

A HANDBOOK FOR DOCTORAL DEGREE STUDENTS
IN
THE DEPARTMENT OF NUTRITION AND FOOD SCIENCES

This handbook has been compiled to assist Doctoral students in the Department of Nutrition and Food Sciences (NFS). The purpose of the handbook is to acquaint students with departmental standard operating procedures. As with all components within the University, all procedures must comply with the policies and procedures set forth by Texas Woman's University. The information contained in this handbook is to supplement but not replace the Graduate Catalog. For general requirements and regulations for a Doctoral Degree, refer to [Graduate School](#) and [Department of Nutrition and Food Sciences](#) in the Graduate Catalog.

SEQUENCE FOR ADMISSION TO CANDIDACY

Admission to Graduate School does not imply admission to candidacy for a doctoral degree. The following is the sequence that must be followed to gain acceptance to candidacy for the doctoral program in Nutrition and Food Sciences. Details for each category are given below.

1. Admission to program
2. Form academic advisory committee
3. Unconditional Graduate School admission status
4. Completion of core requirements including research tools
5. Submit degree plan (before completion of 18 semester hours ([Graduate School](#)))
6. Successful completion of qualifying exam (all sections)
7. Admission to candidacy

SEQUENCE FOR SUCCESSFUL RESEARCH ENDEAVOR

1. Rotation in research labs, or participation in research projects, during the first 2-3 semesters at TWU
2. It is recommended that the student select a focus for his/her dissertation research during the first year at TWU. The director of the research project(s) will serve as the student's research director.

ACADEMIC ADVISING

Admission Status

Students may be accepted to Graduate School as "Unconditional" or "Provisional". When the admission status is "Provisional", conditions stated on the letter of admission must be completed prior to submission of a degree plan. When the conditions have been met, the student should contact the academic advisor to submit a request to the Graduate School to change the admission status to "Unconditional" ([Graduate School](#)). Failure to meet the conditions of

admission may result in the removal of the student from a degree program. (See [Graduate Catalog](#) for additional information).

Role of the Academic Advisory Committee

All members of the academic advisory committee will have a terminal doctoral degree. The functions of the Academic Advisory Committee are to review the degree plan of the student and administer the oral part of the qualifying exam. The sequence for the advisory committee is as follows:

1. Semester 1: The admissions committee assigns an academic advisor when the student is accepted to the program. This faculty will guide the course registration for the first semester of the student's academic career.
2. Semester 2: The student will form an academic advisory committee to guide subsequent course selection. The committee shall be as follows:
 - a. The student and advisory committee chair will make a list of faculty as possible members. The committee chair will submit this list to the Department Chair for approval.
 - b. The final committee will consist of at least 5 members of the graduate faculty.
 - c. At least 3 of the members of the committee must be NFS faculty
 - d. The committee may include 1-2 members from outside NFS that could include faculty from the minor area.
 - e. Chair will be selected by the committee from NFS faculty to include the research director (if applicable).

A student has the option to change advisors. This should be done as early as possible during the course of study. The student must complete a form (see NFS department office) for changing advisor (also available in the departmental office) and secure appropriate signatures before submitting to the chair of the department.

DEGREE PLAN

Role of the Academic Advisory Committee

A degree plan must be submitted to the Graduate School before completion of 18 semester hours at TWU.

The student, in consultation with the chair of the academic advisory committee, shall prepare a degree plan and present this to the academic advisory committee for approval. This will then be submitted to the Department Chair for review. If a change in the degree plan is recommended, the Department Chair will meet with the student and committee within two (2) weeks to discuss the degree plan. (See [Graduate School, forms](#)). The student is responsible for scheduling the time and place of the meeting as well as submitting the approved degree plan with the signatures of the committee members to the Department Chair for approval. The completed form will be sent to the Graduate School with the approval of the chair of the department.

Change in Degree Plan

Once the degree plan has been approved by the Dean of The Graduate School, any changes should be made after consultation with the Academic advisory committee and the Department Chair. The completed form (See [Graduate School, forms](#)) will be sent to The Graduate School with the approval of the chair of the department.

Research Tools

A doctoral student must complete two research tools. Each research tool must have a minimum of six credit hours. One of the research tools must be six hours of graduate level statistics; the other 6 hours of research tools will be selected from approved courses as determined appropriate by the Academic Advisory Committee.

SUMMARY OF REQUIREMENTS FOR PHD DEGREE IN NUTRITION*

Requirements	Emphasis in		
	Nutrition	Food Science	Food Systems Administration
Core courses in nutrition (11 credits)	NFS 5314, NFS 6123, NFS 6124	NFS 5314, NFS 6123, NFS 6124	NFS 5314, NFS 6123, NFS 6124
Research Tools (minimum 12 Credits)	6 hours of statistics and additional 6 or more credit hours from NFS 6014, NFS 6203 (Adv Lab Method), NFS 6971, or other courses recommended by the advisory committee	6 hours of statistics and additional 6 or more credit hours from NFS 6014, NFS 6203 (Adv Lab Method), NFS 6971, or other courses recommended by the advisory committee	6 hours of statistics and additional 6 or more credit hours from NFS 6014, NFS 6203 (Adv Lab Method), NFS 6971, or other courses recommended by the advisory committee
Nutrition Electives (6 Credits)	6 Credits or more of graduate courses in nutrition.	6 Credits or more of graduate courses in nutrition	6 Credits or more of graduate courses in nutrition.
Outside Department Electives (9 Credits)	9 Credits of graduate courses in the Department of Biology, and/or Department of Chemistry & Physics. These courses will be decided in consultation with the advisory committee	9 Credits of graduate courses in the Department of Biology, and/or Department of Chemistry & Physics. These courses will be decided in consultation with the advisory committee	9 Credits of graduate courses in the Health Care Administration, and/or School of Management. These courses will be decided in consultation with the advisory committee
Electives in Emphasis Area	No minimum hours required. To be determined by the advisory committee	9 Credits or more of graduate courses in food science to be determined by the advisory committee	9 Credits or more of graduate courses in food system management to be determined by the advisory committee
NFS 6031 Critical Evaluation of Literature (1 or more Credits)	One semester minimum prior to qualifying exam	One semester minimum prior to qualifying exam	One semester minimum prior to qualifying exam
NFS 6331 Seminar in Nutrition (4 credit)	Four semesters minimum (1X4=4 Credits)	Four semesters minimum (1X4=4 Credits)	Four semesters minimum (1X4=4 Credits) or NFS 5721 (1X4=4 Credits) for off-site students unable to come to Denton, Dallas or Houston to participate.
NFS 6921, NFS 6923, NFS 6931, NFS 6933, NFS 6941, NFS 6943	As needed	As needed	As needed
PhD Dissertation (6 Credits)	6 Credits	6 Credits	6 Credits

* Total minimum credit needed for PhD degree is 90.

QUALIFYING EXAMINATION

The student will take the PhD Qualifying Examination after the degree plan is approved by the Graduate School and the core courses for the program ([Department of Nutrition and Food Sciences](#)) and research tools are completed. The exam should be taken within 6 months of completing the core courses and research tools.

The length of the written part of the examination shall be 3 consecutive days (Food Science and Food Systems Administration will include an additional day) starting the first Tuesday of October, March, or July each year. Students should notify their academic advisory committee chair and Department Chair in writing of their intention to take the exam at least one month before the scheduled date.

The qualifying exam will be administered in three parts. Students will be required to achieve a grade of 80% on Part I and IIb in order to pass the examination. On Part IIa examination, however, students will receive only PASS or FAIL grades.

- ◆ **Part I** (Day 1) will consist of 180 knowledge-based multiple-choice questions. The questions for each exam will be randomly chosen by the Department Chair from a bank of questions submitted by the faculty. This part of the exam will be administered by the Department Chair.
- ◆ **Part II** (Days 2 and 3) will be administered in two parts.
 - Part IIa (day 2) will be a test of writing skills in a general nutrition field
 - Part IIb (day 3) will be a critique of current literature
 - *Note: students with an emphasis in Food Sciences or Food Systems Administration will take an additional 3 hours of examination on the respective subject matter to be administered by their academic advisory committee within one week of completing part IIb.*
- ◆ **Part III** Oral part of the exam
 - To be scheduled and taken only after successful completion of Parts I & II above
 - The academic advisory committee (described above) will administer the oral exam. Where possible, faculty from both campuses should be on the oral exam committee of each student. In addition, the Department Chair and College Dean (at their discretion) will attend the oral part of the exam as observers.
 - Successful completion of the oral exam will require a passing vote by a majority of the academic advisory committee.
 - The oral exam **must** be taken within four (4) weeks after notification of successful completion of the written part of examination by the Department Chair. A second attempt must be scheduled 8-12 weeks after the first attempt. No exam will be scheduled during the final two (2) weeks of the semester, during the first two (2) weeks of the next semester, or during semester breaks. If the time for a retake falls during the end of a semester, this will be scheduled after the first two weeks of the next semester.
 - A student who fails to complete the oral exam within the allotted time after passing the written parts of the exam will be considered to have failed the qualifying exam and will be removed from the program.

A student who fails one or more parts of the written qualifying examination the first time must re-take the failed part(s) of the examination at the next regularly scheduled examination date. Under no circumstances will a student be exempt from taking the qualifying

examination. After the student has satisfactorily passed both the written and oral examinations, the Chair of the Academic Advisory Committee sends a letter to the Dean of the Graduate School through the Department Chair recommending that the student be admitted to candidacy.

Minimum competency areas for the qualifying exam. These apply both to the written and oral examinations

A. PhD in Nutrition

Basic Knowledge

A doctoral student should be able to:

1. Recognize basic structures of all essential nutrients including: vitamins; carbohydrates; amino acids; lipids;
2. Demonstrate understanding of intermediary metabolism and its regulation of all nutrients (not just be able to repeat the steps from memory);
3. Discuss in detail the practical application of the use of statistics in nutrition research.

Applied Knowledge

A doctoral student should be able to apply basic knowledge of nutrition to a discussion of nutrition through the life cycle, energy metabolism, nutrition in disease states, assessment of human nutritional status, and a thorough understanding of the use and the development of the Dietary Reference Intakes. The student should demonstrate an ability to apply knowledge of statistics and research design as well as current trends and controversies in nutrition.

B. PhD in Nutrition with support area of Food Systems Administration

In addition to basic and applied knowledge in Nutrition, the doctoral student who focuses on the support area of Food Systems Administration should be able to:

1. Discuss methods of menu planning, purchasing, food production, food service and distribution, and marketing;
2. Demonstrate skill in management of human and financial resources for foodservice organizations;
3. Apply theories of management and leadership to the administration of foodservice organizations.

C. PhD in Nutrition with support area of Food Science

In addition to basic and applied knowledge in Nutrition, the doctoral student who focuses on the support area of Food Sciences should be able to:

1. Explain the chemistry and composition of basic foods including the major and minor constituents, especially foods containing high amounts of fat, oils, and other lipids
2. Describe the functional properties of foods and food systems based on their composition including their solubility, food dispersion characteristics, and food stability tendencies.
3. Explain the physical and chemical properties of food and food ingredients and how this affects their processing and manufacturing.
4. Describe both subjective and objective evaluations of foods including sensory and analytical testing of foods.
5. Recognize concerns in food safety and sanitation.

Course Registration Required for Research and Dissertation

The student should register for Dissertation (NFS 6983), during the semester when the prospectus is in preparation. Each semester thereafter, the student should register for Dissertation (NFS 6993), and/or research (NFS 6921, 6923, NFS 6931, NFS 6933, 6941 or 6943) with the major professor only. Registration for Research (NFS 6921, NFS 6923, NFS 6931, NFS 6933, NFS 6941 or NFS 6943) for each member of the student's advisory committee is required during the semesters the student is writing the prospectus or writing the dissertation and defending his/her dissertation. Registration for dissertation or research hours during summer sessions is not required if the student does not plan to use university facilities or meet with the major professor. University regulations state that only officially registered students may hold conferences with faculty concerning the preparation of a dissertation or work in a laboratory.

RESEARCH REQUIREMENTS

Beginning students should discuss their research interests with each NFS faculty during their first semester at TWU. It is expected that a doctoral student in the Department of Nutrition and Food Sciences will begin working on a research project within one (1) year of beginning course work toward his/her degree. It is required that a doctoral student must have submitted and/or published at least two papers in peer-reviewed journal(s) before dissertation defense; the student must be first author of at least one of these articles. Students are encouraged to identify a major professor and begin their research as soon as possible but no later than one year after entering the program. It is the responsibility of the student to identify a major professor.

Research Committee

A Research Committee should be formed when the student has satisfactorily passed both the written and oral qualifying examinations and has been admitted to candidacy. The members of the research committee usually are faculty members who have expertise in the area of research that the student is pursuing. The Chair and/or members of the Academic Advisory Committee may continue as members of the Research Committee. A non-TWU faculty may serve as a co-chair of the Research Committee with the approval of the committee chair, Department Chair, and the Dean of the Graduate School.

The major professor administers the authority over the project; the chair must be full graduate faculty. The Research Committee evaluates the professional promise, plans for continued study and progress of the student with respect to the dissertation. The Research Committee approves the prospectus and the dissertation as well as certifies the completion of the final examination.

The graduate student in consultation with the major professor, is responsible for forming the Research Committee. The Research Committee must consist of at least five members with no fewer than three voting members of the graduate faculty (full or associate graduate faculty status) from the Department of Nutrition and Food Sciences. The other members may be full, associate or assistant graduate faculty from NFS or other departments at TWU, graduate faculty from other educational institutions, or industry professionals with appropriate academic credentials and experience.

Members of the student's research committee, however, will have a terminal doctoral degree. The chair of a research committee should be a full-time voting member of the graduate faculty. Approval must be secured first from the chair of the NFS Department and the Dean of the Graduate School for a non-TWU person to serve on the research Committee. The major professor should submit a memorandum accompanied by a copy of the curriculum vitae of the individual explaining the reason for requesting the individual to serve on the Research

Committee. When a student declares a minor, or emphasis area, at least one member of the research committee should be from the minor department or emphasis area.

Change of Major Professor/Research Advisor

When a student desires to change major professor/research advisor, the student must complete a form for changing advisor (see NFS departmental office) and secure appropriate signatures before submitting to the chair of the department. Changing the Chair or members of the Research Committee after a prospectus meeting is discouraged and will be allowed only after approval of the Department Chair.

Prospectus

Doctoral students must satisfactorily pass both the written and oral qualifying examinations, have an approved degree plan, and be admitted to candidacy before submitting a prospectus and beginning research toward the dissertation.

A prospectus is a document that identifies the research topic, research methods to be used, and the anticipated central hypotheses or research questions. It is anticipated that some preliminary results leading to the hypothesis of the dissertation may be included in the background of the prospectus.

The student, working under the direction of the major professor, develops the prospectus. The prospectus should be prepared according to the guidelines established by the Graduate School (See [Graduate School, Degree Completion, Guide to the preparation and Processing of Dissertations, Theses, and Professional Papers](#)). After the prospectus is approved by the major professor, a copy of the prospectus along with a comprehensive review of literature is given to each committee member at least 10 working days prior to the committee meeting. The meeting for the prospectus should **not** be scheduled within the period from two weeks before the beginning of the final exam through the second week of the following semester including breaks.

The student, not the major professor, is responsible for scheduling the prospectus meeting and meeting room. If media equipment is required, the student is responsible for making these arrangements in cooperation with the major professor. The major professor chairs the prospectus meeting. The prospectus will be presented to a regularly scheduled NFS 6331 class. Prospectus submitted during the summer will be presented at a meeting of faculty and students convened for this purpose.

The approved prospectus, with all appropriate signatures, should be filed with the NFS Department for routing to the Graduate School. The student should check with the NFS Department Office for the appropriate number of copies required.

Dissertation

A dissertation in the traditional format must follow the guidelines established by The Graduate School (See [Graduate School, Degree Completion, Guide to the preparation and processing of dissertations, theses, and professional papers](#)). NFS students may choose a non-traditional format to prepare the dissertation. The style and references of the dissertation should follow the format of the leading journal (in Guide to Authors) for the subject area of the dissertation. After a dissertation is written and approved by the major professor, a printed copy (not electronically transmitted) should be given to each member of the committee **at least 10 working days before the final oral defense meeting**.

No meeting will be scheduled during the final two (2) weeks of the semester, during the first two (2) weeks of the next semester, or during semester breaks.

- The major professor will chair the oral defense meeting.

- The oral defense will be made as a presentation to NFS 6331 (Seminar in Nutrition). This should be scheduled with the Department Chair and is open to all faculty and students. The student's Research Committee will meet after the public presentation to administer the final exam.
- The major professor and the student are responsible for preparing an announcement of the oral defense of the dissertation accompanied with a copy of the abstract to be posted on the bulletin boards in the department (or university) at least one week prior to the defense meeting for other interested faculty and students to attend. A copy of the abstract should be attached.
- Two forms must be completed
 - ✓ Certification of Final Exam confirms successful completion of the oral exam and is signed immediately after the oral exam.
 - ✓ The original copies of the signature page for the dissertation are signed after the student completes all revisions of the dissertation requested by the committee members.
- Upon successful completion of the oral defense, the student should finalize the dissertation. The original copy of the Certification of Final Examination should be submitted to the Graduate School. A copy of the Certification of Final Examination should be submitted to NFS department to be filed.

Copies and Forms to be Submitted to the Graduate School

It is the responsibility of the student to submit the signed Certification of Final Examination and the required number of copies of the completed dissertation to the Graduate School.

Dissertation formats	
<i>Traditional Format</i>	<i>Alternate Format</i>
Front Matter	Front Matter
Dedication (optional)	Dedication (optional)
Acknowledgments	Acknowledgments
Abstract	Abstract
Table of Contents	Table of Contents
List of Tables	List of Tables
List of Figures	List of Figures
Symbols/Abbreviations	Symbols/Abbreviations
Chapter I: Introduction	Chapter I: Introduction
Purpose	Purpose
Hypothesis and Rationale	Hypothesis and Rationale
Scope of the Study	Scope of the Study
Limitations	Limitations
Assumptions	Assumptions
Significance of the Study	Significance of the Study
Definition of Terms	Definition of Terms
Chapter II: Review of Literature	Chapter II: Review of Literature
Chapter III: Methods	Chapter III: Methods (not included in the manuscripts in Chapters IV and V)

Methods	Methods
Research/Experimental Design	Research/Experimental Design
Statistical Analysis	Statistical Analysis
Chapter IV: Results	Chapters IV and V as submitted or accepted manuscripts, with specific bibliography
Topic specific subheadings	
Chapter V: Discussion	
Topic specific subheadings	
Chapter VI: Summary, Conclusions, and Recommendations	Chapter VI: Summary, Conclusions, and Recommendations
Summary	Summary
Conclusions	Conclusions
Recommendations	Recommendations
Bibliography	Bibliography
Appendices as appropriate	Appendices as appropriate