The Metropolitan Food & Environmental Systems (MFST) program uses an interdisciplinary approach to understanding and implementing solutions in the area of urban food and environmental systems to ensure the sustainability of readily available nutritious foods for metropolitan populations. The students in this major will learn to understand the science and practice of food production and security across urban environmental, economic, social, and health contexts, while maintaining environmental sustainability. Students in this program will be prepared for jobs in impact areas related to food systems, such as government, non-governmental organizations, institutional food buyers, investment firms, financial and insurance companies, industry, retail, and food service. Alternatively, students may choose to pursue post-baccalaureate education, including law school and graduate school in food systems or in specific areas of the food system. Because the MFST curricula includes required training in STEM education, critical thinking, scientific literacy, communication and leadership, students will obtain the skills necessary to traverse an ever-changing job market and have the freedom to choose from many career-life options.

A minimum of 127 credit hours are required for graduation, including General Education Requirements and the MFST Core Curriculum. Because the core curriculum includes many College of Agricultural, Consumer and Environmental Sciences (ACES) departmental course requirements, the students in MFST have the unique opportunity to minor in many of the ACES departments or to delve deeper into a food system area of interest in addition to the core courses, including (but not limited to) advanced nutrition, plant or animal production, food processing, food safety, environmental sustainability, climate change, or landscape architecture.

for the degree of Bachelor of Science Major in Metropolitan Food & Environmental Systems

---

<table>
<thead>
<tr>
<th>Prescribed Courses including Campus General Education</th>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composition I</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>RHET 105 Writing and Research</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Advanced Composition</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>LEAD 230 Leadership Communications</td>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

---

Information listed in this catalog is current as of 06/2021
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC 403</td>
<td>Pork Production</td>
</tr>
<tr>
<td>ANSC 404</td>
<td>Poultry Science</td>
</tr>
<tr>
<td>CPSC 418</td>
<td>Crop Growth and Management</td>
</tr>
<tr>
<td>CPSC 437</td>
<td>Principles of Agroecology</td>
</tr>
<tr>
<td>HORT 341</td>
<td>Greenhouse Mgmt and Production</td>
</tr>
<tr>
<td>HORT 360</td>
<td>Vegetable Crop Production</td>
</tr>
<tr>
<td>HORT 421</td>
<td>Horticultural Physiology</td>
</tr>
<tr>
<td>HORT 435</td>
<td>Urban Food Production</td>
</tr>
<tr>
<td>NRES 488</td>
<td>Soil Fertility and Fertilizers</td>
</tr>
</tbody>
</table>

**Urban Planning I - Choose one from the following list:** 3
- UP 101 Introduction to City Planning
- UP 116 Urban Informatics I
- UP 136 Urban Sustainability
- UP 203 Cities: Planning & Urban Life
- UP 204 Chicago: Planning & Urban Life
- UP 205 Ecology & Environmental Sustainability
- UP 260 Social Inequality and Planning

**Urban Planning II - Choose one from the following list:** 3-4
- UP 330 The Modern American City
- UP 340 Planning for Healthy Cities
- UP 345 Economic Development Planning
- UP 405 Watershed Ecology and Planning
- UP 406 Urban Ecology
- UP 473 Housing & Urban Policy
- UP 475 Real Estate Development Fundamentals

**Policy I - Choose one from the following list:** 3
- ACE 199 Undergraduate Open Seminar (Food Ag & Pol)
- ACE 291 Ag Policy & Leadership
- ACE 292 Farm, Food & Environmental Policy
- UP 211 Local Planning, Gov’t and Law

**Policy II - Choose one from the following list:** 3-4
- ACE 306 Food Law
- ACE 403 Agricultural Law
- ACE 406 Environmental Law
- ACE 410 Energy Economics
- ACE 411 Environment and Development
- ACE 456 Agr and Food Policies
- NRES 424 US Environ, Justic & Policy
- UP 407 State and Local Public Finance

**Technology I - Choose one from the following list:** 2-4
- ABE 141 ABE Principles: Biological
- ABE 223 ABE Principles: Machine Syst
- ABE 224 ABE Principles: Soil & Water
- ABE 225 ABE Principles: Bioenvironment
- ABE 226 ABE Principles: Bioprocessing
- ANSC 110 Life With Animals and Biotech
- CPSC 226 Biotechnology in Agriculture
- CPSC 265 Genetic Engineering Lab
- CPSC 266 Data in Biology and Agriculture
- TSM 232 Materials and Construction Sys
- TSM 234 Wiring, Motors and Control Sys

**Technology II - Choose one from the following list:** 2-3
- ANSC 409 Meat Science
- CPSC 408 Integrated Pest Management
- CPSC 426 Weed Mgt in Agronomic Crops
- CPSC 428 Weed Science Practicum (If you take CPSC 428, you must take a 4-hour upper-level course from another list)
- CPSC 491 Ugrad Bioinformatics Seminar (Intro to R Programming - if you take CPSC 491, you must take a 4-hour upper-level course from another list)
- FSHN 460 Food Processing Engineering
- FSHN 465 Principles of Food Technology
- FSHN 469 Package Engineering
- TSM 352 Land and Water Mgt Systems
- TSM 371 Residential Housing Design
- TSM 372 Environ Control & HVAC Systems
- TSM 430 Project Management
- TSM 435 Elec Computer Ctrl Sys
- TSM 438 Renewable Energy Applications
- TSM 465 Chemical Applications Systems
- TSM 467 Precision Agric Technology
- TSM 486 Grain Bioprocessing Coproducts

**Advanced Scientific Literacy - Choose one from the following list:** 3-4
- ACE 431 Agri-food Strategic Management
- ANSC 444 Applied Animal Genetics
- ANSC 448 Math Modeling in Life Sciences
- CPSC 440 Applied Statistical Methods I
- FSHN 428 Community Nutrition
- HDFS 420 Inequality, Public Policy, and U.S. Families
- HDFS 461 Family Life Education
- NRES 421 Quantitative Methods in NRES
- NRES 427 Modeling Natural Resources
- NRES 340 Environ Social Sci Res Meth
- UP 316 Urban Informatics II
- UP 418 GIS for Planners
- UP 443 Scenarios, Plans & Future Cities
- UP 457 Small Town/Rural Planning Workshop
- UP 478 Community Development Workshop

**Social Ecology - Choose one from the following list:** 3
- ACE 335 Food Marketing and Behavior
- HDFS 420 Inequality, Public Policy, and U.S. Families
- NRES 428 Valuing Nature

**Social Impact in Practice - Choose one from the following list:** 3-9
- LEAD 480 Collaborative Leadership
- HDFS 494 Applied Research Methods
- MFST 450 Social Impact Learning Experience
  (MFST 450 & MFST 397 can only equal a total of 12 hours)

**Experiential Learning Series** 7-16
- MFST 301 Experiential Learning Preparedness & Planning
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFST 397</td>
<td>Experiential Learning</td>
<td>3 to 9</td>
</tr>
<tr>
<td>MFST 401</td>
<td>Experiential Learning Review and Reflection</td>
<td>3</td>
</tr>
<tr>
<td>Capstone</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MFST 498</td>
<td>Metropolitan Food &amp; Environmental Systems Capstone</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total hours</strong></td>
<td></td>
<td><strong>127</strong></td>
</tr>
</tbody>
</table>