



Graduate Handbook

Department of Food Science and Technology



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The purpose of this handbook is to provide a summary of policies and procedures relevant to studies in the Food Science and Technology graduate program and successful completion of an advanced degree. All graduate students should refer to this handbook as a reference. This handbook, however, is not a replacement for the UNL Graduate Studies Catalog, which contains current information on graduate program requirements, thesis guidelines, and deadlines.

“It is the responsibility of the student to be familiar with the information in the UNL Graduate Catalog and on the [Graduate Studies website](#), and to know and observe all regulations and procedures relating to the program he or she is pursuing. In no case will a regulation be waived or an exception granted because a student pleads ignorance of, or contends that he or she was not informed of, the regulations or procedures. A student planning to graduate should be familiar with the dates relating to application for graduation and other pertinent deadlines.

The University of Nebraska-Lincoln expressly reserves the right to: add or delete courses from its offerings and to change times or locations; change academic calendars without notice; cancel any course for insufficient registrations; modify, consolidate, or delete any program; and revise or change rules, charges, fees, schedules, courses, requirements for degrees, and any other regulation affecting students including, but not limited to, evaluation standards, whenever considered necessary or desirable.”

Introduction

The Department of Food Science and Technology is dedicated to providing high-quality education and training to graduate students preparing for careers in food science and technology in the food industry, academia, or government.

We work closely with The Food Processing Center, Food Allergy Research and Resource Program, Nebraska Food for Health Center, and the UNL Dairy Store as well as industry and government leaders and start-up entrepreneurs.

Our main areas of research include

- Digestive Wellness
- Food Allergens
- Food Preservation and Transformation
- Food Safety
- Biocomputing
- Bioactive

Degree Options

We offer interdisciplinary programs leading to both masters and doctoral degrees. Students take courses and conduct research under faculty members located on the University of Nebraska-Lincoln's Nebraska Innovation Campus.

1. Master of Science Degree (M.S.) in Food Science and Technology
 - A. Thesis (requires 30 credit hours)
 - B. Project (requires 30 credit hours)
2. Doctoral Degree (Ph.D.) in Food Science and Technology
 - A. Dissertation (requires 90 credit hours)

Certificate Options

- Food Safety and Defense Graduate Certificate (online, requires 12 hours)
(Part of the Great Plains Interactive Distance Education Alliance, in cooperation with Iowa State University, Kansas State University, and the University of Missouri)

Communication

Contacts

FDST Departmental Graduate Chair

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Graduate Studies MS Coordinator

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FDST Graduate Program Coordinator

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Graduate Studies PhD Coordinator

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Seaton Hall 101

MS Teams

A special [MS Teams](#) has been created for current Food Science and Technology students to connect, collaborate and share tips and ideas. Online meetings may be set up with the Graduate Program Coordinator, Mrs. Julie McManamey through MS Teams.

Huskers Email Account

Students receive a new e-mail account (huskers.unl.edu) when they enroll. In May 2019, the University of Nebraska-Lincoln made it mandatory that all correspondence go to the Huskers email account. Students are responsible for checking their huskers.unl.edu account regularly.

Follow professional email etiquette when communicating with instructors and fellow students. Refer to <https://www.unl.edu/gradstudies/connections/five-quick-tips-writing-effective-e-mails>.

Graduate Education Oversight

College of Agricultural Sciences and Natural Resources Strategic Framework

The [framework for Graduation Education](#) was written to determine the vision for the IANR graduate education, push the boundaries of traditional academic education, and provide students with an educational experience that prepares them to be the next generation of leaders, scientists, educators, innovators, and entrepreneurs.

Vision Statement

- Every graduate student is inspired and empowered to make a difference in a complex and diverse world

Goals

1. Individualized student experience for personal goals and professional growth of our graduate students
2. Holistic approach that Integrates curriculum, research and discovery, experiential learning, and professional development that prepares students to pursue opportunities and solve challenges In Nebraska and beyond
3. Diverse experiences with and beyond the university community that develop global and inclusive mindset/perspective

Departmental Graduate Committee

The mission of the Food Science and Technology Graduate Committee is to develop and maintain excellence in the departmental graduate program.

Membership and Selection

- Consists of five Food and Technology graduate faculty members appointed by the Department Head.
- The chair of the Graduate Committee is appointed by the Dean of Graduate Studies upon the recommendation of the Department Head.

Responsibilities

- Suggest and modify graduate admissions and degree requirements for departmental graduate faculty approval
- Evaluate applications and recommend acceptance into the graduate program
- Monitor graduate student academic performance and progress
- Address academic issues and student concerns including the oversight of student appeals
- Identify and advance new curricula
- Update FDST Graduate Handbook and website on policy and procedure changes

Chair Responsibilities

- Assure fair and consistent compliance with all Graduate College and UNL policies that govern graduate education
- Approve Supervisory Committees and Plans of Study
- Assists graduate coordinator with teaching assistant assignments

Faculty Advisor

Each graduate student must have at least one faculty advisor, sometimes there are co-advisors.

- Advises the student regarding course work and general academic requirements
- Guides the student through their program
- Serves as the chair of the student's supervisory committee and assists the student in selecting committee members.

A faculty member has the right to decline supervision of research or project by any graduate student, regardless of the origin of the research problem.

Resources:

- [Graduate Mentoring Guidebook](#)
- [Guidelines for Good Practice](#)

UNL Employee Graduate Students

To reduce conflict of interest, University of Nebraska-Lincoln employees must identify a Food Science and Technology faculty advisor other than their immediate University of Nebraska-Lincoln work supervisor. Their University of Nebraska-Lincoln work supervisor may serve on their supervisor committee as a committee member.

Supervisory Committee

The primary function of the Supervisory Committee is to assist the student in developing a Plan of Study that is compatible with the goals of the student. The Supervisory Committee ensures the student has reached a satisfactory level of academic and research achievement.

- Monitors the progress of the student through annual reviews
- Provides counsel if problems arise during the program
- Conducts mid-program Comprehensive and Final Oral examinations

Personal Well-being and Effectiveness

Wellness is an interactive process of becoming aware of and practicing healthy choices to create a more successful and balanced lifestyle.

Resilience is a skill set of behaviors, thoughts, and actions you can develop to help manage change, hardship, and disappointment. Persisting and growing through adversity enhances flexibility, overall functioning, and well-being.

Academic Leave of Absence

An [Academic Leave of Absence](#) may be granted to graduate students for illness or injury, to provide care or assistance for family and dependents, to meet military service obligations, or for other personal reasons. Academic leave of absence can be used to suspend study for one semester up to a full academic year during which the student is not expected to make progress toward their degree.

It is the student's responsibility to consult the Office of Scholarships and Financial Aid and, if applicable, the International Student and Scholar Office (ISSO) before applying for an academic leave. A student on leave does not receive the benefits, services, and eligibility associated with registered student status.

Academic Leave of Absence require approval from the Supervisory Committee Chair and the Graduate Program Chair.

Full Details and how to apply can be found at <https://catalog.unl.edu/graduate-professional/graduate/registration/leave/>.

Emergencies and Crisis Situations

If there is an imminent danger to self or others, call **911**, call the University of Nebraska-Lincoln police department at **402-472-2222** or go to the nearest emergency room.

If you are feeling threatened, make sure you are safe (remember *run/hide/fight*) and then contact the Police.

- On-campus reporting: University Police, telephone 402-472-2222; text 69050, key word UNLPD; and website <https://police.unl.edu/>.
- Off-campus reporting: Lincoln Police, telephone 402-441-6000; and website <https://www.lincoln.ne.gov/City/Departments/Police>.

[UNL Emergency Preparedness Resources](#) such as Fire, Gas Leak, Severe Weather, and Active Shooter Response

[TIPS Incident Reporting System](#) expands the methods by which any member of the university community can share matters they feel need to be elevated or addressed.

[Department of Food Science and Technology Emergency Plans](#)

Well-Being Resources

9 Dimensions of Well-Being Resources

- | | | |
|--------------|------------------|--------------|
| 1. Career | 4. Environmental | 7. Physical |
| 2. Cultural | 5. Financial | 8. Social |
| 3. Emotional | 6. Intellectual | 9. Spiritual |

[Big Red Resilience & Well-Being](#) provides one-on-one well-being coaching to any student who wants to enhance their well-being. Trained well-being coaches help students create and be grateful for positive experiences, practice resilience and self-compassion, and find support as they need it. BRRWB can be reached by calling 402-472-8770.

[Counseling and Psychological & Services \(CAPS\)](#) is a multidisciplinary team of psychologists and counselors that works collaboratively with Nebraska students to help them explore their feelings and thoughts and learn helpful ways to improve their mental, psychological and emotional well-being when issues arise. CAPS can be reached by calling 402-472-7450.

[Services for Students with Disabilities \(SSD\)](#) facilitates equal and integrated access to the academic, social, cultural and recreational programs offered at the University of Nebraska-Lincoln and to foster independent decision making skills necessary to achieve personal and academic success. Any student who needs a reasonable accommodation based on a qualified disability (including mental health, chronic or temporary medical conditions) is required to register with the SSD office for assistance. SSD can be reached by calling 402-472-3787.

Graduate School Expectations

Workload

Graduate students are expected to master subjects and to devote substantial time in independent library or laboratory investigation. Additional time is associated with academic research leading to the successful completion of the student's thesis, project or dissertation and includes scholarly work such as reading and synthesizing scientific literature; technical writing; laboratory work; data management; graphics and presentation preparation; and quantitative analyses. Graduate students are expected to network with fellow scholars by attending seminar presentations and regional and national professional meetings and conferences. There is no limit to time spent on studies and research relating to the advanced degree.

All graduate students are expected to maintain daily working hours as do faculty and staff. Graduate students are eligible for all University staff holidays (e.g. New Year's Day, Martin Luther King Jr. Day, Memorial Day, Juneteenth Day, Independence Day, Labor Day, Thanksgiving, and Christmas). Undergraduate student holidays

and semester breaks are not graduate student holidays. These periods provide an excellent opportunity for concentrated research.

Graduate students are responsible for keeping their faculty advisor informed of their status and how they may be reached. All vacations and leaves must be planned in advance and approval obtained from the student's faculty advisor.

Graduate assistants are required to work 19.6 hours per week teaching or doing research for their faculty advisor, while being enrolled as a full-time student. This is in addition to course work and research for their thesis or dissertation. Their assistantship, thesis, and dissertation research activities, along with academic coursework, all constitute considerably more than a full-time job.

Time Management

All graduate students are expected to manage time effectively for maximum professional development as well as personal health and well-being and balance competing demands such as being a student, graduate assistant, parent, spouse, caregiver, etc.

Graduate school will go much faster than anticipated. Students are responsible for tracking their progress and deadlines. Graduate students should develop a work plan that includes both short-term and long-term objectives as well as a series of deadlines for completing each step.

- [The Individual Development Plan \(IDP\): Chart Your Course](#)

Keep in mind the anticipated graduation date. It generally takes one semester to write a high-quality thesis, project paper, or dissertation that could meet publication standards.

Professional Conduct

Professionalism

Graduate school is vastly different from undergraduate education. It is more than just taking more classes at a higher level. Graduate students join a community of scholars and are expected to contribute – even create new information to expand knowledge within the food science and technology discipline.

Graduate students are treated as professionals, and responsible to develop and demonstrate their abilities to be an independent scholar and researcher. Faculty advisors and graduate students need to work together to set expectations and essential commitments. Problems in mentoring relationships most often occur because of misunderstandings and lack of clear communication.

Mentoring Resources

- [Graduate Mentoring Guidebook](#)
- [Guidelines for Good Practice](#)

Academic Integrity

Joining the Food Science and Technology graduate program means creating new knowledge to contribute to the food science and technology discipline. Graduate students will work with their faculty advisor and supervisory committee to create an independent research project.

Evidence of [academic integrity](#) violations can result in a probation, termination or dismissal. Students dismissed from the University due to violations of the Student Code of Conduct are ineligible to reapply for graduate study at the University of Nebraska-Lincoln.

Plagiarism

“Presenting the work of another as one's own (i.e., without proper acknowledgement of the source) and submitting examination, theses, reports, speeches, drawings, laboratory notes or other academic work in whole or in part as one's own when such work has been prepared by another person or copied from another person. Materials covered by this prohibition include, but are not limited to, text, video, audio, images,

photographs, websites, electronic and online materials, and other intellectual property.” [[UNL Student Code of Conduct](#)]

Preventing Plagiarism Tools (UNL Libraries)

- [Writing, Citation and Preventing Plagiarism](#)
- [Plagiarism and Citation](#)
- [Plagiarism.org](#)
- [Turnitin](#)

Other Acts of Academic Dishonesty, including but not limited to the following:

- Cheating
- Fabrication or Falsification
- Abuse of Academic Materials
- Complicity in Academic Dishonesty
- Falsifying Grade Reports
- Impermissible Collaboration
- Misrepresentation to Avoid Academic Work

Reporting Violations of Academic Integrity

Faculty advisors and supervisory committees are required to [report violations of academic integrity](#).

Diversity and Inclusion

“The University of Nebraska [does not discriminate](#) based on race, color, ethnicity, national origin, sex, pregnancy, sexual orientation, gender identity, religion, disability, age, genetic information, veteran status, marital status, and/or political affiliation in its programs, activities, or employment.”

Free Expression of Ideas

All students are expected to conduct themselves in mature, professional, courteous manners toward other students, staff, and faculty. Students work together with faculty and staff to create an environment that stimulates and encourages creative and independent learning while respecting academic freedom that allows expression of differing opinions. [UNL’s Commitment to Free Expression](#)

Dealing with Conflict

Everyone will experience conflicts in life, including conflicts at work. However, if these conflicts involve unprofessional conduct or harassment, the student need to immediately alert others to the problem. The following are presented as guidelines and suggestions.

- If you experience conflicts with the students you are teaching, discuss the situation immediately with the course instructor, course coordinator, or the laboratory director.
- For conflicts involving other research group members, consult with your Faculty Advisor; otherwise, approach the Graduate Program Chair or the Department Chair.
- If a conflict arises with your Research Advisor or with someone outside of your research group, talk to the Graduate Program Chair or the Department Chair.
- If the concern involves discrimination or harassment on the basis of gender or sexual orientation, you can contact any of the individuals discussed above as well as the UNL Title IX coordinator.

Reporting Discrimination or Harassment

Institutional Equity and Compliance investigates all allegations of [illegal discrimination and harassment](#). The process involves fact finding and assessment of the situations, followed by an assessment of those facts with regard to federal and state laws, rules and regulations and with University of Nebraska-Lincoln and departmental policies and procedures. IEC will also make recommendations and suggestions for a resolution of the conflict. The focus of these internal investigations is to ensure fairness and to help facilitate an outcome that will enable individuals to experience an environment where they have an opportunity for success.

Institutional Equity and Compliance
128 Canfield Administration Building
Lincoln, NE 68588-0437
(402) 472-3417
equity2@unl.edu

Students can also discuss grievances with the Graduate Program Coordinator, Graduate Program Chair, the Department Chair, or the Academic Success Coordinator at the Office of Graduate Studies.

Probation and Termination

Probation

Students on probation are not eligible for graduate assistantships. The funding will stop within one month of being placed on probation.

Graduate students may be placed on probation under the following conditions:

- Failure complete Student Progress Report and meet at least once a year with supervisory committee, resulting in “Unsatisfactory”
- Receiving “Unsatisfactory” on their Student Progress Report
- Failure in qualifying examinations, preliminary examinations, comprehensive examinations, or final degree examinations
- Failure to master the methodology and content of one’s field in a manner that is sufficient to complete a successful thesis or dissertation
- Violations of the [Student Code of Conduct](#)
- Violations of [Academic Integrity](#)

The faculty advisor or supervisory committee must submit a written six-month improvement plan to the FDST Graduate Committee. If the FDST Graduate Committee approves, the FDST Graduate Committee Chair must communicate it in writing to the Dean for Graduate Studies and the student.

Termination

Graduate students will be terminated under the following condition:

- Failure to satisfy conditions required for removal of probationary status
- Violations of the [Student Code of Conduct](#)
- Violations of [Academic Integrity](#)

The faculty advisor or supervisory committee must submit a written recommendation for termination to FDST Graduate Committee. If the FDST Graduate Committee approves, the FDST Graduate Committee Chair must communicate it in writing to the Dean for Graduate Studies and the student.

Appeal Procedure

In all cases, appeals are made in writing to the appropriate advisor, committee, or council.

1. The initial appeal is to the student’s advisor
2. If denied, the appeal may be submitted to the student’s supervisory committee
3. If denied, the appeal may be submitted to the FDST Graduate Committee
4. If denied, an appeal may be made to the campus Graduate Council

The student’s written initiation of the appeal must be filed within 30 days following the student’s receipt of the official written notification by Graduate Studies. [Full Termination Appeals Procedures](#)

Enrollment

Tuition and Fees

[Graduate tuition and student fees](#) are assessed by the credit hour and the program.

How to Enroll

- Students register for courses online through [MyRED](#).
- Registration for courses starts in March for summer term and fall semester courses, and in October for spring semester courses. Follow the Office of the Registrar's [Registration Dates](#) to ensure enrollment is done in a timely manner and avoid late registration fees.
- The Office of the Registrar offers excellent [Registration Tips and Techniques](#) to help trouble shoot most problems.
- Students should use the *FDST* call number when registering for any cross-listed courses.

Permission Codes

If a permission code is required for a course, students should first contact the instructor to request a permission code.

Minimum Enrollment Requirements

Graduate students should follow the minimum enrollment requirements set by their graduate assistantship, government funding guidelines, student visa status, educational loan deferment program, etc.

Status	Minimum Enrollment Fall or Spring Semester	Minimum Enrollment Summer Term
Full-time Status	9 credits hours	6 credit hours
Eligibility for Graduate Assistantship	1 credit hour	0 credit hours
Exempt from FICA/Medicare Withholding on Graduate Assistantship	4 credit hours	4 credit hours
Access to UNL Services (building door access, libraries, health center, rec center)	1 credit hour	1 credit hour

Graduate assistants are not required to register for courses during the summer term.

Special Consideration for International Students

International students are highly encouraged to contact the [International Student and Scholar Office \(ISSO\)](#) if they have any questions about remaining in good standing.

Fall and Spring

- Register as a full-time student every Fall and Spring semester until they graduate.
- No more than 3 credits or one class of online or distance education per semester may count towards the full-time enrollment requirement

Summer

- If admitted in summer, international students must be enrolled full-time.
- If completing their degree in June, July or August, international students must be enrolled in a minimum of 1 hour for the summer.
- If not starting or finishing their program, international students are not required to register for courses during the summer term.

Doctoral Students in Candidacy

Doctoral students who have achieved candidacy status must be continually enrolled every fall and spring semester until they graduate. Failure to maintain enrollment will result in the termination from the Food Science and Technology graduate program.

Full-Time Certification to Enroll in less than 9 hours

Students may request full-time status certification to enroll in less than 9 credit hours. This is generally used toward the end of a student's degree program allowing them to focus on their research and writing their thesis or dissertation. It saves money for both student and faculty advisor while completing their degree in a timely manner.

Application

Students must submit an [online full-time status certification form](#) every semester or term they are enrolled and need full time status while enrolling in less than 9 credit hours.

Eligibility

The student must be currently registered for at least one credit hour and have been registered at least half time (i.e., at least 4 credits) in the fall and spring terms prior to the initiation of the full-time certification status.

Master of Science with Thesis Students

- Grad Studies approved Memorandum of Courses
- Limitations: may use it no longer than 3 consecutive terms (including summer)

Doctoral Students

- Grad Studies approved doctoral candidacy application
- Limitations: may use it no longer than 24 consecutive months (or 6 consecutive terms, including summer)

Inactive Student Records

If a student does not enroll in courses for three consecutive terms (without approved Academic Leave of Absence), their records will be inactivated. They must reapply for admission to enroll in courses and complete their degree or certificate.

Withdrawal

To withdraw from the University of Nebraska-Lincoln, the student should send a written notice to their faculty advisor, graduate program coordinator and the Office of Graduate Studies. The Office of Graduate Studies will discontinue their academic program. Please review the Office of the University Registrar's policy on [University Withdrawal](#) and [Cost of Withdrawal](#).

Courses

- Only courses with 800 or 900 level course numbers can be counted for graduate credit.
- Full course description are available online at <https://catalog.unl.edu/graduate-professional/courses/>

Food Science and Technology Courses

Dept	UG	GR	Title	Cr. Hrs	Fall Every	Fall Odd	Fall Even	Spring Every	Spring Odd	Spring Even	Summer Every
FDST	401	801	Teaching Applications of Food Science	3							X
FDST	403	803	Food Quality Assurance	3				X			
FDST	405	805	Food Microbiology	3	X			X			
FDST	406	806	Food Microbiology Lab	2	X			X			
FDST	412	812	Cereal Technology	3		X					
FDST	413	813	Baking Technology	3			X				
FDST	414	814	Egg Processing from Science to Technology	3			X				
FDST	415	815	Molds and Mycotoxins	3		X					
FDST	420	820	Fruit and Vegetable Technology	3						X	
FDST	424	824	Food Safety Microbiology	3					X		
FDST	425	825	Food Toxicology	2					X		

FDST	429	829	Dairy Products Technology	3					X		
FDST	430	830	Sensory Evaluation	3		X					
FDST	442	842	Omnivore's Digestive-Tract Microbiome	3				X			
FDST	448	848	Food Chemistry	3	X						
FDST	449	849	Food Chemistry Lab	1	X						
FDST	452	852	Physical Chemistry in Foods								
FDST	455	855	Microbiology of Fermented Foods	2						X	
FDST	455	855L	Microbiology of Fermented Foods Lab	1						X	
FDST	458	858	Advanced Food Analysis	3				X			
FDST	460	860	Food Product Development Concepts	3				X			
FDST	465	865	Food Engineering Unit Operations	3				X			
FDST	470	870	Nutraceuticals and Functional Foods	3						X	
FDST	492	892	Special Topics	1-6							
FDST	396	896	Bioinformatics Skills for Food Genomics	3		X					
FDST	396	896	Food Safety Auditor	2				X			
FDST		823	Food Safety Risk Analysis	3					X		
FDST		866	Scientific Method in Practice	1	X						
FDST		880A	Food Carbohydrates	2			X				
FDST		880L	Food Lipids	2		X					
FDST		880P	Food Proteins	2						X	
FDST		894	Graduate Internship Experience	1							
FDST		896	Independent Study	1-5	X			X			X
FDST		899	Masters Thesis	1-10	X			X			X
FDST		908B	Food Borne Pathogens	2					X		
FDST		908E	Readings in Food Microbiology	2						X	
FDST		993	Professional Development Workshop	1							
FDST		996	Research (other than thesis or dissertation)	1-8	X			X			X
FDST		999	Doctoral Dissertation	1-12	X			X			X

Great Plains Interactive Distance Education Alliance

Great Plains Interactive Distance Education Alliance (GP*IDEA) is a partnership of public universities providing online educational programs and courses. The Department of Food Science and Technology participates with the Food Safety and Defense Certificate.

Students interested in enrolling in these courses should contact Melissa Sailors at melissa.sailors@unl.edu or 402-472-7890 to request appropriate forms and receive a permission code to enroll in MyRED so the course will count toward their program of studies.

Dept	UG	GR	Title	Cr. Hrs	Fall Every	Fall Odd	Fall Even	Spring Every	Spring Odd	Spring Even	Summer Every
FDST		871	A Multidisciplinary Overview of Food Safety and Security	2							K-State

FDST		872	Principles of Hazard Analysis and Critical Control Point System	2	Iowa State						
FDST		874	Food Laws, Regulations, and the Regulatory Process	2							Iowa State
FDST		876	Risk Assessment for Food, Agriculture, and Veterinary Medicine	3							
FDST		877	Advanced Food Microbiology and Biotechnology	3					Univ Missouri		
FDST		878	Food Protection and Defense: Essential Concepts	2				K-State			
FDST		896	Ethnic Food Safety	2							Univ Missouri

University of Nebraska Intercampus

Graduate students are eligible to take courses at the University of Nebraska-Lincoln (UNL), University of Nebraska Omaha (UNO), University of Nebraska at Kearney (UNK) and the University of Nebraska Medical Center (UNMC). Food Science and Technology graduate students wishing to take courses at UNO, UNK or UNMC must fill out an [Intercampus Application](#). A new application is required for each semester the graduate student wants to take a course at a different campus.

- [University of Nebraska Omaha Graduate Courses](#)
- [University of Nebraska at Kearney Graduate Courses](#)
- [University of Nebraska Medical Center Graduate Courses](#)

Food Processing Center Workshops

The UNL Food Processing Center (FPC) offer [professional development workshops](#) to industry partners that students are eligible to enroll in and to receive academic credit. Students must enroll in FDST 993 as well as pay the FPC workshop fee.

Research and Writing Resources

Suggested Preparation Courses

The Food Science and Technology Graduate Committee recommend the following courses to help students prepare for research, especially for students enrolling in FDST 897, FDST 899 and FDST 999.

Students should work with their faculty advisor and supervisory committees to see if any of these courses would be beneficial in their Plan of Study.

- FDST 866 Scientific Method in Practice (fall)
- STAT 801A Statistical Methods in Research: Non-Calculus (fall, spring)
- NRES 800 Sampling, Data Management and Visualization (fall)
- AGRO 803 Scientific Writing and Communication (spring)
- [ORED Research Administration Essentials Workshops](#)

UNL Libraries: FDST Research Guide

There is an online guide to Libraries' resources and services for Food Science & Technology Research Guide available at <http://unl.libguides.com/foodscitech>. (It also links to information from other reliable organizations and services.)

Statistical Cross-disciplinary Collaboration and Consulting Lab (SC3L)

The [Statistical Cross-disciplinary Collaboration and Consulting Lab \(SC3L\)](#) is a free service available to students, faculty, and staff at the University of Nebraska who are in need of assistance with a Master's thesis, a PhD dissertation, or faculty research.

IANR Science Communication Hub

Regardless of a chosen field or career path, students must communicate well when working in STEM. The [IANR Science Communication Hub](#) is dedicated to supporting IANR students, postdocs, and faculty to develop essential communication skills and reach their scientific writing and science communication goals.

Writing Center

All members of the UNL community (students, faculty, and staff) are welcome. All forms of communication are welcome, from lab reports, presentations, and research papers to cover letters, application essays, and graduate theses and dissertations. Writing Center Consultants can work at any stage of the writing process, from brainstorming and organizing ideas through polishing a final draft. Sign up for appointments by visiting the [Writing Center website](#).

Graduate Student Office Space and Mailboxes

Graduate students enrolled full-time may be provided a desk and office area. It is necessary that graduate students share an office with other graduate students and research staff, located in the Food Innovation Complex (FIC). Graduate students are assigned offices based on their faculty advisor.

Graduate students are responsible for maintaining offices, laboratories, and facilities in the Department in an orderly and presentable condition at all times. Offices are not to be used for laboratory experiments or storage of equipment and/or sample materials.

Mailboxes

Each graduate student office has a designated mailbox in FIC 225.

Graduate Forms

Department of Food Science and Technology

- [FDST Graduate Program Website](#)
- [MS OneDrive](#)
- [MS Teams](#)

Office of Graduate Studies

- Master's Degree Milestones, Requirements, Forms and Deadlines: <https://www.unl.edu/gradstudies/academics/degrees/masters>
- Doctoral Degree Milestones, Requirements, Forms and Deadlines: <https://www.unl.edu/gradstudies/academics/degrees/doctoral>

Annual Progress Report/ Supervisory Committee Meeting Requirement

The faculty advisor or supervisory committee may call a meeting to review a student's performance at any time with a two-week notice.

Admitted	Deadline
May or August	April 15
January	November 15

All Food Science and Technology graduate students are required to complete a Student Progress Report form and meet with their supervisory committee at least once a year to review progress and discuss future research or

project and academic plans. The Student Progress Report should reflect your *whole* graduate experience. Each Student Progress Report should build off the prior years' reports.

Students should work with their faculty advisors to establish an agenda to determine if additional elements, such as an oral report is required. The annual committee meeting may coincide with completing supervisory committee and program of study paperwork, and/or the mid-program project proposal defense in addition to reviewing the Student Progress Report.

At least two weeks before their supervisory committee meeting, students need to email the completed Student Progress Report form to their supervisory committee members and FDST Graduate Coordinator.

If a student fails to submit a Student Progress Report, the student will receive "Unsatisfactory" and placed on probation.

Review Process

The student will present a summary of his/her past academic and research accomplishments and plans for the future. Supervisory committee members vote and provide feedback if a student's performance is:

1. Satisfactory
Meets expectations, has made progress, earned minimum grade requirements, presented their research and a clear plan for the future
2. Needs Improvement
Meets some expectations, but has deficiencies in certain areas, i.e., not meeting deadlines, failure to present research at meetings, insufficient reading of the literature, less than adequate writing skills, no clear plan for the future.

If a student receives "Needs Improvement", deficiencies will be discussed and suggestions to overcome those deficiencies will be proposed. This will be documented on the Student Progress Report form.

3. Unsatisfactory
Does not meet expectations. In addition to the Needs Improvement deficiencies above, student does not spend enough time in the lab, is not synthesizing research concepts, does not use proper controls, and cannot make conclusions from research results; failure to meet with Supervisory Committee once per year

If a student receives "Unsatisfactory", the student will be placed on probation. A written six-month improvement plan must be submitted to the FDST Graduate Committee. The student will provide a written progress report at 3 months, followed by a supervisory committee meeting at 6 months.

At the six-month supervisory committee meeting, all supervisory committee members must approve if the student has completed the plan and is making satisfactory progress. If the student fails to achieve satisfactory status, the student will be terminated from the graduate program.

A written letter or memo must be submitted to the FDST Graduate Committee to report any change in status.

Research and Projects

Project Development

Generally students decide to work with a particular faculty advisor within a broadly defined area. The specific research or project problem within this area is usually suggested by the faculty advisor. This is appropriate in the beginning of a student's graduate education since they may not have the experience to fully appreciate the proposed research or project problem in the context of the field. In attempting to solve the assigned research or project problem, the student will benefit from the ideas, expertise, and guidance of their faculty advisor.

During the course of their graduate program, the student should become increasingly familiar with the subject of the investigation and, upon completion, may well have greater expertise than their faculty advisor. It is assumed that the general research or project area in which the specific problem fits is one in which the faculty advisor will continue to work. It is to the mutual benefit of the student and faculty advisor to agree, before the student's departure, on the responsibilities for future work in the general research or project area.

Industry Employees

Often industry employees have a specific research or project problem upon which they wish to work on. Industry employees need to work with their employer and faculty advisor closely to develop a project or research problem that can be shared through a written thesis, dissertation or project paper and oral presentation. It is to the mutual benefit of the student, employer and faculty advisor to agree, before the student's departure, on the responsibilities for future work in the general research or project area.

Safety and Research Responsibility Training

Safety is the responsibility of every member of the University of Nebraska-Lincoln community. All students will receive the appropriate safety training *prior* to participating in research projects.

Students need to work with their faculty advisors to determine what safety and research training is required. Certificates of completion must be kept on file. Refresher training may be required throughout a degree program.

Safety Training

The University of Nebraska-Lincoln Environmental Health and Safety (EHS) provides [web-based training](#).

- Core 1 - Injury and Illness Prevention Plan (IIPP)
- Core 2 - Emergency Preparedness Training
- Chemical Safety Training
- Biosafety 100: Research Compliance
- Bloodborne Pathogens for Laboratory Workers
- Autoclave Operation Training

Departmental Autoclaves

To use and have access the Food Innovation Center autoclaves, graduate students or faculty advisors need to contact Jayne Stratton, FDST Safety Committee Chair, to set up autoclave training.

Human Research Subjects

The Institutional Review Board (IRB) oversees Human Research Protection Program (HRPP). Research staff, including graduate students, are required to complete [CITI training](#) if they have direct contact with human participants (e.g., for subject recruitment, data collection) or who have access to information that links participants' names with their data.

Research staff, including graduate students, who work with the non-identifiable data (e.g., data entry, data analysis) AND who have no contact with participants and no means of identifying participants or linking participants' names to their data are not required to complete training.

Animal Research Subjects

Research staff, including graduate students, working with animals are required to complete [Institutional Animal Care and Use Committee \(IACUC\) training](#).

Embargo Option

The University of Nebraska-Lincoln offers three embargo options through ProQuest (for dissertations) and Digital Commons (for thesis): six months, one year, and two years.

These options are available when the student uploads the PDF of the dissertation to ProQuest or the thesis to Digital Commons.

[The Process of Placing the Embargo](#)

Ownership of Data and Intellectual Property

Research Materials and Data

All data and records pertaining to the research activities are the property of the Department of Food Science and Technology at the University of Nebraska-Lincoln.

Research materials such as lab notebooks and research files shall remain the property of the faculty member(s) responsible for directing the project.

The same applies to other items such as photographs, microscopic slides, specimens, models, and computer programs that might have been developed as a part of the graduate activities.

Intellectual Property

University of Nebraska Board of Regents (BOR) policy requires that, as employees of the University all faculty, staff, and some students, disclose and assign every invention or discovery resulting from the performance of duties within the scope of University employment, or from the use of University resources, to the University. The University has three policies that govern intellectual property.

- BOR Bylaw 3.10, establishes University ownership of inventions. When the Board of Regents established policy 3.10, the intent was to encourage the commercialization of inventions and discoveries arising from research activities of the University, and when appropriate, the pursuit of patents or other intellectual property protection.
- BOR Policy 4.4.1, establishes the copyright policies for the various copyright works and development scenarios that can occur on campus.
- BOR Policy 4.4.2, the patent and technology transfer policy, governs invention disclosure, intellectual property protection, and licensing. This policy outlines the steps that the University can take to protect its Intellectual Property and how the innovator can also benefit.

Ownership of Copyrights in Student Works

Theses, Dissertations and Other Student Works

Students will own the copyrights to their theses, dissertations, and other student works; however, a student must, as a condition to a degree award, grant royalty-free nonexclusive permission to the University to store copies of such works for archival purposes and to reproduce and publicly distribute copies of his or her thesis or dissertation within the University education and research missions; provided however, that should the student identify any legitimate proprietary interest the student may have in the work, or should the University determine that it has an ownership interest in any patentable or otherwise protectable Intellectual Property interest in the work, the University shall then delay any public access to the work for up to one year following the presentation of the work, in order for the student to consult with the University regarding the protection of the proprietary interest. Copyright ownership of theses or dissertations generated by research that is performed in whole or in part by a student with the support of a sponsor or grant shall be determined in accordance with the terms of the sponsored research or grant agreement, or in the absence of such terms, the copyright shall be owned by the University.

Software, Patentable Subject Matter and Non-Copyright Intellectual Property

Software, patentable subject matter, and other Intellectual Property contained or disclosed in theses, dissertations and other student works shall be subject to and governed by the policies that apply to University employees.

Student Writings Other Than Theses or Dissertations

Students shall own the copyrights to all student writings not commonly referred to as theses or dissertations and to other creative expressions required in the course of class assignments. The University shall retain the right to keep original examination scripts and to possess a copy or record of other student works for purposes of assigning grades, maintaining archival materials, and record keeping.

Degree Requirements

Minimum Grade Requirements

The following minimum grades are required to earn credit in graduate-level courses:

	Courses in the major department or area applied toward a degree (for example, FDST)	All other courses applied toward a degree or a graduate certificate
800-level with 400 or lower counterpart	B	C or P (pass)
900-level and 800-level without 400 or lower counterpart	C or P (pass)	C or P (pass)

The comprehensive exam for the minor may be waived if all grades in the minor are at least a B or P (pass).

Courses taken to fulfill requirements for a graduate certificate and later applied toward a graduate degree must meet the minimum grade requirements for the degree, which may be higher.

Grades below the minimum requirement cannot be applied toward a degree or graduate certificate. Students failing to receive a minimum acceptable grade may not continue their program of studies without permission of their supervisory committee or the departmental graduate committee.

[Grading System and Grade Appeals Process](#)

Required Courses

FDST 951 Advanced Food Science and Technology Seminar (offered every fall semester)

In order to count on a graduate student's Plan of Study, students must earn a letter grade of B or better.

Doctoral Degree	Minimum of 3 hours (or 5 hours if complete MS degree at UNL in FDST)
Master's Degree with Thesis	Minimum of 2 hours
Master's Degree with Project	Minimum of 1 hour

Catalog Course Description

Advanced study and discussion of scientific research pertaining to food science and technology.

Learning Outcomes

The purpose of this course is to immerse students in the interdisciplinary nature of food science and technology by joining the scholars in their field. Students will learn about and discuss new research discoveries and current research methods. Students will be evaluated through a written self-reflection journal what they learned from the seminar and how that new knowledge influences their own research. Students will also be expected to write about the potential broader impacts of the work presented in the seminar.

Invited seminar speakers from within and outside UNL will be hosted each week, providing students with opportunities to network and interact with fellow scholars. Hosting speakers with a variety of backgrounds will provide students with opportunities to learn about career opportunities and potential employers.

FDST 952 Professional Food Science Communication (offered every spring semester)

In order to count on a graduate student's Plan of Study, students must earn a letter grade of B or better.

Doctoral Degree	Minimum of 3 hours (or 5 hours if complete MS degree at UNL in FDST)
Master's Degree with Thesis	Minimum of 2 hours
Master's Degree with Project	Minimum of 1 hour

Catalog Course Description

Best practices for science communication through practical delivery of food science and technology knowledge to a variety of audiences.

Learning Outcomes

Effective science communication helps advance society's understanding of what scientists do, how they make discoveries, and why those discoveries are important. The purpose of this course is for students to become competent communicators of complex scientific concepts and findings related to their project, thesis or dissertation. Students will be evaluated through an oral and visual presentation given at a one-day public Food Science and Technology Symposium.

FDST 896-002 Teaching Assistant

In order to count on a graduate student's Plan of Study, students must earn a passing grade.

Doctoral Degree	Minimum of 2 hours
Master's Degree with Thesis	Minimum of 1 hour
Master's Degree with Project	Not required

Teaching assistants are an integral part of teaching food science and technology concepts within the UNL Department of Food Science and Technology. Teaching assistantships help develop communication skills with students, and eventually the public, who may not be familiar with food science and technology concepts. Being a teaching assistant is a time to shadow and network with faculty as well as develop teaching skills.

Expectations

- Commit at least 10 hours per week for teaching assistant assignment
- Specific teaching and lab prep responsibilities vary depending upon the course and the instructor supervisor
 - Attend preparatory meetings scheduled by the supervising faculty, prepare laboratory media and course materials, grade papers, proctor exams, work with students in laboratory or lecture exercises and answer students' questions

Requirements

- Submit Teaching Assistant Experience Request form
 - Once assigned a position, a permission code is sent to the student so they can enroll in FDST 896-002
- Complete required necessary training, such as classroom safety training and classroom instruction
- Complete an agreement of duties with instructor
- Submit Teaching Assistant Completion Form
 - At the end of the semester, teaching assistants need to schedule an appointment with their instructor supervisor and/ or lab supervisor to complete an evaluation
 - Email to FDST Graduate Coordinator to receive a grade

Consideration for Food Industry and UNL Employees

Graduate students who are full-time employees and receive tuition reimbursement from their food industry and UNL employers need work with their faculty advisor and FDST Graduate Committee Chair to identify how their expertise would work within one of our FDST courses. An agreement of duties with the instructor is required.

Optional CIRTL Certification

UNL is part of at the national Center for the Integration of Research, Teaching and Learning (CIRTL). Students in pursuing a career with teaching or instruction components are encouraged to pursue [CIRTL certification](#) in association with their teaching assistant experience.

English Language Test (ELT) for international Students

This is an Office of Graduate Studies requirement. The English Language Test (ELT) requirement is generally based on TOEFL or IELTS scores. Students submitting a Duolingo English Test are required to take the ELT.

TOEFL iBT	Writing Score Below 25	Total Score Below 100
IELTS	Writing Score Below 7.0	Total Score Below 7.0

The Office of Graduate Studies will notify the international student if they are required to take the English Language Test (ELT) upon their arrival in Lincoln. Students should [Register for the English Language Test](#) and sign-up at the earliest test date that fits the student's schedule. (The sooner the exam is completed, the sooner the student can finalize their course enrollment.) Graduate students take only the writing portion of the ELT, which can be completed in one hour.

ENGL 887 GESL and/or Academic Research Skills for International Students

1. If the student's ELT score is below 85, the student will be placed in ENGL 887, a 3-credit hour course to build English communication skills, emphasizing writing essays and research papers
2. If the student's ELT score is 85 or higher, the student is exempt from any further English language courses

ENGL 887 GESL and/or Academic Research Skills does *not* count toward the student's Plan of Study.

Master's Degree with Thesis Requirements

Supervisory Committee

A student's supervisory committee should be formed by the end of the student's 2nd semester (or before completion of 15 credit hours).

Requirements

- Minimum of three committee members
- Faculty advisor serves as chair
- At least two must be Food Science and Technology faculty. The third member may be from Food Science and Technology or another department.

Minor: Students seeking a minor are required to have a graduate faculty member from the minor program on their Supervisory Committee. It is at the discretion of the minor advisor as to whether they elect to be on the student's supervisory committee as long as a minor comprehensive exam is not required.

UNL Employees

To reduce conflict of interest, University of Nebraska-Lincoln employees must identify a faculty advisor other than their immediate work supervisor. Their work supervisor may serve on their supervisor committee as a committee member.

Plan of Study (Memorandum of Courses)

A Plan of Study consists of courses considered necessary for the student's degree. A Plan of Study is intended to be flexible to meet the educational objectives of the student and to build on previous academic experiences. The student, along with the Supervisory Committee, should select courses that best support the student's research and overall academic program.

A student's Plan of Study should be completed by the end of the student's 2nd semester (or before completion of 15 credit hours). Students may not file a Memorandum of Courses and graduate in the same term.

Requirements

- Only courses with 800 or 900 level course numbers can be counted for graduate credit
- Minimum of 30 semester credit hours
 - At least one-half (15 hours), including thesis credits, must be in Food Science and Technology (FDST)
 - 6-10 hours of FDST 899 Master Thesis credit hours

- 20-24 hours of regular course work
 - 1 credit hour of FDST 896-002
 - 2 credit hours of FDST 951
 - 2 credit hours of FDST 952
 - 8 credit hours must be 800 or 900 level without 400-level counterparts (excludes FDST 899)

Revisions

- The student emails proposed changes to supervisory committee members, FDST Graduate Chair and FDST Graduate Coordinator.
- Once departmental approvals are received by email, the student's faculty advisor emails the Office of Graduate Studies for approval.

Research Proposal Defense (Mid-Program Comprehensive Exam)

A student pursuing a Master of Science Degree with Thesis must complete a mid-program comprehensive exam by the end of the student's 3rd semester (or before completion of 20 credit hours). Students may not defend a research proposal and graduate in the same term.

The mid-program comprehensive exam consists of a research proposal on the student's intended project that the student will write and then orally defend in front of the student's Supervisory Committee.

The Supervisory Committee Chair (faculty advisor) should be involved in planning and development of the research project but should not edit or rewrite the written research proposal. This document should be an accurate representation of the student's writing and reasoning abilities.

Written Research Proposal Requirements

- Submit at least two weeks before the oral defense, email the written research proposal and evaluation form to supervisory committee members, FDST Graduate Chair and FDST Graduate Coordinator
- 8-12 pages in length and should follow the style prescribed by their adviser (e.g. MLA, APA, Chicago).
- General guidelines for the proposal include: 12-point font, 1" margins, double spacing, pagination, a cover page, citation of sources and a bibliography.

Sections

1. Summary: A brief overview of the full proposal. (less than one page)
2. Justification, Objectives, Hypotheses, and Significance: A short statement of why the research is being done, the overall and specific objectives, the hypotheses being tested, and what the significance of the anticipated results will be. (about one page)
3. Literature Review: The review should be confined to the most relevant articles and be as current as possible. This is not expected to be a comprehensive review but should establish a basis for the intended research. (2-4 pages)
4. Preliminary Results: Include any relevant data (tables, figures).
5. Materials and Methods: Specific procedures, including experimental design, analytical methods, and statistical methods for evaluation of data, should be described. Standard or well-established methods need not be listed but should be referenced. Procedures should be listed in an order corresponding to the objectives. (3-4 pages)
6. Expected Outcomes: A short description of the major results and their significance. (less than one page)
7. Literature Cited: A standard journal format should be used as approved by the supervisory committee.

Oral Research Proposal Defense Requirements

- 20-minute seminar presentation with Supervisory Committee members
- Followed by oral examination by the Supervisor Committee

Areas to be evaluated include the student's knowledge of the science and methods to be used in the project and the student's ability to express his/her ideas orally and to answer questions related to the proposed project.

The supervisory committee members will complete Research Defense Evaluation Forms to provide constructive feedback. The Supervisory Committee may recommend

1. Unconditional approval of the research project proposal
2. Conditional approval (the committee may specify remedial action to improve writing skills, additional course work to improve knowledge in a technical area critical to the research, or other action as necessary)
3. Not approved: The student will be given a second opportunity to prepare and defend a revised proposal within six months.

Reporting Results

- Copies of the Research Defense Evaluation Forms must be turned into the FDST Graduate Program Coordinator.
- If a student fails to pass the research proposal, the supervisory committee files a report on the failure to the FDST Graduate Chair and FDST Graduate Coordinator. The report must indicate what the student must do before taking another examination. Another examination may not be held during the same term. Only two attempts are permitted unless additional attempts are approved by the FDST Graduate Committee.

Thesis and Final Oral Defense

The master's thesis and abstract must be submitted to the supervisory committee chair (faculty advisor) at least 6 weeks prior to the oral defense. The faculty advisor should be involved in helping the graduate student develop their thesis into a publishable form.

Once approved, the Final Examination Report form must be submitted to the Office of Graduate Studies Masters Program Coordinator and FDST Graduate Program Coordinator at least four weeks prior to the oral defense.

An electronic copy of the thesis and abstract must be submitted to all supervisory committee members, Office of Graduate Studies Masters Program Coordinator, and FDST Graduate Program Coordinator for approval at least two weeks prior to the oral defense. All major revisions to the thesis should be completed *before* the oral defense. Minor revisions (such as formatting or spelling) are permitted after the oral defense.

The graduate student is responsible to submit the completed Final Examination Report form and deposit their thesis by the Office of Graduate Studies deadlines.

Written Requirements

- Office of Graduate Studies Written Format Guidelines:
<https://www.unl.edu/gradstudies/current/degrees/guidelines>
- Make revisions based on corrections and recommendations after each evaluation

Oral Defense

- 45-minute public seminar presentation with 10 minutes for questions, open to faculty, graduate students, and guests
- Followed by oral examination by the Supervisor Committee (please allow 2 hours)

Reporting Examination Results

1. If the committee agrees unanimously that the student has passed: Part 4 of the Final Examination Report is signed by all committee members present for the defense.
2. If only one member dissents: The dissenting member files a letter of explanation to the FDST Graduate Chair, FDST Graduate Coordinator and the Office of Graduate Studies, but the student is approved for the degree and Part 4 of the Final Examination Report is signed accordingly.
3. If more than one member dissents: The student fails to pass the final oral exam. The committee files a report on the failure to the FDST Graduate Chair, FDST Graduate Coordinator and the Office of Graduate Studies, indicating what the student must do before attempting another examination. A student may attempt a final oral exam only once per term.

Time Limit

Students must complete their Master of Science degree within 5 consecutive years.

Master's Degree with Project Requirements

Supervisory Committee

A student's supervisory committee should be formed by the end of the student's 2nd semester (or before completion of 15 credit hours).

Requirements

- Minimum of three committee members
- Dr. Rossana Villa Rojas serves as chair
- At least two must be Food Science and Technology faculty. The third member may be from Food Science and Technology or another department.

Minor: Students seeking a minor are required to have a graduate faculty member from the minor program on their Supervisory Committee. It is at the discretion of the minor advisor as to whether they elect to be on the student's supervisory committee as long as a minor comprehensive exam is not required.

UNL Employees

To reduce conflict of interest, University of Nebraska-Lincoln employees must identify a faculty advisor other than their immediate work supervisor. Their work supervisor may serve on their supervisor committee as a committee member.

Plan of Study (Memorandum of Courses)

A Plan of Study consists of courses considered necessary for the student's degree. Plan of Study is intended to be flexible to meet the educational objectives of the student and to build on previous academic experiences. The student, along with the Supervisory Committee, should select courses that best support the student's research and overall academic program.

A student's Plan of Study should be completed by the end of the student's 2nd semester (or before completion of 15 credit hours). Students may not file a Memorandum of Courses and graduate in the same term.

Requirements

- Only courses with 800 or 900 level course numbers can be counted for graduate credit
- Minimum of 30 semester credit hours
 - At least one-half (15 hours), including thesis credits, must be in Food Science and Technology (FDST)
 - 4-6 hours of FDST 897 Master Project credit hours
 - 24-26 hours of regular course work
 - 1 credit hour of FDST 951
 - 1 credit hour of FDST 952
 - 15 credit hours must be 800 or 900 level without 400-level counterparts (including FDST 897)

Revisions

- The student emails proposed changes to supervisory committee members, FDST Graduate Chair and FDST Graduate Coordinator.
- Once departmental approvals are received by email, the student's faculty advisor emails the Office of Graduate Studies for approval.

Project Proposal (Mid-Program Comprehensive Exam)

A student pursuing a Master of Science Degree with Project must submit a brief project description. The project description must be submitted to the Grad Committee with their Plan of Study by the end of the student's 2nd semester (or before completion of 15 credit hours). By their 3rd semester (or before completion of 20 credit) they should submit a complete a project proposal. Students may not present a project proposal and graduate in the same term.

Project Minimum Requirements

The master's project provides an opportunity for students to integrate and apply the knowledge acquired throughout their master program. The project would serve as proof of the student's understanding of theories and principles of Food Science and Technology, and their ability to apply that knowledge to solve a problem or fill in a knowledge gap related to some aspect of professional life. A master project would qualify as "suitable" if it provides students the opportunity to apply the skills and competencies acquired in the Food Science and Technology Master program to a problem/challenge/issue/knowledge gap likely to be encountered in professional practice

The objective of the project is to evaluate the student's abilities to:

- Concisely define a problem/challenge/issue/knowledge gap
- Discuss the problem/challenge/issue/knowledge gap within the context of practice and/or policy in USA or globally
- Critically review research literature relevant to the topic
- Propose an experimental design or solution to address the problem/challenge/issue/knowledge gap
- Describe the methodology proposed for the experimental design or solution
- Explain findings in a style appropriate for practice or scholarly publication
- Analyze and interpret findings and make appropriate conclusions and recommendations for policy/practice

Preparing the Project

The project manuscript must document the research process and line of reasoning in a logical clear order that allows others to evaluate the credibility of the work. The content and presentation of the project should meet the criteria of either a journal article or technical report, depending on the nature of the research. Students should consult their advisors and committee about the writing style early in the process.

The following is a guideline for the content of the project; however, the format may vary depending on the nature of the research (8-10 pages):

1. Title page and abstract
2. Introduction to the context: i.e. "why is this important? To you? Others?"
3. Goals and objectives of the project, clear statement of the topic or problem
4. Critical review of relevant literature (does not have to be a separate chapter like in a thesis)
5. Methods as appropriate to the form of the project
6. Results analysis and discussion
7. Implications and recommendations for application and/or policy
8. References

In the discussion section students are expected to integrate their findings with relevant literature, discuss the strengths and limitations of methods/approach/analysis and consider the implications of their work for practice. For style and format students may use as the Office of Graduate Studies Written Format Guidelines:

<https://www.unl.edu/gradstudies/current/degrees/guidelines>.

Project Examples

The master's project may take various forms, as long as it **fulfills the minimum requirements and does not match or exceed the expectations of a master thesis**. Some of those forms include but are not limited to the following examples:

- **Research or Technical Report**
Involves the collection, analysis, and/or interpretation of data to address a food science or technology problem, report results on a client's project or describe the development of a new product or process. The research report should include an abstract, report body, references, and appendix.
- **Primary Data Analysis**
Work for the master's project may also involve the primary collection and analysis of data, the experimental design should be well defined and delimited to one research objective. Data collection for the project is usually in the context of an ongoing study, but it is also possible (although not recommended) for students

to initiate an original study under the guidance of a faculty member. The research may be published (not required) as part of a journal article or a technical note.

- **Secondary Data Analysis**
Typically, a project research report is in the form of a secondary data analysis, using an existing data set. Please note that the appropriate ethics approval may need to be obtained for any paper that uses data gathered from human subjects. Even in cases where the data is de-identified, a determination should be sought from UNL's Internal Review Board. The research may be published (not required) as part of a journal article or a technical note.
- **Food Safety and Defense Program Development and Implementation**
The project would involve the development of a HACCP, FSMA preventive control for human foods and food defense program plans to implement in a real food processing facility. The program should follow the guidelines and methodology stated by either USDA or FDA depending on the commodity in question, including a needs assessment and/or a risk assessment.
- **Policy Analysis**
The project would involve analysis of the implications of a current or proposed policy or rule directly related to food safety, processing, or biotechnology. The project might include perspectives on food safety, processing, economics, and financing, need and demand, politics/ethics/law, or quality/effectiveness.
- **Project Proposal**
The project would simulate either a grant proposal or a project business plan. The research question or business proposal must be related to food focusing in an area encountered in professional work, such as development of a new technology or investment on a new production line by a specific company.
 - The grant proposal would include a clear statement of the research question, the specific aims of the proposal, review of literature, study design, methods of analysis, implications, significance of the work and budget.
 - The project business plan would include a clear statement of the customer/consumer/company need, background of the company and rationale of the project, project scope including measurable design goals, measurement methodology of goals, technical requirements and feasibility, market and cost analysis, and financial projections.
- **Curriculum or Training Development, Implementation and Outcome Evaluation**
Involve the identification of a need, issue, or problem to be addressed using training and developing a curriculum guided by learning outcomes and tailored to a defined target audience. The developed curriculum would be then imparted to the identified target audience and evaluated for effectiveness at addressing the problem, need or issue identified. The process will be documented in a report outlining the relevance of the training, the development, implementation, outcomes, and recommendations.
- **Critical analysis of literature and practices (as an option for students with experience in an area of knowledge)**
Review of literature should include either an analysis process (systematic review), or a constructive critique of the publications or methodologies to identify gaps or directions of the field. The final product should be in publishable format for outreach or scientific publication. Publication of the review is not required.

Project Final Paper Exam and Oral Presentation

The master's project must be submitted to the supervisory committee chair (faculty advisor) at least 6 weeks prior to the Office of Graduate Studies results deadline. The faculty advisor should be involved in helping the graduate student develop their project into a publishable form.

Once approved, the Final Examination Report form must be submitted to the Office of Graduate Studies Masters Program Coordinator and FDST Graduate Program Coordinator at least four weeks prior to the results deadline.

An electronic copy of the project must be submitted to all supervisory committee members and FDST Graduate Program Coordinator for approval at least two weeks prior to the results deadline.

The supervisory committee chair (faculty advisor) is responsible to notify the Office of Graduate Studies Masters Program Coordinator of the project paper results by the Office of Graduate Studies results deadline. The graduate student is responsible to submit the completed Final Examination Report form by the Office of Graduate Studies deadlines.

Written Requirements

- Office of Graduate Studies Written Format Guidelines: <https://www.unl.edu/gradstudies/current/degrees/guidelines>
- Written format as a journal article for publication or other professional type of document depending on the nature of the project
- 15-20 double-spaced pages, not including references

Oral Presentation

- 30-minute public oral presentation, open to faculty, graduate students, and guests
- *There is no final oral examination defense Master's Degree with Project*

Reporting Results

- On the Final Examination Report form, the written paper serves as the "Written Comprehensive Examination." The faculty advisor must sign in Part 3 indicating, "pass."
- The "Final Oral Examination" is waived and Part 4 must be signed by the FDST Graduate Chair or FDST Department Head
- If a student fails to pass the written examination, the faculty advisor files a report on the failure to the FDST Graduate Chair and FDST Graduate Coordinator. The report must indicate what the student must do before submitting a new written paper.

Time Limit

Students must complete their Master of Science degree within 5 consecutive years.

Doctoral Degree Requirements

Supervisory Committee

A student's supervisory committee should be formed by the end of the student's 2nd semester (or before completion of 45 credit hours, including master's degree credits). The Doctoral Degree Supervisory Committee form must be submitted with or before the Plan of Study form.

Requirements

- Minimum of four committee members. Five are recommended in the event one member is on sabbatical or is otherwise unavailable.
- Faculty advisor serves as chair
- At least three must be Food Science and Technology faculty
- At least one must be outside the Department of Food Science and Technology but within the University of Nebraska System (UNL, UNMC, UNO or UNK)

Readers: Two readers (outside of the faculty advisor chair) must be selected. It is the readers' responsibility to review and approve the dissertation prior to the Final Oral Examination.

Special Member: A faculty member from another institution outside the University of Nebraska system may serve as a fifth committee member on the student's committee. Special members may serve as readers and have voting rights for the student's committee. Only one special member may serve per committee. A special member may not serve as outside representative.

UNL Employees

To reduce conflict of interest, University of Nebraska-Lincoln employees must identify a faculty advisor other than their immediate work supervisor. Their work supervisor may serve on their supervisor committee as a committee member.

Revisions

Changes may be made to a Supervisory Committee any time prior to the submission of the Application for Final Oral Exam by submitting the Change of Supervisory Committee form to FDST Graduate Coordinator to be approved by FDST Departmental Grad Comm Chair, then the Dean of Graduate Studies.

University of Nebraska Faculty Employment Changes

- If the student has achieved Candidacy, chair change:
 - The former chair who has left the University may continue to serve as co-chair
 - A second co-chair must be appointed
- If the student has not achieved Candidacy, chair change:
 - A new chair of the Supervisory Committee must be appointed immediately
- Graduate faculty with emeritus status may co-chair the supervisory committees of doctoral students or serve as a committee member.
- If a member other than the chair leaves the employ of the University or retires, a replacement should be appointed.
- Faculty granted adjunct faculty graduate status after leaving the University may service as a committee member

Plan of Study (Program of Studies)

A Plan of Study consists of courses considered necessary for the student's degree. Plan of Study is intended to be flexible to meet the educational objectives of the student and to build on previous academic experiences. The student, along with the Supervisory Committee, should select courses that best support the student's research and overall academic program.

A student's Program of Studies should be completed by the end of the student's 2nd semester (or before completion of 45 credit hours, including master's degree credits).

Requirements

- Only courses with 800 or 900 level course numbers can be counted for graduate credit
- Minimum of 90 semester credit hours
 - At least one-half (45 hours), including dissertation credits, must be in Food Science and Technology (FDST)
 - 40-45 hours of FDST 999 Doctoral Dissertation credit hours
 - 45-50 hours of regular course work
 - 2 credit hours of FDST 896-002 Teaching Assistant
 - 3 credit hours of FDST 951 (or 5 hours if complete MS degree at UNL in FDST)
 - 3 credit hours of FDST 952 (or 5 hours if complete MS degree at UNL in FDST)

Transfer Courses

Students who have a master's degree are generally able to transfer 30 credits of coursework toward the 90 needed for the Doctoral Degree. This is subject to approval by the student's Supervisory Committee and the Dean of Graduate Studies. Prior course work is assessed in relation to its contribution to framing a research foundation for the degree. Each course accepted must be current and relevant in relation to the desired degree. No graduate credit will be accepted from a previously awarded doctoral degree at any institution, including UNL.

Revisions

Changes may be made to approved Plan of Study (POS) using the *Program of Studies: Course Changes Form*. Students need to fill out the form and sent it to their supervisory committee for approval. Once approved, the student's faculty advisor needs to sign the form and submit to the FDST Graduate Coordinator and Office of Graduate Studies for final approval.

Research Proposal Defense (Mid-Program Comprehensive Exam)

A student pursuing a Doctoral Degree must complete a mid-program comprehensive exam by the end of the student's 4th semester (or before completion of 50 credit hours, including transfer credit). The mid-program comprehensive exam covers both the FDST major and any applicable minor. Students must defend a research proposal and submit the Application for Admission to Candidacy form at least 7 months before their intended graduation.

The mid-program comprehensive exam consists of a research proposal on the student's intended project that the student will write and then orally defend in front of the student's Supervisory Committee.

The Supervisory Committee Chair (faculty advisor) should be involved in planning and development of the research project but should not edit or rewrite the written research proposal. This document should be an accurate representation of the student's writing and reasoning abilities.

Written Research Proposal Requirements

- Submit at least two weeks before the oral defense, email the written research proposal and evaluation form to supervisory committee members, FDST Graduate Chair and Graduate Program Coordinator
- Written format as a grant proposal for USDA, NIH, or NSF
 - USDA: <https://www.nifa.usda.gov/grants>
 - NIH: https://grants.nih.gov/grants/about_grants.htm
 - NSF: <https://www.nsf.gov/funding/preparing/>
 - UNL Office of Research & Economic Development Checklists: <https://research.unl.edu/sponsoredprograms/forms-templates/>

Sections of a Grant can include, but not limited to:

- Bio sketch
- Project Summary or Abstract
- Project Narrative or Description
- Timelines
- Bibliography and References
- Facilities and Equipment
- Budget (encouraged, but not required)

Oral Research Proposal Defense Requirements

- 30-minute seminar presentation with Supervisory Committee members
- Followed by oral examination by the Supervisor Committee

Areas to be evaluated include the student's knowledge of the science and methods to be used in the project and the student's ability to express his/her ideas orally and to answer questions related to the proposed project.

The supervisory committee members will complete Research Defense Evaluation Forms to provide constructive feedback. The Supervisory Committee may recommend

1. Unconditional approval of the research project proposal
2. Conditional approval (the committee may specify remedial action to improve writing skills, additional course work to improve knowledge in a technical area critical to the research, or other action as necessary)
3. Not approved: The student will be given a second opportunity to prepare and defend a revised proposal within six months.

Reporting Results

- Copies of the Research Defense Evaluation Forms must be turned into the FDST Graduate Program Coordinator.
- If a student fails to pass the research proposal, the supervisory committee files a report on the failure to the FDST Graduate Chair, FDST Graduate Coordinator and the Office of Graduate Studies. The report must indicate what the student must do before taking another examination. Another examination may not be held

during the same term. Only two attempts are permitted unless additional attempts are approved by the FDST Graduate Committee.

- Upon successful completion of mid-program comprehensive exam (research proposal defense), turn in the Application for Admission to Candidacy form into the FDST Graduate Coordinator

Doctoral students who have achieved candidacy status must be continually enrolled every fall and spring semester until they graduate. Failure to maintain enrollment will result in the termination from the Food Science and Technology graduate program.

Dissertation and Final Oral Defense

The dissertation and abstract must be submitted to the supervisory committee chair (faculty advisor) at least 6 weeks prior to the oral defense. The faculty advisor should be involved in helping the graduate student develop their dissertation into a publishable form.

Once approved, the dissertation and abstract must be submitted to all supervisory committee members at least 4 weeks prior to the oral defense. All major revisions to the thesis should be completed before the submitting Application for Final Oral Examination form and oral defense.

Once approved, the Application for Final Oral Examination form must be submitted to the Office of Graduate Studies Doctoral Program Coordinator and FDST Graduate Program Coordinator at least two weeks prior to the oral defense. When the Application for Final Oral Examination form is signed by the two readers and supervisory committee chair (faculty advisor), the supervisory committee is saying it is done and ready to defend. Minor revisions (such as formatting or spelling) are permitted after the oral defense.

An electronic copy of the dissertation and abstract must be submitted to Office of Graduate Studies Doctoral Program Coordinator and FDST Graduate Program Coordinator for approval at least two weeks prior to the oral defense.

The graduate student is responsible to submit the completed Report of Completion form and deposit their dissertation by the Office of Graduate Studies deadlines.

Written Requirements

- Office of Graduate Studies Written Format Guidelines:
<https://www.unl.edu/gradstudies/current/degrees/guidelines>
- Make revisions based on corrections and recommendations after each evaluation

Oral Defense

- 45-minute public seminar presentation with 10 minutes for questions, open to faculty, graduate students, and guests
- Followed by oral examination by the Supervisor Committee (please allow 2 hours)

Reporting Examination Results

1. If the committee agrees unanimously that the student has passed: A Report of Completion is signed by all committee members present for the defense.
2. If only one member dissents: The dissenting member files a letter of explanation to the FDST Graduate Chair, FDST Graduate Coordinator and the Office of Graduate Studies, but the student is approved for the degree and a Report of Completion is signed accordingly.
3. If more than one member dissents: The student fails to pass the final oral exam. The committee files a report on the failure to the FDST Graduate Chair, FDST Graduate Coordinator and the Office of Graduate Studies, indicating what the student must do before attempting another examination. A student may attempt a final oral exam only once per term.

Time Limit

Students must complete their Doctoral degree within 8 consecutive years of submitting the Plan of Study (Program of Studies) to the Office of Graduate Studies.

Optional Minor Requirements

Outside Minors

A minor may be taken in any one department or interdepartmental area that has been approved to offer a major leading to a master's degree. Students seeking a minor should consult with the department issuing the minor to select appropriate courses.

Students seeking a minor are required to have a graduate faculty member from the minor program on their Supervisory Committee. The comprehensive exam for the minor may be waived if all grades in the minor are at least a B or P (pass).

Office of Graduate Studies Guidelines:

- Master's Minor consists of a minimum of 9 credit hours in coursework
- Doctoral Minor consists of a minimum of 15 credit hours in coursework; with 6 credit hours must be 800 or 900 level without 400-level counterparts

Food Science and Technology Minor

Requirements

- A FDST departmental representative must be a member of the student's Supervisory Committee
- FDST courses must be taught by Food Science and Technology faculty members

- Master's Minor consists of a minimum of 9 credit hours in coursework
- Doctoral Minor consists of a minimum of 15 credit hours in coursework; with 6 credit hours must be 800 or 900 level without 400-level counterparts

The comprehensive exam for the minor may be waived if all grades in the minor are at least a B or P (pass). Courses taken to fulfill requirements for a graduate certificate and later applied toward a graduate degree must meet the minimum grade requirements for the degree, which may be higher.

Repeatable Course Maximum Credits

FDST 951 Advanced Food Science and Technology Seminar (offered every spring semester)

Master's Minor in FDST	Maximum of 1 hour
Doctoral Minor in FDST	Maximum of 1 hour

FDST 952 Professional Food Science Communication (offered every spring semester)

Master's Minor in FDST	Maximum of 1 hour
Doctoral Minor in FDST	Maximum of 2 hours

Graduate Certificates

Food Safety and Defense

The online Food Safety and Defense Graduate Certificate can complement a graduate degree program or allow food industry professionals to advance their career while working full-time to pursue in-depth specialized training.

The online Food Safety & Defense Graduate Certificate program is an inter-institutional certificate program being offered as part of the [Great Plains Interactive Distance Education Alliance \(GPIDEA / AGIDEA\)](#), in cooperation with Iowa State University, Kansas State University, and the University of Missouri.

Tuition Costs

- \$590 per credit hour (<https://online.nebraska.edu/program/food-safety-and-defense-graduate-certificate-5f47cfb699483e00079b7ba4/tuition>)

Requirements

- [Great Plains IDEA Course Planner](#)
- Generally, at least two courses are offered each Fall semester, Spring semester and Summer term
- Depending on the number of courses taken each semester/term, it can take 12-24 months to complete the Food Safety and Defense Certificate

Grades

- A minimum grade of C is required

Required Core Courses (9 credit hours)

- FDST 805 Food Microbiology (UNL) [prerequisite: college-level microbiology course]
- FDST 825 Food Toxicology
- FDST 871 Multidisciplinary Overview of Food Safety and Security
- FDST 872 Principles of Hazard Analysis and Critical Control Point System (HACCP)

Elective Courses (select two courses for 4 credit hours)

- FDST 855 Microbiology of Fermented Foods
- FDST 874 Food Laws and Regulations
- FDST 877 Advanced Food Microbiology and Biotechnology
- FDST 878 Food Protection and Defense: Essential Concepts
- FDST 896 Ethnic Food Safety

Professional Development Opportunities

FDST Graduate Student Advisory Committee

Eligibility

- Students who are advised by Food Science and Technology faculty

Objectives

- Serve as liaisons between graduate students and the Department of Food Science and Technology
- Act as ambassadors for the Department of Food Science and Technology to new students, prospective student, alumni, and supporters
- Foster active engagement to enhance the educational experience and promote the well-being of current graduate students

Activities and Sub-Committees

- Meet once per semester with Food Science and Technology Graduate Committee
- Assist with communication using MS Teams for UNL-FDST Graduate Students
- Food Science and Technology Seminar Student Invited Speaker and Lunch (fall)
- Food Science and Technology Symposium (spring)
- Professional Development (grant writing, design poster presentations, etc.)
- Career Development (interviews, CV/resume development, etc.)
- Social Events (new student welcome, etc.)
- Diversity and Inclusion
- Study Hours

Publications and Presentations

In addition to preparation of a thesis and/or dissertation, students are strongly encouraged to prepare manuscript(s) of their research results for publication and/or presentation at scientific meetings. The student will gain valuable experience from the efforts that go into publishing results and presenting scientific papers. The student and faculty advisor work closely on such efforts.

Resources

- [Office of Graduate Studies Professional Development](#)
- Seek out opportunities to present work through oral presentations to the scientific and public, written publications, or organize a hands-on outreach activity
- Attend conferences and use these opportunities to network with others
- Attend seminars and symposiums offer by UNL
- Join professional associations and societies
- Pursue leadership opportunities through the FDST Graduate Student Advisory Committee, Graduate Student Assembly, IANR Graduate Student Committee, Food Science Club or other Recognized Student Organizations (<https://involved.unl.edu/student-organizations>)

Fellowships and Travel Grants

Fellowships

- Department of Food Science and Technology
- [Agricultural Research Division Fellowships](#)
- [College of Agricultural Sciences and Natural Resources Fellowships](#)
- [Office of Graduate Studies Fellowships](#)
- [Office of Research and Economic Development Funding Opportunities](#)

Travel Grants

- [IANR Larrick Graduate Student Travel Grant](#)
- [Graduate Student Assembly Travel Award](#)
- [Office of Graduate Studies Travel Grant](#)

Assistantships

The Department of Food Science and Technology offers Graduate Research Assistantships (GRAs) and Graduate Teaching Assistantships (GTAs) to qualified students.

Graduate assistantships include a monthly stipend, tuition waiver, and 79% of the University health insurance premium. Students are responsible for ALL student fees plus the student portion (21%) of the University health insurance premium.

Eligibility

- Applicants for the Master of Science Degree with Thesis
- Applicants for the Doctoral Degree

When a student applies to the Food Science and Technology Graduate Program, they are automatically considered for graduate assistantships. No additional forms are required.

Students awarded graduate assistantships are expected to will be fully committed to their academic program until graduation.

Appointments

Graduate assistant appointments are made on a one-year basis. Appointments are renewable provided the student remains in good academic standing and continue to make satisfactory progress as determined by the student's faculty advisor and supervisory committee.

- Master of Science Degree with Thesis graduate assistantships are awarded for two years.
- Doctoral Degree graduate assistantships are awarded for three years (with MS degree) or five years (without MS degree).

Research Assistantship Responsibilities

Graduate Research Assistantships (GRA) are dependent on funding and an open position in a faculty advisor's lab. Most funding come from outside funding agency grants. When a grant is approved, the faculty advisor searches for a well-qualified applicant to work on a specific research project.

Graduate Research Assistants are expected to pursue an academic area and conduct research consistent with the interests of their faculty advisor offering the research assistantship. This combined effort results in a thesis or dissertation for the student, the completion of grant objectives for the faculty advisor, and manuscripts published in scientific journals jointly authored by the student and faculty advisor.

Graduate Research Assistants are directly responsible to their faculty advisor offering the research assistantship. In addition to conducting their own research (FDST 899 or FDST 999), Graduate Research Assistants are expected to assist their faculty advisor with research projects other than their own, special and extension projects, to train other students, and to perform other relevant academic duties.

Teaching Assistantship Responsibilities

Graduate Teaching Assistantships (GTA) are directly responsible to Dr. Heather Hallen-Adams and faculty member(s) in charge of the course(s).

Graduate teaching assistants are expected to assist with two 3-hour lab courses per week. This includes time outside the course to attend preparatory meetings scheduled by the supervising faculty, prepare laboratory media and course materials, grade papers as well as in class activities including proctor exams, work with students in laboratory or lecture exercises and answer students' questions.

International students are required to complete [ITA \(Institute for International Teaching Assistants\)](#) unless they earned a degree from an U.S. university or college.

Hours

Graduate assistants are required to work 19.6 hours per week (0.49 FTE) during the length of the appointment. This is in addition to course work and research work for thesis or dissertation. There is no limit to time spent on studies and research relating to the advanced degree.

Benefits

Eligibility

- The assistantship appointment must be continuous for 4 full months (or at least 120 days) within the semester.
- Graduate assistants must be admitted to a degree program and be registered for the duration of their appointment.
- Graduate assistantships are annually renewable based on satisfactory performance.

Stipend

Graduate assistantships include 12-month stipend, paid out in twelve monthly payments.

Tuition

Graduate assistants are eligible for tuition remission of up to 12 hours per semester work during the academic semesters plus 6-12 hours during the summer.

Student Health Insurance

Graduate assistantships include basic individual [student health insurance](#) coverage at reduced cost to the student. The University covers 79% of the student health insurance premium. The student health insurance plan covers accidents and illnesses to a maximum of \$250,000 per policy year.

Graduate assistants and international students will be automatically enrolled and billed for the University's health insurance each semester. Once the Office of Student Accounts has generated their semester bill, the student may

opt out of student health insurance or waive coverage as an international student. Instructions to accept, opt out, or waive coverage can be found at <https://health.unl.edu/billing/insurancewaiverpolicy>.

International students with "F" or "J" visas registered for classes at UNL are always required to have health insurance coverage unless proof of insurance from an outside source is provided.

Student Fees

Graduate assistants are responsible for [ALL student fees](#) plus the student portion (21%) of the University health insurance premium. The fee amount will vary depending on which courses are taken. Student fees include access to the UNL library, campus recreation and student health center.

Tax Information

Graduate assistantships are taxable income. Registration is not required during the summer term. However, if graduate assistants are not registered for courses, they will be subject to FICA and Medicare taxes (currently 7.65% of their salary).

Resignation or Termination

- If a graduate assistant decides to resign from the assistantship, they must give 30 days' written notice.
- If a graduate assistantship is terminated, the graduate assistant will receive a 30 days' written notice.

If a student resigns or the assistantship is terminated from the assistantship before completing four full months (or 120 continuous days) of employment in the semester, all tuition and health benefits will be forfeited. The student will be held responsible for the entire cost of those benefits, retroactive to the beginning of the semester, which will post to their student account.

Applications for Admission

Master and Doctoral Degree Application

Holistic Application Review

Because each applicant's background and experience is unique, the Department of Food Science and Technology take a holistic approach evaluating the applicant as a whole individual. Applicants need to follow the directions when submitting their application.

Online Admission Application

The University of Nebraska-Lincoln uses an [online application](#). If applicants do not have a CollegeNET account, they will need to "Create a New Account."

Deadlines

The Food Science and Technology Graduate Program accepts new students three times a year.

<i>Admission Term</i>	<i>Fall (August)</i>	<i>Summer (May)</i>	<i>Spring (January)</i>
<i>Priority Deadline*</i>	<i>December 15</i>		
<i>Application Deadline</i>	February 15	December 15	September 15

**Top applicants who apply by December 15 for the following fall admission term will be considered for special recruitment fellowships (in addition to assistantship opportunities). If residing in the United States, up to two applicants may be invited for a paid campus visit to the University of Nebraska-Lincoln to tour the Food Science and Technology Department and interview with faculty researchers.*

Applicants for the Master of Science Degree with Thesis and Doctoral Degree are eligible for graduate assistantships. No additional forms are required to be considered for graduate assistantship. Please check the appropriate boxes in the funding/assistantship question.

Application Fee

All applicants must submit a nonrefundable application fee to the University before their application is processed. The UNL Food Science and Technology Department does not waive the application fee.

Transcripts

Successful applicants have a bachelor's degree or higher degree with a background in food science, microbiology, biochemistry, engineering, nutrition, biology, chemistry, animal science or other related field. Transcripts are evaluated for course work and outstanding grades in organic chemistry, calculus, and physics.

Master of Science Degrees

Applicants must hold a [4-year bachelor's degree or equivalency degree from an accredited institution](#) with a minimum GPA of 3.0 (on 4.0 scale) or B average.

Doctoral Degree

Applicants must hold a master's degree with thesis from an accredited institution with a minimum GPA of 3.0 (on 4.0 scale) or B average.

Although applicants having a bachelor's degree or MS non-thesis degree may apply for the doctoral degree program, only exceptional applicants will be considered. It is expected that applicants for the doctoral degree program have prior research experience.

Documentation

Applicants must upload one unofficial transcript from each college or university attended to their application. For academic records in a language other than English, both the original-language documents and a word-for-word English translation must be uploaded along with certificates and diplomas.

[Official transcripts](#) are required if admission is offered and accepted so newly admitted students can enroll.

English Proficiency Verification

Applicants whose native language is not English must submit TOEFL or IELTS test scores to demonstrate their ability to undertake advanced academic work in an English-speaking institution by providing an [English Proficiency test score](#).

Official scores must be sent electronically to UNL Graduate Studies by Educational Testing Service (Institution Code 6877). TOEFL or IELTS scores are valid for two years.

In response to COVID-19 and closure of testing centers, the Office of Graduate Studies has approved the temporary use of the Duolingo English Test (February 3, 2020-December 31, 2021).

Minimum Requirements	
TOEFL, internet-based	79
TOEFL, paper-based	550
IELTS	6.5

Exemptions for the English proficiency requirement are granted for non-native speakers who have received a bachelor's or more advanced degree either from an accredited U.S. institution or from a university outside the U.S. at which English is the official language of instruction.

Letters of Recommendation

Letters of recommendation provide critical information about personal attributes and student drive. Applicants should choose three recommenders who are able to evaluate their academic and research experience, work ethic, initiative, and critical thinking skills as it relates to graduate school.

Recommenders should be research advisors, faculty members, instructors, internship supervisors, or colleagues from food science and technology or closely related fields, industry, student groups, or competitions. Recommendations should never come from a family member or close friend.

Applicants may submit their admission application before receiving all the letters of recommendation. It is highly encouraged that letters be received within two weeks of the deadline.

Personal Statement

The personal statement should consist of 1-2 pages, and include:

- A clear and well-defined interest within one of the food science and technology disciplines
- Care deeply about your discipline. How would you contribute to expand knowledge within that discipline?
- Describe your long-term professional goals. What do you hope to accomplish after finishing your graduate degree?
- Include previous research, teaching, and work experiences. How would they contribute to your success in a graduate education?

Resume or Curriculum Vitae

Successful applicants show their initiative outside the classroom. As part of their personal statement and resume/CV, applicants should include prior research, teaching, work, leadership, and volunteer experiences.

Experience, Awards and Publications (Additional Information page)

Applicants may upload files or provide a URL for abstracts, publications, documentation of special recognitions or certifications, etc. Do not duplicate information listed on resume/CV or documents uploaded elsewhere in the application.

Professional Development Supplemental Form

Applicants are required to fill out the Professional Development Supplemental Form for their respective [Master of Science](#) or [Doctoral](#) degree application. Applicants are asked to identify:

- Top research interests within Food Science and Technology
- Career Plans

Identify a Faculty Advisor

Applicants must have faculty willing to accept them and serve as their faculty advisor.

After submitting their application, applicants should start communicating with faculty advisors with shared research interests to learn about faculty research, how the applicant would fit into the lab and if assistantship funding is available.

A strong applicant identifies a clear and well-defined interest within one of the food science and technology disciplines. It is the applicant's responsibility to contact faculty with similar interests. Please do not contact every faculty member with a general interest. Take the time and explore our faculty profiles and read their published papers to see if what they do also sparks an interest.

- Master of Science Degree (thesis option): <https://www.unl.edu/gradstudies/academics/programs/FDST-MS>
- Master of Science Degree (project option): Dr. Rossana Villa Rojas
- Doctoral Degree: <https://www.unl.edu/gradstudies/academics/programs/FDST-PHD>

Graduate Certificate Application

Online Admission Application

The University of Nebraska-Lincoln uses an [online application](#). If applicants do not have a CollegeNET account, they will need to "Create a New Account."

Deadlines

We accept new students three times a year.

<i>Admission Term</i>	Fall (August)	Summer (May)	Spring (January)
<i>Application Deadline</i>	July 15	April 1	November 15

Application Fee

All applicants must submit a nonrefundable application fee to the University before their application is processed. The UNL Food Science and Technology Department does not waive the application fee.

Transcripts

Completion of a microbiology course is highly encouraged.

Documentation

Applicants must upload one unofficial transcript from each college or university attended to their application. For academic records in a language other than English, both the original-language documents and a word-for-word English translation must be uploaded along with certificates and diplomas.

[Official transcripts](#) are required if admission is offered and accepted so newly admitted students can enroll.

English Proficiency Verification

Applicants whose native language is not English must submit TOEFL or IELTS test scores to demonstrate their ability to undertake advanced academic work in an English-speaking institution by providing an [English Proficiency test score](#).

Official scores must be sent electronically to UNL Graduate Studies by Educational Testing Service (Institution Code 6877). TOEFL or IELTS scores are valid for two years.

In response to COVID-19 and closure of testing centers, the Office of Graduate Studies has approved the temporary use of the Duolingo English Test (February 3, 2020-December 31, 2021).

Minimum Requirements	
TOEFL, internet-based	79
TOEFL, paper-based	550
IELTS	6.5

Exemptions for the English proficiency requirement are granted for non-native speakers who have received a bachelor's or more advanced degree either from an accredited U.S. institution or from a university outside the U.S. at which English is the official language of instruction.

Reference Letter

References provide critical information about personal attributes and student drive. Applicants should choose two references who are able to evaluate their experience, work ethic, initiative, and critical thinking skills,

Personal Statement

The personal statement should consist of 1 page, and include your professional goals and how enrolling in this program will assist you in meeting your professional goals.

Resume or Curriculum Vitae

Successful applicants show their initiative outside the classroom. As part of their personal statement and resume/CV, applicants should include prior research, teaching, work, leadership, and volunteer experiences.

Experience, Awards and Publications (Additional Information page)

Applicants may upload files or provide a URL for abstracts, publications, documentation of special recognitions or certifications, etc. Do not duplicate information listed on resume/CV or documents uploaded elsewhere in the application.