Human Nutrition and Food

Degree Offered

• Bachelor of Science

Nature of the Program

BECOMING A DIETITIAN

The path to become a registered dietitian nutritionist includes a college degree, completing a dietetic internship from an ACEND-accredited program, and passing the national registration exam. At WVU, students who wish to become a registered dietitian nutritionist must:

1. earn a bachelor’s degree and complete the Didactic Program in Dietetics with a cumulative GPA of 3.0;
2. apply for and complete an ACEND-accredited dietetic internship program or Individual Supervised Practice Pathway;
3. pass the Commission on Dietetic Registration’s dietetic registration exam;
4. gain licensure if required in your state of practice;
5. maintain continuing education. Note that in 2024, a graduate degree will be required to be eligible to take the Commission on Dietetic Registration exam. In addition to the ACEND-accredited DPD, WVU offers an ACEND-accredited dietetic internship associated with a master’s degree. An undergraduate degree from WVU does not guarantee acceptance into the WVU dietetic internship.

This program of study is a good pre-professional option for students who wish to pursue the professional school programs of human medicine and the allied health professions.

Students are required to complete core courses as well as courses in food science, nutrition, food service management, sociology, psychology, economics, chemistry, biology, physiology, and microbiology. Students are encouraged to select electives in areas that support anticipated career preferences, e.g., business, food science, nutritional biochemistry, advertising, writing, and exercise physiology. There are required objectives for Didactic Program in Dietetics.

Students must meet cumulative GPA requirements of 3.0 or higher to receive a verification statement, which fulfills the academic requirements for membership in the Academy of Nutrition and Dietetics. After completion of the Didactic Program in Dietetics requirements, seniors are eligible to apply for competitive dietetic internships, by participating in a national match. Acceptance into an internship is not guaranteed. The dietetic internship involves an additional one to two years, depending on the site and whether graduate study is included. Upon completion of the internship, the graduate is eligible to take the examination to become a Registered Dietitian Nutritionist (RDN). Students are also able to receive a verification statement to take the DTR (Diet Tech Registered) exam with a 2.5 or greater.

Click here to view the Suggested Plan of Study (p. 3)

General Education Foundations

Please use this link to view a list of courses that meet each GEF requirement. (http://registrar.wvu.edu/gef)

NOTE: Some major requirements will fulfill specific GEF requirements. Please see the curriculum requirements listed below for details on which GEFs you will need to select.

General Education Foundations

<table>
<thead>
<tr>
<th>General Education Foundations</th>
<th>3-6</th>
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<tbody>
<tr>
<td>ENGL 101 &amp; ENGL 102 or ENGL 103</td>
<td>Introduction to Composition and Rhetoric and Composition, Rhetoric, and Research Accelerated Academic Writing</td>
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<tr>
<td>F2A/F2B - Science &amp; Technology</td>
<td>4-6</td>
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<tr>
<td>F3 - Math &amp; Quantitative Reasoning</td>
<td>3-4</td>
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<tr>
<td>F4 - Society &amp; Connections</td>
<td>3</td>
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<tr>
<td>F5 - Human Inquiry &amp; the Past</td>
<td>3</td>
</tr>
<tr>
<td>F6 - The Arts &amp; Creativity</td>
<td>3</td>
</tr>
<tr>
<td>F7 - Global Studies &amp; Diversity</td>
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<tr>
<td>F8 - Focus (may be satisfied by completion of a minor, double major, or dual degree)</td>
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</table>

Total Hours

31-37
Please note that not all of the GEF courses are offered at all campuses. Students should consult with their advisor or academic department regarding the GEF course offerings available at their campus.

CURRICULUM REQUIREMENTS

Curriculum Requirements
Minimum GPA in Major: 2.5
ANRD 191 First-Year Seminar 1

General Education Foundations
ENGL 101 Introduction to Composition and Rhetoric 6
& ENGL 102 and Composition, Rhetoric, and Research
FDST 200 Food Science and Technology 3
PSYC 101 Introduction to Psychology 3
HN&F 350 Cross-Cultural Cuisine 3
GEF 6 - The Arts & Creativity 3
SOCA 105 Introduction to Anthropology 3
AGEE 220 Group Organization and Leadership 3
or BUSA 320 Survey of Management
or ARE 204 Agribusiness Management
ECON 201 Principles of Microeconomics 3
PSYC 251 Introduction to Social Psychology 3
or PSYC 241 Introduction to Human Development

Human Nutrition & Foods Core Curriculum
A minimum grade of C- required for all HN&F courses.
A minimum GPA of 2.5 is required in the major.
HN&F 171 Introduction to Human Nutrition 3
HN&F 271 Fundamentals of Nutrition 3
HN&F 348 Science of Food Preparation 3
HN&F 353 Food Service Systems Management 3
HN&F 460 Advanced Nutrition 3
HN&F 472 Community and Public Health Nutrition 3
HN&F 473 Medical Nutrition Therapy 1 3
HN&F 474 Medical Nutrition Therapy 2 3
HN&F 401 Senior Seminar in Nutrition (fulfills Capstone and Writing & Communication Skills requirement) 2

HN&F Electives
(A minimum of 6 credits must be in HN&F must be 200-level and above.)
10

Math and Science Requirements
Math Requirement (A minimum grade of C- or higher is required in MATH 124) 6
MATH 124 Algebra with Applications
& MATH 128 and Plane Trigonometry
Or
MATH 129 Pre-Calculus Mathematics
Or
MATH 150 Applied Calculus

Biology Requirement: 8

BIOL 101 General Biology
& BIOL 103 and General Biology Laboratory
& BIOL 102 and General Biology Laboratory
& BIOL 104 and General Biology Laboratory
Or

BIOL 115 Principles of Biology
& BIOL 116 and Principles of Biology Laboratory
& BIOL 117 and Introductory Physiology
& BIOL 118 and Introductory Physiology Laboratory
ANPH 301 Introduction to Animal Physiology 3
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>AEM 341</td>
<td>General Microbiology</td>
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<tr>
<td>CHEM 115 &amp; 115L</td>
<td>Fundamentals of Chemistry and Fundamentals of Chemistry 1 - Laboratory</td>
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<td>CHEM 231 &amp; 231L</td>
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<tr>
<td>CHEM 233 &amp; CHEM 235</td>
<td>Organic Chemistry and Organic Chemistry Laboratory</td>
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<tr>
<td>CHEM 234 &amp; CHEM 236</td>
<td>Organic Chemistry and Organic Chemistry Laboratory</td>
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<tr>
<td>AGBI 410 or BIOC 339</td>
<td>Introductory Biochemistry</td>
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<td>STAT 211 or ECON 225</td>
<td>Elementary Statistical Inference and Elementary Business and Economics Statistics</td>
<td>3</td>
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<tr>
<td>PHYS 101 or PHYS 102</td>
<td>Introductory Physics 1 and Introductory Physics 2</td>
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<tr>
<td>Business and Social Science Requirements</td>
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<tr>
<td>ARE 110 or BUSA 202</td>
<td>Agribusiness Accounting and Survey of Accounting</td>
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<tr>
<td>CSAD 270 or AGEE 421</td>
<td>Effective Public Speaking and Agricultural and Natural Resource Communications</td>
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<td>Total Hours</td>
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**SUGGESTED PLAN OF STUDY**

**First Year**

**Fall**  
ANRD 191  
1 BIOL 102 & BIOL 104  
4

BIOL 101 & 103  
4 PSYC 101 (GEF 4)  
3

HN&F 171 (GEF 2A)  
3 ENGL 101 (GEF 1)  
3

MATH 124 (GEF 3)  
3 MATH 128  
3

Total: 11 Hours

**Spring**  

13 Hours

**Second Year**

**Fall**  
HN&F 271  
3 CHEM 116 & 116L  
4

ENGL 102 (GEF 1)  
3 AEM 341  
4

CHEM 115 & 115L  
4 ARE 110  
3

PSYC 251 (GEF 8)  
3 STAT 211  
3

FDST 200 (GEF 2A)  
3 ECON 201 (GEF 8)  
3

Total: 16 Hours

**Spring**  

17 Hours

**Third Year**

**Fall**  
HN&F 348  
3 HN&F 350  
3

ANPH 301  
3 HN&F 353  
3

PHYS 101  
4 PHYS 102  
4
Human Nutrition and Food

BUSA 320 (GEF 8) 3  
CHEM 233 4  CHEM 234 4  CHEM 235 & 236

17

Fourth Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
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<tbody>
<tr>
<td>HN&amp;F 472</td>
<td>3</td>
<td>HN&amp;F 401</td>
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<tr>
<td>HN&amp;F 473</td>
<td>3</td>
<td>HN&amp;F 460</td>
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<td>AGBI 410</td>
<td>3</td>
<td>HN&amp;F 474</td>
<td>3</td>
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<tr>
<td>GEF</td>
<td>3</td>
<td>SOCA 105 (GEF 7)</td>
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<td>HN&amp;F Elective</td>
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Total credit hours: 121

AREA OF EMPHASIS IN DIETETICS

A grade of C- or higher is required in all coursework*

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
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<tr>
<td>HN&amp;F 472</td>
<td>Community and Public Health Nutrition</td>
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<td>HN&amp;F 473</td>
<td>Medical Nutrition Therapy 1</td>
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<td>HN&amp;F 474</td>
<td>Medical Nutrition Therapy 2</td>
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<tr>
<td>HN&amp;F 491</td>
<td>Professional Field Experience</td>
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Total Hours

12

* Students must have a minimum GPA of 3.0 to be eligible for the Area of Emphasis in Dietetics, and to receive a Didactic Program in Dietetics Verification Statement. HNF 491: Professional Field Experience, can be completed during fall, spring or summer term. Students in the Human Nutrition & Foods major who wish to sit for the Nutrition and Dietetics Technician Registered (NDTR) exam, Certified Dietary Manager (CDM) exam or apply for dietetic internships, must meet academic standards and must declare this area of emphasis to be verified.

First Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
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<tr>
<td>ANRD 191</td>
<td>4</td>
<td>BIOL 102</td>
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<td>&amp; BIOL 104</td>
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<td>PSYC 101</td>
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<td>&amp; BIOL 103</td>
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<tr>
<td>CHEM 115</td>
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<td>ENGL 101</td>
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<tr>
<td>&amp; 115L</td>
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<tr>
<td>HN&amp;F 171</td>
<td>3</td>
<td>MATH 128</td>
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<tr>
<td>MATH 124 (GEF 3)</td>
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<td>CHEM 116 &amp; 116L</td>
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Second Year

<table>
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<th>Fall</th>
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<th>Spring</th>
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<td>CHEM 234</td>
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<td>ECON 201</td>
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<td>AEM 341</td>
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<td>CHEM 233</td>
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<td>FDST 200</td>
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<td>CHEM 235</td>
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<td>ARE 110 or BUSA 202</td>
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<tr>
<td>PSYC 251</td>
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<td>STAT 211</td>
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Third Year

<table>
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<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
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<tbody>
<tr>
<td>HN&amp;F 348</td>
<td>3</td>
<td>HN&amp;F 491</td>
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<tr>
<td>ANPH 301</td>
<td>3</td>
<td>HN&amp;F 353</td>
<td>3</td>
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<tr>
<td>PHYS 101</td>
<td>4</td>
<td>HN&amp;F 350</td>
<td>3</td>
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<tr>
<td>AGEE 220, BUSA 320, or ARE 204</td>
<td>3</td>
<td>PHYS 102</td>
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Total credit hours: 121
Fourth Year

<table>
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<tr>
<th>Course</th>
<th>Hours Fall</th>
<th>Hours Spring</th>
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<tbody>
<tr>
<td>HN&amp;F 473</td>
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<td>6</td>
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<tr>
<td>HN&amp;F 472</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>AGBI 410</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>GEF 6</td>
<td>3</td>
<td>3</td>
<td>6</td>
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<tr>
<td>HN&amp;F Elective</td>
<td>3</td>
<td>3</td>
<td>6</td>
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</table>

Total credit hours: 120

Major Learning Outcomes

**HUMAN NUTRITION AND FOODS**

1. Graduates will acquire a high level of competency in the basic sciences required for disciplinary competency.
2. Graduates will integrate basic knowledge and managerial skills related to the nutritional and food science disciplines.
3. Graduates will acquire sufficient written and oral communication skills, problem solving and critical thinking skills to effectively impact lifelong societal and professional developments critical to their respective discipline of interest.
4. Graduates will attain depth of knowledge relative to the scope of subfields of human nutritional sciences.

**HN&F 126. Society and Food. 3 Hours.**
Exploration on a global basis of interactions of man and environment as reflected in food production systems. Relation of food supply and use in development or maintenance of social and political institutions.

**HN&F 171. Introduction to Human Nutrition. 3 Hours.**
Nutrient structure, metabolism, integrated function and their importance to human well-being during all stages of the life cycle. Current concerns and those of special interest to college students in meeting nutrient needs.

**HN&F 191. First-Year Seminar. 1-3 Hours.**
Engages students in active learning strategies that enable effective transition to college life at WVU. Students will explore school, college and university programs, policies and services relevant to academic success. Provides active learning activities that enable effective transition to the academic environment. Students examine school, college and university programs, policies and services.

**HN&F 200. Nutrition/Activity/Health. 3 Hours.**
PR: HN&F 171. An overview of how proper nutrition and physical activity relates to individual health and disease prevention.

**HN&F 271. Fundamentals of Nutrition. 3 Hours.**
PR: HN&F 171. The occurrence, uptake and metabolic roles of essential and key non-essential nutrients will be discussed in relation to growth, reproduction, and health in human subjects.

**HN&F 293. Special Topics. 1-6 Hours.**
PR: Consent. Investigation of topics not covered in regularly scheduled courses.

**HN&F 298. Honors. 1-3 Hours.**
PR: Students in Honors Program and consent by the honors director. Independent reading, study or research.

**HN&F 348. Science of Food Preparation. 3 Hours.**
PR: BIOL 102 and BIOL 104 and CHEM 115. To explore functional properties of ingredients and applied scientific theories to food preparation.

**HN&F 350. Cross-Cultural Cuisine. 3 Hours.**
PR: Sophomore standing. This course examines the evolution of human society and culture from a historical perspective as it relates to food and cuisine. Economic and religious influences on dietary patterns and nutritional health are also explored. A hands-on laboratory emphasizes preparation of typical foods from different cultures to supplement the materials covered in the lecture part of the course.

**HN&F 353. Food Service Systems Management. 3 Hours.**
PR: HN&F 271 and (HN&F 350 or MATH 124 or higher). Introduction to food service systems and systems management. Principles of quantity food production management: production schedules, portion control, financial management, layout and equipment planning, evaluation of alternative systems, and computer applications.

**HN&F 355. Nutritional Assessment. 3 Hours.**
PR: HN&F 271. This course will provide students with the knowledge needed to interpret nutrition-related lab values and anthropometric data, identify how nutrition is related to disease prevention, understand clinical and biochemical assessments of nutritional status and how nutritional assessment can be applied in dietetics practices.
HN&F 364. Nutrition Education & Counseling. 3 Hours.
PR: HN&F 271. Roles, responsibilities, and limitations of the professional health/nutrition educator in nutrition counseling, guidance and referral, nutrition needs assessment, dynamics of nutrition counseling interaction, and selected counseling techniques.

HN&F 393. Special Topics. 1-6 Hours.
PR: Consent. Investigation of topics not covered in regularly scheduled courses.

HN&F 401. Senior Seminar in Nutrition. 2 Hours.
The course provides an integrative approach to various topics related to the practice of dietetics by challenging students to read, critique/evaluate, present, and discuss current research.

HN&F 460. Advanced Nutrition. 3 Hours.

HN&F 472. Community Nutrition. 3 Hours.
PR: HN&F 171. Beginning planning for community nutrition to individuals and families at various stages of the life cycle. Roles of concerned agencies and professional groups. Clinical experience in community facilities.

HN&F 473. Medical Nutrition Therapy 1. 3 Hours.
PR: HN&F 171 or consent. Nutrient analysis and introduction to nutrition experimentation; nutrritional assessment.

HN&F 474. Medical Nutrition Therapy 2. 3 Hours.
PR: HN&F 473 and (PSIO 241 or PSIO 441 or ANPH 301) or consent. Nutritional care aspects of patients. Modification of diet to meet human nutrition needs in various medical conditions.

HN&F 490. Teaching Practicum. 1-3 Hours.
PR: Consent. Teaching practice as a tutor or assistant.

HN&F 491. Professional Field Experience. 1-18 Hours.
PR: Consent. (May be repeated up to a maximum of 18 hours.) Prearranged experiential learning program, to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development.

HN&F 493. Special Topics. 1-6 Hours.
PR: Consent. Investigation of topics not covered in regularly scheduled courses.

HN&F 494. Seminar. 1-3 Hours.
PR: Consent. Presentation and discussion of topics of mutual concern to students and faculty.

HN&F 495. Independent Study. 1-6 Hours.
Faculty supervised study of topics not available through regular course offerings.

HN&F 496. Senior Thesis. 1-3 Hours.
PR: Consent.

HN&F 497. Research. 1-15 Hours.
PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. Grading may be S/U.

HN&F 498. Honors. 1-3 Hours.
PR: Students in Honors Program and consent by the honors director. Independent reading, study or research.