it is acceptable to borrow something without asking. If you must borrow equipment, including from the **Pilot Plant**, **first ask Zak Wiegand** at <u>Zak.Wiegand@oregonstate.edu</u>, then make sure you return it to the same place you found it.

# **Building After Hours - Security**

Obtain an After Hours Pass from Christina Hull in Wiegand 100 if it is necessary to be in a campus building after the regularly scheduled closure time for a special project or work. All students, including graduate students, must have in their possession a current University identification card and an After Hours Pass for the building and room in which they are working. All students, including graduate students, are required to carry and present University identification upon demand by a Public Safety Officer/Staff. If working after hours in a lab, be certain that labs, windows, and equipment are secure and locked before leaving.

#### **Kevs**

Keys may be issued if your research lab is in Wiegand Hall. All keys must be turned in to your major advisor/professor at the completion of your program. Lost keys must be promptly reported to the Food Science and Technology main office. Key requests are made through Christina Hull in the FST office: <a href="mailto:christina.hull@oregonstate.edu">christina.hull@oregonstate.edu</a>. The major professor will email Christina to request keys. The student will receive an email when the keys are ready with directions on when and where they can be picked up.

# **Photocopying**

A photocopy access code may be obtained from Christina Hull, <a href="mailto:christina.hull@oregonstate.edu">christina.hull@oregonstate.edu</a> . The access code must be authorized by your major professor. Please use it for academic / business purposes, not personal use.

#### Vehicle Use

To operate a motor pool vehicle, you must have a valid driver's license and be on department business under the direction of your faculty advisor. No unauthorized person (spouse, family, friend) may operate a state owned vehicle. The vehicle may not be used for personal use at any time. A driver <u>authorization form</u> must be completed prior to attaining a motor vehicle. Complete the form, sign and submit to Deborah Gould, <u>deborah.gould@oregonstate.edu</u>or Wiegand 100. If you need to drive a van for university business you must first pass the van safety test: <a href="https://transportation.oregonstate.edu/motorpool/van-safety">https://transportation.oregonstate.edu/motorpool/van-safety</a>

#### GENERAL INFORMATION

#### **Student Resources:**

	Location	Telephone	Website
Graduate School	Heckart Lodge	737-4881	https://gradschool.oregonstate.edu
Registrar	Kerr Admin	737-4331	http://oregonstate.edu/registrar/
Scholarship Posts	Online	737-6486	https://scholarships.oregonstate.edu/scholardollars
Business Affairs	Kerr Admin 1st	737-3031	https://fa.oregonstate.edu
	floor		
Media Center	109 Kidder Hall	737-2121	https://is.oregonstate.edu/media-services
Writing Center	123 Waldo	737-5640	http://cwl.oregonstate.edu/
Career Center	Basement Kerr	737-4085	https://career.oregonstate.edu/
Counseling and Psychological	500 Snell Hall	737-2131	https://counseling.oregonstate.edu/
Services			
Student Health Services	Plageman Bldg	737-9355	https://studenthealth.oregonstate.edu/
Parking Permits	100 Adams Hall	737-2583	https://transportation.oregonstate.edu/parking
Saferide	25 Snell Hall, MU	737-5000	http://asosu.oregonstate.edu/saferide/
	East		
Academic Calendar	Registrar		https://registrar.oregonstate.edu/osu-academic-calendar
Valley Library		737-3331	https://library.oregonstate.edu/valley-library
Handshake	Career Center		https://oregonstate.joinhandshake.com/login
ROOTS (IT Support)	College of Ag	737-2443	https://support.roots.oregonstate.edu/

#### **Minimum Grade Requirements**

Graduate students must maintain satisfactory progress in course work and in thesis research. While advisors are urged to discuss performance in the laboratory and classroom with their students on a <u>quarterly basis</u>, progress is monitored formally on an <u>annual basis</u> by advisors who complete the "Graduate Student Review" form that both student and advisor sign.

Three rules apply to minimum grades: 1- The <u>department</u> requires that graduate students obtain no less than a 'B-' on courses listed on their graduate programs, 2- The <u>department</u> also requires that graduate students obtain no less than a 'B-' in core courses. It is the responsibility of graduate students to assure that their grades satisfy the above department requirements, 3- The <u>Graduate School</u> requires that graduate students maintain satisfactory progress in their academic program(see on-line Graduate Catalog for details). This means that all graduate students must maintain a minimum cumulative grade point average (GPA) of 3.0 or greater. A grade point average of 3.0 ('B') is required for all courses included in the graduate program of study. If a student fails to maintain this GPA, a letter of warning will be sent by the Graduate School. Students are expected to improve their grades the following quarter. Students who fail to do so are not automatically dismissed. Cases are handled on an individual basis upon consultation with the student, academic advisor, and department head. The department has the option of not extending the assistantships of students who fail to maintain satisfactory progress.

**Special Note:** Be sure to check "Academic Regulations" found in the "Schedule of Classes" for information on grading and taking courses. <a href="https://catalog.oregonstate.edu/regulations/">https://catalog.oregonstate.edu/regulations/</a>

#### FST Policy on unsatisfactory graduate student grades:

- 1. If a student's cumulative GPA drops below 3.0, the student is placed on "probation" meaning that the student has been warned that this is unsatisfactory academic progress, and if not corrected by the end of the following term will lead to dismissal from the FST program. Summer term is included only if courses are taken during the summer.
- 2. If a student's cumulative GPA remains below 3.0 at the end of the following term, the student will be dismissed, unless the major professor intercedes with a plan of action that is approved by the graduate committee. That plan cannot include taking letter-graded "blanket"- numbered courses except FST 507/607 to raise the GPA.
- 3. If a student's cumulative GPA remains below 3.0 at the end of the third term, the student is dismissed.
- **4.** For Ph.D. students, the Qualifying Exam must be passed successfully before the end of their 5<sup>th</sup> term. Pass/Fail will be determined by majority vote. If reexamination is granted the second attempt must be completed by the end of the 7<sup>th</sup> term. The exact date of the reexamination is to be determined by the examining committee.

Unsatisfactory progress with the assigned research project (as determined by the thesis advisor) can result in non-renewal of the graduate research assistantship and a recommendation that the students terminate their FST graduate program.

#### **Financial Support**

#### Source of Funds:

Workload assigned to an employee under this article may or may not be separate from the academic expectations associated with thesis or dissertation research. This Agreement shall not in any way be construed as imposing a limit on the amount of academic work necessary for a student to make satisfactory academic progress toward their degree.

#### **Graduate Research Assistants:**

Assistantships are governed by the Coalition of Graduate Employees

It is expected that GRAs on an appointment fulfill the following work hours per week as assigned by their graduate advisors.

.49 FTE - 19.6 hours per week or 255 hours over 13 weeks .45 FTE - 18 hours per week or 234 hours over 13 weeks .40 FTE - 16 hours per week or 208 hours over 13 weeks

#### All graduate assistants are required:

- To perform the full duties of service as determined by the department and major advisor
- To be enrolled full time, 16 credit hours for the fall, winter and spring terms, and (5 credits during the summer)
- To be making satisfactory progress toward an advanced degree
- To be responsible for understanding and satisfying all registration requirements that are outlined in the OSU Online Catalog.
- To be enrolled in University health insurance unless proof can be provided of other coverage.
- Leave Time/Vacation: Supervisors shall make reasonable efforts to allow Graduate Employees to arrange their

work schedule allowing for fifteen (15) days leave over the academic year, taking into account the employee's academic program and the University's business needs. A request for leave shall be made in writing and sufficiently in advance of the schedule change to allow for planning for the absence. The decision on the request shall be made in writing and within a reasonable timeframe. Such requests shall not be unreasonably denied. This language does not limit a supervisor's ability to permit additional schedule adjustments.

#### **Time Limitation of Assistantships:**

Graduate students are expected to complete the requirements for the M.S. Degree within about 2 years and the Ph.D. Degree within 3-4 years beyond completion of the M.S. Degree. Graduate Research Assistantships (GRA's) are awarded yearly, generally for 2 years (M.S.), or 3 years (Ph.D.). If a student does not complete degree requirements within the above mentioned time frames, further support is not guaranteed.

For additional information on graduate appointments, please refer to the on-line Graduate Catalog or consult with the Graduate Committee.

# **Hourly Employees:**

Graduate students must get permission from their major professors before accepting hourly student work in the department. Total gross earnings from any State of Oregon payroll source for students on Graduate Assistant or hourly appointments cannot exceed the equivalent of a 0.49 appointment (0.49 FTE), a maximum of 20 hours per week while classes are in session.

Hourly student employees, those not on a graduate appointment, may work full time (40 hours per week) during term breaks if enrolled in 3 credits or less.

# **Enrollment Requirement**

Graduate assistants are required to enroll for and maintain a minimum of twelve (12) graduate credit hours toward the degree throughout each academic term. FST students are encouraged to enroll for sixteen (16) credits for fall, winter and spring terms.

#### **Ecampus Classes**

If your tuition is being covered by your graduate assistant appointment, Ecampus courses are not included by default and will incur additional cost. Because your major professor is responsible for these costs, *it is critical that you discuss Ecampus courses with your major professor prior to registration.* 

#### **Summer Session Enrollment**

If the graduate assistantship extends through summer session, graduate assistants may meet the criteria for tuition remission when enrolled for a minimum of three (3) credit hours toward the degree. However, if a graduate employee wishes to retain their FICA student exemption (Social Security and Medicare tax exemption) they must enroll for a minimum of five (5) credit hours during summer session. Registration for any additional credits beyond 5 need to be in consultation with your PI.

<u>Continuous Enrollment Policy</u> – A graduate student using space and facilities or studying under supervision of a major professor must register for a minimum of 3 credit hours even though the student may have completed all coursework work. *To remain in FICA tax exemption status registration for five (5) credits is required.*https://gradschool.oregonstate.edu/help/faq/303, https://gradschool.oregonstate.edu/progress/deadlines

#### Leave of Absence

Leave of absence forms must be received by the Graduate School (15) fifteen days prior to the start of the term in which the leave is to begin. <a href="https://gradschool.oregonstate.edu/formlink/14711">https://gradschool.oregonstate.edu/formlink/14711</a>

- (1) Regular Leave of Absence granted in cases where student demonstrates good cause (illness, temporary departure from the university for employment, family issues, financial need, personal circumstances). Must indicate reason for on-leave status. **Master's students** may request a maximum of three academic terms of regular on-leave status during the course of study for the degree. **Doctoral students** may request a maximum of three academic terms. of regular on-leave status prior to advancement to candidacy, and they may apply for a maximum of three academic terms. of regular on-leave status after advancement to candidacy.
- (2) Planned Leave of Absence may be granted for a maximum of nine terms, excluding summer session to students enrolled in program for which planned leave has been approved by the Graduate School. Time spent in planned leave will be included in all time limits pertaining to the student's degree program.\_
  <a href="https://gradschool.oregonstate.edu/formlink/14711">https://gradschool.oregonstate.edu/formlink/14711</a>

(3) Family and Medical Leave. This leave unpaid leave and is for 12 continuous weeks that may span multiple terms and must meet FMLA leave requirements as determined by the Office of Human Resources.

See policy <a href="https://hr.oregonstate.edu/benefits/leaves/family-and-medical-leave-act-fmla/graduate-assistantships-family-medical-leave-act-fmla/graduate-assistantships-fmla/graduate-assistantships-act-fmla/graduate-assistantships-act-fmla/graduate-assistantships-act-fmla/graduate-assistantships-act-fmla/graduate-assistantshi

#### **Remote Participation**

**Standard Policy:** FST graduate committee recommends that both M.S. and Ph.D. candidates be physically present at the meeting for their final thesis defense\*, qualifying,\* and preliminary\* exams (Ph.D.). However, students may submit a petition for an exception with approval by the graduate committee.

### **Departmental Committees**

Students may be invited and/or elected to participate on departmental committees including: community, diversity and inclusion, search committees, and the promotion student evaluation committee. Please contact the committee lead if you are interested in serving on a committee. To see a list of department committees go to the FST resources page: <a href="https://foodsci.oregonstate.edu/foodsci/internal-fst">https://foodsci.oregonstate.edu/foodsci/internal-fst</a>

#### **Graduate Committee**

The department graduate committee formulates the basic policy, procedures, and requirements for all graduate work in the department within the general authority granted by the department and the Graduate School. The committee establishes the specific rules and regulations recruits new graduate students, manages student petitions, and coordinates and approves other work related to graduate study such as graduate teaching assignments. The graduate committee consists of five faculty and the department academic program coordinator assists.

# **Graduate Student Representatives:**

Two to three graduate representatives are elected by the graduate student body each year to represent graduate student interests. The graduate student representatives serve as advocates for fellow FST graduate students, is a peer resource of information concerning graduate student life in the department, and helps to resolve questions and problems of fellow students. The graduate student representatives attend faculty meetings, contribute to building community, organize graduate student meetings, attend events as a representative of the department, manage desk assignments in room 110 and assist with graduate orientation event the beginning of fall term. The elected representatives serve for one year, winter through fall terms.

#### **Thesis Submission Deadline**

The final, corrected, and signed copy of your thesis or dissertation must be submitted to the Graduate School within six weeks after your final oral examination (defense) or before the first day of the following term, whichever comes first. Note: Continuous Enrollment Policy Applies. You must be registered for a minimum of three graduate credits until all degree requirements are completed. To avoid registering for the term following your defense, submit the final corrected and signed thesis or dissertation to the Graduate School before the first day of the following term in which you defend. For details on this policy see "Continuous Enrollment, I. Minimum Registration" in the Graduate catalog <a href="https://catalog.oregonstate.edu/college-departments/graduate-school/">https://catalog.oregonstate.edu/college-departments/graduate-school/</a>

# Timelines for Defending Late In a Term

- 1- Students can defend as late in the term as the Friday before classes start the following term. Between summer and fall, students can defend up to the Friday before fall term classes begin (with a summer registration).
- 2- You have only 10 days to submit your thesis copies to the Grad School (if you are not continuing on from M.S. to Ph.D.).
- 3- You will have an official graduation date into the following term.

# Teaching Assistant (TA) requirement for M.S. and Ph.D. Students in Food Science and Technology

Ph.D. students are required to serve as a TA for four (4) credits. M.S. students are required to serve as a TA for two (2) credits. While the students serve as a TA, he or she will register for the Teaching Practicum class (FST 509) and will receive credits with a letter grade.

Each instructor will meet with the course TA before the start of the term to draft a written statement detailing specific expectations based on the following TA activities:

- Student contact hours
  - a. Formal -present labs/lectures
  - b. Informal work with individuals or groups in lab
- Participate in designing specific lab exercise (s)
- Grade lab reports and / or guizzes
- Lab preparation and/or clean up

The duties are assigned based upon expectation of an average of 10hrs per week for 2 credits. Some students complete their workload more efficiently than others, which can lead to variation in actual hours worked

The TA will be graded according to the following formula:

- A Exceeds minimum requirements in all four components
- B Fulfills all minimum requirements
- C Fails to meet minimum requirements
- F Does not participate in lab (without instructor's permission to be excused)

# **Publication Requirement**

Prior to defense publication requirements:

- Masters
  - ONE submitted first author research manuscript based upon student's work
- Ph.D.
  - **TWO accepted** first author manuscripts based upon student's work, one of which must be a <u>research</u> manuscript (the other can be a <u>review</u> manuscript, but this does not alter expectation of 3-4 research manuscripts in Ph.D. Dissertation)

#### Petition to waive publication requirement:

M.S. students may petition the graduate committee to waive the M.S. Publication Requirement (submission to journal prior to defense). Petitions must include a statement of explanation from the student and their primary advisor and must be supported by majority vote from the student's thesis committee, who will be included in DocuSign routing for petition approval. While petitions will be considered on a case-by-case basis, examples of reasonable grounds to request waiver include:

- Agricultural research requiring multiple years of field sampling that spans longer than typical period (2yrs) of M.S. program
- Student will be based at Astoria or FIC for research that will not be initiated until second year of their program, due to requirement for coursework in Corvallis
- Primary advisor plans to augment student's research manuscript with additional work for purposes of a single enhanced publication, that will necessitate later submission and/or mean that student may not be first author of the submitted manuscript

Submit petitions to <u>Deborah Gould</u> as early as possible, and no later than 4-weeks prior to student's planned defense date. Petitions will be voted upon by the full Graduate Committee.

## **Academic Deadlines**

#### Master's Degree

All master's degree requirements must be met within 7 years. Most FST master's students complete their degree within 2 years.

**Develop** a <u>Program of Study</u> early in your program. This is your plan for completing your degree. Speak with your advisor, department chair, or departmental graduate coordinator for guidance on completing this requirement.

#### By the end of the fifth term of your program:

- Form Thesis Committee including a Graduate Council Representative
- Have your program meeting with your full committee present
- Submit your approved program of study to the Graduate School

#### At least 2 weeks before your Final Oral Examination:

- Submit a diploma application \*except for spring, see below for commencement deadlines
- Use online form to schedule your <u>final oral examination</u> to the Graduate School
- Distribute a defendable copy of your thesis to your committee.
- Deliver or email pretext pages of your thesis to the <u>graduate school</u>. <u>Get the pre-text pages template and thesis formatting</u> auide.
- Submit your Thesis Pamphlet and M.S. Check-Off Form to Deborah

# \*All degree requirements must be met before your exam can be formally scheduled through the Graduate School

Upload the final copy of your thesis (if required for your degree) to <u>ScholarsArchive</u> within 6 weeks after your Exam or before the first day of the following term, *whichever comes first*, to avoid having to register for a minimum of three graduate credits the next term. Read more about the continuous enrollment policy in the <u>Oregon State Grad Policies</u>

#### **Doctoral Degree**

Doctoral students have 9 years to complete all work, including course work, thesis (if required) and all examinations. Request an extension of this time limit by submitting a petition to the Graduate School.

#### Qualifying Exam

For Ph.D. students, the Qualifying Exam must be passed successfully before the end of the 5<sup>th</sup> term. Pass/Fail will be determined by majority vote. If reexamination is granted, the second attempt must be completed by the end of the 7<sup>th</sup> term. The exact date of the reexamination is to be determined by the examining committee. The Qualifying examining committee will be formed by the Graduate Committee Chair (Dr. Curtin)

#### By the end of the fifth term of your program:

- Form Thesis Committee including a Graduate Council Representative
- Have your program meeting with your full committee present
- Submit your approved program of study to the Graduate School

### **Preliminary Oral Exam**

For Ph.D. students, the Preliminary Oral Exam must be passed successfully before the end of the 9<sup>th</sup> term. Pass/Fail will be determined by committee vote. Schedule your Preliminary Oral Exam at least 2 weeks in advance by submitting the Exam Scheduling Form. You must have an approved program of study on file with the Graduate School in order to schedule your Preliminary Oral Exam.

#### **Final Oral Defense of Dissertation**

- At least 2 weeks before your Final Oral Defense of Dissertation:
  - o Submit a diploma application
  - Schedule your Exam by submitting the online Exam Scheduling Form to the Graduate School
  - Deliver or email pretext pages of your thesis to the graduate school. Get the pre-text pages template and thesis formatting guide.
  - o Give dissertation to your whole committee
  - Submit your Thesis Pamphlet and Ph.D. Check-Off form to Deborah

\*All degree requirements must be met before your exam can be formally scheduled through the Graduate School

#### Final Examination

An oral thesis defense (public defense and closed oral examination by the Thesis Committee) is required for M.S. and Ph.D. degrees in Food Science and Technology. Students are required to schedule the final examination through the Graduate School two weeks prior to the defense. Copies of the thesis should be submitted to committee members at least

two weeks prior to the exam. The thesis committee will examine the student, deliberate, and vote in private after the oral examination has concluded. If more than one negative vote is recorded, the candidate will have failed the examination. Reexamination will take place in consultation with the thesis committee.

#### **Final Exam Format Guidelines**

A total of 2.5 hours should be set aside for the M.S. and Ph.D. final exam, which includes 2 hours for the public presentation with Q&A, defense and deliberation, and an additional 30-minute buffer to allow for thorough committee deliberation and communication of outcomes. [Grad School policy is to schedule 2 hours for the whole defense but allow for the defense to exceed 2 hours].

The Graduate Committee requests that that the format of exams be as follows:

- Public presentation 30-45 minutes
- Public Q&A 5-10 minutes
- Defense Q&A as required
  - For committee to assess student against rubric ~1hr of Q&A anticipated
  - Should not extend beyond total 2 hr scheduled examination period
- Deliberation 25-30 minutes
  - GCR checklist completed
  - FST Exam Form Completed (Thorough discussion of student's performance against final exam form rubric should take approximately 20 minutes)
  - · Grad School paperwork completed
  - Communication of outcomes to the student

#### Thesis Submission

A final and corrected copy of your thesis or dissertation must be uploaded to <u>ScholarsArchive</u> within 6 weeks after your Exam or before the first day of the following term, *whichever comes first*, to avoid having to register for a minimum of three graduate credits the next term.

# **Academic Honesty**

Academic dishonesty is prohibited and considered a violation of the Student Conduct Regulations. It includes <u>cheating</u>, the intentional use of unauthorized materials, information, or study aids; <u>fabrication</u>, assisting in dishonesty or tampering (intentionally or knowingly helping or attempting to help another commit an act of dishonesty or tampering with evaluation instruments and documents); and <u>plagiarism</u>, intentionally or knowingly representing the words or ideas of another person's as one's own. OSU <u>Code of conduct</u>:

Demonstrate honesty and integrity in all aspects of your academic work.

#### **Ethics Requirement**

The Graduate School has implemented ethics requirements that are to be carried out at the department level. The purpose is to train graduate students to conduct scholarly or professional activities in an ethical manner. Proof of the training must be shown on the program of study for both M.S. and Ph.D. levels. Students who complete ethics training as M.S students at OSU can apply this same training to their Ph.D. program of study, and do not have to complete additional training.

Responsible conduct of research includes nine areas where ethical issues arise: mentoring, data management, research misconduct, human participants, animal subjects, authorship and allocation of credit, intellectual property, conflicts of interest, collaborative science.

These are current options for fulfilling the ethics requirement. It is strongly recommended to take one of the three following classes:

- 1-Enroll in GRAD 520 Responsible Conduct of Research (2 credits, taught fall, winter, spring each year).
- 2-Enroll in PHL 547 Research Ethics (3 credits, taught every other spring)
- 3-Enroll in TOX 557 Scientific Skills and Ethics (3 credits, taught every spring)
- 4-For students involved in human or animal research, CITI modules, through the National Institute of Health (NIH) are

an alternative option, per approval by major advisor. The formal program and number of modules will be designed by the student's advisor, and students will need to file a completion report.

https://about.citiprogram.org/en/series/responsible-conduct-of-research-rcr/

https://research.oregonstate.edu/coi/frequently-asked-questions-faqs/how-do-i-complete-citi-training-course-conflicts-interest

#### M.S. IN FOOD SCIENCE & TECHNOLOGY

All Master's students must:

- 1- Conduct research
- 2- Demonstrate mastery of subject material
- 3- Be able to conduct scholarly or professional activities in an ethical manner.

The Program for a Master's Degree is developed under the guidance of the major professor (and minor professor when a minor is included), and signed by those professors and the department head before being filed with the Graduate School.

Students must prepare a defined program of study and submit to their major professor and the Thesis Committee for review by the end of the fifth quarter of enrollment. "Master's Program" form and forms for changes to this program are available online: https://gradschool.oregonstate.edu/forms

A minimum of 45 credits is required for the Master of Science. Thirty credits must be earned at OSU after admission as a graduate student. A maximum of 15 hours of graduate coursework may be transferred into a 45 hour program.

#### "50% Rule"—

All graduate program of study submitted to the Graduate School must consist of 50% graduate stand-alone courses (no matter the number of credits listed on program). All graduate credits (other than the 500 component of slash courses), including thesis, dissertation, research, internship, seminar, reading and conference, and projects are considered stand-alone credits.

# **Master Program Requirements**

	Maximum allowed thesis credits *	Maximum allowed non-thesis blanket-numbered courses **	Minimum Remaining coursework credits needed ***	Total credits required for degree
M.S.	12	9	24	45

Blanket numbered credits refer to research (501), seminar (507), reading and conference (505) and teaching practicum (509).

#### **Course Work Requirements**

The following courses constitute a core and must be taken and passed with a grade of B- or better by all graduate students (i.e. not as pass/fail). Equivalent courses taken at Oregon State University or elsewhere will be considered by the Graduate Committee as possible alternatives on a case-by-case basis (petition). The credit hours required in the major and the minor fields are stated in the on-line Graduate Catalog <a href="https://catalog.oregonstate.edu/college-departments/graduate-school/">https://catalog.oregonstate.edu/college-departments/graduate-school/</a>

Two hours of seminar (FST 507) are required for the M.S. degree. Students registering for FST 503 must be working on thesis research under the supervision of a major professor.

<sup>\*</sup> While no more than 12 thesis credits can be listed on a program, students typically register for far more thesis credits over the course of their graduate career. (Thesis credits should reflect thesis work.)

<sup>\*\*</sup>More blanket-numbered credits can be taken but only 9 credits can be listed. (Reflects activity other than thesis.)

<sup>\*\*\*</sup>These courses must include a minimum of 2 "stand-alone" graduate credits. Note that thesis and graduate level blanket-numbered courses are already considered "stand alone" graduate credit.

#### Core Curriculum:

a) Food Microbiology: One of the following

lectures:

MB 540 Food Microbiology (3 credits) Winter

FST 599 SS/Food Safety and Sanitation (3 credits) Spring

AND

One of the following laboratory classes:

MB 541 Food Microbiology Laboratory (2 credits) Winter

FST 599 SS/Microbial Methods for Food Analysis (3 credits) Summer

#### b) Introduction to Food Engineering Principles:

One of the following lectures:

FST572 Food engineering and processing 1 (4 credits)

FST599 Food manufacturing and packaging (4 credits)

#### c) **Food Chemistry** – any **one** of the following FST Food Chemistry offerings:

FST 522 Food Chemistry Fundamentals (4 credits) Fall

FST 523 Food Analysis (4 credits) Winter

FST 525 Food Systems Chemistry (4 credits) Spring

FST 628 Flavor Chemistry (3 credits)

FST 639 Food Polymer Science (3 credits)\*

FST 641 Processing Wheat and Other Small Grains: A Molecular View (3 credits)\*

\* FST 628, FST 639, and FST 641 will be taught alternate years

Students may submit a petition to substitute another 6XX course in lieu of one of the required 6XX FST courses.

# **Graduate Student Seminar Requirements (FST 507)**

The winter term offering of FST 507 will be instructional, focusing on methods/approaches for giving effective presentations. M.S. students are required to enroll in <u>one winter term</u> offering of FST 507 during their program. Students in the winter term course will be assigned a letter grade.

The spring term offering of the course will be a series of "departmental seminars", typically 50 minutes per Ph.D. seminar, 25 minutes per M.S. seminar. The instructor for the spring term class will schedule the seminars and grade the individual presenters; but students presenting the seminars will prepare them in consultation with their major advisor. Students presenting seminars must be physically present at the OSU-Corvallis campus. M.S. and Ph.D. students are required to present one "departmental seminar" as part of their program usually **the last spring term of their program**. For the spring offering of the course, students presenting a departmental seminar will receive a letter grade. This may be presented at the FST Department Taste of Research event.

All M.S. students are required to enroll in <u>all</u> of the spring offerings of FST 507. Students may attend seminars using remote access. Students enrolled in the spring course but not presenting a public seminar will enroll in the P/N grading mode. Grading for the latter will be based on attendance (≥80% attendance =P). All persons attending spring term departmental seminars will be encouraged to politely, but thoroughly, question speakers in order to foster a learning environment.

#### **Publication requirement:**

It is required that students will submit a first author research manuscript, based on their thesis work, for publication, before their defense is formally scheduled with the Graduate School.

#### **FST Departmental M.S. Check-off Form**

A file copy of the departmental M.S. Check-Off Sheet is a permanent part of the student's file. As items are completed, the official file copy is updated, and must be submitted prior to formal scheduling of thesis defense.

#### Petition to waive core course requirement:

Students may petition the graduate committee to waive core course requirements if equivalent courses have been taken elsewhere. Petitions must provide 1) a statement indicating the course to be waived; 2) a syllabus or course outline for the substitute course; and 3) a transcript for the substitute course.

- Grades obtained in the proposed substitute courses can be no less than a 'B -'.
- Waived courses will not count toward the required 45 credits for completion
- Submit the petition to Deborah Gould, Wiegand 100, to be distributed to the graduate committee chairs.

#### Minor

A minor is optional, but if a minor is declared, approximately two-thirds of the coursework (30 graduate credits) should be listed in the major field and one third (15 graduate credits) in the minor field. In such cases, the student's thesis committee must include a member from the minor department.

The purpose of the minor is to provide supporting courses in basic and applied science for the thesis research in Food Science. Examples in the basic sciences include chemistry, biochemistry, and microbiology. In the applied sciences, horticulture and bio-resource engineering are sometimes chosen. When minor courses are taken in several departments or areas, the minor is designated as an integrated minor.

#### **Thesis**

A thesis, representing the results of the student's independent research is required. Upload one PDF to <u>ScholarsArchive</u> and submit a signed approval page and title page to the Graduate School. Information on the prescribed style of your thesis may be found on the Graduate School website under Graduate Students Success Guide, "Thesis Guide" <a href="https://gradschool.oregonstate.edu/progress/thesis-guide">https://gradschool.oregonstate.edu/progress/thesis-guide</a>.

#### M.S. Thesis Guidelines

In FST we follow the manuscript document format as described under Graduate School guidelines (see this <u>Grad School website page</u>), with some additional guidance on structure and content that reflect FST Graduate Program expectations. It is recommended that students discuss how these guidelines apply to their own thesis/dissertation with their primary advisor [by second term] and thesis committee [at program of study meeting].

#### M.S. Thesis

Typical M.S. thesis length is approximately 100 pages, and is composed of the following sections:

Chapter 1 – General Introduction (common introduction linking all manuscripts thematically)

• Includes a section with research objectives and how each chapter will address them

Chapter 2 – Literature Review Manuscript

- Purpose is to demonstrate sound knowledge of literature relevant to research and define problem that this research solves
- Recommended style of manuscript is mini review for a journal relevant to the student's field of research
- Approximate length is 2500-5000 words

Chapter 3 – First Research Manuscript [submitted prior to defense]

Chapter 4 – Second Research Manuscript (optional)

Chapter 5 – General Conclusion (common conclusion linking all manuscripts thematically)

- Includes consideration of broader potential impacts of this research and future directions
- Approximate length is 500 words

Bibliography (common bibliography covering all manuscripts, although each manuscript may have its own reference section) Appendices – (optional, all included appendices need to be referred to in thesis)

#### **Thesis Committee**

Your thesis committee serves as your final examining committee. The thesis committee is nominated by the student's Major Professor, subject to the approval of the Dean of the Graduate School, and consists of at least **four** members of the University Graduate faculty: the Major Professor, an additional faculty member from Food Science and Technology, one from the minor field (if applicable), and one from a field not directly connected with the candidate's studies and appointed by the Graduate School as the Graduate Council Representative. When a minor is not included, the fourth member may be from the graduate faculty at large. The Graduate School will provide an online list of potential Graduate Council Representatives. http://gradschool.oregonstate.edu/success/graduate-committee Item #3.

#### **Program Meeting**

Prior to the completion of your 5th term, a full program committee meeting should be held, for the purpose of discussing and approving your program of study. Shortly after the committee meeting, the Program of Study should be submitted to the Graduate School. You may also take advantage of this meeting to provide a brief presentation of your research to date, both as practice for your defense and to gain input from your committee members.

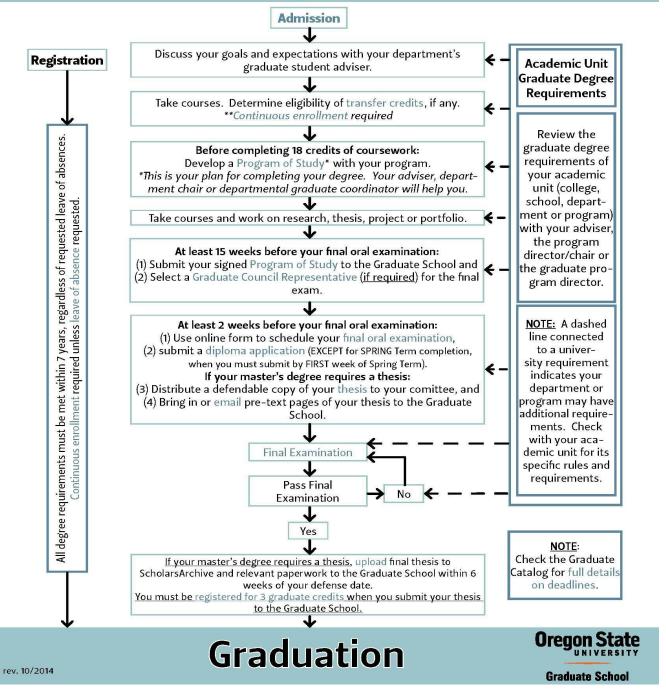
#### Limitations

According to Graduate School regulations, all work toward a Master's Degree, including transferred credits, coursework, thesis, and all examinations, must be completed within seven years.

# **Duration of Graduate Program**

- Graduate Research Assistants (GRAs) and Graduate Fellows are expected to finish their program within a reasonable timeline (typically 8 terms for M.S. and 16 terms for Ph.D.). Terms do not need to be consecutive.
- By the end of the first term, Major Advisor and GRA/Graduate Fellow should discuss the duration of the graduate program, expected research progress and consequences of not making progress in research. The agreement should be documented and signed by the Major Advisor and GRA/Graduate Fellow.

# Flow Chart for Master's Degree Completion



<sup>\*</sup>This flowchart reflects the minimum requirements to comply with the Graduate School's policies. Where more stringent, FST Graduate Program requirements take priority.

#### Ph.D. IN FOOD SCIENCE & TECHNOLOGY

A Ph.D. degree with a major in Food Science and Technology prepares the student for research in a specialized field of study. A Master's degree in Food Science or related field (e.g., Chemistry, Engineering, Microbiology, Nutrition) is required for students intending to pursue the Ph.D. degree. Determination of applicable relevant fields will consider whether students defended theses and published research.

Students currently in an M.S. program may, on occasion, decide that they wish to pursue a Ph. D. degree in Food Science. Those students will need to complete the M.S. degree and reapply through the Grad School application process to be admitted to the Ph.D. program.

#### **Doctoral Program**

The Program for a Doctoral Degree is developed under the guidance of the major professor (and minor professor when a minor is included), and signed by those professors and the department chair before being filed with the Graduate School. "Proposed Doctoral Program" forms are available on the web at <a href="http://gradschool.oregonstate.edu/forms/#program">http://gradschool.oregonstate.edu/forms/#program</a>. A minimum of 36 hours of graduate work must be earned in residence (at OSU).

The program of study should be filed with the Graduate School one full term prior to a student's defense. For FST requirements, students must prepare a defined program of study and submit to their major professor for review by the end of the third quarter of enrollment.

#### "50% Rule"—

All graduate student program of study submitted to the Graduate School must consist of 50% graduate stand-alone courses (no matter how many credits are listed on your program). All graduate credits other than the 500 or 600 component of slash courses, including thesis, dissertation, research, internship, seminar, reading and conference, and projects are considered graduate stand-alone credits.

The table below illustrates a program where the maximum allowable thesis credits and blanket-numbered course credits are used.

# **Doctoral Program Requirements**

	Minimum allowed thesis credits (No maximum)	Maximum allowed non-thesis blanket-numbered courses *	Total credits required for degree
Ph.D.	36	15	108

<sup>\*</sup> More blanket-numbered credits can be taken but only15 non-thesis can be listed.

Blanket numbered credits refer to research (601), seminar (607), reading and conference (605) and (509) teaching practicum.

#### **Coursework Requirements**

The following courses constitute a core and must be taken and passed with a grade of B- or better by all graduate students (i.e. not as pass/fail). Equivalent courses taken at Oregon State University or elsewhere will be considered by the Graduate Committee as possible alternatives on a case-by-case basis. Two hours of seminar (FST 607) are required for the Ph.D. degree. Graduate students are expected to attend and participate in seminars, when offered.

### Petition to waive core course requirement:

Students may petition the graduate committee, by completing a <u>Course Waiver Form</u>, to waive core course requirements if equivalent courses have been taken elsewhere. Petitions must provide 1) a statement indicating the course to be waived; 2) a syllabus or course outline for the substitute course; and 3) a transcript for the substitute course.

- Grades obtained in the proposed substitute courses can be no less than a 'B -'.
- Waived courses will not count toward the required 108 credits for completion
- Submit to Deborah Gould, Wiegand 100.

#### **Transfer Credits**

Students can transfer courses completed for a master's degree to their Ph.D., as long as their committee approves. Transfer

courses will be found under the "Approved Transfer Courses" tab on the program of study. The "Courses tab" / third video down explains the difference between external and internal transfer courses, and how to add them to the program of study: https://gradschool.oregonstate.edu/graduate-education-toolkit-get/help-digital-program-study

# Core Curriculum:

a) Food Microbiology: One of the following

lectures:

MB 540 Food Microbiology (3 credits) Winter

FST 599 SS/Food Safety and Sanitation (3 credits) Spring

AND

One of the following laboratory classes:

MB 541 Food Microbiology Laboratory (2 credits) Winter

FST 599 SS/Microbial Methods for Food Analysis (3 credits) Summer

#### b) Introduction to Food Engineering Principles:

One of the following lectures:

FST572 Food engineering and processing 1 (4 credits)

FST599 Food manufacturing and packaging (4 credits)

# c) Food Chemistry – any one of the following FST Food Chemistry offerings:

FST 522 Food Chemistry Fundamentals (4 credits) Fall

FST 523 Food Analysis (4 credits) Winter

FST 525 Food Systems Chemistry (4 credits) Spring

FST 628 Flavor Chemistry (3 credits)

FST 639 Food Polymer Science (3 credits)\*

FST 641 Processing Wheat and Other Small Grains: A Molecular View (3 credits)\*

Students may submit a petition to substitute another 6XX course in lieu of one of the required 6XX FST courses.

# **Graduate Student Seminar Requirements (FST 607)**

The winter term offering of FST 607 will be instructional, focusing on methods/approaches for giving effective presentations. Ph.D. students are required to enroll in <u>one winter term</u> offering of FST 607 during their program. Students in the winter term course will be assigned a letter grade.

The spring term offering of the course will be a series of "departmental seminars", typically 50 minutes per Ph.D. seminar, 25 minutes per M.S. seminar. The instructor for the spring term class will schedule the seminars and grade the individual presenters; but students presenting the seminars will prepare them in consultation with their major advisor. Students presenting seminars must be physically present at the OSU-Corvallis campus. M.S. and Ph.D. students are required to present one "departmental seminar" as part of their program usually **the last spring term of their program**. For the spring offering of the course, students presenting a departmental seminar will receive a letter grade.

All Ph.D. students are required to enroll in <u>all</u> of the spring offerings of FST 607. Students may attend seminars using remote access. Students enrolled in the spring course but not presenting a public seminar will enroll in the P/N grading mode. Grading for the latter will be based on attendance (≥80% attendance =P). All persons attending spring term departmental seminars will be encouraged to politely, but thoroughly, question speakers in order to foster a learning environment.

#### **Publication Requirement:**

It is required that students will have at least two first author manuscripts, one of which must be a research manuscript (the other can be a review manuscript), based on their thesis work, accepted for publication, before their defense is formally scheduled with the Graduate School.

#### FST Departmental Ph.D. Check-off Form

A file copy of the departmental Ph.D. Check-Off Form is a permanent part of the student's file. As items are completed, the official file copy is updated and must be submitted prior to formal scheduling of Ph.D. defense.

<sup>\*</sup> FST 628, FST 639, and FST 641 will be taught alternate years

#### Minor or Minors:

A minor is optional, but if declared, it must consist of at least 18 credits (15 credits for an integrated minor) and the committee must include a member from the minor department. All committee members must be on the graduate faculty with appropriate authorization to serve on the student's committee.

Minor fields in basic and applied sciences for a Ph.D. program are meant to support the thesis research. Three types of minors are available:

- 1. One minor The student wants to become highly specialized in a particular field and declares one department as a minor. Two representatives from the minor department serve on the doctoral committee.
- 2. Two minors The student wants a broader training in two fields but may or may not want to become highly specialized in either field.
- 3. Integrated minor The student wants a background in several different subject areas. Two of the most emphasized departments would be represented on the doctoral committee through appropriate faculty representation.

#### **Thesis Committee**

This Ph.D. committee consists of **five** members, including the Major Professor (Committee Chair) and at least one other faculty member from Food Science and Technology. If you have a declared minor, you will need one committee member from the minor department. If no minor is declared, the committee can be completed with graduate faculty members from any department, but must include one Graduate Council Representative (GCR) who has been approved by the Graduate School to serve on doctoral committees.

The student and his/her major professor formulate the Ph.D. study program that is to be submitted to the student's thesis committee for approval. The Ph.D. committee consists of **five** members, including the Major Professor (Committee Chair) and at least one other faculty member from Food Science and Technology. If you have a declared minor, you will need one committee member from the minor department. If no minor is declared, the committee can be completed with graduate faculty members from any department, but must include one Graduate Council Representative (GCR) who has been approved by the Graduate School to serve on doctoral committees.

The student will make arrangements for a meeting of the thesis committee, generally during the third term. At least one week in advance of that meeting, the student will submit copies of the proposed program and transcripts of undergraduate and graduate studies to each member of the committee. The program must then be approved by the department head and the "Proposed Doctoral Program" form must be filed with the Graduate School (with copies to the department head and to the academic program coordinator). Any modifications of the program must be approved by the student's thesis committee. This committee conducts both the oral prelim and final exam.

# **Qualifying Exam**

The purpose of the qualifying exam is to evaluate a student's qualifications and potential for success in the Ph.D. program. Qualifications include competence in basic and applied sciences, ability to discuss and evaluate scientific research relevant to Food Science, ability to formulate and express ideas, ability to critically evaluate the food science literature, and ability to speculate intelligently.

The exam will be oral and will last no more than two hours. The student will begin the exam by giving a 30 minute PowerPoint presentation critically evaluating a research paper from the relevant literature. The student will provide the examining committee with two papers of his or her choice three weeks before the exam. The committee will then choose one of the two papers suggested by the student and will inform the student of its choice two weeks before the exam. The oral presentation will be followed by an open-ended discussion, not necessarily limited to the paper.

#### Students should address the following questions:

Why did you choose the paper and why is it important? What was the objective? What were the scientific methodologies and procedures, and were they adequate? What were the important results and conclusions? What future experiments would you recommend? What did you learn that can be applied to your own research interests?

While the paper will help the student prepare for the examination and will help the committee prepare questions, it is really meant to serve as a **catalyst** for a **broader discussion** about how one asks scientific questions, designs experiments, and evaluates data. Thus, questions and study should not focus exclusively on the paper.

**Initiating the process-** With the major professor's written approval, students will inform the Graduate Committee in writing of their wish to take the qualifying exam. The Graduate Committee will then form an examining committee. The student will be responsible for scheduling the exam at a time agreeable to all committee members. Students will be

required to take the qualifying exam during their first 12 months in the program. In order to maintain satisfactory academic progress, students will be required to pass the exam no later than the end of their 5<sup>th</sup> quarter, with the summer counting as one quarter. A student beginning the Ph.D. program in the fall, for example, would have to pass the exam before the end of the fall quarter of the following year. Students will not be able to schedule the oral preliminary examinations until the qualifying exam has been passed.

The examining committee- The examining committee will consist of two members of the department graduate committee and three other FST faculty members, chosen on a rotating basis, but excluding the major professor. One of the graduate committee members will serve as chair of the examining committee. "Rotating basis" shall mean that graduate faculty will be asked in alphabetical order of last names. Prior to the examination, the chair will assure that a committee is formed, that a date is set, that the student has provided two possible papers, and that the committee has informed the student of its choice of paper at least a week prior to the exam. During the examination, the chair will serve as a neutral moderator to assure that the examination protocol was followed correctly, questioning is fair and that the student is given adequate time to answer questions. If the student appears excessively nervous, or if other factors preclude a fair examination, the chair may suggest recessing and rescheduling the examination – to be decided by majority vote of the committee. Following the examination, the chair will lead discussion of the evaluation of the student's performance, call for a vote, and inform the student of the results. The chair will take part in the voting. The chair will document the results in writing, copies of which will be provided to the student and major professor. One copy will be placed in the student's file.

#### Evaluation criteria - Evaluation criteria include

- General Reasoning (ability to logically progress from "point a" to "point b"
- Experimental design (an understanding of the "scientific method")
- Scientific smarts (ability to apply basic scientific principles to research)

Pass/fail will be determined by majority vote. If the candidate fails the examination, reexamination will be at the discretion of the examining committee. If a reexamination is granted, the second attempt at the exam must be completed by the end of the 7<sup>th</sup> term. The exact date of the reexamination is to be determined by the examining committee.

# **Preliminary Examination**

The purpose of the preliminary oral examination is to determine the student's understanding of their research area and how that fits within the broader field of food science and technology, and also to assess the student's capability for research. The oral examination should be passed before the end of the 9<sup>th</sup> term. It is the student's responsibility to schedule the preliminary oral examination through the graduate school, by completing an <a href="Exam Scheduling Form">Exam Scheduling Form</a>, at least 2 weeks prior to the exam, in order for the exam to take place.

The student will be given written instructions from their advisor for development of a research proposal consistent with guidelines below. These instructions will be provided at the beginning of the term in which their examination will be held. The written instructions, along with a brief summary of student's thesis project, will be reviewed, signed and dated by both the advisor and student. The signed instructions will be shared with the student's dissertation committee and submitted to the Academic Programs Coordinator.

The preliminary oral examination is scheduled for two hours and is conducted by the student's doctoral thesis committee. Prior to the oral exam, the student will **write a research proposal** based upon their **thesis project** or **a related topic**, according to agreed-upon instructions developed by their primary advisor in consultation with the student and where needed the student's doctoral thesis committee. These instructions, accompanied by a brief description of the student's thesis project, should make it clear how the proposal is expected to demonstrate original thinking and extend beyond work being performed within their thesis project.

The suggested formats for the proposal include **USDA Graduate and Postgraduate Fellowship Grant** or **NIH F32 Postdoctoral Fellowship**. An alternative format may be used if it meets minimum expectations described below. Choice of format should be included within the written instructions. The student should provide the written proposal to the committee at least two weeks before the exam.

A research proposal should follow specific guidelines and page limits for the chosen format. If a student follows **USDA Graduate and Postgraduate Fellowship grant**, the proposal should include 1) a project summary/abstract (250 words max), 2) a project narrative (16-20 pages, double spaced), and 3) a list of references. If a student follows **NIH F32 Postdoctoral Fellowship**, the proposal should include 1) a project summary/abstract (30 lines of text), 2) a project narrative (3 sentences), 3) specific aims (1 page, single spaced), 4) research strategy (5-6 pages, single spaced), and 4) a list of references.

**Regardless of format**, a research proposal must include as a minimum: 1) project title, 2) overall and specific research objectives, 3) rational and significance, 4) research approaches, 5) expected outcomes, 6) pitfalls that may be encountered and plan to resolve them, 7) timeline, and 8) references.

The student will present their research proposal as part of their oral examination, along with a brief summary of progress on their dissertation research. **This presentation should be no longer than 30 minutes.** 

The oral examination will then cover the student's written research proposal and proposal presentation, as well as the student's knowledge in their research area and progress on student's thesis research. A student must contact members of their committee to schedule the time and place, and report this action to the Graduate School at least two weeks before the examination.

If more than one negative vote is recorded by the doctoral committee, the candidate will have failed the examination and may not repeat the examination until at least three months have elapsed. No more than two re-examinations are permitted by the

Graduate School. When scheduling, students should be aware that the Preliminary Examination and Final Thesis Defense cannot be taken during the same term.

#### PhD Dissertation

The Ph.D. dissertation must embody the results of research and give evidence of originality and ability in independent investigation. The dissertation must be a real contribution to knowledge, based on the candidates own investigation. Some costs involved in the production of the dissertation may be borne by the related grant or project funds or by the department as described for the M.S. thesis.

Corrections and revisions suggested by the committee members at the time of the examination will be made on the final draft in accordance with committee's instructions.

#### Ph.D. Dissertation Guidelines

In FST we follow the manuscript document format as described under Graduate School guidelines (see this <u>Grad School website page</u>), with some additional guidance on structure and content that reflect FST Graduate Program expectations. It is recommended that students discuss how these guidelines apply to their own thesis/dissertation with their primary advisor [by second term] and thesis committee [at program of study meeting].

#### Ph.D. Dissertation

Typical Ph.D. dissertation length is approximately 200 pages, and is composed of the following sections:

Chapter 1 – General Introduction (common introduction linking all manuscripts thematically)

Includes a section with research objectives and how each chapter will address them

Chapter 2 - Literature Review Manuscript\*

- Purpose is to demonstrate comprehensive knowledge of literature relevant to research and define problem that this research solves
- Recommended style of manuscript is comprehensive review for a journal relevant to the student's field of research
- Approximate length is 4000-8000 words

Chapter 3 – First Research Manuscript [accepted prior to defense]

Chapter 4 – Second Research Manuscript [accepted prior to defense\*]

Chapter 5 – Third Research Manuscript

Chapter 6 – Fourth Research Manuscript (Optional)

Chapter 7 – General Conclusion (common conclusion linking all manuscripts thematically)

- Includes consideration of broader potential impacts of this research and future directions
- Approximate length is 500-1000 words

Bibliography (common bibliography covering all manuscripts, although each manuscript may have its own reference section) Appendices – (optional, all included appendices need to be referred to in dissertation)

\* A literature review manuscript that is **accepted for publication** by a journal **prior to defense** may be substituted for *acceptance* of the second research manuscript prior to defense. *This does not change the expectation that the dissertation contains 3-4 research manuscripts.* 

#### Final Examination

After completion of all work required by the program, the student must pass a final doctoral examination which includes a public thesis defense and a closed oral examination. The student must be registered during the quarter in which he or she will take the final examination. Students are required to schedule the final exam (i.e. defense) **two weeks in advance** through the Graduate School (Event Scheduling Form). Copies of the thesis should be submitted to committee members at least two weeks prior to the exam. Following the open portion of the exam, the examining committee should exclude

all other persons and will continue with an oral examination of the candidate's knowledge of the field and the evaluation of the candidate's performance. Refer to the current on-line Graduate Catalog for further details <a href="https://gradschool.oregonstate.edu/progress/exaMS-and-meetings">https://gradschool.oregonstate.edu/progress/exaMS-and-meetings</a>

It is expected that students will have two first-author manuscripts accepted for publication, by the time of their defense.

#### Final Exam Format Guidelines

A total of 2.5 hours should be set aside for the Ph.D. final exam, which includes 2 hours for the public presentation with Q&A, defense and deliberation, and an additional 30 minute buffer to allow for thorough committee deliberation and communication of outcomes. [Grad School policy is to schedule 2 hours for the whole defense but allow for the defense to exceed 2 hours].

The Graduate Committee requests that that the format of exams be as follows:

- Public presentation 30-45 minutes
- Public Q&A 5-10 minutes
- Defense Q&A as required
  - For committee to assess student against rubric ~1hr of Q&A anticipated
  - Should not extend beyond total 2 hr scheduled examination period
- Deliberation 25-30 minutes
  - GCR checklist completed
  - FST Exam Form Completed (Thorough discussion of student's performance against final exam form rubric should take approximately 20 minutes)
  - Grad School paperwork completed
  - Communication of outcomes to the student

# **Graduate Minor in Food Science and Technology**

Masters students who desire to earn a minor in Food Science must include a minimum of 15 credits of graduate course work from FST; doctoral students who desire to earn a minor in Food Science require a minimum of 18 credits from FST.

Requirements:

#### a) Food Microbiology (Beginning AY 22-23):

One of the following lectures:

MB 540 Food Microbiology (3 credits) Winter

FST 599 SS/Food Safety and Sanitation (3 credits) Spring

# AND

One of the following laboratory classes:

MB 541 Food Microbiology Laboratory (2 credits) Winter

FST 599 SS/Microbial Methods for Food Analysis (3 credits) Summer

#### b) Introduction to Food Engineering Principles:

One of the following lectures:

FST572 Food engineering and processing 1 (4 credits)

FST599 Food manufacturing and packaging (4 credits)

#### c) **Food Chemistry** – any **one** of the following FST Food Chemistry offerings:

FST 522 Food Chemistry Fundamentals (4 credits) Fall

FST 523 Food Analysis (4 credits) Winter

FST 525 Food Systems Chemistry (4 credits) Spring

FST 628 Flavor Chemistry (3 credits)

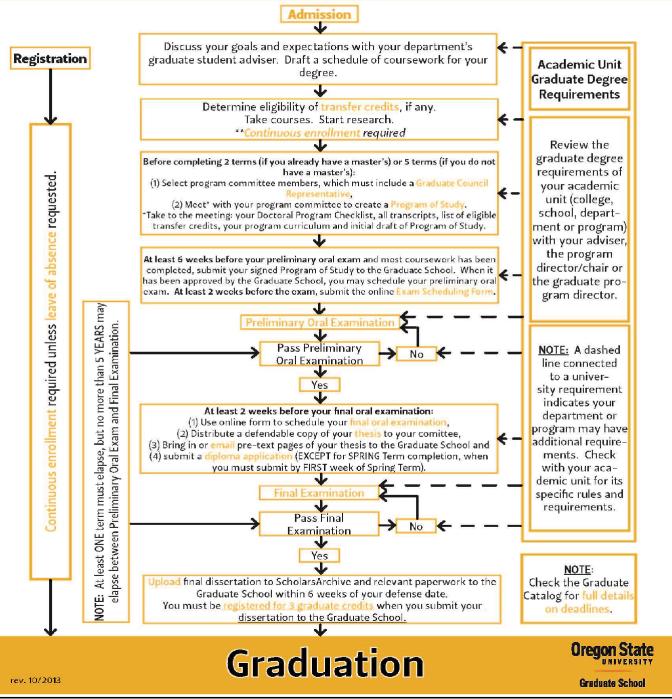
FST 639 Food Polymer Science (3 credits)\*

FST 641 Processing Wheat and Other Small Grains: A Molecular View (3 credits)\*

#### d) Food Science and Technology:

Remaining credits can be met by any 500 or 600 level FST class(es).

# Flow Chart for Ph.D. Completion



\*This flowchart reflects the minimum requirements to comply with the Graduate School's policies. Where more stringent, FST Graduate Program requirements take priority.

Suggested Courses That Can Be Taken for Graduate Credit

Course		Credit
Food Science and Technology		0100
Seminar	FST 507/607	1
Sensory Evaluation	FST 520	3
Food Law	FST 521	3
Food Chemistry Fundamentals	FST 522*	4
Food Analysis	FST 523	4
Food Systems Chemistry	FST 525	4
Sensory Evaluation Lab	FST 528	
Brewing Science	FST 560	3
Brewing Analysis	FST 561	3
Wine Production Principles	FST 566	3
Wine Prod Analysis & Sensory Eval	FST 567	5
Fermentation Microbiology	FST 579	3
Food Processing Calculations	FST 590	2
Food Processing Calculations/Lab	FST 591	1
Food Packaging	FST 595	2
Adv Topics in Sensory Sci	FST 620**	2
Flavor Chemistry	FST 628**	3
Food Polymer Science	FST 639**	3
Processing Wheat & Other Small	FST 641**	3
Grains: A Molecular View	F31 041	3
Advanced Topics in Enology	FST 666**	3
NMR&MRI: MRT&APP in FS	FST 599	2
Bioanalytical Chemistry Structure Determined by Spectroscopic	CH 524**	3
Methods	CH 535	3
Physical Chemistry	CH 540,541,542	3,3,3
Separations: Chromatography * Related Methods	CH 661	4
Mass Spectrometry of Organic Compounds	CH 697**	3
Microbiology		
	MB 540,541 /599	22
Food Microbiology /Microbial Methods  Racterial Pathogenesis	MB 540,541 /599 MB 530	3,2
Bacterial Pathogenesis Fish Diseases in Conservation Biology		
& Aquaculture	MB 591	4
Food Safety and Sanitation	FST 599	3
<u>Toxicology</u>		
Target Organ Toxicology	TOX 512*	3
Environmental Tox & Risk Mngmnt	TOX 513*	3
Toxic Substances in Food	TOX 529	3
Advanced Xenobiotic Metabolism	TOX 575	3
Testing for Genotoxicity	TOX 611*	4
OTHER CLASSES		
Research Ethics	PHL 547	3
Responsible Conduct of Research	GRAD 520	2

550, 551	4,3
581,582,583	3,3,3
590,591,592	3,3,3
593,594	3,3
650,651,652	3,3,3
664	3
511,512*,513*	4,4,4
531	3
551,552*,553*	4,4,4
555*	3
557**	3
515	3
599	2
R 517,518	4,4
R 535	3
R 617**	1-16
R 618	3
48	3
	_
572	5
572	4
599	4
•	599

# Key:

Courses in blue are 500/600 only.

Courses in red indicate core required coursework.

The Food Chemistry requirement is to take one of the following Food Chemistry offerings: FST 522,523,525,628,639,641

<sup>\*</sup>Indicates enforced prerequisites.

<sup>\*\*</sup>Not offered every year

# **Faculty Research Interests**

**Zeynep Atamer,** Ph.D. Assistant Professor Senior Research. Research interests are in dairy science and technology, dairy microbiology, dairy bacteriophages, spore formers, process and food safety, thermal inactivation, inactivation kinetics, milk proteins, heat-stable milk enzymes, fractionation of casein, membrane separation and cheese technology

**Cole Cerrato**, Ph.D. Assistant Professor Senior Research. Chemistry of foods and beverages with a focus on smoke-affected wine analysis.cole.cerrato@oregonste.edu

**Chris Curtin,** Ph.D. Associate Professor Fermentation Microbiologist. Fermentation microbiology with an emphasis on brewing yeast and microbial ecology of beer production. Major interests are the development of new yeast strains, biology of *Brettanomyces* species, and the application of genomic techniques in food science. 541-737-1599. <a href="mailto:christopher.curtin@oregonstate.edu">christopher.curtin@oregonstate.edu</a>

**David Dallas,** Ph.D. Associate Professor. Research interest is in milk biology and its interaction with infants and adults. The Dallas lab examines milk protein-derived bioactive peptides, identifying their release within the digestive tract using liquid chromatography mass spectrometry and determines functions of released peptides using cell based assays.

541-737-1751. dave.dallas@oregonstate.edu. dallaslab.org.

Christina A. Mireles DeWitt, Ph.D., Professor; Director- Astoria Seafood Lab. Research interests are focused on efforts that improve seafood/muscle food quality and safety. Particularly with regard to understanding how injection/marinade and high pressure processes can be used to enhance fresh product quality while minimizing impacts on nutritional value and safety. Interests also center on enhancing utilization of co-products generated from seafood processing and minimization of processing waste. 503-325-4531 <a href="mailto:christina.dewitt@oregonstate.edu">christina.dewitt@oregonstate.edu</a>.

**Lisbeth Goddik,** Ph.D. Department Head, Professor, Extension Dairy Processing Specialist; Extension dairy processing; dairy product safety; product and process development; optimization of product quality. Economics of artisan cheese production, specialty cheese processing, and understanding terroir effect on Oregon dairy products. 541-737-8322, lisbeth.goddik@oregonstate.edu

**Paul Hughes,** Ph.D., Assistant Professor MBA Professor. Research interests include all aspects of beer and distilled spirit quality (taste, visual) and product stability, innovation in the distilled spirits sector including alternative methods of ethanol-water separation, accelerated- and photo-maturation of distilled spirits, and the application of ab initio computational chemistry and kinetic modelling to beer and distilled spirits problems. 541-737-4595. paul.hughes@oregonstate.edu

**Jooyeoun Jung**, Ph.D. Assistant Professor . Sustainable food processing and packaging; edible packaging; active packaging; smart packaging; biodegradable packaging materials from food processing byproducts and wastes; reduce food waste and enhance shelf-life. <a href="mailto:Jooyeoun.jung@oregonstate.edu">Jooyeoun.jung@oregonstate.edu</a>

**Jovana Kovacevic**, Ph.D., Associate Professor, Food Safety Extension and Research, Food Innovation Center Experiment Station, Portland, OR. Research interests are in the application of molecular methods and genomics in food safety. In particular, how methods and tools can be used to improve pathogen tracing and understanding of contamination events in the farm-to-fork food chain in order to develop targeted interventions. Particularly interested in stress response mechanisms, survival, and prevention of *Listeria monocytogenes* contamination in food processing environments. jovana.kovacevic@oregonstate.edu

**Jung Y. Kwon,** Ph.D. Assistant Professor. Biological functions of natural dietary molecules derived from marine resources in health promotion and disease prevention. Research interest includes identifying marine-derived bioactive compounds with beneficial effects in obesity and associated metabolic syndrome focusing on the regulation of lipid metabolism and inflammation in adipose tissue; uncovering potential health value of seafood materials and underutilized aquatic resources to promote efficient utilization of the harvested resources.

Jung.Kwon@oregonstate.edu.

**Robert McGorrin,** Ph.D. Professor. Focus is primarily in flavor chemistry and trace volatile analysis. Additional research interests are in food analysis, chromatography and separations, spectrometry, and natural products chemistry. 541-737-3131. robert.mcgorrin@oregonstate.edu

**James Osborne,** Ph.D. Professor Enology, Oregon Wine Research Institute Director. Wine microbiology with emphasis on malolactic fermentation and the microbial spoilage of wine. Influence of various wine microorganisms on wine quality. 541-737-6494. <a href="mailto:james.osborne@oregonstate.edu">james.osborne@oregonstate.edu</a>

**Si Hong Park**, Ph.D. Associate Professor. Food Safety Biologist; Genomics, metagenomics (microbiome and whole genome sequencing) and transcriptomics based on a next generation sequencing and bioinformatics. Research is focusing on the detection, identification and control of foodborne pathogens such as *Salmonella*, *Listeria*, *Campylobacter* and *E. coli* in foods using various molecular techniques. Microbiome sequencing in gastrointestinal tracts of humans, food animals (poultry and cattle) and experimental animals to evaluate the microbial diversity in the presence of food and feed supplements (prebiotics, probiotics and antimicrobials) and/or foodborne pathogen challenge.541-737-1684. sihong.park@oregonstate.edu

**Michael Penner**, Ph.D. Associate Professor. Bio-based processes for the conversion of plant-derived biomass to fermentable sugars for bioproduct and biofuel production; mechanisms dictating rates of plant-derived biomass biodegradation; analytical approaches for the characterization of plant-derived biomass. 541-737-6513 <a href="mailto:mike.penner@oregonstate.edu">mike.penner@oregonstate.edu</a>

**Michael Qian,** Ph.D. Professor. Flavor Chemistry, Food Analysis, Dairy Chemistry. Characterization of aroma compounds, chemical and biological generation in dairy, small fruits and wines. Instrumental analysis of food components. 541-737-9114 <a href="michael.gian@oregonstate.edu">michael.gian@oregonstate.edu</a>

**Andrew Ross**, Ph.D. Professor. Fundamental and applied research of cereal grain components, wheat-based foods (noodles, artisan breads, food barley), and bio-products from cereal grain fractions. Located in the OSU Cereal Breeding & Cereal Genetics Program in the Crop and Soil Science Department. 541-737-9149 andrew.ross@oregonstate.edu

**Tom Shellhammer,** Ph.D. Professor. Brewing research examines processing and raw material interactions on beer quality with a particular emphasis on hops and their contribution to beer flavor, foam and physical stability. Research studies often combine instrumental and sensory analyses. 541-737-9308. <a href="mailto:tom.shellhammer@oregonstate.edu">tom.shellhammer@oregonstate.edu</a>

**Stone, David,** Ph.D. Professor, CAS Associate Dean for International Programs. General interests include food safety and public health, development of value-added products in agriculture and engagement with under- represented communities in the food sector. Specific research interests include the assessment of biotoxins and metals in marine and freshwater organisms. <a href="mailto:dave.stone@oregonstate.edu">dave.stone@oregonstate.edu</a>. 503- 872-6656

**Elizabeth Tomasino**, Ph.D. Professor of Enology. Relationships between wine sensory and chemical data; determination and importance of chiral aroma compounds in wine; differentiation of regional wine styles. 541-737-4866. <u>Elizabeth.tomasino@oregonstate.edu</u>

**Joy Waite-Cusic**, Ph.D. Associate Professor. Food microbiology with food safety emphasis; specifically interested in pathogen prevalence studies and risk assessment, method development and validation for detection of pathogens, and process validation and surrogate development. 541-737-6825. joy.waite-cusic@oregonstate.edu

**Qingyang Carly Wang**, Ph.D. Assistant Professor and Extension Specialist. Non-thermal processing technologies (cold atmospheric pressure plasma, plasma-activated water, UV, and photodynamic inactivation); sustainable manufacturing; food safety and sanitation; hurdle technologies; fruit and vegetable processing extension. 541-737-7611 <a href="mailto:qingyang.wang@oregonstate.edu">qingyang.wang@oregonstate.edu</a>

**Yanyun Zhao**, Ph.D. Professor. Food processing and packaging techniques for enhancing food quality and safety. Development and characterization of edible and biodegradable packaging materials from food and agricultural byproducts. 541-737-9151. <a href="mailto:Yanyun.zhao@oregonstate.edu">Yanyun.zhao@oregonstate.edu</a>

#### LAB SAFETY

#### In Case of Fire

- 1. Activate the building fire alarm\* by pulling the nearest wall "fire pull" to alert occupants. The alarm does not always call fire fighters to the scene, but most alarms are connected to the campus notifier system that is monitored by the Public Safety Dispatch Center. (In Wiegand Hall there are seven fire pulls; three on the first floor and three on the second floor and one in the Pilot Plant.)
  - You are only supposed to use the fire extinguishers if you have completed the appropriate training: https://ehs.oregonstate.edu/osu-fire-extinguisher-use
- 2. Call the Corvallis Fire Department (911), and give the exact location of the fire.
- 3. Evacuate occupants from the building. Follow building evacuation procedures. Send someone outside the building to direct fire fighters to the scene.
- 4. For small fires, use the closest appropriate fire extinguisher. Do not use water on electrical fires. Make sure while you are working in a lab that <u>nothing</u> is blocking the fire extinguisher.

# **Building Evacuation**

**FST's evacuation plan:** everyone should gather in the grassy area across Campus Way in front of Wiegand (the middle grassy area). Your lab should have a way to contact and account for everyone in your lab.

When the alarm sounds, walk to the nearest usable exit. Use the stairways and NEVER use the elevator because it can quickly become filled with smoke and be a firetrap when electrical power is lost. Be aware of alternate exits from the building.

Before leaving the workstation, take personal valuables and lock up any valuable materials or documents. Do not, however, endanger life through delay. Assist non-ambulatory persons leaving the building.

Use fire escape ladders only when the stairways are closed by fire. Before opening a door during a fire, feel each door with the back of your hands before opening it. If it feels hot, use an alternate exit. If caught in smoke, keep low where the air is better. Take short breaths through the nose.

When outside the building, do not block doorways or driveways. Stay a minimum of 100 feet from the building. Do not return to the building until advised to do so by personnel in charge.

# **Personal Protective Equipment (PPE)**

Each lab will be responsible for issuing its own personnel protective equipment. Lab coats will be dispensed at LPI and Gleeson Hall 109. The dispensing system integrates with SciShield and OSU's Orange ID cards. If you are performing a new procedure, or one you haven't done in a long time, it is your responsibility to go over it with your professor to ensure safety for yourself and others.

#### **Emergency Treatment**

Determine the extent of a person's injury by checking for breathing, pulse, bleeding, possible fracture, and pain. Administer first aid appropriate for the injuries if you are properly trained.

If the injured person is:

- not conscious or ambulatory, dial 911 on any campus phone for the Corvallis Fire Department ambulance. The ambulance crew will determine whether injured students should be transported to the Student Health Center or to the hospital.
- conscious and ambulatory STAFF, arrange for transportation by car or ambulance to the hospital or doctor's office as desired by injured person. If a supervisor or fellow employee is not available to provide transportation, contact Public Safety at 7-7000 because they are responsible for ensuring that appropriate transportation is obtained.
- conscious and ambulatory STUDENT, arrange transportation to the Student Health Center in Plageman Hall by calling Public Safety (7-7000) day or night. Students may also go to their personal physicians if desired.

#### **Accident Reporting**

On the job injuries must be reported within 24 hour:

file an Incident Report at: https://oregonstate2-gme-advocate.symplicity.com/public report/index.php/pid035010?

To learn more about the process of filing a claim and what to expect throughout the process visit: https://risk.oregonstate.edu/workerscomp/how-to-file-a-claim

If you do not have internet access to complete this process it is your responsibility to call someone to assist in completing and submitting the Incident Report.

If the employee's incident resulted in the need for medical treatment, the employee must complete the worker section of the **SAIF 801 Form**, then complete the employer section of the form. Fax the completed 801 to Insurance and Risk Management Services at 541-737-4855 within 24 hours of the incident. If the employee is not available to complete the worker section of the 801, complete the employer section, along with as much information as is known in the worker section and fax the form to Insurance and Risk Management Services within 24 hours of the incident.

The attached **Accident Reporting Process Flowchart** is a quick resource to help you visualize the initial process for reporting Workers' Compensation claims.

#### **Fume Hood Safety**

If a fire starts inside the fume hood should you:

Leave it in the safety hood, close the sash, activate the building fire alarm, call 911, and evacuate the building. All fume hoods in Wiegand Hall can withstand a fire burning inside for a minimum of fifteen minutes. Most hoods in this building will last even longer. This gives you a little bit of time to catch your breath and think about what steps you need to take next to protect yourself, lab mates, and the building.

#### **MSDS**

It is your right to know of any dangers you may be exposed to during your laboratory work. To check the MSDS (Material Safety Data Sheet) of chemicals you are concerned about please go to <a href="https://ehs.oregonstate.edu/msds-interpretation">https://ehs.oregonstate.edu/msds-interpretation</a>Or-OSHA Hazard Communication Standard (HCS, Right-to-Know Act) specifies that both employees and employers know the identity and safety/health hazards of substances used in the work place, in order to reduce occupational illnesses due to harmful chemical exposures.

The PI you work for is required to log/register chemicals used in your lab at the Environmental Health and Safety Chemical Inventory website <a href="https://ehs.oregonstate.edu/ehs-assistant">https://ehs.oregonstate.edu/ehs-assistant</a>. New chemicals coming into your lab should be registered – check with your PI.

#### Saferide

Due to OSU guidance in following the CDC guidelines of social distancing, we are unable to provide service and assure the health and safety of our staff and riders. Therefore, while the OSU Corvallis campus is in remote operating mode, with social distancing recommendations enacted, ASOSU SafeRide will be closed. We appreciate and understand this may cause inconveniences, and we urge students to utilize the <a href="Corvallis Transit System">Corvallis Transit System</a> and it's ADA Paratransit provider <a href="Dial-A-Bus">Dial-A-Bus</a> during this time.

Contact us: During this time we can be contacted by emailing saferide@oregonstate.edu.

# **Purchasing Lab Supplies**

Orders are placed through Christina Hull in the FST Office Wiegand 100. christina.hull@oregonstate.edu 541-737-6485

OSU has accounts established with numerous online vendors that provide discounts, free and/or next day shipping and invoicing options. Food Science and Technology has a departmental procurement card that can also be used for online purchasing. Check with Christina before placing any orders on your own.

#### **Online Purchasing**

Orders to be purchased online can be submitted to Christina though email. Orders submitted should include the vendor, the item number of the product(s), a brief description of the product(s), size, quantity, price and index to be charged. For orders being submitted for purchase from a website a link to product(s) on the website is also acceptable.

# **Benny Buy**

Benny Buy is a University purchasing system that can also be used for placing orders. Please see Christina if you are interested in learning more about Benny Buy and how it is used in the Food Science department.

#### **Purchasing Locally**

The department has accounts set up with different vendors around Corvallis that allow for purchases to be charged. Please check with Christina before making a purchase locally and find out if they are a vendor and what is needed to make a purchase.

#### **Personal Reimbursements**

Personal reimbursements should be kept to a minimum and are only allowed for purchases that cannot be placed through Christina or locally with an invoicing vendor.

#### TRAVEL GUIDE FOR STUDENTS

When preparing to travel, please **PLAN AHEAD**. If you are unsure of the pre-approval and/or reimbursement request process, please contact <u>travel@oregonstate.edu</u>

Please see travel info on FST website for most up-to-date information and instructions

# **Appendix**

<u>FST Forms</u> (Check-Off Forms, Course Waiver Form, Override Request Form, Path to Completion Chart, Exam Forms)

Graduate School Forms. (Program of Study, Exam Scheduling Form, GCR List, Diploma App)