FOOD SYSTEMS, MINOR

Requirements for a minor may be completed at any campus location offering the specified courses for the minor. Students may not change from a campus that offers their major to a campus that does not offer their major for the purpose of completing a minor.

Program Description
The FDSYS minor will educate and prepare students for existing and emerging food systems careers by designing and delivering an integrative, interdisciplinary Food Systems minor that is learner-centered, experiential and stakeholder-responsive. The minor uses a competency-oriented approach to inform its curriculum, reflective interdisciplinary collaboration, and food systems stakeholder involvement.

Competencies and Guiding Principles of the Food Systems Minor
A comprehensive ecology of knowledge framework emphasizes both what is taught, and how it is taught as mutually supportive components of education. The competencies of the minor are the what: the student learning objectives that graduates of the Food Systems minor are expected to demonstrate proficiency in. The guiding principles of the Food Systems minor are the how: they serve as a roadmap for how the courses and experiences in the minor will support the learning objectives.

Competencies
Students who complete the Food Systems Minor will:

1. Solve complex problems: Analyze, plan, act on and evaluate solutions across multiple domains of the food system, including health, science, economics and business, community, agriculture, the food service industry, and policy.
2. Use evidence from multiple ways of knowing (epistemologies) to analyze, select and assess food systems problems and solutions. Different knowledge include scientific, social, cultural, historical, political, indigenous, and local perspectives.
3. Respect and critically reflect on one's own and others' perspectives and values to understand how these perspectives and values influence food systems decisions.
4. Be civically engaged both locally and globally to enable positive change in food and agricultural systems.

Guiding Principles
1. Experiential learning. Courses and related activities will offer students place-based, learning experiences in food systems beyond the classroom, thereby integrating theoretical and practical knowledge. Activities will include engaged scholarship, internships, service learning, research, and other creative and professional work experiences. For example, the required Supervised Field Engagement Experience will provide opportunity for personalized work on food systems related topics, practice in stakeholder engagement, and network-building for students with potential future employers.
2. Interdisciplinary problems and project-based learning. Problem-based learning, experiential and stakeholder-driven projects, and systems-oriented inquiry have been linked to positive student appraisal of competency development for individual courses (Galt et al. 2013). Courses and related experiences will incorporate pedagogies and curricula that emphasize students’ engagement with interdisciplinary food system problem-posing (inquiry) and project-based learning, thereby placing students at the center of their learning.
3. Community partnerships and engagement. Courses and related experiences will advance students' and community partners’ knowledge, skills, and dispositions toward forming and maintaining partnerships in service towards food systems security and mutually beneficial community, health, and environmental sustainability goals.
4. Personal transformation through reflection. Courses and related experiences will provide opportunities for students, instructors, and allied partners to reflect (individually and collectively) upon their learning about a wide range of issues associated with environmental sustainability, economic development and community prosperity, justice and well-being with an intention to articulate change in one's own understandings.
5. Collaboration and deliberation. Courses and related experiences will promote among students, instructors and allied partners opportunities to develop knowledge, skills and dispositions inherent to democratic/civic participation.
6. Career stakeholder engagement. Courses and related experiences will engage food systems stakeholders and prospective employers from government, industry and non-profit sectors. By assessing stakeholders’ understandings of critical competencies for successful food systems work, Food Systems minor graduates will be better prepared to address current food system challenges and also achieve their personal and professional goals.

Program Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirements for the Minor</td>
<td>18-19</td>
</tr>
</tbody>
</table>

Requirements for the Minor
A grade of C or better is required for all courses in the minor, as specified by Senate Policy 59-10 (https://senate.psu.edu/policies-and-rules-for-undergraduate-students/59-00-minors-and-certificates/#59-10). In addition, at least six credits of the minor must be unique from the prescribed courses required by a student's major(s).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGBM 170</td>
<td>Investigating the U.S. Food System: How food moves from field to table</td>
<td>3</td>
</tr>
<tr>
<td>FDSYS 490</td>
<td>From Agriculture to Culture: Perspectives on your food from seed to plate</td>
<td>1</td>
</tr>
<tr>
<td>FDSYS 495</td>
<td>Internship</td>
<td>2-3</td>
</tr>
</tbody>
</table>

Additional Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGCO 134N</td>
<td>Sustainable Agriculture Science and Policy</td>
</tr>
<tr>
<td>AGCO/ENT 457</td>
<td>Principles of Integrated Pest Management</td>
</tr>
<tr>
<td>AGRO 28</td>
<td>Principles of Crop Management</td>
</tr>
<tr>
<td>ANSC 100</td>
<td>Introduction to Animal Industries</td>
</tr>
<tr>
<td>Topic Area: Food, Nutrition and Health:</td>
<td></td>
</tr>
<tr>
<td>FDSC 200</td>
<td>Introductory Food Science</td>
</tr>
<tr>
<td>NUTR 100</td>
<td>Nutrition Applications for a Healthy Lifestyle</td>
</tr>
</tbody>
</table>
Food, Nutrition, and Health:
- BBH 130  Strategies for Addressing the Obesity and Diabetes Epidemics
- FDSC/STS 105  Food Facts and Fads
- FDSC 200  Introductory Food Science
- FDSC 406W  Physiology of Nutrition
- FDSC 460  International Food Production
- HM 304  Institutional Food Service Management
- HM 329  Principles of Food Production Management
- HM 330  Food Production and Service Management
- HM/FDSYS 407  The Sustainable Fork: Food Systems Decisions for Away-From-Home Eating
- HM 413  New Product Development for Commercial Foodservice
- HM 430  Advanced Product Development for Commercial Foodservice

Supporting Courses and Related Areas

Supporting Courses and Related Areas: Require a grade of C or better

Select 6 credits from approved list in consultation with the minor adviser. At least 3 of the credits must be from the topic area not selected under Additional Courses. The following courses are recommended for meeting the requirements of the minor. Students may substitute courses to meet this requirement in consultation with the minor adviser.

Agricultural and Environmental Sciences:
- AGECO 134N  Sustainable Agriculture Science and Policy
- AGECO 144  Principles and Practices of Organic Agriculture
- AGECO 201  Introductory Agroecology
- AGECO/ANSC/SOILS 418  Nutrient Management in Agricultural Systems
- AGECO/ENT 457  Principles of Integrated Pest Management
- AGRO 28  Principles of Crop Management
- AGRO 423  Forage Crop Management
- AGRO 425  Field Crop Management
- ANSC 100  Introduction to Animal Industries
- ANSC 201  Animal Science
- ANSC/FDSC 207  Animal Products Technology
- ANSC/FDSC 208  Animal Products Technology Laboratory
- ENT 222  Principles of Integrated Pest Management
- ERM 210  Environmental Factors and Their Effect on Your Food Supply
- HORT 101  Horticultural Science
- HORT 431  Small Fruit Culture
- HORT 432  Deciduous Tree Fruits
- HORT 433  Vegetable Crops
- INTAG 300  Tropical Agriculture and Food Systems
- PLANT 220  Gardening for Fun and Profit
- PPEM 120  The Fungal Jungle: A Mycological Safari From Truffles to Slime Molds
- PPEM 225  Mushroom Cultivation
- PPEM 300  Horticultural Crop Diseases
- SOILS 101  Introductory Soil Science
- SOILS 402  Soil Nutrient Behavior and Management
- SOILS 412W  Soil Ecology
- SOILS 422  Natural Resources Conservation and Community Sustainability

Human and Social Dimensions:
- AG/CE 160  Introduction into Ethics and Issues in Agriculture
- AGBM 102  Economics of the Food System
- AGBM 302  Food Product Marketing
- AGBM 460  Managing the Food System
- ANTH 120  First Farmers
- ANTH 140  Anthropology of Alcohol
- ANTH 152  Hunters and Gatherers
- ANTH 375Q  Anthropology of Food Honors
- CI 304N  Food, Farms & Justice: What’s Education Got To Do With Them?
- CED 155  Science, Technology and Public Policy
- CED/FDSYS 442  Changing Food Systems: Comparative Perspectives
- ENGL 179  Exploring the Literature of Food: Current Trends in American Food Writing and Environmentalism
- GEOG 3N  Food and the Future Environment
- HIST 111  Introduction to U.S. Food History
- HIST 451  The Consumer Revolution
- HORT 150N  Plants in the Human Context
- INTAG 100  Everyone Eats: Hunger, Food Security & Global Agriculture
- JST/RLST 405  Jews and Food

Academic Advising

The objectives of the university’s academic advising program are to help advisees identify and achieve their academic goals, to promote their intellectual discovery, and to encourage students to take advantage of both in-and out-of-class educational opportunities in order that they become self-directed learners and decision makers.
Both advisers and advisees share responsibility for making the advising relationship succeed. By encouraging their advisees to become engaged in their education, to meet their educational goals, and to develop the habit of learning, advisers assume a significant educational role. The advisee’s unit of enrollment will provide each advisee with a primary academic adviser, the information needed to plan the chosen program of study, and referrals to other specialized resources.

READ SENATE POLICY 32-00: ADVISING POLICY (https://senate.psu.edu/policies-and-rules-for-undergraduate-students/32-00-advising-policy/)

University Park
Clare Hinrichs
Professor of Rural Sociology
111-D Armsby Building
University Park, PA 16802
814-863-8628
chinrichs@psu.edu

Contact
University Park
DEPARTMENT OF AGRICULTURAL ECONOMICS, SOCIOLOGY, AND EDUCATION
201 Armsby Building
University Park, PA 16802
814-865-0467
chinrichs@psu.edu