

# Human Nutrition and Dietetics (HNAD)

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**Program Description:** Nutrition and Dietetics is for the student who intends to become a Registered Dietitian, a credential that is required for one to counsel individuals related to any type of diet. Courses required are those necessary as prerequisites to application for a post-baccalaureate dietetic internship and graduate school. Effective Jan. 1, 2024, the Commission on Dietetic Registration will require a minimum of a master's degree to be eligible to take the credentialing exam to become a Registered Dietitian Nutritionist. For more information about this requirement visit Commission on Dietetic Registration's website (<https://www.cdrnet.org/graduatedegree/>). In addition, the commission requires that individuals complete coursework and supervised practice in programs accredited by the Accreditation Council for Education in Nutrition and Dietetics. Graduates who successfully complete the ACEND-accredited Human Nutrition and Dietetics program at the University of Arkansas are eligible to apply to an ACEND-accredited supervised practice program/apply to take the commission's credentialing exam to become a Registered Dietitian Nutritionist.

## Requirements for B.S.H.E.S. in Human Nutrition and Dietetics

State minimum core (<http://catalog.uark.edu/undergraduatecatalog/gened/stateminimum/>) and discipline specific general education (<http://catalog.uark.edu/undergraduatecatalog/gened/generaleducation/>) requirements include the following. All students in Human Nutrition and Dietetics must earn a grade of "C" or higher in all NUTR and science required core courses

(Course work that meets state minimum core requirements is in bold.)

<b>University Requirements</b>	<b>1</b>
UNIV 10051 University Perspectives	
<b>Communications</b>	<b>12</b>
<b>ENGL 10103 Composition I (ACTS Equivalency = ENGL 1013)</b>	
<b>ENGL 10203 Composition II (ACTS Equivalency = ENGL 1023)</b>	
SPCH 10003 Public Speaking (ACTS Equivalency = SPCH 1003)	
Select one of the following:	
ENGL 30503 Technical and Professional Writing (ACTS Equivalency = ENGL 2023) or ACOM 31 Communicating Agriculture to the Public	
<b>U.S. History and Government</b>	<b>3</b>
Choose from U.S. History and Government University Core Course	
<b>Mathematics</b>	<b>6</b>
MATH 11003 College Algebra (ACTS Equivalency = MATH 1103) (or higher)	
MATH 21003 Principles of Statistics (ACTS Equivalency = MATH 2103)	

<b>Sciences</b>	<b>27-31</b>
BIOL 10103 Principles of Biology (ACTS Equivalency = BIOL & BIOL 10101 1014 Lecture) and Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab)	
Select 4-8 hours:	
CHEM 12103 Fundamentals of Chemistry (ACTS Equivalency = & CHEM 12101 CHEM 1214 Lecture) and Fundamentals of Chemistry Laboratory (ACTS Equivalency = CHEM 1214 Lab)	
Or	
CHEM 14103 University Chemistry I (ACTS Equivalency = & CHEM 14101 CHEM 1414 Lecture) & CHEM 14203 and University Chemistry I Laboratory (ACTS & CHEM 14201 Equivalency = CHEM 1414 Lab) and University Chemistry II (ACTS Equivalency = CHEM 1424 Lecture) and University Chemistry II Laboratory (ACTS Equivalency = CHEM 1424 Lab)	
Take Additional Science Courses Below:	
BIOL 20003 General Microbiology (ACTS Equivalency = BIOL & BIOL 20001 2004 Lecture) and General Microbiology Laboratory (ACTS Equivalency = BIOL 2004 Lab)	
BIOL 24103 Human Physiology (ACTS Equivalency = BIOL & BIOL 24101 2414 Lecture) and Human Physiology Laboratory (ACTS Equivalency = BIOL 2414 Lab)	
BIOL 24003 Human Anatomy (ACTS Equivalency = BIOL 2404 & BIOL 24001 Lecture) and Human Anatomy Laboratory (ACTS Equivalency = BIOL 2404 Lab)	
CHEM 26103 Organic Physiological Chemistry (ACTS & CHEM 26101 Equivalency = CHEM 1224 Lecture) and Organic Physiological Chemistry Laboratory (ACTS Equivalency = CHEM 1224 Lab)	
CHEM 38103 Elements of Biochemistry	
<b>Fine Arts and Humanities</b>	<b>6</b>
Choose 3 hours from Fine Arts and 3 hours from Humanities University Core	
<b>Social Sciences</b>	<b>9</b>
PSYC 20003 General Psychology (ACTS Equivalency = PSYC 1103)	
HDFS 14003 Life Span Development or HDFS 241 Family Relations	
Select 3 hours from Social Science University core list	
<b>NUTR Requirements</b>	<b>49</b>
NUTR 12001 Introduction to the Dietetic Profession	
NUTR 12103 Fundamentals of Nutrition	
NUTR 21103 Principles of Foods & NUTR 21101 and Principles of Foods Laboratory	
HOSP 26003 Purchasing and Cost Control	
HOSP 26101 Foodservice Sanitation	
NUTR 32003 Human Nutrition	
NUTR 32103 Nutrition Education and Counseling	
NUTR 33003 Nutrition Assessment	

NUTR 36003	Quantity Foods	
HOSP 36503	Hospitality, Dietetic Management and Human Resources	
NUTR 40001	Nutrition Seminar	
NUTR 41003	Research Methods in Nutrition	
NUTR 42103	Advanced Nutrition I	
NUTR 42203	Life Cycle Nutrition	
NUTR 42303	Advanced Nutrition II	
NUTR 42403	Community Nutrition	
NUTR 42603	Medical Nutrition Therapy I	
NUTR 42703	Medical Nutrition Therapy II	
<b>General Electives</b>		<b>2-7</b>
<b>Total Hours</b>		<b>120</b>

## Human Nutrition and Dietetics B.S.H.E.S. Eight-Semester Degree Program

Students wishing to follow the degree plan in Human Nutrition and Dietetics should see the Eight-Semester Degree Policy (<http://catalog.uark.edu/undergraduatecatalog/academicregulations/eightsemesterdegreecompletionpolicy/>) for university requirements of the program.

	Units	
	Fall	Spring
CHEM 14103 University Chemistry I (ACTS Equivalency = CHEM 1414 Lecture) & CHEM 14101 University Chemistry I Laboratory (ACTS Equivalency = CHEM 1414 Lab) or CHEM 12103 and CHEM 12101 Satisfies General Education Outcome 3.4	4	
NUTR 12103 Fundamentals of Nutrition	3	
HOSP 26101 Foodservice Sanitation	1	
UNIV 10051 University Perspectives	1	
MATH 11003 College Algebra (ACTS Equivalency = MATH 1103) (OR Higher Level Math) (Satisfies General Education Outcome 2.1)	3	
ENGL 10103 Composition I (ACTS Equivalency = ENGL 1013) (Satisfies General Education Outcome 1.1)	3	
NUTR 12001 Introduction to the Dietetic Profession	1	
CHEM 14203 University Chemistry II (ACTS Equivalency = CHEM 1424 Lecture) & CHEM 14201 University Chemistry II Laboratory (ACTS Equivalency = CHEM 1424 Lab) or BIOL 10103 and BIOL 10101 Satisfies General Education Outcome 3.4		4
ENGL 10203 Composition II (ACTS Equivalency = ENGL 1023) (Satisfies General Education Outcome 1.1)		3
SPCH 10003 Public Speaking (ACTS Equivalency = SPCH 1003) (Satisfies General Education Outcomes 1.2 and 5.1)		3
Humanities University Core Elective (Satisfies General Education Outcome 3.2) <sup>1</sup>		3
Fine Arts University Core Elective (Satisfies General Education Outcome 3.1) <sup>2</sup>		3

Year Total: 16 16

	Units	
	Fall	Spring
NUTR 21103 Principles of Foods & NUTR 21101 Principles of Foods Laboratory	4	
BIOL 24103 Human Physiology (ACTS Equivalency = BIOL 2414 Lecture) & BIOL 24101 Human Physiology Laboratory (ACTS Equivalency = BIOL 2414 Lab) or BIOL 24003 and BIOL 24001	4	
PSYC 20003 General Psychology (ACTS Equivalency = PSYC 1103) (Satisfies General Education Outcome 3.3)	3	
HOSP 26003 Purchasing and Cost Control	3	
CHEM 26103 Organic Physiological Chemistry (ACTS Equivalency = CHEM 1224 Lecture) & CHEM 26101 Organic Physiological Chemistry Laboratory (ACTS Equivalency = CHEM 1224 Lab)		4
BIOL 24103 Human Physiology (ACTS Equivalency = BIOL 2414 Lecture) & BIOL 24101 Human Physiology Laboratory (ACTS Equivalency = BIOL 2414 Lab) or BIOL 24003 and BIOL 24001		4
Social Sciences University Core Elective <sup>3</sup>		3
HDFS 14003 Life Span Development (Satisfies General Education Outcomes 4.1 and 4.2) <sup>3</sup> or HDFS 24103 Family Relations		3
Year Total:	14	14

	Units	
	Fall	Spring
NUTR 32103 Nutrition Education and Counseling	3	
CHEM 38103 Elements of Biochemistry	3	
BIOL 10103 Principles of Biology (ACTS Equivalency = BIOL 1014 Lecture) & BIOL 10101 Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab)	4	
HOSP 36503 Hospitality, Dietetic Management and Human Resources	3	
NUTR 32003 Human Nutrition	3	
BIOL 20003 General Microbiology (ACTS Equivalency = BIOL 2004 Lecture) & BIOL 20001 General Microbiology Laboratory (ACTS Equivalency = BIOL 2004 Lab)		4
MATH 21003 Principles of Statistics (ACTS Equivalency = MATH 2103)		3
NUTR 33003 Nutrition Assessment		3
NUTR 36003 Quantity Foods		3
Year Total:	16	13

	Units	
	Fall	Spring
NUTR 42103 Advanced Nutrition I	3	
NUTR 42203 Life Cycle Nutrition	3	
NUTR 42603 Medical Nutrition Therapy I	3	

US History or Government University Core Elective	3	
Electives	3	
NUTR 42703 Medical Nutrition Therapy II		3
NUTR 42303 Advanced Nutrition II		3
NUTR 42403 Community Nutrition		3
NUTR 41003 Research Methods in Nutrition		3
NUTR 40001 Nutrition Seminar (Satisfies General Education Outcome 6.1)		1
ENGL 30503 Technical and Professional Writing (ACTS Equivalency = ENGL 2023)		3
or ACOM 31403 Communicating Agriculture to the Public		
Year Total:	15	16

**Total Units in Sequence: 120**

- <sup>1</sup> The Humanities Elective courses which satisfy General Education Outcome 3.2 include: AAST 20203, ANTH 10303, ARCH 10103, CLST 10003, CLST 100H3, CLST 10103, COMM 12303, DANC 10003, ENGL 12103, GNST 20003, HIST 11193, HIST 111H3, HIST 11293, HIST 112H3, HIST 20003, HIST 20103, HUMN 112H4, HUMN 22103, LALS 20103, MRST 20103, MUSY 20003, MUSY 200H3, PHIL 20003,, PHIL 200H3, PHIL 21003, PHIL 23003, THTR 10003, THTR 10103, THTR 101H3, ENGL 11103, ENGL 11203, or intermediate-level world language.
- <sup>2</sup> The Fine Arts Elective courses which satisfy General Education Outcome 3.1 include: ARCH 10003, ARHS 10003, COMM 10003, DANC 10003, LARC 10003, MUSC 10003, MUSC 100H3, MUSC 10103, MUSC 101H3, MUSC 13303, THTR 10003, THTR 10103, or THTR 101H3.
- <sup>3</sup> The Social Sciences Elective courses which satisfy the General Education Outcome 3.3 include: AGECE 11003, AGECE 21003, ANTH 10203, COMM 10203, ECON 21003, ECON 22003, ECON 21403, EDST 20003, HDFS 14003, HDFS 24103, HDFS 26003, HIST 11193, HIST 111H3, HIST 11293, HIST 112H3, HIST 20003, HIST 20103, HIST 20903, HUMN 111H4, HUMN 211H4, INST 28103, INST 281H3, PLSC 20003, PLSC 20103, PLSC 21003, PLSC 28103, PLSC 281H3, PSYC 20003, RESM 28503, SOCI 10103, SOCI 101H3, or SOCI 20103.

## Minor in Human Nutrition (NUTR-M)

**Required Courses 13**

NUTR 12103	Fundamentals of Nutrition	
NUTR 32003	Human Nutrition (Pre-: NUTR 12103; Pre- or Co-: CHEM 26103/26101)	
NUTR 21103 & NUTR 21101	Principles of Foods & Principles of Foods Laboratory (Pre-: NUTR 12103, HOSP 26101 and ((CHEM 12103/12101) OR (CHEM 14103/14101))	
NUTR 42103	Advanced Nutrition I (Pre-: CHEM 38103 and NUTR 32003)	
Select 6 hours from the following:		6
NUTR 22003	Sports Nutrition	
NUTR 42203	Life Cycle Nutrition (Pre-: NUTR 32003)	
NUTR 42403	Community Nutrition (Pre-: NUTR 12103)	

Bumpers College students who wish to pursue this minor should complete the major/minor change form at <https://forms.uark.edu/xfp/form/484>. Students pursuing a major outside of Bumpers College should contact their college's dean's office to request the minor to be added. If you have questions, contact Bumpers College Student Services at 479-575-2252 or [afldsdean@uark.edu](mailto:afldsdean@uark.edu).

**Total Hours 19**

## Courses

### NUTR 12001. Introduction to the Dietetic Profession. 1 Hour.

Introduction to profession of dietetics and nutrition including history, scope and future of professionals with emphasis on academic preparation, internships, acquisition of professional credentials, career ladder and career opportunities. Guest speakers will supplement lectures and assignments. Prerequisite: HNAD or FNAH majors only or by department consent. (Typically offered: Fall and Spring)

### NUTR 12103. Fundamentals of Nutrition. 3 Hours.

The functions of food, body processes, optimum diets in relation to health and physical fitness. (Typically offered: Fall and Spring)

### NUTR 21101. Principles of Foods Laboratory. 1 Hour.

Laboratory exercises and practice applicable of Principles of Foods. Lab 3 hours. Corequisite: NUTR 21103. (Typically offered: Fall and Spring)

### NUTR 21103. Principles of Foods. 3 Hours.

Physical and chemical characteristics of foods, organized by food science and nutrition, protein foods, phytochemicals, complex and refined carbohydrates, and fats. Emphasis on food preparation and storage methods and effect on foods. Investigation and practice of food preparation basics, cooking and baking techniques, knife skills, food safety, and sensory evaluation of food. Corequisite: NUTR 21101. Prerequisite: NUTR 12103, a C or higher in HOSP 26101, (CHEM 12103, or CHEM 14103, or CHEM 12073), one of the following programs, minors or concentrations: (HNADBS, FNAHBS, HESCBS, NUTR-M, or CATEBS-FCSE) and students must also have a current ServSafe Manager's Certification. (Typically offered: Fall and Spring)

### NUTR 22003. Sports Nutrition. 3 Hours.

The integration of concepts from nutrition and exercise physiology into an applied multidisciplinary study of how food, beverages and dietary supplements influence physical performance. Prerequisite: NUTR 12103. (Typically offered: Summer)

### NUTR 31041. Culinary Nutrition Lab. 1 Hour.

Students will explore ways to apply evidence based nutrition research to culinary application. It addresses the fundamental culinary skills and knowledge required to prepare meals that impact the nutritional and sensory appeal of food. Corequisite: NUTR 31043. Prerequisite: NUTR 21103 and NUTR 21101. (Typically offered: Fall)

### NUTR 31043. Culinary Nutrition. 3 Hours.

This course is grounded in a food first approach to health and wellness with an emphasis on disease prevention. Students will study the physical and chemical characteristics of foods that increase nutritional value and will include exploration of the culinary nutrition modification process and application of these concepts to planning nutritionally balanced meals. Corequisite: NUTR 31041. Prerequisite: NUTR 21103 and NUTR 21101. (Typically offered: Fall)

### NUTR 32003. Human Nutrition. 3 Hours.

Fundamental human nutrition; nutritive value of foods and general functions of nutrients based on concepts derived from inorganic and organic chemistry. Examples relating nutrition to disease used as illustrations to deepen understanding of normal nutrition. Lecture 3 hours per week. Corequisite: CHEM 26103 and CHEM 26101 or CHEM 36053 and CHEM 36051. Prerequisite: NUTR 12103. (Typically offered: Fall)

**NUTR 32103. Nutrition Education and Counseling. 3 Hours.**

Introduction to development of communication skills related to educational theory and techniques, development of educational materials, interpersonal communication skills, group dynamics, public speaking, and interviewing techniques. Includes discussion of counseling theory and methods, and how education and counseling are intertwined for nutrition professionals. Includes development of skills in nutrition counseling. Prerequisite: NUTR 12103, HNAD or FNAH majors only, and Junior or Senior standing. (Typically offered: Fall)

**NUTR 33003. Nutrition Assessment. 3 Hours.**

Principles of nutritional assessment and methodology including anthropometric, biochemical, clinical, and dietary evaluation. Emphasis placed on Nutrition Focused Physical Assessment, the interpretation of indices for all age groups in health and disease for both individuals and groups, and the application of nutrition assessment data in the nutrition care process. Prerequisite: NUTR 32003, junior standing and HNAD/FNAH majors only. (Typically offered: Spring)

**NUTR 36003. Quantity Foods. 3 Hours.**

This course focuses on menu planning for a variety of food service organizations, with consideration of age, special needs, diet type, cultural and ethical parameters. Students will design flavorful and appealing menus that meet current nutrition recommendations, guidelines and budgetary constraints. They will learn recipe standardization, quantity production, and overall quality control. Prerequisite: NUTR 12103, HOSP 26003, junior standing and Human Nutrition and Dietetics Bachelor of Science (HNADBS) or Food, Nutrition and Health Bachelor of Science (FNAHBS) majors only. (Typically offered: Spring)

**NUTR 40001. Nutrition Seminar. 1 Hour.**

Presentation and discussion of selected nutrition topics of current interest. Prerequisite: Senior standing and HNAD or FNAH majors only. (Typically offered: Spring) May be repeated for up to 2 hours of degree credit.

**NUTR 41003. Research Methods in Nutrition. 3 Hours.**

This course will cover applications of experimental methods for investigations in nutrition research and cookery. Pre- or Corequisite: MATH 21003. Prerequisite: Major in either Human Nutrition and Dietetics (HNAD), or Food, Nutrition and Health (FNAH) and senior standing only. (Typically offered: Spring)

**NUTR 42103. Advanced Nutrition I. 3 Hours.**

This course will cover nutritional, physiological, and biochemical aspects of carbohydrate, protein, and lipid metabolism in humans and their implications in health and disease. Prerequisite: CHEM 38103 and NUTR 32003. (Typically offered: Fall)

**NUTR 42203. Life Cycle Nutrition. 3 Hours.**

Study of normal nutrition emphasizing quantitative needs for nutrients as functions of biologic processes that vary during stages of the life cycle. Attention is given to preconception, pregnancy, childhood and older adults. Prerequisite: (HNAD majors and NUTR 32003) or (FNAH majors and junior standing) or (Nutrition minors and junior standing) only. (Typically offered: Fall)

**NUTR 42303. Advanced Nutrition II. 3 Hours.**

This course will cover nutritional, physiological, and biochemical aspects of vitamins and minerals in humans, their functions and roles in metabolism, and their implications in health and disease. Prerequisite: NUTR 42103. (Typically offered: Spring)

**NUTR 42403. Community Nutrition. 3 Hours.**

Identifying, assessing, and developing solutions for nutritional problems encountered at the local, state, federal, and international levels. Lecture 3 hours per week. Prerequisite: NUTR 12103, junior standing, and Food, Nutrition and Health Bachelor of Science in Human Environmental Science (FNAHBS) or Human Nutrition and Dietetic Bachelor of Science in Human Environmental Science (HNADBS) majors or Nutrition minors only. (Typically offered: Spring)

**NUTR 42603. Medical Nutrition Therapy I. 3 Hours.**

Principles of medical nutrition therapy with emphasis on the Nutrition Care Process, and the pathophysiology and current standards of practice for diseases and disorders. Pre- or corequisite: NUTR 32103 and NUTR 42103. Prerequisite: BIOL 24103, BIOL 24101, CHEM 38103 and NUTR 33003. (Typically offered: Fall)

**NUTR 42703. Medical Nutrition Therapy II. 3 Hours.**

Principles of medical nutrition therapy with emphasis on the Nutrition Care Process, and the pathophysiology and current standards of practice for diseases and disorders. Lecture 3 hours per week. Prerequisite: NUTR 42603. (Typically offered: Spring)

**NUTR 43003. Cultural Perspectives on Foods. 3 Hours.**

Cultural competence is growing in importance as our population becomes more culturally diverse. This course covers cuisine and culture of various regions for the purpose of promoting respect and understanding for cultural diversity. Students will learn the history of foods, ingredients, flavor profiles, religious based food practices, etiquette, and customs. Corequisite: Junior or senior standing, and (Human Nutrition and Dietetics majors (HNADBS) or Food, Nutrition and Health majors (FNAHBS) or Hospitality Management (HOSPBS) majors). (Typically offered: Fall)

**NUTR 44031. Recipe Modification Lab. 1 Hour.**

Students will use existing research to identify foods with preventative and functional properties and apply that information to develop recipes for improved nutritional quality and disease management. They will gather data to modify and refine the products and create an educational tool to promote their products. Corequisite: NUTR 44033. (Typically offered: Spring)

**NUTR 44033. Recipe Modification. 3 Hours.**

Students will use existing research to identify foods with preventative and functional properties and apply that information to develop recipes for improved nutritional quality and disease management. They will gather data to modify and refine the product and create an educational tool to promote their product. Corequisite: NUTR 44031. Prerequisite: NUTR 21103 and NUTR 21101. (Typically offered: Spring)