Human Nutrition and Foods

Bachelor of Science - Human Nutrition & Food Major

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 DPD.

Students must apply to the Didactic Program in dietetics that meets the academic requirements for membership in the Academy of Nutrition and Dietetics and leads to a bachelor of science degree. After completion of the Didactic Program in dietetics, seniors are eligible to apply for a highly competitive dietetic internship. Acceptance into an internship is not guaranteed. The dietetic internship involves an internship is not guaranteed. The dietetic internship involves and 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 (RD).

GENERAL EDUCATION CURRICULUM

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

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

General Education Curriculum

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101 &amp; ENGL 102</td>
<td>Composition And Rhetoric and Composition And Rhetoric</td>
<td>3-6</td>
</tr>
<tr>
<td>or ENGL 103</td>
<td>Accelerated Academic Writing</td>
<td></td>
</tr>
<tr>
<td>GEC 2A - Mathematics</td>
<td>Mathematics</td>
<td>3-4</td>
</tr>
<tr>
<td>GEC 2B - Natural and Physical Science</td>
<td>Natural and Physical Science</td>
<td>7-8</td>
</tr>
<tr>
<td>GEC 2C - Additional GEC 2A, B or C</td>
<td>Additional GEC 2A, B or C</td>
<td>3</td>
</tr>
<tr>
<td>GEC 3 - The Past and Its Traditions</td>
<td>The Past and Its Traditions</td>
<td>3</td>
</tr>
<tr>
<td>GEC 4 - Issues of Contemporary Society</td>
<td>Issues of Contemporary Society</td>
<td>3</td>
</tr>
<tr>
<td>GEC 5 - Artistic Expression</td>
<td>Artistic Expression</td>
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</tr>
<tr>
<td>GEC 6 - The Individual in Society</td>
<td>The Individual in Society</td>
<td>3</td>
</tr>
<tr>
<td>GEC 6F - First Year Seminar</td>
<td>First Year Seminar</td>
<td>1-3</td>
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<tr>
<td>GEC 7 - American Culture</td>
<td>American Culture</td>
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<tr>
<td>GEC 8 - Western Culture</td>
<td>Western Culture</td>
<td>3</td>
</tr>
<tr>
<td>GEC 9 - Non-Western Culture</td>
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<td>Total Hours</td>
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<td>38-45</td>
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CURRICULUM REQUIREMENTS

Curriculum Requirements

Minimum GPA in Major: 2.5

Select one of the following: 3-6

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101 &amp; ENGL 102</td>
<td>Composition And Rhetoric and Composition And Rhetoric</td>
</tr>
<tr>
<td>ENGL 103</td>
<td>Accelerated Academic Writing</td>
</tr>
<tr>
<td>MATH 128</td>
<td>Plane Trigonometry</td>
</tr>
<tr>
<td>STAT 211</td>
<td>Elementary Statistical Inference</td>
</tr>
<tr>
<td>CHEM 115</td>
<td>Fundamentals of Chemistry</td>
</tr>
<tr>
<td>CHEM 116</td>
<td>Fundamentals of Chemistry</td>
</tr>
<tr>
<td>AEM 341</td>
<td>General Microbiology</td>
</tr>
<tr>
<td>ECON 201</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>SOCA 105</td>
<td>Introduction to Anthropology</td>
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</table>
GEC Requirements (Objectives 3, 5 & 7) 9

**Human Nutrition & Foods Core Curriculum**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDST 200</td>
<td>Food Science and Technology</td>
<td>3</td>
</tr>
<tr>
<td>HN&amp;F 171</td>
<td>Introduction to Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HN&amp;F 271</td>
<td>Fundamentals of Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HN&amp;F 348</td>
<td>Science of Food Preparation</td>
<td>3</td>
</tr>
<tr>
<td>HN&amp;F 350</td>
<td>Cross-Cultural Cuisine</td>
<td>3</td>
</tr>
<tr>
<td>HN&amp;F 353</td>
<td>Food Service Systems Management</td>
<td>4</td>
</tr>
<tr>
<td>HN&amp;F 460</td>
<td>Advanced Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HN&amp;F 472</td>
<td>Community Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HN&amp;F 473</td>
<td>Medical NutritionTherapy 1</td>
<td>3</td>
</tr>
<tr>
<td>HN&amp;F 474</td>
<td>Medical Nutrition Therapy 2</td>
<td>4</td>
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<tr>
<td>HN&amp;F 401</td>
<td>Senior Seminar - Nutrition-CAP</td>
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**Math and Science Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>AGBI 410</td>
<td>Introduction to Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>ANPH 301</td>
<td>Intro to Animal Physiology</td>
<td>3</td>
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<tr>
<td>or PSIO 241</td>
<td>Elementary Physiology</td>
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<tr>
<td>BIOL 101</td>
<td>General Biology</td>
<td>4</td>
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<tr>
<td>&amp; BIOL 103</td>
<td>and General Biology Laboratory</td>
<td></td>
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<tr>
<td>or BIOL 115</td>
<td>Principles of Biology</td>
<td></td>
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<tr>
<td>BIOL 102</td>
<td>General Biology</td>
<td>4</td>
</tr>
<tr>
<td>&amp; BIOL 104</td>
<td>and General Biology Laboratory</td>
<td></td>
</tr>
<tr>
<td>or BIOL 117</td>
<td>Introductory Physiology</td>
<td></td>
</tr>
<tr>
<td>CHEM 231</td>
<td>Organic Chemistry: Brief Course</td>
<td>4-8</td>
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Students not taking CHEM 231 must take All of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>CHEM 233</td>
<td>Organic Chemistry</td>
<td></td>
</tr>
<tr>
<td>&amp; CHEM 235</td>
<td>and Organic Chemistry Laboratory</td>
<td></td>
</tr>
<tr>
<td>CHEM 234</td>
<td>Organic Chemistry</td>
<td></td>
</tr>
<tr>
<td>&amp; CHEM 236</td>
<td>and Organic Chemistry Laboratory</td>
<td></td>
</tr>
<tr>
<td>MATH 128</td>
<td>Plane Trigonometry</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 101</td>
<td>Introductory Physics</td>
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</tr>
<tr>
<td>PHYS 102</td>
<td>Introductory Physics</td>
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**Business and Social Science Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ARE 110</td>
<td>Agribusiness Accounting</td>
<td>3</td>
</tr>
<tr>
<td>or BUSA 202</td>
<td>Survey of Accounting</td>
<td></td>
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<tr>
<td>Select one of the following:</td>
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<td>3</td>
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<tr>
<td>SPA 270</td>
<td>Effective Public Speaking</td>
<td>3</td>
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<tr>
<td>or AGEE 421</td>
<td>Agri/Natural Res Communicatns</td>
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<tr>
<td>BUSA 320</td>
<td>Survey of Management</td>
<td>3</td>
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<tr>
<td>or AGEE 220</td>
<td>Group Organization/Leadership</td>
<td></td>
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<tr>
<td>or ARE 204</td>
<td>Agribusiness Management</td>
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<tr>
<td>CDFS 110</td>
<td>Families Across the Life Span</td>
<td>3</td>
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<tr>
<td>PSYC 101</td>
<td>Introduction to Psychology</td>
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<tr>
<td>PSYC 251</td>
<td>Intro to Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC 241</td>
<td>Intro to Human Development</td>
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<tr>
<td>Elective</td>
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<td>9</td>
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**Total Hours** 129-136

**SUGGESTED PLAN OF STUDY**

**First Year**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours Spring</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 115</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 BIOL 102</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>
FOOD SCIENCE TECHNOLOGY COURSES

FDST 200. Food Science and Technology. 3 Hours.
Up-to-date basics of food science and technology, including: food industry outlook, degrees and careers, food chemistry, food processing and engineering, food microbiology and food safety, food biotechnology, and sensory evaluation of foods.

FDST 308. Food Plant Sanitation. 3 Hours.
PR: CHEM 111 or CHEM 115. Students will learn basic concepts of food processing and the laws and regulations governing it as well as good manufacturing practices involved in order to ensure the quality of food that is sold to the public.

FDST 365. Muscle Foods Technology. 3 Hours.
Emphasis on muscle of slaughtering, cutting, breaking, manufacturing, structure and composition, conversion of muscle to muscle food, processing food animals (cattle, sheep, hogs, poultry, and fish) and products to ensure quality and safety from processing through storage, fresh and value-added processing and nutritional value.

FDST 367. Muscle Foods Technology Lab. 1 Hour.
COREQ: FDST 365. Laboratory training in the processing of carcasses derived from food animals including red meat, poultry, and fish species. Microbiology, cookery, and storage of fresh products. Basic techniques in processed muscle foods production.

FDST 445. Food Microbiology. 3 Hours.
The relationships of microorganisms to food-borne illness and intoxications, microbial food safety and food quality, food spoilage, food preservation and bio-processing. The emerging food preservation technologies and predictive microbiology will be introduced.
FDST 449. Food Microbiology Lab. 1 Hour.
PR: FDST 445. Laboratory training in methods used in microbiological examination of foods. This laboratory will provide a hands-on experience for students who take or have taken FDST 445.

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

FDST 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.

FDST 493A-Z. Special Topics. 1-6 Hours.
PR: Consent. Investigation of topics not covered in regularly scheduled courses.

FDST 494A-Z. Seminar. 1-3 Hours.
PR: Consent. Presentation and discussion of topics of mutual concern to students and faculty.

FDST 496. Senior Thesis. 1-3 Hours.
PR: Consent.

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

HUMAN NUTRITION AND FOODS COURSES

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 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 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 293A-Z. Special Topics. 1-6 Hours.
PR: Consent. Investigation of topics not covered in regularly scheduled courses.

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. 4 Hours.
PR: (MATH 126 or HN&F 350) and PR or CONC: AEM 341. Introduction to food service systems and systems management. Field experience in institutional and commercial food services.

HN&F 401. Senior Seminar - Nutrition-CAP. 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; nuturitional assessment.

HN&F 474. Medical Nutrition Therapy 2. 4 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 493A-Z. Special Topics. 1-6 Hours.
PR: Consent. Investigation of topics not covered in regularly scheduled courses.

HN&F 494A-Z. 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 498A-Z. Honors. 1-3 Hours.
PR: Students in Honors Program and consent by the honors director. Independent reading, study or research.