Description of Graduate Programs

There are two graduate programs in Human Nutrition within the Department of Human Nutrition and Hospitality Management. These programs include:

- Master of Science in Human Nutrition
- Doctor of Philosophy in Human Nutrition

Master of Science in Human Nutrition

Program Overview

The Master of Science in Human Nutrition is a **30 credit-hour program** designed to prepare nutrition professionals to practice dietetics at an advanced level and/or to pursue doctoral study. The program develops research skills, stimulates independent thought, and provides upto-date knowledge in food and nutrition. There are three tracks available: Generalist, Clinical, or Community. The program tracks outlined below are designed for the registered dietitian, dietetic intern, student with a bachelor's degree in nutrition, or student from another discipline who has completed the required prerequisites.

The Accelerated Master's Program (AMP) is closely integrated with the undergraduate and graduate programs in which highly qualified undergraduate students begin graduate study in their senior year and simultaneously work toward both an undergraduate degree in Food and Nutrition (any track) and a master's degree in Human Nutrition (any track).

The MS degree can be completed by enrolling in either Plan I (thesis) or Plan 2 (non-thesis). The master's degree can also be completed by enrolling in either Plan I or Plan II through the AMP or the MS + DPD Program. The AMP integrates undergraduate and graduate program requirements. Undergraduate students who qualify for the AMP begin graduate study after 90 credit hours and may take both undergraduate and graduate courses simultaneously. Both the AMP and MS + DPD programs are designed for highly motivated students.

Program Requirements

Graduate students in Human Nutrition will have selected one of three tracks on their application. The required course work will differ by track. Students should start their program by completing the required courses and should consider taking NHM 509 (Research Methods in Nutrition) and CHS 525 (Biostatistics) early in the program.

Graduate students may develop their own plan of study unless they are coordinating their master's degree in Human Nutrition with a DPD verification statement for the MS + DPD program. Students should consult their advisor for a specific plan of study that includes both graduate and undergraduate courses. When selecting graduate electives, please seek advice from your advisor. Some courses require a pre-requisite undergraduate course while others do not.

To complete the MS in Human Nutrition, students will need to complete the required courses designated in their track, a minimum of 18 hours in NHM designated courses (may include non-thesis and thesis research hours), a minimum of 30 credit hours at the graduate level (500 or greater), and a culminating project or exam entitled the Capstone Experience. Additionally,

students need to earn a grade of B or better in all required coursework and any NHM designated course, and at least a 3.0 overall GPA to graduate.

Required Courses

Catalog descriptions of all of the 500 or 600 level graduate courses in Human Nutrition can be found in the online graduate catalog. Courses numbered 5XX or 6XX can be counted toward degree requirements. The table below outlines the requirements for each track in the MS in Human Nutrition.

Generalist Track	Clinical Concentration	Community Concentration
Research Core	Research Core	Research Core
NHM 509: Research Methods	NHM 509: Research Methods	NHM 509: Research Methods
in Nutrition (or HES 509)	in Nutrition (or HES 509)	in Nutrition (or HES 509)
CHS 525: Biostatistics	CHS 525: Biostatistics	CHS 525: Biostatistics
		CHS 520 or HHE 521: Basic Epidemiology
Nutrition Core	Nutrition Core	Nutrition Core
NHM 561: Advanced Vitamin and Mineral Metabolism	NHM 561: Advanced Vitamin and Mineral Metabolism	NHM 550: Community Nutrition I
NHM 562: Metabolism of	NHM 562: Metabolism of	NHM 551: Community
Energy Nutrients	Energy Nutrients	Nutrition II
NHM 555: Maternal and	NHM 557: Childhood Obesity	NHM 557: Childhood Obesity
Infant Nutrition	OR	OR
OR	NHM 558: Nutrition in the	NHM 558: Nutrition in the
NHM 567: Nutrition Support	Prevention and Treatment of	Prevention and Treatment of
for the Critically Ill	Chronic Disease	Chronic Disease
	NHM 567: Nutrition Support for the Critically Ill	NHM 555: Maternal and Infant Nutrition
	NHM 568: Nutrition for the	NHM 556: Child and
	Older Adult	Adolescent Nutrition
Electives	Electives	Electives
5 electives (3 must be	3 electives (1 must be	2 electives (1 must be
designated as NHM)	designated as NHM)	designated as NHM)
Additional Requirements	Additional Requirements	Additional Requirements
Capstone Experience	Capstone Experience	Capstone Experience

Required Course Offerings and Pre-requisites

Course	Pre-Req	Fall	Spring	Summer
NHM 509: Research Methods in Nutrition (or HES 509)		X	X	X
CHS 525: Biostatistics		X		
CHS 520: Basic Epidemiology			X	
HHE 521: Basic Epidemiology		X	X	X
NHM 550: Advanced Community Nutrition I		X		
NHM 551: Advanced Community Nutrition II	NHM 550		X	
NHM 555: Maternal and Infant Nutrition		X		
NHM 556: Child and Adolescent Nutrition	NHM 555		X	
NHM 557: Childhood Obesity				X
NHM 558: Nutrition in the Prevention and Treatment of Chronic Disease*		X	X	
NHM 561: Advanced Vitamin and Mineral Metabolism		X		Х
NHM 562: Metabolism of Energy Nutrients*		X	X	X
NHM 567: Nutrition Support for the Critically Ill*		X	X	X
NHM 568: Clinical Nutrition for the Older Adult		X		X

⁻Offerings subject to change. Please check course schedule in myBama to confirm when courses are offered.

Nutrition Electives

Regardless of the selected track, all students must take at least 18 hours in their content area or NHM designated courses. However, the number of required nutrition electives will vary depending on which track the student selects.

- Generalist track = at least 9 credit hours of electives in nutrition.
- Community track = at least 3 credit hours of electives in nutrition.
- Clinical track = at least 3 credit hours of electives in nutrition.

Students may choose any NHM course not required in their selected track as an NHM elective. Aside from NHM courses offered in other tracks, the following are possible NHM electives:

Course	Pre-Requisites*	Fall	Spring	Summer
NHM 530: Advanced Nutrition	NHM/HES 509	x	v	
Counseling		Λ	X	
NHM 585: Clinical Nutrition Management		X	X	
NHM 587: Integrated Food Systems		**		••
Management		X		X
NHM 588: Advanced Food Systems		**	**	
Management		X	X	
NHM 625: Nutritional Epidemiology		X		

^{*}Course availability differs for distance and main campus students. Seek guidance from advisor.

Electives Outside of Nutrition

Students may opt to take all electives within nutrition or take some courses outside of the department. Students may take up to 3-6 hours of courses outside of nutrition, depending on their selected track. A student should check the online syllabus to determine if the course will meet his/her learning needs. Students should seek approval from their advisor before taking an outside elective. Some options for electives outside the department that can be taken by distance include:

Course	When Offered?*		
HHE 515: Advances in Health Promotion	Fall, Spring		
(prerequisite to HHE 520 and HHE 530)			
HHE 520: Health Behavior	Fall, Spring		
HHE 530: Health Promotion Techniques	Fall, Spring		
HHE 589: Women and Health	Spring		
CHS 520: Basic Epidemiology	Spring		
CSM 537: Developing the Leader Within	Fall, Spring		
CSM 547: Digital Resources	Fall, Spring		
CSM 564: Digital Tools	Fall, Spring		
CSM 575: Entrepreneurship in HES	Fall, Spring		
NUR 510: Basic Concepts of Teaching Diabetes	Winter interim		
Self-Management Techniques	(between fall and spring semesters)		
NUR 516: Advanced Diabetes Management	Spring Interim		
	(between spring and summer semesters)		

^{*}Note: Course offerings are subject to change. Many of the above electives may also be offered in the summer semester. Please check the course schedule in your myBama to confirm when the course is being offered.

Required Capstone Experience

All students must complete a capstone experience toward the end of their degree program. The Capstone Experience is a culminating project (thesis or non-thesis research project) or comprehensive exam that integrates prior learning. Main campus students can select either the thesis option (Plan I) or one of the non-thesis options (Plan II). Distance students can select from the available options in the non-thesis track (Plan II). Students need to contact their graduate advisor, and convey their decision regarding their capstone experience at least two semesters prior to the semester they wish to graduate. Students selecting the thesis track need to contact their advisor earlier.

Plan I - Thesis Option: Students interested in a thesis track should contact their advisor early in their studies. Thesis projects usually take two to three semesters to complete. Students completing a thesis will need to sign up for a total of six hours of NHM 599. These hours can count toward the required 18 hours in NHM designated courses needed for the degree. The thesis should focus on current nutritional concerns in which the student has a special interest. To complete the thesis option, students will need to:

select a designated mentor (Chair) from the UA Nutrition faculty who is willing to serve as your chair

- select a thesis committee of at least three members including their mentor (one member must be from outside of the nutrition department)
- write a proposal that includes an extensive review of the literature and proposed methods that will be used in the study
- receive approval of the proposal from the designated mentor
- seek guidance from committee members prior to collecting data
- formally propose the research plan to the committee and respond to feedback
- receive IRB approval for the project in their own institution and UA
- collect data
- analyze data
- interpret the data and write up the results
- discuss implications of the study
- seek final approval from committee members and formally present the research to the committee members and other faculty
- and electronically publish the thesis according to The University of Alabama's guide for "Electronic Theses and Dissertations."

Students completing a thesis should ensure that they can meet the Graduate School's <u>deadlines</u> for students.

Plan II - Non-Thesis Option: Students, who select the non-thesis option, will complete either a non-thesis research project (NHM 598) or the comprehensive exam. The majority of students prefer the comprehensive exams.

Non-thesis Research Project. The non-thesis research project will take at least two semesters to complete. The student should take NHM 598 (Non-Thesis Research) with a designated mentor (UA Nutrition faculty) as the instructor in the semester the student plans to complete the project and graduate. The course is worth 3 hours and can be applied to the 30 hours required for graduation and the required 18 hours in nutrition. Students will need to write a proposal and seek approval by a designated mentor, seek and obtain IRB approval in their own institution and UA, collect data, analyze the data, and write up results using the brief manuscript style used by the *Journal of the Academy of Nutrition and Dietetics*. If the student plans to complete research in their hospital or health care facility, then the project may require review by the medical IRB at UA. This group meets to review IRB proposals only once per month. Students must follow HIPPA guidelines when conducting medical research. Students should plan their project and seek IRB approval in the semester prior to registering for NHM 598.

Comprehensive Exam. The master's program in Human Nutrition requires students who do not complete a thesis (6 hours of NHM 599) or a non-thesis research project (3 hours of NHM 598) to pass a written comprehensive exam prior to graduation. The comprehensive examination is a culminating experience in which the student is expected to integrate prior learning. Students must inform the master's program Director of their intent to complete the comprehensive exam at least 1 semester prior to taking the exam. The comprehensive exam is taken in the student's last semester. The material covered in the exam will vary depending on the track the student selected. Students must be enrolled in at least one hour of graduate coursework in the semester they take the comprehensive exam. Students do not enroll in a comprehensive exam course. Students taking the exams will receive a study guide for the exam early in the semester they plan to take the exam. This is typically the best option for distance learners, as coordinating research projects by distance is difficult.

The master's comprehensive will be administered three times per year: once each fall, spring, and summer semester. The exact dates will be specified in the comprehensive exam guide. This exam guide will be provided to each student prior to the start of their final semester.

The exam will be divided into 3 parts.

- o Students following the Generalist Track will answer questions from the following courses:
 - 1. General Research Methods
 - 2. Maternal and Infant Nutrition

OR

Clinical Applications

- 3. Nutrient Metabolism
- o Students following the Clinical Concentration will complete:
 - 1. General Research Methods
 - 2. Nutrient Metabolism
 - 3. Clinical Applications
- o Students following the Community Concentration will complete:
 - 1. General Research Methods
 - 2. Community Nutrition
 - 3. Maternal and Infant Nutrition

Students should independently prepare for the master's comprehensive exam. Students may not solicit any advice or request an instructor provide further details regarding any question on the exam. The best answers are those in which the student demonstrates in-depth understanding of the topic. To do so, students should incorporate course material and scientific literature into the foundation of each answer. Sufficient justification for each answer will be expected. Insufficient depth or detail or incorrect content will not result in a passing grade.

Evaluation: Two NHM graduate faculty members will independently read and evaluate the answers to each exam section. A four point scale will be used to record each evaluation of student responses (1=Emerging, 2=Progressing, 3=Proficient, 4=Mastery). Students must earn Proficient or Mastery on each section to pass. If a student fails 1 of the 3 parts (earning Emerging or Progressing), they may retake that part of the exam during the current semester. Students who fail 2 or more parts of the exam must wait until the following semester to retake the exam. The student must also register for another graduate course during the following semester.

Notification of Passing/Failing: The master's program Director will email each student the results of the examination within 3-4 weeks after the end of the exam period.

Retake Policy: Only 1 retake is allowed. All retakes are proctored. Failure to successfully pass any part(s) of the examination retake will result in dismissal from the degree program and the Graduate School without confirmation of the degree.

Applying to Graduate

Each candidate for a master's degree must apply for graduation through <u>myBama</u> no later than the last day to add a class for the semester or the first session of the summer term in which

requirements for the degree are to be completed. For the specific date, see the Graduate School's <u>deadlines for students</u>.