Nutritional and Food Sciences, M.S.

Christopher Ashwell, Division Director of Animal and Nutritional Sciences
Email: christopher.ashwell@mail.wvu.edu

**Degree Offered**

- Master of Science

**Nature of the Program**

The master of science in nutritional and food science in the Davis College of Agriculture, Natural Resources and Design allows maximum flexibility in courses and research problems. They may work with issues in human or animal health and nutrition. Research problems in human nutrition issues form the basis for many studies, but a comparative approach is emphasized. There is a thesis as well as a non-thesis option for the master's degree. For additional information, contact Dr. Hillar Klandorf (Hillar.Klandorf@mail.wvu.edu), at (304) 293-1897.

The division offers the graduate dietetic internship program as a component of the masters of science degree program (see below). For additional information, contact Dr. Nettie Freshour (Nettie.Freshour@mail.wvu.edu) at (304) 293-2651.

**Graduate Dietetic Internship**

The Graduate Dietetic Internship is a two-year combined master’s/internship program for individuals who have completed at least a bachelor’s degree, as well as the Accreditation Council for Education in Nutrition and Dietetics (ACEND) coursework requirements from a Didactic Program in Dietetics (DPD). The dietetic internship provides the supervised practice experience that is required to be eligible to take the registration examination for dietitians. The combined program offers interns the opportunity to complete a Master of Science degree in addition to the required supervised practice component. There is a thesis as well as a non-thesis option for the master’s degree. The program will provide interns with at least 1,000 hours of supervised practice experience. Students will be required to complete the necessary degree requirements for the college. Additionally, to receive a verification statement to sit for the registered dietitian examination, all students will need to complete the course work listed below. Substitutions of classes will need the approval of the faculty adviser and the Dietetic Internship Director. For additional information contact the program director Dr. Nettie Freshour (Nettie.Freshour@mail.wvu.edu) at (304) 293-2651.

**FACULTY**

**PROFESSORS**

- Kenneth P. Blemings - Ph.D. (University of Wisconsin)
  Nutritional Biochemistry
- Jacek Jaczynski - Ph.D. (Oregon State University)
  Food science and technology
- P. Brett Kenney - Ph.D. (Kansas State University)
  Meat Science
- Kristen Matak - Ph.D. (Virginia Tech)
  Food science and human nutrition
- Joseph S. Moritz - Ph.D. (Kansas State University)
  Nutrition and feed manufacture
- Melissa Olfert - Dr.P.H., M.S., R.D. (Loma Linda University)
  Human nutrition and foods
- Janet C. L. Tou - Ph.D. (University of Toronto)
  Nutrition in bone health and chronic diseases

**ASSOCIATE PROFESSORS**

- Kimberly M. Barnes - Ph.D. (University of Nebraska)
  Lipid metabolism
- Eugene E. Felton - Ph.D. (University of Missouri)
  Animal science and ruminant nutrition
- K. Marie Krause - Ph.D. (University of Wisconsin)
  Ruminant nutrition
- Kevin Shaffer - Ph.D. (West Virginia University)
  Livestock production
- Cangliang Shen - Ph.D. (Colofrato State University)
Safety of meat and fresh produce
- Melissa D. Ventura-Marra - Ph.D. (Florida International University)
  Diet related health disparities

TEACHING ASSOCIATE PROFESSOR
- Nettie Freshour - M.S., R.D. (West Virginia University)
  Dietetics (L.D.N.)

TEACHING ASSISTANT PROFESSOR
- Kelli George - Ph.D. (Florida State University)
  Dietetics
- Cassandra Lamb - Ph.D. (Cornell University)
  Biochemistry

Admissions for 2025-2026
Requirements are similar to those in other biological sciences. The student should have completed basic courses in the physical and biological sciences, including genetics, nutrition, and physiology. Deficiencies may prolong the time needed to complete degree programs.

A regular graduate student is a degree-seeking student who meets all the criteria for regular admission to a program of their choice and under no requirements to make up deficiencies.

For regular admission, a student must:

- Possess a baccalaureate degree from a college or university and have at least a grade point average of 2.75 on a 4.0 scale (or an average of 3.0 or higher for the last sixty credit hours).
- Provide three letters of reference from persons acquainted with the applicant’s professional work, experience, or academic background.
- Submit a written statement of 500 words or more indicating the applicant’s goals and objectives relative to receiving a graduate degree.
- Applicants are advised to contact a potential faculty advisor before they initiate the application process [https://www.davis.wvu.edu/faculty-staff/directory?tags=ANS.]
- A standardized graduate examination score (GRE or MCAT) is not required for admission to this degree.

* International students must meet WVU's minimum score requirements for English language proficiency. ([https://graduateadmissions.wvu.edu/how-to-apply/apply-for-2023-2024/international-graduate-applicant/](https://graduateadmissions.wvu.edu/how-to-apply/apply-for-2023-2024/international-graduate-applicant/))

Major Code: 1722

A candidate for the M.S. degree in Nutritional and Food Science must meet all University, College, Division, and Program requirements as outlined in the WVU Graduate Catalog.

Program Requirements
All M.S. degree candidates are required to follow a planned program of study. The student develops the plan of study during their first year in the program in conjunction with the graduate committee. The plan must be approved by the Director of the Division and the Associate Dean for Academic Affairs of the Davis College.

Thesis option: The thesis option will require 30 credit hours, 24 hours of regular course work plus 6 hours credit for a thesis. A student must maintain a grade point average of 3.0 or better to remain in good standing. There will be a common core curriculum for the two majors. All additional course requirements will be determined by the student in consultation with the major advisor and graduate committee members.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 511</td>
<td>Statistical Methods 1</td>
<td>3</td>
</tr>
<tr>
<td>STAT 512</td>
<td>Statistical Methods 2</td>
<td>3</td>
</tr>
<tr>
<td>ANNU 696</td>
<td>Graduate Seminar</td>
<td>1</td>
</tr>
</tbody>
</table>

Additional Coursework Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HN&amp;F 697</td>
<td>Research</td>
<td></td>
</tr>
<tr>
<td>ANRD 697</td>
<td>Research</td>
<td></td>
</tr>
</tbody>
</table>
### A&VS 797 Research

**Total Hours**: 30

*Non-Thesis Option*: The non-thesis option will require 36 hours of course work. A student must maintain a grade point average of 3.0 or better to remain in good standing. There will be a common core curriculum for the non-thesis masters. Additional courses to meet the degree requirements will be determined by the student in consultation with the major advisor and the graduate committee members and presented in the student’s Plan of Study.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 511</td>
<td>Statistical Methods 1</td>
<td>3</td>
</tr>
<tr>
<td>STAT 512</td>
<td>Statistical Methods 2</td>
<td>3</td>
</tr>
<tr>
<td>ANNU 696</td>
<td>Graduate Seminar</td>
<td>1</td>
</tr>
</tbody>
</table>

**Additional Coursework Requirements**: 29

**Total Hours**: 36

Students in the MS-Thesis Option will be required to complete a thesis. They may identify a problem for study on their own, with approval from their graduate committee or they may work on a faculty member’s research study. The scope of the research problem must be approved by the student’s graduate committee. Students are required to defend their thesis in an open seminar presentation. Students in either the thesis or the non-thesis option must pass an oral examination to be approved for graduation. No more than three hours of research/problem report credits can be applied to the Non-Thesis option.

* Students must complete a minimum of 30 total hours, of which at least 24 hours must be coursework other than research, thesis, project, internship, etc. credits.

### Major Learning Outcomes

**ANIMAL AND NUTRITIONAL SCIENCES**

Catalog: Primary objectives for this program include:

1. Critically evaluate the literature in their field of study as new knowledge is accumulated.
2. Identify research needs germane to providing answers to societal problems. Answer research questions that enhance fundamental knowledge and/or solve societal problems.
3. Apply research findings to professional practice in their fields.
4. Effectively use oral and written communication to share information and ideas.
5. Be qualified to take advanced-level professional positions in their respective fields.
6. Be qualified for doctoral studies in their field.