College of Agriculture, Food and Environment

The research, teaching, extension, and regulatory functions of the College of Agriculture, Food and Environment are combined into a coordinated, mutually supporting program of undergraduate and graduate education. Teaching in this college is closely related to the other functions thus providing the student with a unique opportunity to broaden his or her background in the areas of research and application of scientific findings to stakeholders.

Degrees and preprofessional programs in the college encompass the entire range of the food, fiber, and agricultural system from farm production and marketing, manufacturing, processing and fabrication through nutrition, hospitality management, and consumer, community, and family sciences.

The School of Human Environmental Sciences is part of the College of Agriculture, Food and Environment. Degree requirements and information pertaining to these programs are listed beginning on page 111.

Admission

All students planning to study any phase of agriculture, food or environment, including pre-veterinary medicine, are admitted directly into the College of Agriculture, Food and Environment. Application for admission is made through the Office of Undergraduate Admission.

Students interested in the Landscape Architecture program must meet all requirements for admission to the University. In addition, enrollment in the landscape architecture program is determined by a selective admission procedure. Applicants are selected on a competitive basis as determined by potential success in the program.

Students must apply for the Coordinated Program in Dietetics by February 1 prior to potential admission to year three in the Dietetics Program. For additional information, see page 111.

Accreditation

The undergraduate Forestry program at the University of Kentucky is accredited by the Society of American Foresters. The Landscape Architecture program is accredited by the American Society of Landscape Architects and meets all the requirements for licensing of landscape architects in Kentucky and other states. The Food Science program is accredited by the Institute of Food Technologists.

Accreditations for the School of Human Environmental Sciences are listed on page 111 of this Bulletin.

Undergraduate Programs in Agriculture, Food and Environment

The University of Kentucky grants the following degrees in the College of Agriculture, Food and Environment:

- Bachelor of Science in Agriculture
- Bachelor of Science in Agricultural and Medical Biotechnology
- Bachelor of Science in Agricultural Economics
- Bachelor of Science in Animal Sciences
- Bachelor of Science in Career and Technical Education
- Bachelor of Science in Community and Leadership Development
- Bachelor of Science in Consumer Economics and Family Financial Counseling
- Bachelor of Science in Dietetics
- Bachelor of Science in Equine Science and Management
- Bachelor of Science in Family Sciences
- Bachelor of Science in Food Science
- Bachelor of Science in Forestry
- Bachelor of Science in Horticultural Science
- Bachelor of Science in Hospitality Management and Tourism
- Bachelor of Science in Human Nutrition
- Bachelor of Science in Landscape Architecture
- Bachelor of Science in Merchandising, Apparel and Textiles

SPECIAL APPLICATION DEADLINE
FOR SCHOOL OF HUMAN ENVIRONMENTAL SCIENCES

Coordinated Program in Dietetics Upper division program applicants (students who have 71 semester hours of lower division courses) – special application, transcript(s), and recommendations are due by:

- February 1 For fall entry to Coordinate Program

- Bachelor of Science in Natural Resources and Environmental Science
- Bachelor of Science in Sustainable Agriculture and Community Food Systems

Information and degree requirements for each program follows. Students may obtain additional information on programs and recommended plans of study from the Center for Student Success.

The college offers minors in agricultural economics, animal sciences, community and leadership development, entomology, family sciences, food science, pest management, plant and soil science, sustainable agriculture, technical systems management, and wildlife biology and management.

Students majoring in biosystems engineering are enrolled in the College of Engineering. Degree requirements and curriculum are listed in the College of Engineering section of this Bulletin.

See page 111 of this Bulletin for the list of degree requirements for majors in the School of Human Environmental Sciences.

Undergraduate Certificates in Agriculture, Food and Environment

The University of Kentucky grants the following undergraduate certificates in the College of Agriculture, Food and Environment:

- Distillation, Wine and Brewing Studies
- Food Systems and Hunger Studies

Undeclared / Exploratory Studies

Students who are interested in the College of Agriculture, Food and Environment but are undecided about a major should work closely with an advisor in the college who will assist them in selecting courses that will fulfill gen-
eral requirements while exploring the various areas of study in agriculture, food and environment.

Scholarships and Financial Aid

The College of Agriculture, Food and Environment offers scholarship awards to students on the basis of academic accomplishment and involvement in extracurricular activities. Many of the departments in the college employ students in laboratories, greenhouses, barns, and field work in connection with the college’s research programs in agriculture. Information about scholarships and work opportunities is available in the Center for Student Success.

Freshman scholarship applications are due December 1. Continuing and transfer scholarship applications are due April 1. For more information go to: http://students.ca.uky.edu/scholarships.

Academic Advising

Students in the College of Agriculture, Food and Environment are advised by selected faculty or academic coordinators in the department of the student’s major. Students needing assistance selecting an advisor or general information about academics may visit the Center for Student Success.

Inquiries about programs or majors within the College of Agriculture, Food and Environment may be directed to:

College of Agriculture, Food and Environment
Center for Student Success
N24 Ag. Science Center
University of Kentucky
Lexington, KY 40546-0091
859-257-3468

Dean’s List

A student who completes at least 12 credits of “letter” grades with a 3.50 or higher grade-point average with no I grades listed for the fall or spring semester will be named to the Dean’s List in the College of Agriculture, Food and Environment. CLEP, AP, special exam and Independent Study credits are excluded. The student’s cumulative grade-point average is not considered; only the grade-point average for that particular semester is relevant. Exceptional circumstances including fewer than 12 credits will be considered for inclusion on the Dean’s List; students should contact the Center for Student Success for more information.

Graduate Work


Doctor of Philosophy degrees are offered in the following areas: Agricultural Economics, Animal and Food Sciences, Biosystems and Agricultural Engineering, Entomology, Family Sciences, Integrated Plant and Soil Science, Plant Pathology, and Veterinary Science. For more information, visit The Graduate School website at: www.research.uky.edu/gs/.

MINIMUM REQUIREMENTS FOR GRADUATION

NOTE: Except where noted in specific degree programs, students pursuing a Bachelor of Science degree in the College of Agriculture, Food and Environment must:

1. Complete UK Core and University graduation requirements;
2. Complete GEN 100: Issues in Agriculture, Food and Environment. Students who transfer into the College and have already completed the UK Core Community, Culture and Citizenship in the USA requirement are not required to take GEN 100;
3. Earn a minimum of 120 credit hours with at least a 2.0 cumulative grade point average and at least a 2.0 grade-point average in major specific courses. Note that “major-specific” refers to all premajor, major, and specialty/professional support courses. Further, note that some programs require more than the minimum 120 credit hours and have higher grade-point average requirements. Remedial courses cannot be counted toward the total hours required for the degree;
4. Complete a minimum of 24 credit hours of major required course work to include a capstone course or other culminating experience;
5. Complete a core of specialty or professional support courses outside their major totaling 18 or more hours at the 200 level or above;
6. Complete a graded, credit-bearing Academic Enrichment Experience (AEE) as specified by the degree program. The AEE may consist of a single course or could involve a series of related courses. Such experiences may include mentored research or teaching, supervised internships, directed service learning, or Education Abroad. Some programs may choose to accept course work from other programs to satisfy this requirement; and
7. Complete a minimum of 45 graded credit hours from upper division courses (300 level and above). Note that some such courses are only offered for P/F grading; in that case, such courses can be counted toward this requirement at the discretion of the College.

B.S. in Agriculture with a major in

INDIVIDUALIZED PROGRAMS

Individualized program opportunities have been developed to assist students with academic goals that cross several disciplines. The procedure for entering an individualized program is as follows:

1. The student must meet with the Associate Dean for Instruction to request permission to pursue an individualized program. During this meeting, the student will outline goals and learning objectives that explain why an individualized program best meets those desired outcomes. The Associate Dean for Instruction will explain the program, its objectives and possible risks involved that include limitations to prospective employment and acceptance for advanced graduate degree work.
2. If permission is granted, the Associate Dean for Instruction will direct the student to meet with the Assistant Dean for Advising and Student Support to develop an appropriate plan of study.
3. The student’s academic record will be updated to reflect admission into the individualized program and the current academic advisor will be notified of this transition.
4. The Assistant Dean for Advising and Student Support will serve as the primary academic advisor for students pursuing the individualized program. Students are encouraged to consult with faculty in their chosen areas of interest while developing their program.
5. The Director of Undergraduate Studies for Individualized Programs will be a faculty member who will provide oversight of the process, review the program periodically, and approve students’ plans of study.

For more information, contact:

College of Agriculture, Food and Environment
Center for Student Success
N24 Ag. Science Center
University of Kentucky
Lexington, KY 40546-0091
859-257-3468
College of Agriculture, Food and Environment

BACHELOR OF SCIENCE IN AGRICULTURAL AND MEDICAL BIOTECHNOLOGY

Agricultural and medical biotechnology encompasses cellular and molecular approaches to the manipulation and improvement of agricultural plants, animals and microorganisms, and the control of agricultural pests and diseases. The primary purpose of the baccalaureate degree program in Agricultural and Medical Biotechnology is to train students in modern cellular and molecular biology and genetic engineering. Students will be provided with a firm foundation in the principles of genetics and molecular biology of both prokaryotic and eukaryotic organisms. Each student will then specialize in an area appropriate to his or her interest and career objectives, including: microbial, fungal, plant, insect and mammalian biotechnology.

Graduates will be prepared to assume government, university, and industry positions with research and technology applications to agriculture and food production. Employment opportunities include research scientists, laboratory technicians or managers in university, government, industrial, or clinical laboratories using biotechnological tools for research and production. Examples of research areas include: gene cloning, construction of novel pest and disease resistance genes, development of new immunological and nucleic acid types of diagnostic probes for plant and animal disease, genetic engineering of microorganisms for the production of important pharmaceutical agents, and development of new bioengineered strains of microorganisms for fermentation and food production services. Students will also be prepared to enter graduate programs in agriculture, molecular biology, and the biological sciences.

Graduation Requirements

To earn a Bachelor of Science in Agricultural and Medical Biotechnology the student must complete 125 semester hours with at least a 2.0 grade-point standing. A minimum of 45 credit hours must be from upper division courses (300 and above). Remedial courses may not be counted toward the total hours required for the degree. In addition to the UK Core requirements, students must complete college, premajor, major, and specialty support requirements, including an independent research project relevant to the student’s interest in biotechnology.

UK Core Requirements

See the UK Core section of this Bulletin for the complete UK Core requirements. The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements.

I. Intellectual Inquiry in Arts and Creativity

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 201 Scientific Method in Biotechnology</td>
<td>3</td>
</tr>
<tr>
<td>or MA 113 Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>or MA 137 Calculus I</td>
<td>3</td>
</tr>
<tr>
<td>With Life Science Applications</td>
<td>4</td>
</tr>
</tbody>
</table>

II. Intellectual Inquiry in the Humanities

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 211 General Physics</td>
<td>5</td>
</tr>
<tr>
<td>or PHY 213 General Physics</td>
<td>5</td>
</tr>
<tr>
<td>(or equivalent with laboratory)</td>
<td></td>
</tr>
</tbody>
</table>

III. Intellectual Inquiry in the Social Sciences

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 105 General College Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHE 111 General Chemistry I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>or CHE 107 General College Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>or CHE 111 General Chemistry I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>or CHE 113 General Chemistry II Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>or CHE 230 Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>or CHE 231 Organic Chemistry Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>or CHE 232 Organic Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>or CHE 233 Organic Chemistry Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>or MA 123 Elementary Calculus and Its Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 148 Introductory Biology I</td>
<td>3</td>
</tr>
<tr>
<td>or BIO 152 Principles of Biology II</td>
<td>3</td>
</tr>
<tr>
<td>or BIO 155 Laboratory for Introductory Biology I</td>
<td>1</td>
</tr>
<tr>
<td>or CHE 105 General College Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>or CHE 107 General College Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>or CHE 111 General Chemistry I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>or CHE 113 General Chemistry II Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>or CHE 230 Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>or CHE 231 Organic Chemistry Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>or CHE 232 Organic Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>or CHE 233 Organic Chemistry Laboratory II</td>
<td>1</td>
</tr>
</tbody>
</table>

V. Composition and Communication I

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS/WRD 110 Composition and Communication I</td>
<td>3</td>
</tr>
<tr>
<td>or CIS/WRD 111 Composition and Communication II</td>
<td>3</td>
</tr>
</tbody>
</table>

VI. Composition and Communication II

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA 123 Elementary Calculus and Its Applications</td>
<td>3</td>
</tr>
<tr>
<td>or MA 137 Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>With Life Science Applications</td>
<td>4</td>
</tr>
<tr>
<td>or MA 137 Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>or MA 137 Calculus I</td>
<td>4</td>
</tr>
</tbody>
</table>

VII. Quantitative Foundations

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 233 Organic Chemistry Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>or MA 123 Elementary Calculus and Its Applications</td>
<td>3</td>
</tr>
<tr>
<td>or MA 137 Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>or MA 137 Calculus I</td>
<td>4</td>
</tr>
</tbody>
</table>

VIII. Statistical Inferential Reasoning

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STA 296 Statistical Methods and Motivations</td>
<td>3</td>
</tr>
<tr>
<td>or BST 230 Statistical Thinking in Public Health</td>
<td>3</td>
</tr>
</tbody>
</table>

IX. Community, Culture and Citizenship in the USA

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEN 100 Issues in Agriculture, Food and Environment</td>
<td>3</td>
</tr>
</tbody>
</table>

X. Global Dynamics

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 201 Scientific Method in Biotechnology</td>
<td>1</td>
</tr>
<tr>
<td>or ABT 301 Writing and Presentations</td>
<td>3</td>
</tr>
<tr>
<td>in the Life Sciences</td>
<td>2</td>
</tr>
<tr>
<td>or MA 113 Calculus I</td>
<td>4</td>
</tr>
</tbody>
</table>

Graduation Composition and Communication Requirement (GCCR)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 211 Introduction to Biotechnology</td>
<td>1</td>
</tr>
<tr>
<td>or ABT 201 Scientific Method in Biotechnology</td>
<td>1</td>
</tr>
</tbody>
</table>

Premajor Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 148 Introductory Biology I</td>
<td>3</td>
</tr>
<tr>
<td>or BIO 152 Principles of Biology II</td>
<td>3</td>
</tr>
<tr>
<td>or BIO 155 Laboratory for Introductory Biology I</td>
<td>1</td>
</tr>
<tr>
<td>or CHE 105 General College Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>or CHE 107 General College Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>or CHE 111 General Chemistry I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>or CHE 113 General Chemistry II Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>or CHE 230 Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
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<td>1</td>
</tr>
<tr>
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<td>3</td>
</tr>
<tr>
<td>or CHE 233 Organic Chemistry Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>or MA 123 Elementary Calculus and Its Applications</td>
<td>3</td>
</tr>
<tr>
<td>or MA 137 Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>or MA 137 Calculus I With Life Science Applications</td>
<td>4</td>
</tr>
</tbody>
</table>

Electives

Students should be selected to complete the 125 hours required for graduation.

Subtotal: Electives 7-10

TOTAL HOURS: 125

BACHELOR OF SCIENCE IN AGRICULTURAL ECONOMICS

The Agricultural Economics program enables students to pursue careers in agribusiness and food industries, international marketing and trade, farm management and production, and related opportunities. Opportunities are also available in public policy for agriculture and rural America and environmental economics. These career opportunities may be found in both the private and public sectors.
**College of Agriculture, Food and Environment**

Economic theory is applied to problems concerning the production, marketing, and distribution of agricultural and food products and also to public policy and natural resource and environmental issues facing rural communities.

Agricultural Economics students choose one of three options (1) Agribusiness Management & Food Marketing, (2) Agricultural Economics, or (3) Advanced Studies in Agricultural Economics.

**Graduation Requirements**

To earn the Bachelor of Science in Agricultural Economics, students must have a minimum of 120 credit hours with at least a 2.0 grade-point average in either of the first two program options or at least a 3.4 grade-point average in the Advanced Studies option. Students must earn a minimum grade of C in each of the five agricultural economics courses required in the major. A minimum of 45 credit hours must be from upper division courses (300 and above). Remedial courses may not be counted toward the total hours required for the degree. In addition to UK Core requirements, students must complete college, departmental and support requirements.

**UK Core Requirements**

See the UK Core section of this Bulletin for the complete UK core requirements. The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements.

- **I. Intellectual Inquiry in Arts and Creativity**
  - Choose one course from approved list
- **II. Intellectual Inquiry in the Humanities**
  - Choose one course from approved list
- **III. Intellectual Inquiry in the Social Sciences**
  - AEC 110 Current Issues in Agricultural Economics or course from approved list
- **IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences**
  - Choose one course from approved list
- **V. Composition and Communication I**
  - CIS/WRD 110 Composition and Communication I
- **VI. Composition and Communication II**
  - CIS/WRD 111 Composition and Communication II
- **VII. Quantitative Foundations**
  - MA 123 Elementary Calculus and Its Applications or MA 113 Calculus I
- **VIII. Statistical Inferential Reasoning**
  - STA 296 Statistical Methods and Motivations
- **IX. Community, Culture and Citizenship in the USA**
  - GEN 100 Issues in Agriculture, Food and Environment
- **X. Global Dynamics**
  - Choose one course from approved list

**Graduation Composition and Communication Requirement (GCCR)**

NOTE: AEC 306 is both a GCCR and major requirement. Students must receive a grade of C or better in AEC 306.

AEC 306 Technical Communication in Economics

**Graduation Composition and Communication Requirement hours (GCCR)**

**OPTIONS**

1. **Agribusiness Management & Food Marketing Option**

   This option provides a program of study for students interested in careers in marketing, sales, and management of farms or firms involved in production, financing, processing, marketing and distribution of food and agricultural products, depending on the electives chosen.

   NOTE: MA 113 or MA 123 satisfies the UK Core Quantitative Foundations requirement and STA 296 satisfies the UK Core Statistical Inferential Reasoning requirement. Students must earn a C or higher in MA 113 or MA 123 to take AEC 303 and a C or higher in ECO 201 to take any AEC 300 level or higher course.

   **Premajor Requirements**

   **Hours**

   - CS 101 Introduction to Computing I
   - or
   - B&E 105 Technology for Business Solutions
   - ECO 201 Principles of Economics I
   - ECO 202 Principles of Economics II
   - MA 113 Calculus I
   - or
   - MA 123 Elementary Calculus and Its Applications
   - and
   - MA 162 Finite Mathematics and Its Applications
   - STA 296 Statistical Methods and Motivations

   **Subtotal: Premajors hours** 14-19

   **Major Requirements**

   **Hours**

   - Students must receive a grade of C or better in AEC 302, AEC 303, AEC 305, AEC 306, and AEC 422 required for graduation.
   - Students may count only one of the following towards their major requirements: AEC 324, AEC 325, AEC 326.
   - AEC 301 Career Readiness for Agricultural Economics
   - AEC 302 Agricultural Management Principles
   - AEC 303 Microeconomic Concepts in Agricultural Economics
   - AEC 305 Food and Agricultural Marketing Principles
   - AEC 422 Agribusiness Management
   - plus 9 hours at the 300+ level
   - plus 3 hours at 400+ level

   **Subtotal: Major hours** 1-26

   **Academic Enrichment Requirement**

   **Hours**

   **Academic Enrichment Requirement Hours**

   **Academic Enrichment Requirement**

   Choose one of the following:

   **NOTE:** Additional credit hours of AEC 399 beyond one (1) credit shall not count towards the AEC Major Requirements, but additional graded credit hours of AEC 395 or AEC 580 beyond one (1) credit may count towards that requirement.

   AEC 395 Independent Research
   - in Agricultural Economics
   - in Environmental Economics

   AEC 396 Independent Study
   - in Agricultural Economics
   - in Environmental Economics

   AEC 580 Special Problems
   - in Agricultural Economics

   **Subtotal: Academic Enrichment hours** 1

   **Specialty Support**

   **Hours**

   - ACC 201 Financial Accounting I
   - ACC 202 Managerial Uses of Accounting Information
   - AN 300 Analyzing Business Operations
   - ECO 391 Economic and Business Statistics
   - FIN 300 Corporation Finance
   - MGT 301 Business Management
   - MKT 300 Marketing Management

   **Subtotal: Specialty Support hours** 21

   **Electives**

   Electives should be selected by the student to complete the minimum total of 120 hours required for graduation.

   **Subtotal: Electives**

   **Minimum of 16**

   **TOTAL HOURS:** 120

2. **Agricultural Economics Option**

   This option provides a program of study for students interested in careers in rural public policy analysis, rural economic development, natural resource and environmental economics, cooperative extension, or other individualized programs.

   **NOTE:** MA 113 or MA 123 satisfies the UK Core Quantitative Foundations requirement and STA 296 satisfies the UK Core Statistical Inferential Reasoning requirement. Students must earn a C or higher in MA 113 or MA 123 to take AEC 303 and a C or higher in ECO 201 to take any AEC 300 level or higher course.

   **Premajor Requirements**

   **Hours**

   - ECO 201 Principles of Economics I
   - ECO 202 Principles of Economics II
   - MA 113 Calculus I
   - or
   - MA 123 Elementary Calculus and Its Applications
   - and
   - MA 162 Finite Mathematics and Its Applications
   - STA 296 Statistical Methods and Motivations

   **Subtotal: Premajors hours** 13-16

   **Major Requirements**

   **Hours**

   **Major Requirements Hours**

   **Major Requirements**

   **NOTE:** Students must receive a grade of C or better in AEC 302, AEC 303, AEC 305, AEC 306, and AEC 490.

   Students may count only one of the following towards their major requirements: AEC 324, AEC 325, AEC 326.

   AEC 301 Career Readiness for Agricultural Economics
   - AEC 302 Agricultural Management Principles
   - AEC 303 Microeconomic Concepts in Agricultural Economics
   - AEC 305 Food and Agricultural Marketing Principles
   - AEC 422 Agribusiness Management
   - plus 9 hours at the 300+ level
   - plus 3 hours at 400+ level

   **Subtotal: Major hours** 1-26

   **Academic Enrichment Requirement**

   **Hours**

   **Academic Enrichment Requirement Hours**

   **Academic Enrichment Requirement**

   Choose one of the following:

   **NOTE:** Additional credit hours of AEC 399 beyond one (1) credit shall not count towards the AEC Major Requirements, but additional graded credit hours of AEC 395 or AEC 580 beyond one (1) credit may count towards that requirement.

   AEC 395 Independent Research
   - in Agricultural Economics
   - in Environmental Economics

   AEC 396 Independent Study
   - in Agricultural Economics
   - in Environmental Economics

   AEC 580 Special Problems
   - in Agricultural Economics

   **Subtotal: Academic Enrichment hours** 1
AEC 396 International Studies in Agricultural Economics ........................................ 1
AEC 399 Experiential Learning in Agricultural Economics........................................ 1
AEC 580 Special Problems in Agricultural Economics .............................................. 1

Subtotal: Academic Enrichment hours ............ 1

Specialty Support Hours

ACC 201 Financial Accounting I .................. 3
ACC 202 Managerial Uses of Accounting Information .............................................. 3
ECO 391 Economic and Business Statistics .............................................................. 3
plus 12 additional hours of courses at the 200 level or higher to fulfill the student’s area of interest and selected with advisor’s approval from the College of Agriculture, Food and Environment, the Gatton College of Business and Economics, or the departments of COM, CS, GEO, MA, PPL, PSY, SOC, STA, and WRD (excluding WRD 203) ....... 12

Subtotal: Specialty Support hours .......... 21

Electives

Electives should be selected by the student to complete the minimum total of 120 hours required for graduation.

Subtotal: Electives minimum of 19

TOTAL HOURS: ........................................ 120

3. Advanced Studies in Agricultural Economics Option

This option targets students who plan to pursue graduate study in law (JD), business (MBA), public policy (MPA), or other areas including agricultural economics (MS) and international affairs (MA). This option is only available to students who maintain at least a 3.4 cumulative grade-point average. Students that complete this option will receive Departmental Honors in Agricultural Economics. Students in this option that have at least a 3.5 grade-point average in their major coursework are eligible to apply at the end of their Junior year for admission to the Department’s two University Scholars Programs where 12 credit hours from their undergraduate degree may also count towards a master’s degree at UK in Agricultural Economics (MS) or international affairs (Patternson School) or public policy (MPA). Students enrolled in the Lewis Honors College who complete this option will satisfy their 2nd Tier Honors requirements (6 credit hours), Honors Experience requirement (6 credit hours), and Honors Capstone requirement (3 credit hours).

Important: This option requires students to substitute 9 hours of lower-level major elective or specialty support credit with 9 hours of graduate-level course work completed for graduate credit and selected with their advisor’s approval. Graduate-level courses include 500+ level AEC courses and non-AEC courses at the 400G level or higher.

NOTE: MA 113 satisfies the UK Core Quantitative Foundations requirement and STA 296 satisfies the UK Core Statistical Inferential Reasoning requirement. Students must earn a C or higher in MA 113 to take AEC 303 and a C or higher in ECO 201 to take any AEC 300 level or higher course.

Premajor Requirements

Hours

ECO 201 Principles of Economics I .................. 3
ECO 202 Principles of Economics II ................. 3
MA 113 Calculus I

or

MA 137 Calculus I with Life Science Applications .......... 4
STA 296 Statistical Methods and Motivations ............... 3

Subtotal: Premajor hours .................. 13

Major Requirements

Hours

NOTE: Students must receive a grade of C or better in AEC 302, AEC 303, AEC 305, and AEC 580.

Students may count only one of the following towards their major requirements: AEC 324, AEC 325, AEC 326.

AEC 301 Career Readiness for Agricultural Economics ........................................ 1
AEC 302 Agricultural Management Principles .......... 4
AEC 303 Microeconomic Concepts in Agricultural Economics .................................. 3
AEC 305 Food and Agricultural Marketing Principles ....... 3
AEC 580 Special Problems in Agricultural Economics ............................................. 3
plus 9 hours at the 300+ level ........................ 9
plus 3 hours at 400+ level ........................ 3

Subtotal: Major hours ............................... 26

Academic Enrichment Requirement Hours

Choose one of the following: UK-affiliated education abroad course .......... 3
AEC 399 Experiential Learning in Agricultural Economics .................................. 3

Subtotal: Academic Enrichment hours ............ 3

Specialty Support Hours

ACC 201 Financial Accounting I .................. 3
ACC 202 Managerial Uses of Accounting Information .............................................. 3
ECO 391 Economic and Business Statistics .............................................................. 3
plus 12 additional hours of courses at the 200 level or higher to fulfill the student’s area of interest and selected with advisor’s approval from the College of Agriculture, Food and Environment, the Gatton College of Business and Economics, or the departments of COM, CS, GEO, MA, PPL, PSY, SOC, STA, and WRD (excluding WRD 203) ....... 12

Subtotal: Specialty Support hours .......... 21

Electives

Electives should be selected by the student to complete the minimum total of 120 hours required for graduation.

Subtotal: Electives minimum of 20

TOTAL HOURS: ........................................ 120

BACHELOR OF SCIENCE IN ANIMAL SCIENCES

Animals have many important roles in human societies including the provision of food and fiber, draft power, recreational and athletic activities, and companionship. In addition, animals and their interactions with humans have environmental consequences. Processing, preservation, and quality of animal-derived foods significantly affect human health and economics. Animal Sciences involves studying and applying the basic principles of nutrition, reproduction, and genetics to the production and management of animals including horses, dairy and beef cattle, sheep, swine, poultry, and other domesticated species. Additional course work provides information on production and handling of animal-derived foods.

No one program fits all Animal Sciences students. Students come from varied backgrounds and their interests range from livestock and poultry production and management to marketing and public relations; from public education and extension to graduate training in research and teaching and veterinary medicine. No matter what species you have an interest in, the Animal Sciences major will allow you to combine your interest with your desire for an exciting and rewarding career.

As an Animal Sciences major, students have the opportunity to pursue specific interests by selecting one of three study options: Animal Industry, Food Industry or Pre-Professional. The Animal Industry option is for those students interested in animal production and management and allows specialization in one of three areas: livestock, equine, or dairy. The Food Industry option is designed to provide an emphasis on aspects of food processing, chemistry, and safety. The Pre-Professional option is a rigorous study program for students with interests in veterinary sciences, human medicine, and graduate research. Students must consult the pre-professional advisor or graduate school advisor of the university to which they intend on applying for additional or specific requirements.

Career Opportunities

To keep pace with the food, fiber, and recreation requirements of a growing world population, Animal Sciences graduates are needed in the livestock industry and closely related fields. The Animal Sciences major offers considerable flexibility in fulfilling specific career objectives, whether you are interested in working directly with livestock or indirectly in closely related areas such as agribusiness, research, government, or education.

Graduation Requirements

To earn the Bachelor of Science in Animal Sciences, the student must have a minimum of 120 credit hours with at least a 2.0 grade-point standing. A minimum of 45 credit hours must be from upper division courses (300 and above). Remedial courses may not be counted toward the total hours required for the degree. In addition to UK Core requirements, students must complete college, departmental and specialty support requirements.

Each student must complete the following:

UK Core Requirements

See the UK Core section of this Bulletin for the complete UK Core requirements. The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements.

I. Intellectual Inquiry in Arts and Creativity

Choose one course from approved list .................. 3

II. Intellectual Inquiry in the Humanities

Choose one course from approved list .................. 3

III. Intellectual Inquiry in the Social Sciences

Choose one course from approved list .................. 3

IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences

CHE 105 General College Chemistry I .................. 4
CHE 111 General Chemistry I Laboratory ................. 1

V. Composition and Communication I

CIS/WRD 110 Composition and Communication I .................. 3
### College of Agriculture, Food and Environment

#### VI. Composition and Communication II

CIS/WRD 111 Composition and Communication II ........................................ 3

#### VII. Quantitative Foundations

MA 123 Elementary Calculus and Its Applications ................................. 3

or

MA 113 Calculus I ....................................................................................... 3

or

MA 137 Calculus I With Life Science Applications ................................. 4

#### VIII. Statistical Inferential Reasoning

Recommended:

STA 210 Making Sense of Uncertainty:

An Introduction to Statistical Reasoning .................................................. 3

#### IX. Community, Culture and Citizenship in the USA

GEN 100 Issues in Agriculture, Food and Environment ........................ 3

#### X. Global Dynamics

Choose one course from approved list ................................................... 3

UK Core hours ................................................................. 33

#### Graduation Composition and Communication Requirement (GCCR)

WRD 203 Business Writing ................................................................ 3

or

WRD 204 Technical Writing ................................................................ 3

Graduation Composition and Communication Requirement hours (GCCR) .................................................. 3

#### Premajor Requirements

**Hours**

MA 123 Elementary Calculus and Its Applications ................................. 3

or

MA 113 Calculus I ....................................................................................... 3

or

MA 137 Calculus I With Life Science Applications ................................. 4

BIO 148 Introductory Biology I .................................................................. 3

BIO 152 Principles of Biology II ............................................................... 3

CHE 105 General College Chemistry I ...................................................... 4

CHE 107 General College Chemistry II .................................................... 3

CHE 111 General Chemistry I Laboratory ................................................ 1

CHE 113 General Chemistry II Laboratory .............................................. 2

Subtotal: Premajor hours ................................................................. 20

#### Major Requirements

**Hours**

ASC 101 Domestic Animal Biology .......................................................... 3

ASC 102 Introduction to Livestock and Poultry Production ..................... 3

ASC 205 Career Development for Animal Sciences .............................. 3

ASC 325 Animal Physiology .................................................................. 3

ASC 362 Animal Breeding and Genetics .................................................. 4

ASC 364 Reproductive Physiology of Farm Animals ................................ 4

ASC 378 Animal Nutrition and Feeding .................................................. 3

ASC 380 Applied Animal Nutrition .......................................................... 3

ASC 470 Capstone for Animal Agriculture .............................................. 3

plus one of the following courses:

ASC 333 Topics in Animal Science

(Subtitle required) .................................................................................. 3

ASC 395 Special Problems in Animal Sciences ...................................... 1-4

ASC 399 Experiential Learning in Animal Sciences .............................. 1-4

EAP 599 Study Abroad .............................................................................. 1

GEN 300 Special Course ........................................................................... 3

plus at least three of the following courses:

ASC 340 Poultry Production ..................................................................... 2

ASC 404G Sheep Science ......................................................................... 4

ASC 406 Beef Cattle Science ..................................................................... 4

ASC 408G Swine Production .................................................................... 3

ASC 410G Equine Science ........................................................................ 3

ASC 420G Dairy Cattle Management ..................................................... 3

Subtotal: Major hours ............................................................................. 37-43

#### OPTIONS

**Option A – Animal Industry**

Students fulfilling the Major Requirements are eligible for the Animal Industry Option by taking certain required Specialty Support Courses (see below). In addition, students with more specific interests may, but are not required to, choose from three specializations available within this Option.

No Specialization

(required Specialty Support only; see below) ................................. 0

#### Livestock Specialization

(ASC 300 Meat Science) ................................................................. 4

and at least two from:

ASC 340 Poultry Production ............................................................... 2

ASC 404G Sheep Science ......................................................................... 4

ASC 406 Beef Cattle Science ..................................................................... 4

ASC 408G Swine Production .................................................................... 3

#### Equine Specialization

(ASC 310 Equine Anatomy, ASC 320 Equine Management, ASC 410G Equine Science) .................................................. 3

#### Dairy Specialization

(ASC 420G Dairy Cattle Management) .................................................. 3

ASC 564 Milk Secretion ........................................................................... 3

#### Subtotal: Option A hours ................................................................. 0-5

**Option B – Food Industry**

Students fulfilling the Major Requirements are eligible for the Food Industry Option by taking certain required Specialty Support Courses (see below) and:

ASC 300 Meat Science ........................................................................... 4

FSC 107 Introduction to Food Science .................................................... 3

Subtotal: Option B hours ................................................................. 7

**Option C – Pre-Professional**

Students fulfilling the Major Requirements are eligible for the Pre-Professional Option by taking certain Specialty Support Courses (see below). Students must consult the pre-professional advisor or graduate school advisor of the university to which they intend on applying for additional or specific requirements.

#### Specialty Support

**Animal Industry Option**

CHE 230 Organic Chemistry I ................................................................. 1

or

CHE 236 Survey of Organic Chemistry .................................................. 3

Depending on the student’s area of interest and subject to the advisor’s approval, additional courses at the 200-level or above may be selected from biochemistry, biology, chemistry, physics, statistics, or any agriculture-related area other than Animal Sciences .................................................. 15

**Food Industry Option**

CHE 230 Organic Chemistry I ................................................................. 1

or

CHE 236 Survey of Organic Chemistry .................................................. 3

FSC 304 Animal Food Products ................................................................ 4

Depending on the student’s area of interest and subject to the advisor’s approval, additional courses at the 200-level or above may be selected from biochemistry, biology, chemistry, physics, statistics, or any agriculture-related area other than Animal Sciences .................................................. 12

**Pre-Professional Option**

BIO 304 Principles of Genetics ............................................................... 4

or

ABT/ENT 360 Genetics ............................................................................. 3-4

CHE 230/231 Organic Chemistry and Laboratory .................................. 4

#### Electives

Electives should be selected to complete the 120 hours required for graduation.

Subtotal: Electives ....................................................................... 18-22

**TOTAL HOURS**: ........................................................................... 120

**BACHELOR OF SCIENCE IN BIOSYSTEMS ENGINEERING**

Biosystems engineering provides an essential link between the biological sciences and the engineering profession. This linkage is essential for the development of production and processing systems involving biological materials that preserve our natural resource base. Students have the latitude to develop an area of specialization relating to bioenvironmental engineering, food and bioprocessing, machine systems, or controlled environment engineering. The curriculum is also ideal preparation for those students wanting to pursue a graduate or professional degree in bio-medical engineering or veterinary medicine through pre-biomedical engineering and pre-veterinary medicine options.

The degree requirements and curriculum are listed in the *College of Engineering* section of this Bulletin.

**BACHELOR OF SCIENCE IN CAREER AND TECHNICAL EDUCATION**

Students pursuing a degree in Career and Technical Education complete courses in education and agriculture. Graduates with this degree pursue careers in both formal and informal education of agriculture. Formal education opportunities include teaching in the middle school or high school classroom. Informal education opportunities include working in Extension and the public or private sectors of industry. In addition to receiving the degree, graduates attain Rank III teaching certification in Agricultural Education.

**Teacher Certification**

Besides receiving the B.S. in Career and Technical Education, students completing the requirements obtain a letter of endorsement to teach agricultural education.

Requirements for teacher certification are as follows:

You must be admitted to the teacher education program (TEP) after you have completed, or complete during the semester in which
The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements. See the UK Core Requirements for the degree.

Students must complete the following:

**UK Core Requirements**

See the UK Core section of this Bulletin for the complete UK Core requirements. The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements. The UK Core courses listed below are recommended by the College to fulfill each area.

### I. Intellectual Inquiry in Arts and Creativity

Choose one of the following:

- AED/FCS 110 Introduction to Career and Technical Education
- AED/FCS 362 Field Experiences in Career and Technical Education
- AED/FCS 371 Advising a Career and Technical Student Organization
- AED/FCS 580 Foundations of Teaching Career and Technical Education
- AED/FCS 583 Designing Curriculum and Assessment in Career and Technical Education
- AED/FCS 586 Methods of Teaching Career and Technical Education
- AED/FCS 592 Teaching Experience in Career and Technical Education
- EDP 203 Teaching Exceptional Learners in Regular Classrooms
- FAM 357 Adolescent Development

**Subtotal: Major Required hours** 36

### Agricultural Education Requirements

* AEC 302 Agricultural Management Principles 4
* AEN 252 Fabrication and Construction for Technical Systems 3
* ASC 101 Domestic Animal Biology 3
* ASC 102 Introduction to Livestock and Poultry Production 3
* CLD 102 The Dynamics of Rural Social Life 3
* ECO 201 Principles of Economics I 3
* PLS 210 The Life Processes of Plants or PLS 386 Plant Production Systems 3-4
** PLS 366 Fundamentals of Soil Science 4

**Subtotal: Agricultural Education hours** 26-27

* ECO 201 is a prerequisite for AEC 302.
* AEC 201 is a prerequisite for AEC 302.

### Electives

Electives should be selected by the student to lead to the minimum total of 120 hours required for graduation

**Subtotal: Electives** 30

**Total Minimum Hours for Program** 120

---

**BACHELOR OF SCIENCE IN COMMUNITY AND LEADERSHIP DEVELOPMENT**

Community and Leadership Development is an interdisciplinary social science major. It provides students with the knowledge and skills to integrate communications, sociology, journalism, and community development theories and apply them to real-world situations involving local communities and agricultural organizations.

The major focuses on such skills as written and oral communication; strategic problem solving; critical thinking; understanding of group, organizational, and community dynamics; and ethical decision making.

### Graduation Requirements

To earn the Bachelor of Science in Community and Leadership Development, the student must have a minimum of 120 credit hours with at least a 2.0 grade-point average. A minimum of 45 credit hours must be from upper division courses (300 level and above). Remedial courses may not be counted toward the total hours required for the degree. Students must complete the following:

**UK Core Requirements**

See the UK Core section of this Bulletin for the complete UK Core requirements. The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements. The UK Core courses listed below are recommended by the College to fulfill each area.

### I. Intellectual Inquiry in Arts and Creativity

Choose one of the following:

- A-S 245 Introduction to Web Design
- A-S 280 Introduction to Photographic Literacy
- LA 111 Living on the Right Side of the Brain 3

### II. Intellectual Inquiry in the Humanities

Choose one of the following:

- EGR 201 Literature, Technology, and Culture
- ENG 230 Introduction to Literature (Subtitle required)
- ENG 264 Introduction to Black Writers
- GWS 201 Gender and Popular Culture
- HIS 112 The Making of Modern Kentucky
- MCL 100 The World of Language 3

### III. Intellectual Inquiry in the Social Sciences

Choose one of the following:

- CLD 102 The Dynamics of Rural Social Life 3
- EGR 201 Literature, Technology, and Culture

### IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences

Choose one of the following:

- PLS 104 Plants, Soils, and People: A Science Perspective
- ANT 230 Introduction to Biological Anthropology
- BIO 102 Human Ecology
- GEO 130 Earth’s Physical Environment
- GEO 135 Global Climate Change
The courses listed below are (a) 30 hours in related areas at the 200 level or higher. Depending on the student’s area of interest and subject to Community and Leadership Development) may be counted as part of the degree requirements.

Students must choose 12 hours of additional CLD courses (300 level and above). Remedial course work supports learning in areas that aid in breeding and raising horses and marketing the industry. Students come from varied equine backgrounds but have a common interest in the horse. Regardless of which breed of horse or activity focus students have, equine science and management majors will have the opportunity to combine their interest in the horse with a desire to become active participants in the horse industry.

Students in equine science and management considering a career in veterinary medicine or graduate research can meet those goals in the degree program as well. Interested students need to consult with an advisor to ensure all specific academic requirements are met.

Career Opportunities

The horse industry is continually changing. Equine science and management graduates are needed in all aspects of the industry including production, business management and other related support industries.

Graduation Requirements

To earn the Bachelor of Science in Equine Science and Management, the student must have a minimum of 120 credit hours with at least a 2.0 grade-point average. A minimum of 45 credit hours must be from upper division courses (300 level and above). Remedial courses may not be counted toward the total hours required for the degree.

Students must complete the following:

**UK Core Requirements**

- **Electives**
  Electives should be selected by the student to lead to the minimum total of 120 hours required for graduation.

  **Subtotal: Electives** ........................................ 24
  **Total Minimum Hours for Program** ................. 120

**BACHELOR OF SCIENCE IN EQUINE SCIENCE AND MANAGEMENT**

The horse industry is a dynamic industry that encompasses not only the breeding, raising and training of horses but also the development of activities for the use of the horse in sports and recreation. The industry has a significant economic impact across the U.S. and world-wide.

Equine science and management involves the study and application of science and business concepts to the horse industry. Additional course work supports learning in areas that aid in breeding and raising horses and marketing the industry. Students come from varied equine backgrounds but have a common interest in the horse. Regardless of which breed of horse or activity focus students have, equine science and management majors will have the opportunity to combine their interest in the horse with a desire to become active participants in the horse industry.

Students in equine science and management considering a career in veterinary medicine or graduate research can meet those goals in the degree program as well. Interested students need to consult with an advisor to ensure all specific academic requirements are met.

Career Opportunities

The horse industry is continually changing. Equine science and management graduates are needed in all aspects of the industry including production, business management and other related support industries.

Graduation Requirements

To earn the Bachelor of Science in Equine Science and Management, the student must have a minimum of 120 credit hours with at least a 2.0 grade-point average. A minimum of 45 credit hours must be from upper division courses (300 level and above). Remedial courses may not be counted toward the total hours required for the degree.

Students must complete the following:

**UK Core Requirements**

See the UK Core section of this Bulletin for the complete UK Core requirements. The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements.

I. Intellectual Inquiry in the Arts and Creativity

- Choose one course from approved list .......... 3

II. Intellectual Inquiry in the Humanities

- Choose one course from approved list .......... 3

**III. Intellectual Inquiry in the Social Sciences**

- Choose one course from approved list .......... 3

**IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences**

- Choose course(s) from approved list .......... 3-5

**V. Composition and Communication I**

- CIS/WRD 110 Composition and Communication I ........ 3

**VI. Composition and Communication II**

- CIS/WRD 111 Composition and Communication II ........ 3

**VII. Quantitative Foundations**

- MA 111 Introduction to Contemporary Mathematics or MA 123 Elementary Calculus and Its Applications .... 3-4

**VIII. Statistical Inference Reasoning**

- STA 210 Making Sense of Uncertainty: An Introduction to Statistical Reasoning or
- PSY 215 Experimental Psychology and
- PSY 216 Applications of Statistics in Psychology .... 3-8

**IX. Community, Culture and Citizenship in the USA**

- CLD 360 Environmental Sociology or GEN 100 Issues in Agriculture, Food and Environment .... 3

**X. Global Dynamics**

- CLD 380 Globalization: A Cross-Cultural Perspective .... 3

**UK Core hours** ........................................ 30-36

**Graduation Composition and Communication Requirement (GCCR)**

- CLD 305 Research Methods in Community and Leadership Development ........ 3
- CLD 497 Senior Capstone Practicum in Community and Leadership Development ........ 3

**Graduation Composition and Communication Requirement hours (GCCR)** ................. 6

**Major Core Requirements**

**Hours**

<table>
<thead>
<tr>
<th>Thematic Core</th>
<th>CLD 260 Community Portraits ................. 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLD 320 Community and Communication: Exploring Their Intersections ................. 3</td>
<td></td>
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<tr>
<td>CLD 370 Learning in Society ................. 3</td>
<td></td>
</tr>
<tr>
<td>CLD 430 Leading in Communities: Vision, Action, and Change ................. 3</td>
<td></td>
</tr>
</tbody>
</table>

**Common Core**

| CLD 305 Research Methods in Community and Leadership Development ................. 3 |
| CLD 362 Field Experience in CLD ................. 3 |
| CLD 490 Senior Capstone Seminar in Community and Leadership Development ................. 3 |
| CLD 497 Senior Capstone Practicum in Community and Leadership Development ................. 3 |

**Subtotal: Major Core Requirements** ........................................ 24

**Major Electives**

Students must choose 12 hours of additional CLD courses in consultation with their advisor. Up to 3 credits as CLD 395 (Special Problems in Community and Leadership Development) or CLD 399 (Experiential Learning in Community and Leadership Development) may be counted as part of these 12 credits.

**Subtotal: Major Electives** ........................................ 12

**Specialty Support**

Depending on the student’s area of interest and subject to his/her academic advisor’s approval, he/she will complete 30 hours in related areas at the 200 level or higher.

**Subtotal: Specialty Support** ........................................ 30
College of Agriculture, Food and Environment

EQM 399 Equine Science and Management
Internship
or
EQM 396 Equine Study Abroad (Subtitle required) ........................ 3
EQM 490 Capstone in Equine Science and Management ...................... 3
AEC 302 Agricultural Management Principles ................................ 4

| Subtotal: Major hours ....................................................... | 31 |

Emphasis Areas

Students must have one emphasis area. In order to have an emphasis area, students must take 12 credits in one area. Students will then select 9 additional credits from any emphasis area. 21 credit hours in emphasis area courses must be completed.

Equine Science

This area will provide the students with a strong background in basic sciences which will prepare them for graduate school or careers such as laboratory research assistants, breeding technicians, pharmaceutical sales representatives, and technical representatives for the feed industry.

ASC 220 Applied Animal Behavior and Welfare .............................. 3
ASC 311 Advanced Equine Evaluation ......................................... 1
ASC 325 Animal Physiology .................................................... 3
ASC 364 Reproductive Physiology of Farm Animals ......................... 4
ASC 378 Animal Nutrition and Feeding ........................................ 3
ASC 380 Applied Animal Nutrition ............................................. 3
ASC 389 Advanced Equine Nutrition and Feeding ......................... 2
ASC 410G Equine Science ....................................................... 3
EQM 300 Topics in Equine Science and Management ................. 1-6
PLS 366 Fundamentals of Soil Science ....................................... 4
PLS 510 Forage Management and Utilization .............................. 3
VS 307 Genetics of Horses ..................................................... 3
VS 500 Advanced Equine Reproduction .................................. 3
VS 507 Advanced Horse Genetics ............................................ 2

| Subtotal: Emphasis hours ................................................. | 21 |

Equine Management and Industry

Students will learn skills related to marketing, operations, and management of equine businesses. This will prepare students for careers as farm managers as well as business managers for equine enterprises, breed associations, and sales associates. This area also introduces them to the diversity of the equine industry through courses in equine law, sales, careers, event planning, marketing, and human resources.

AEC 305 Food and Agricultural Marketing Principles .................. 3
AEC 312 Equine Markets ..................................................... 3
AEC 320 Agricultural Product Marketing and Sales ........................ 3
or
MKT 300 Marketing Management ........................................... 3
AEC 324 Agricultural Law .................................................... 3
AEC 325 Equine Law ............................................................. 3
AEC 340 Human Resource Management in Agriculture .............. 3
EQM 210 Tools and Tack in the Equine Industry .......................... 2
EQM 300 Topics in Equine Science and Management ....................... 1-6
EQM 301 Thoroughbred Sales ................................................ 1
EQM 340 Equine Facility Design and Management ........................ 3

| Subtotal: Emphasis hours ................................................. | 21 |

Communications and Leadership

Students who are interested in leadership roles in business, breed associations or non-profit equine organizations and cooperative extension should consider this area. They will enhance their communication skills and be required to take courses in community dynamics, leadership development, and agriculture communication.

CLD 102 The Dynamics of Rural Social Life ................................ 3
CLD 236 Intrapersonal Leadership ............................................ 3
CLD 260 Community Portraits ................................................ 3
CLD 320 Community and Communication: Exploring Their
Intersections ........................................................................... 3
CLD 400 Agricultural Communications Campaigns ................. 1
CLD 401 Principles of Cooperative Extension ........................... 3
CLD 402 Principles of Leadership ............................................. 3
CLD 403 Leadership and Communication ................................. 3
CLD 404 Contemporary Leadership Applications ....................... 3
CLD 430 Leading in Communities: Vision, Action, and Change .... 3
CLD 495 Topical Seminar in Community and Leadership Development (Subtitle required) ........................................... 1-3
CLD 530 Fundamentals of Organizational Leadership .................. 3
EQM 300 Topics in Equine Science and Management .................. 1-6
EQM 302 Equine Event Planning .............................................. 1

| Subtotal: Emphasis hours ................................................. | 21 |

Specialty Support Requirement

The student will choose, in consultation with an advisor, at least 18 hours of courses at the 200 level or above that will strengthen the program in an area of importance to the student. To aid in developing this area of study, a list of suggested courses is available from your advisor. The list includes courses in agricultural economics, animal sciences, community and leadership development, marketing, management, finance, plant and soil sciences plus other areas of study at UK.

| Subtotal: Specialty Support .............................................. | 18 |

Electives

Electives should be selected by the student to lead to the minimum total of 120 hours required for graduation.

| Subtotal: Electives ......................................................... | minimum of 3 |
| Total Minimum Hours for Program ........................................ | 120 |

---

**BACHELOR OF SCIENCE IN FOOD SCIENCE**

Food science is the study of the transformation of biological materials into food products acceptable for human consumption. This requires studying diverse scientific disciplines related to food, including chemistry, engineering, microbiology, biochemistry, toxicology, and management; and effectively applying the industrial and practical aspects to product development, food processing, preservation, and marketing. The program is administered by the Department of Animal and Food Sciences and offers training in the basic sciences and in the fundamentals of food science.

Careers opportunities in food industries include: management, research and development of new food products and ingredients, process supervision, quality control, procurement, distribution, sales, and merchandising. Positions include sales and services in allied industries; consulting and trade association activities; and promotional and educational services. Governmental agencies employ food scientists whose work is directed towards research, regulatory control, and the development of food standards.

**Graduation Requirements**

To earn the Bachelor of Science in Food Science, the student must complete a minimum of 120 semester hours with at least 45 hours from courses at the 300 level and above. A 2.0 grade-point standing (on a 4.0 scale) is necessary and remedial courses may not be counted toward the total hours required for the degree.

The Food Science program meets the requirements for accreditation by the Institute of Food Technologists and the National Organization of Food Science Professionals.

Each student must complete the following:

**UK Core Requirements**

See the **UK Core** section of this Bulletin for the complete **UK Core requirements**. The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the **UK Core requirements**.

I. **Intellectual Inquiry in Arts and Creativity**

Choose one course from approved list ........................................... 3

II. **Intellectual Inquiry in the Humanities**

Choose one course from approved list ........................................... 3

III. **Intellectual Inquiry in the Social Sciences**

Choose one course from approved list ........................................... 3

IV. **Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences**

CHE 105 General College Chemistry I ........................................... 4
CHE 111 General Chemistry I Laboratory ....................................... 1

V. **Composition and Communication I**

CIS/WRD 110 Composition and Communication I ........................................... 3

VI. **Composition and Communication II**

CIS/WRD 111 Composition and Communication II ........................................... 3

VII. **Quantitative Foundations**

MA 113 Calculus I ................................................................. 3
MA 123 Elementary Calculus and Its Applications ............................... 4
MA 137 Calculus I With Life Science Applications ........................................... 4

VIII. **Statistical Inferential Reasoning**

STA 296 Statistical Methods and Motivations ....................................... 3

IX. **Community, Culture and Citizenship in the USA**

GEN 100 Issues in Agriculture, Food and Environment .......................... 3

X. **Global Dynamics**

Choose one course from approved list ........................................... 3

**UK Core hours ................................................................. 33**

**Graduation Composition and Communication Requirement (GCCR)**

WRD 203 Business Writing .......................................................... 3

**Graduation Composition and Communication Requirement hours (GCCR) ........................................... 3**

**Premajor Requirements**

<table>
<thead>
<tr>
<th>Hours</th>
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<tbody>
<tr>
<td>BIO 148 Introductory Biology I ........................................... 3</td>
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<tr>
<td>BBO 152 Principles of Biology II ........................................... 3</td>
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<tr>
<td>ECO 201 Principles of Economics I ........................................... 3</td>
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<tr>
<td>BBO 208 Principles of Microbiology ........................................... 3</td>
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<tr>
<td>BBO 209 Introductory Microbiology Laboratory ............................ 2</td>
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<tr>
<td>CHE 105 General College Chemistry I ........................................... 4</td>
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<tr>
<td>CHE 107 General College Chemistry II ........................................... 3</td>
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University of Kentucky
2020-2021 Undergraduate Bulletin
100
The courses listed below are (a) aged by the Department of Forestry and Natural Resources in the eastern United States. It is managed by the Department of Forestry and Natural Resources in the University of Kentucky all of its resources will be available to you as a unique outdoor laboratory.

The missions of the Department of Forestry and Natural Resources are to identify and address the challenges and opportunities facing sustained management of our renewable natural resources, including forests, soils, water, and wildlife. These missions involve three interrelated functions: research, extension, and education. The research goal of the department is to obtain basic and applied information leading to wise and effective management of our natural resources. Forestry extension seeks to inform land owners and the general public about forest stewardship. Forestry education prepares students for careers as forestry and natural resource professionals. The objectives of the required courses in the forestry curriculum are to educate and train students in the communication, managerial, scientific, processing, and administrative skills and principles related to the stewardship and utilization of renewable natural resources. Accomplishment of these objectives will ensure a continuing supply of entry-level professionals for Kentucky and the nation.

The undergraduate (B.S.) program leading to the professional degree in forestry is accredited by the Society of American Foresters (SAF). SAF is the specialized accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation as the accrediting agency for forestry in the United States. Additionally, you may become certified by The Wildlife Society if you choose appropriate elective courses.

Career Opportunities
Forestry graduates are employed as professional foresters in private forest industries and organizations, consulting companies, and public agencies, including the U.S. Forest Service, Soil Conservation Service, and state, county, or urban forestry programs. Graduates are also qualified to be research technicians in government, university, and private laboratories, or may continue their studies in specialized graduate programs.

The inclusion in the curriculum of management and processing principles makes UK forestry graduates attractive to the forest products industry; graduates are often employed as technical specialists, managers, and marketing and wood procurement personnel.

Graduation Requirements
To earn the Bachelor of Science in Forestry, the student must complete a minimum of 121 semester hours. A 2.0 grade-point standing (on a 4.0 scale) is necessary and remedial courses may not be counted toward the total hours required for the degree.

Students will complete a field semester in the spring of their junior year. Throughout the spring field semester, students will visit numerous sites to see different ecosystems in the region. Students will periodically return to one site, or sample property, that will be used for in-depth analysis to show integration and application of field semester concepts.

The curriculum consists of UK Core requirements, preprofessional, professional, and specialty support components. Preprofessional, professional, and specialty support courses provide the skills and understanding to manage forest resources. Electives, chosen with the assistance of your advisor, strengthen your knowledge of basic principles in areas of special interest to you.

UK Core Requirements
See the UK Core section of this Bulletin for the complete UK Core requirements. The courses listed below are (a) recommended by the college, (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements.

I. Intellectual Inquiry in Arts and Creativity
Choose one course from approved list .......................... 3

II. Intellectual Inquiry in the Humanities
Choose one course from approved list .......................... 3

III. Intellectual Inquiry in the Social Sciences
Choose one course from approved list .......................... 3

IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences
BIO 103 Basic Ideas of Biology .................................. 3

V. Composition and Communication I
CIS/WRD 110 Composition and Communication I ........ 3

VI. Composition and Communication II
CIS/WRD 111 Composition and Communication II .......... 3

VII. Quantitative Foundations
Any approved Quantitative Foundations course with a Math (MA) prefix ................................................. 3

VIII. Statistical Inferential Reasoning
FOR 250 Statistics and Measurements I ....................... 4

IX. Community, Culture and Citizenship in the USA
GEN 100 Issues in Agriculture, Food and Environment ... 3

X. Global Dynamics
FOR 435 Conservation Biology .................................. 3

UK Core hours .................................................. 31

Graduation Composition and Communication Requirement (GCCR)
FOR 400 Human Dimensions of Forestry and Natural Resources .............................................................. 3
FOR 480 Integrated Forest Research Management .......... 5

Graduation Composition and Communication Requirement hours (GCCR) .............................................. 8

Premajor Requirements
BIO 103 Basic Ideas of Biology ................................. 3

BIO 148 Introductory Biology I .................................... 3

CHE 104 Introductory General Chemistry .................... 3

CHE 105 General College Chemistry I ......................... 3-4

Any approved Quantitative Foundations course with a Math (MA) prefix ................................................. 3

Subtotal: Premajor hours ............................................ 9-10
The Horticultural Science degree program is designed to provide students with the knowledge and skills needed for a career in the production and management of plants and soils for food, fiber, forage, oil, recreation, landscaping and the enhancement of the human environment. Graduates have the technical and scientific skills as well as the communication, computational, leadership, and interpersonal capabilities necessary to function effectively as professionals. Careers are as diverse as they are challenging. Both options prepare graduates for specific professional opportunities.

**Options**

Students pursuing a Horticultural Science degree may choose from two options:
- Horticultural Plant Production and Management
- Horticulture and Plant Science

**Graduation Requirements**

Students must complete a minimum of 120 semester credit hours with at least 45 credit hours from courses at the 300 level or above. A 2.0 grade-point standing (on a 4.0 scale) is necessary and remedial courses may not be counted toward the total hours required for the degree. In addition to the UK Core and college requirements, students must select an Option with the assistance of an advisor and fulfill the area’s program requirements.

**UK Core Requirements**

See the UK Core section of this Bulletin for the complete UK Core requirements. The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements.

**I. Intellectual Inquiry in Arts and Creativity**

Choose one course from approved list

**II. Intellectual Inquiry in the Humanities**

Choose one course from approved list

**III. Intellectual Inquiry in the Social Sciences**

Recommended:

- CLD 102 The Dynamics of Rural Social Life

**IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences**

PLS 104 Plants, Soils, and People: A Science Perspective

**V. Composition and Communication I**

CIS/WRD 110 Composition and Communication I

**VI. Composition and Communication II**

CIS/WRD 111 Composition and Communication II

**VII. Quantitative Foundations**

MA 123 Elementary Calculus and Its Applications

**VIII. Statistical Inferential Reasoning**

STA 210 Making Sense of Uncertainty: An Introduction to Statistical Reasoning

**IX. Community, Culture and Citizenship in the USA**

GEN 100 Issues in Agriculture, Food, and Environment

**X. Global Dynamics**

Choose one course from approved list

**UK Core hours**

**Graduation Composition and Communication Requirement (GCCR)**

PLS 490 Topics in Plant and Soil Science

**Subtotal: Graduation Composition and Communication hours (GCCR)**

In addition, the student must submit a proposed plan of study for the junior and senior years.

**Premajor Requirements**

**Calculus** (complete one):

- MA 123 Elementary Calculus and Its Applications
- MA 113 Calculus I
- MA 137 Calculus I with Life Science Applications

**Chemistry** (complete one sequence):

- CHE 105 General College Chemistry I
- CHE 107 General College Chemistry II
- CHE 111 General Chemistry I Laboratory
- CHE 113 General Chemistry II Laboratory

**OR**

- *CHE 104 Introductory General Chemistry
- *CHE 108 Introduction to Inorganic, Organic and Biochemistry Without Laboratory

**Subtotal: Premajor hours**

*Sequence fulfills chemistry requirement for students in the Horticultural Plant Production and Management option only.

Students choose between the Horticultural Plant Production and Management option and the Horticulture Science option. All students take the same Major Core requirements listed below, but each option has a separate section of PLS 490 Topics in Plant and Soil Science.

**Major Requirements**

**Horticultural Plant Production and Management Option**

PLS 100 An Introduction to Horticulture Professions

PLS 104 Plants, Soils, and People: A Science Perspective

PLS 210 The Life Processes of Plants

*BIO 148 Introductory Biology I and
*BIO 152 Principles of Biology II

PLS 220 Introduction to Plant Identification

PLS 366 Fundamentals of Soil Science

PLS 386 Plant Production Systems

PLS 395 Special Problems in Plant and Soil Science

*Students in the Horticulture and Plant Science option take BIO 148/BIO 152.

**Specialty Support Requirements**

ENT 320 Horticultural Entomology

PPA 400G Principles of Plant Pathology

Additional courses in SAG, AEC, ECO, ENT or consent of advisor

**Subtotal: Specialty support**

**Horticulture and Plant Science Option**

Select 21 hours of PLS courses with consent of advisor.

**Subtotal: Option hours**

**OPTIONS**

Horticultural Plant Production and Management Option

Premajor Requirements

Calculus (complete one):

- MA 123 Elementary Calculus and Its Applications
- MA 113 Calculus I
- MA 137 Calculus I with Life Science Applications

Chemistry (complete one sequence):

- CHE 105 General College Chemistry I
- CHE 107 General College Chemistry II
- CHE 111 General Chemistry I Laboratory
- CHE 113 General Chemistry II Laboratory

**OR**

*CHE 104 Introductory General Chemistry
*CHE 108 Introduction to Inorganic, Organic and Biochemistry Without Laboratory

**Subtotal: Premajor hours**

*Sequence fulfills chemistry requirement for students in the Horticultural Plant Production and Management option only.

Students choose between the Horticultural Plant Production and Management option and the Horticulture Science option. All students take the same Major Core requirements listed below, but each option has a separate section of PLS 490 Topics in Plant and Soil Science.

**Major Requirements**

**Horticultural Plant Production and Management Option**

PLS 100 An Introduction to Horticulture Professions

PLS 104 Plants, Soils, and People: A Science Perspective

PLS 210 The Life Processes of Plants

*BIO 148 Introductory Biology I and
*BIO 152 Principles of Biology II

PLS 220 Introduction to Plant Identification

PLS 366 Fundamentals of Soil Science

PLS 386 Plant Production Systems

PLS 395 Special Problems in Plant and Soil Science

*Students in the Horticulture and Plant Science option take BIO 148/BIO 152.

**Specialty Support Requirements**

ENT 320 Horticultural Entomology

PPA 400G Principles of Plant Pathology

Additional courses in SAG, AEC, ECO, ENT or consent of advisor

**Subtotal: Specialty support**

**Horticulture and Plant Science Option**

Select 21 hours of PLS courses with consent of advisor.

**Subtotal: Option hours**

**BACHELOR OF SCIENCE IN HORTICULTURE SCIENCE**

The Horticultural Science degree program is designed to provide students with the knowledge and skills needed for a career in the production and management of plants and soils for food, fiber, forage, oil, recreation, landscaping and the enhancement of the human environment. Graduates have the technical and scientific skills as well as the communication, computational, leadership, and interpersonal capabilities necessary to function effectively as professionals. Careers are as diverse as they are challenging. Both options prepare graduates for specific professional opportunities.
The courses listed below are (a) -

- Additional courses in BIO, CHE, PPA, ENT, FOR or cons-
  of advisor .................................................. 15

Subtotal: Specialty Support ................. 21

Electives
Elective courses should be selected by the student to lead to the minimum total of 120 hours required for graduation.

Subtotal: Electives ..................... minimum of 1

TOTAL HOURS: ........................................... 120

BACHELOR OF SCIENCE IN LANDSCAPE ARCHITECTURE

The profession of landscape architecture has grown out of the tradition of the great garden designers of Italy, France, England, and China to encompass the art and science of design, planning, and management of the land. The science of landscape architecture is concerned with the conservation and management of natural resources. The art of landscape architecture is concerned with the creation of more enjoyable, comfortable, and safe outdoor areas where human use requires adaptation of the natural environment.

This four-year professional program is accredited by the American Society of Landscape Architects and meets all the requirements for licensing of landscape architects in Kentucky and other states. Landscape architecture employment opportunities may be found in the designing of urban communities, plazas, university campuses, institutional grounds, parks and recreational areas, commercial and industrial sites, and residential communities, as well as in the areas of historic preservation, regional planning, and mine reclamation.

Admission Requirements
Admission to the University of Kentucky and to the College of Agriculture, Food and Environment does not guarantee admission to the Landscape Architecture program. All applicants must be reviewed by the Landscape Architecture Program Chairperson. The number of applicants ultimately admitted is determined by the resources available to provide an indication of potential success.

Transfer students from other degree programs who have completed, will determine acceptance in the program as well as the level to which the student will be accepted.

Graduation Requirements
To earn a Bachelor of Science degree in Landscape Architecture, the student must have 128 semester hours with at least a 2.0 grade-point average on a 4.0 scale. Remedial courses may not be counted toward the total hours required for graduation. In addition to satisfying the UK Core requirements, each student must complete premajor, professional, and specialty support requirements. The Landscape Architecture program policy requires a student to achieve a C grade or better in major design studios in order to advance to the next level.

UK Core Requirements
See the UK Core section of this Bulletin for the complete UK Core requirements. The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements.

I. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences
Choose one course from approved list......................... 3

II. Intellectual Inquiry in the Humanities
Choose one course from approved list......................... 3

III. Intellectual Inquiry in the Social Sciences
Choose one course from approved list......................... 3

IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences
Choose one course from approved list......................... 3

V. Composition and Communication I
CIS/WRD 110 Composition and Communication I ........... 3

VI. Composition and Communication II
CIS/WRD 111 Composition and Communication II ........... 3

VII. Quantitative Foundations
Choose one course from approved list......................... 3

VIII. Statistical Inferential Reasoning
STA 210 Making Sense of Uncertainty:
An Introduction to Statistical Reasoning .................. 3

IX. Community, Culture, and Citizenship in the USA
Choose one course from approved list......................... 3

X. Global Dynamics
Choose one course from approved list......................... 3

UK Core hours ........................................... 30

Graduation Composition and Communication Requirement (GCCR)
LA 222 Landscape Architecture Design Studio II ........... 6
LA 223 Landscape Architecture Design Studio III ........... 6

Graduation Composition and Communication Requirement hours (GCCR) ........................................... 12

Premajor Requirements
Premajor requirements met by UK Core courses:
LA 111 Living on the Right Side of the Brain ............... 3

Subtotal: Premajor hours .................................... 3

Departmental Professional Requirements
LA 105 Introduction to Landscape Architecture .......... 3
LA 121 Landscape Architecture Design Studio I .......... 6
LA 161 Graphics I ........................................... 3
LA 162 Digital Representation I ................................ 3
LA 205 History of Landscape Architecture ................. 3
LA 222 Landscape Architecture Design Studio II ........... 6
LA 223 Landscape Architecture Design Studio III ........... 6
LA 271 Design Implementation I ................................ 4
LA 324 Landscape Architecture Design Studio IV ............ 6
LA 372 Design Implementation II ................................ 6
LA 373 Design Implementation III ................................ 6
LA 390 International Study ..................................... 3
LA 398 Professional Development I ......................... 1
LA 400 Professional Development II ......................... 1
LA 425 Landscape Architecture Design Studio V .......... 6
LA 426 Landscape Architecture Design Studio VI .......... 6

Students must complete 11 hours from the following list of topical studies courses:
LA 262 Graphics II ........................................... 3
LA 305 Design Theories in Landscape Architecture ....... 3
LA 307 Cultural Landscape Preservation .................... 3
LA 308 Regional Land Use Planning Systems ............. 3
LA 345 Design with Plants .................................... 3
LA 355 Introductory Geospatial Applications
for Land Analysis ........................................... 3
LA 395 Independent Study in Landscape Architecture .... 3
LA 397 Special Topics in Landscape Architecture
(Subtitle required) ........................................... 3
LA 399 Internship in Landscape Architecture ............. 2
LA 457 Contemporary Regional Land Use
Planning Applications ....................................... 3
LA 462 Digital Representation II ................................ 3
LA 531 Water in Urbanizing Landscapes ..................... 3
LA 556 Contemporary Geospatial Applications
for Land Analysis ........................................... 3

Subtotal: Major hours ....................................... 78
The program in Natural Resources and Environmental Science is designed to provide students with the knowledge and skills needed for a career in the rapidly growing fields of environmental science, natural resource management, and environmental policy. With global climate change and an inter-connected world economy, the conservation and management of our natural resources and sustainability of our natural environment is becoming an issue for all societies. This curriculum provides students with exposure to a broad array of disciplines that are essential in approaching issues of natural resources, environmental quality, and environmental sustainability. Experiential learning is a key component in the curriculum. As a result, graduates have the capacity to integrate perspectives and diverse bodies of knowledge in dealing with environmental resource management problems.

All students in the program take a common core of major requirements which is designed to provide exposure to technical and socioeconomic dimensions of natural resource management and policy. Important components of the core requirements are a required three-week summer camp, a pre-professional internship or research experience, and a senior capstone course that is problem based. In addition to the core requirements, all students must complete nine hours of course work in both an Analytical Skill Development Area (ASD) and an Environmental System Emphasis Area (ESEA). This allows students to match analytical skills to an area of particular interest in conservation biology, natural resource planning, environmental soil science, water resources, forestry, wildlife management, agricultural sustainability, geological processes, or related areas.

Courses completed for the ASD and ESEA are selected from a list of choices in each area. Students are required to complete an off-campus internship or a research experience that is related to their ESEA and/or ASD. NRES majors have completed internships in several foreign countries, although most are conducted within the U.S. with organizations such as the National Park Service, the U.S. Forest Service, with local nature preserves, an Alaskan salmon recovery program, a national laboratory, environmental consulting firms, private corporations, and both state and local governments. All seniors apply their course work and experiential learning to the senior capstone course which focuses on a well-defined natural resource issue, requires group collaboration and problem-solving, and involves actual stakeholders.

Graduates of the Natural Resources and Environmental Science degree program move on to graduate work or careers. Many graduates continue their studies in Masters or Ph.D. programs or go on to law school. Most graduates begin careers as aspiring environmental professionals in both the public and private sector. Additional employment opportunities exist in environmental education, journalism, and work with nonprofit organizations which have environmental concerns.

Graduation Requirements

To earn a Bachelor of Science in Natural Resources and Environmental Science, a student must complete at least 120 semester hours of credit with at least a 2.0 cumulative grade-point average. A minimum of 45 credits must be from upper division courses (300-level and above). Remedial courses may not be counted toward the total degree hours. In addition to the UK Core requirements, students must complete College requirements, premajor and major requirements, and complete an internship or research experience. With advisor approval, students select and Analytical Skill Development and an Environmental System Emphasis Area which focuses course work in a student’s area of interest.

UK Core Requirements

See the UK Core section of this Bulletin for the complete UK Core requirements. The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements.

I. Intellectual Inquiry in Arts and Creativity

Choose one course from approved list

II. Intellectual Inquiry in the Humanities

Choose one course from approved list

III. Intellectual Inquiry in the Social Sciences

Choose one course from approved list

IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences

CHE 101 General College Chemistry I

CHE 111 General Chemistry I Laboratory

V. Composition and Communication I

CIS/WRD 110 Composition and Communication I

VI. Composition and Communication II

CIS/WRD 111 Composition and Communication II

VII. Quantitative Foundations

MA 123 Elementary Calculus and Its Applications

MA 113 Calculus I

MA 137 Calculus I With Life Sciences Applications

VIII. Statistical Inferential Reasoning

STA 296 Statistical Methods and Motivations

IX. Community, Culture and Citizenship in the USA

GEN 100 Issues in Agriculture, Food and Environment

X. Global Dynamics

Choose one course from approved list

UK Core hours

Graduation Composition and Communication Requirement (GCCR)

NRE 400 Professional NRES Composition and Communication

Graduation Composition and Communication Requirement hours (GCCR)

Premajor Requirements

BIO 148 Introductory Biology I

BIO 152 Principles of Biology II

CHE 101 General College Chemistry I

CHE 111 General Chemistry I Laboratory

ECO 201 Principles of Economics I

EES 220 Principles of Physical Geology

MA 123 Elementary Calculus and Its Applications

MA 113 Calculus I

MA 137 Calculus I With Life Sciences Applications

STA 296 Statistical Methods and Motivations

Subtotal: Premajor hours

Major Requirements

AEC 126 Principles of Environmental Law

AEC 445G Introduction to Resource and Environmental Economics

FOR 435 Conservation Biology

FOR 240 Forestry and Natural Resource Ethics

PHI 336 Environmental Ethics

FOR 325 Economic Botany: Plants and Human Affairs

FOR 340 Forest Ecology

FOR 460 Forest Hydrology and Watershed Management

EES 385 Hydrology and Water Resources

NRE 201 Natural Resources and Environmental Science

*NRE 320 Natural Resource and Environmental Analysis

NRE 355/LA 355 Introductory Geospatial Applications for Land Analysis

NRE 381 Natural Resource and Environmental Policy Analysis

Subtotal: Major hours
Note: Student learning outcomes ensure that students will have acquired a working knowledge of sustainability science, policy, and practice as it affects their fields of study.

1. Economic and Policy Analysis

Economic and Policy Analysis – The economic and policy analysis skill development area will provide students with the theoretical and analytical tools necessary to evaluate the economic and social effects of resource and environmental issues. The faculty members who teach in this area will help students understand how environmental policy is made, the public agencies that manage resources, and how policies are evaluated for impact on humans and the environment.

AEC 309 International Agriculture, World Food Needs and U.S. Trade in Agricultural Products........3
AEC 483 Regional Economics..........................3
AEC 532 Agricultural and Food Policy.................3
AEC/NRE 545 Resource and Environmental Economics..................3
CLD/SOC 360 Environmental Sociology................3
ECO 473G Economic Development........................3
FOR 320 Forest Valuation and Economics.................3
FOR 400 Human Dimensions of Forestry and Natural Resources..................3
GEO 235 Environmental Management and Policy........3
GEO 316 Environment and Development................3
GEO 431 Political Ecology............................3

2. Field and Laboratory Analysis of Ecosystems

Students will learn the theory and application of sample data collection and techniques, field and laboratory analysis, statistical analysis, and data interpretation required to evaluate the quality of water, soil, and ecosystem resources. This analytical skill development area is geared towards students pursuing careers as environmental science and protection scientists/technicians and forest and conservation scientists/technicians.

ENT/BIO 300 General Entomology........................3
BIO 325 Ecology......................................4
BIO 351 Plant Kingdom..................................3
BIO/NRE 420G Taxonomy of Vascular Plants............4
BIO 559 Ornithology.................................4
EES 230 Fundamentals of Geology I......................3
ENT/FOR 502 Forest Entomology.........................3
FOR 219 Dendrology...................................4
FOR 221 Winter Dendrology...............................1
FOR 510 Herpetology..................................4
FOR 520 Mammals of the Eastern United States........4
PLS 396 Soil Judging..................................1-2
PLS 468G Soil Use and Management........................3
PLS 514 Grass Taxonomy and Identification...............3
PLS 573 Soil Morphology and Classification..............3
PLS 581 Chemical Analysis of Soils and Plants...........4

3. Geospatial Analysis

Geospatial technologies are often used in conjunction with traditional natural resource and environmental scientist job requirements. This development area will provide students with enhanced skills beyond the major requirements in the use of geospatial software, approaches, and products. Students will learn the theory and application required to address a variety of environmental conditions. This analytical skill development area is geared towards students wishing to pursue careers that depend on extensively applying geospatial technologies to natural resources and environmental science issues or advanced study in geospatial science.

FOR 200 Basics of Geospatial Technology..............3
FOR 570 Landscape and Natural Resources...............3
GEO 505 Elements of Cartography........................3
GEO 409 Advanced GIS................................3
GEO 415 Map Interpretation................................3
GEO 419 Introduction to Remote Sensing................3
GEO 509 Workshop in Geospatial Technologies...........3
LA/NRE 556 Contemporary Geospatial Applications for Land Analysis.................3

4. Environmental Education and Communication

The environmental education and communication area will introduce you to the concepts of Environmental Education (in NRE 365) and then provide you with the background necessary to apply your environmental systems knowledge in an educational (formal and non-formal) setting or through other avenues of communication.

AED/PCS 583 Designing Curriculum and Assessment in Career and Technical Education................3
CLD 236 Intrapersonal Leadership........................3
CLD/SOC 360 Environmental Sociology................3
CLD/EDL 402 Principles of Leadership...................3
CLD/EDL 403 Leadership and Communication..............3
COM 281 Communication in Small Groups................3
COM 287 Persuasive Speaking............................3
COM 315 Understanding Workplace.........................3
Communication in a Diverse U.S. Society..................3
ECO 499 Seminar in Economics (Subtitle required)........3
EDP 202 Human Development and Learning................3
ENG 425 Environmental Writing........................3
NRE 360 Environmental Communication....................3
NRE 365 Environmental Education........................3

5. Individualized Analytical Skill Development

With advisor approval, a student may submit a request for an individualized ASD. The written proposal must include a memo explaining the rationale, a list of proposed courses for the ASD, an explanation of how those courses meet the intent of the ASD, and a copy of the student’s Plan of Study which includes the proposed course work. The written proposal must be submitted to the DUS for Steering Committee approval.

Environmental System Emphasis Areas

1. Conservation Biology

The conservation biology emphasis area will provide students with knowledge of the ecological underpinnings and organismal biology of conservation biology. Depending on the courses chosen, students will: (1) gain a solid foundation in field botany by learning tree identification and by developing a taxonomic framework for plant identification; (2) become familiar with the mammals, birds, reptiles and amphibians of Kentucky and surrounding states; (3) gain an introduction to the vegetation, flora and forests of Kentucky and surrounding states; and (4) develop an understanding of ecosystem pattern and process. Students who choose courses in this environmental emphasis area may be qualified to pursue careers with organizations dedicated to the preservation, conservation, and management of habitat, and related rare species preservation. Other opportunities include nature preserve manager, natural resource educator, naturalist, biological inventories and assessment, and environmental consulting. This emphasis area also prepares students for graduate studies in ecology, evolutionary biology, zoology, or botany.

ABT/BIO/ENT/FOR 461G Introduction to Population Genetics..................3
BIO/PLS 210 The Life Processes of Plants...............3
BIO 301 Introduction to Evolution........................3
BIO 302 Ecology......................................4
BIO 375 Behavioral Ecology and Sociobiology...........3
BIO/NRE 420G Taxonomy of Vascular Plants..............4
BIO/GE/O 530 Biogeography and Conservation............3
FOR 219 Dendrology...................................4
FOR 370 Wildlife Biology and Management................4
FOR 510 Herpetology..................................4
FOR 520 Mammals of the Eastern United States..........4
FOR 530 Forester Technology............................3
FOR 540 Urban Ecology................................3
FOR/GE/O 570 Landscape Ecology for Natural Resources..................3
NRE/PLS 455G Wetland Delineation.......................3

2. Forestry

The forestry emphasis area provides students with knowledge in dendrology (the study of trees and silviculture) (the cultivation, growing, and management of trees). In silviculture students will learn the basics of ecologically-based management of forest ecosystems to achieve a desired objective. Students who choose this emphasis area may be qualified to pursue careers in natural resource management with an emphasis on forest systems. [Note: Students with a B.S. in Forestry from a Society of American Foresters (SAF) accredited forestry program may be more competitive for certain forestry jobs. The NRES program is not an SAF accredited program.]

FOR 200 Basics of Geospatial Technology..............3
*FOR 219 Dendrology...................................4
FOR 221 Winter Dendrology...............................1
FOR 255 Forest Fire....................................1
FOR 260 Forest Products and Wood Science..............4
FOR 320 Forest Valuation and Economics................3
*FOR 350 Silviculture...................................4
FOR 400 Human Dimensions of Forestry and Natural Resources..................3
FOR 425 Forest Management............................4
5. Water Resources
The water resources emphasis area will provide students with a fundamental understanding of the hydrologic cycle so that students understand how climate, soils, vegetation, and land-use affect the amount, timing, and quality of water. Use of this information is important in natural resource management so that one may determine where water resource management objectives are compatible and where they conflict with other resource management objectives. Ultimately, students will gain an understanding of the role of watershed management and multiple use in planning and implementing natural resource programs while becoming familiar with current issues in watershed management and water resources.

AEN 461G Biometeorology ........................................... 3
BAE 532/CE 542 Introduction to Stream Protection ........... 3
BAE 538 GIS Applications for Water Resources ............... 3
BAE/CE 547 Watershed Sedimentation ........................ 3
BIO/GEO 530 Biogeography and Conservation ............... 3
CHE 565 Environmental Chemistry ............................ 3
EES 530 Low Temperature Geochemistry ................... 3
EES 585 Hydrogeology ........................................ 3
FOR 530 Freshwater Ecology .................................. 3
FOR 580 Landscape Ecology and Climate Change ............ 3
GEOL 525 Fluvial Formations .................................. 3
LA 531 Water in Urbanizing Environments .................... 3
NRE/PLS 556 Contemporary Geospatial Applications for Land Analysis ........................................ 3
PLS/NRE 455G Wetland Delineation ............................ 3
PLS 573 Soil Morphology and Classification ................. 3
PLS 575 Soil Physics ........................................... 3
6. Wildlife Ecology and Management
This emphasis area will provide opportunities for students to gain knowledge and experience, understand fundamental concepts, and develop basic skills in the area of wildlife ecology and management. The curriculum provides students with the knowledge and skills to meet certification requirements to become a registered Associate Wildlife Biologist with The Wildlife Society. To do this, students will need to complete additional course work. For more information visit: http://wildlife.org/learn/professionaldevelopment/certification/certiﬁcationprograms/

ASC 325 Animal Physiology ...................................... 3
BIO/ENT 300 General Entomology ............................... 3
BIO 303 Introduction to Evolution .............................. 4
BIO 304 Principles of Genetics .................................. 4
BIO 325 Ecology .................................................. 4
BIO 350 Animal Physiology ...................................... 4
BIO 375 Behavioral Ecology and Sociobiology ............... 3
BIO 559 Ornithology ............................................. 3
BIO/ENT 568 Insect Behavior .................................... 4
FOR 370 Wildlife Biology and Management .................. 4
FOR/ENT 502 Forest Entomology ............................... 4
FOR 510 Herpetology ............................................ 4
FOR 520 Mammals of the Eastern United States ............. 4
FOR 530 Freshwater Ecology ................................... 4
FOR 540 Urban Ecology ........................................ 3
FOR 550 U.S. Biodiversity Hotspots ............................ 3
FOR/GEO 570 Landscape Ecology for Natural Resources ... 3
7. Global Sustainable Food Systems
Students who choose this area will be exposed to basic principles in sustainable agriculture, issues in global food systems (e.g., food security) and the ecology of agricultural systems, emphasizing the overlap and complementarities between systems emphasized through NRES major requirements and food production systems. Some students choosing this ESEA may want to obtain the minor in Sustainable Agriculture, which requires the selection of SAG 210 (not listed below because all 9 credits must be 200 or above), in addition to SAG 310 and 386.

AEC 309 International Agriculture, World Food Needs and U.S. Trade in Agricultural Products .................. 3
AEC 532 Agricultural and Food Policy .......................... 3
CLD/SOC 360 Environmental Sociology ....................... 3
DHN 318 Hunger, Food Behavior, and the Environment .......... 3
ENT/BIO 300 General Entomology ............................. 3
ENT 310 Insect Pests of Field Crops .............................. 3
PLS 404 Integrated Weed Management .......................... 4
SAG 310 Cultural Perspectives on Sustainability ............ 3
SAG/PRLS 386 Plant Production Systems ....................... 4
SAG 390 Agroecology .......................................... 3
8. Earth System Sciences
The Earth Systems Science emphasis area will provide context for understanding the processes that operate within and at the interface between Earth’s lithosphere, biosphere, hydrosphere, and atmosphere, i.e., the environments in which bedrock, soil, organisms, water, and air interact. Students pursuing this area of emphasis may choose to pursue the minor in Geosciences, which can be partially satisfied with NRES required courses EES 220 and PLS 366, plus EES 230 and 235, and an additional 5 credits at the 300 level or higher in Earth and Environmental Sciences (EES) or a related field. All courses listed below at the 300+ level would count toward the minor. Students who take EES 385 among their NRES major requirements may also count this course toward the minor.

EES 230 Fundamentals of Geology I ................................ 3
EES 235 Fundamentals of Geology II ............................ 3
EES 323 Field Work in Regional Geology ....................... 6
EES 345 Paleoclimatology: The Science ......................... 3
EES 360 Mineralogy ............................................. 4
EES 450G Sedimentary Geology .................................. 4
EES 530 Low Temperature Geochemistry ..................... 3
EES 550 Fundamental Geophysics .............................. 3
EES 585 Hydrogeology .......................................... 3
EEX 331 Global Environmental Change ........................ 3
GEO 351 Physical Landscapes .................................. 3
PLS 450G Biogeochmistry ..................................... 3
9. Individualized System Emphasis Area
With advisor approval, a student may submit a request for an individualized ESEA. The written proposal must include a memo explaining the rationale, a list of proposed courses for the ESEA, an explanation of how those courses meet the intent of the ESEA, and a copy of the student’s Plan of Study which includes the proposed course work. The written proposal must be submitted to the DUS for Steering Committee approval.

Subtotal: Analytical Skill Development and Environmental System Emphasis Areas .... 10 Electives
Free elective courses should be selected by the student to lead to the minimum total of 120 hours required for graduation.

Subtotal: Electives .............................................. 7-9
TOTAL HOURS: ........................................... 120

BACHELOR OF SCIENCE IN SUSTAINABLE AGRICULTURE AND COMMUNITY FOOD SYSTEMS

This interdisciplinary, interdepartmental program in the College of Agriculture, Food and Environment is grounded in the framework integrates three conceptual “pillars”: environmental stewardship, economic profitability, and social responsibility. Sustainable Agriculture and Community Food Systems
core courses are designed to integrate these perspectives at the introductory, intermediate, and capstone levels. The remainder of the curriculum leverages external courses within each of these “three pillars” of sustainability, in addition to UK Core and premajor requirements. Specialty support credits are recommended along two tracks: 1) Farming Systems – for students seeking focus on sustainable production methods and biophysical systems; and 2) Community Food Systems – for students seeking focus on food systems issues beyond the “farm gate”, including access, food security, and hunger issues. Experiential learning is emphasized throughout the program, through the course work and faculty advising directing independent research (395-level) and EXP 399 credit, as well as Education Abroad offerings. Graduates of the B.S. in Sustainable Agriculture and Community Food Systems are prepared for careers in farming, the non-profit sector, Cooperative Extension, local government, on-farm conservation service providers, and graduate studies in their track area.

Graduation Requirements

Students must complete a minimum of 120 semester credit hours with at least 45 credit hours from courses at the 300 level or above. A 2.0 grade-point standing (on a 4.0 scale) is necessary and remedial courses may not be counted toward the total hours required for the degree. In addition to the UK Core and college requirements, students must select an Option with the assistance of an advisor and fulfill the area’s program requirements.

UK Core Requirements

See the UK Core section of this Bulletin for the complete UK Core requirements. The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements.

I. Intellectual Inquiry in Arts and Creativity

Choose one course from approved list........................................3

II. Intellectual Inquiry in the Humanities

Choose one course from approved list........................................3

III. Intellectual Inquiry in the Social Sciences

Recommended:
*CLD 102 The Dynamics of Rural Social Life or
*SOC 101 Introduction to Sociology........................................3

IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences

Choose one course from approved list........................................3

V. Composition and Communication I

CIS/WRD 110 Composition and Communication I........................3

VI. Composition and Communication II

CIS/WRD 111 Composition and Communication II........................3

VII. Quantitative Foundations

PHI 120 The Art of Thinking: An Introduction to Logic or
MA 109 College Algebra.......................................................3

VIII. Statistical Inferential Reasoning

*STA 210 Making Sense of Uncertainty: An Introduction to Statistical Reasoning........................................3

IX. Community, Culture and Citizenship in the USA

**GEN 100 Issues in Agriculture, Food and Environment........................................3

X. Global Dynamics

SAG 310 Cultural Perspectives on Sustainability........................3

UK Core hours ........................................................................30

*Satisfies the premajor requirement.

**Satisfies the College requirement.

Graduation Composition and Communication Requirement (GCCR)

SAG 310 Cultural Perspectives on Sustainability........................3

SAG 490 Integration of Sustainable Agriculture Principles..................3

Subtotal: Graduation Composition and Communication hours (GCCR)..................6

Premajor Requirements

BIO 148 Introductory Biology I..................................................3

BIO 152 Principles of Biology II..................................................3

CHE 104 Introductory General Chemistry..................................3

CHE 108 Introduction to Inorganic, Organic and Biochemistry Without Laboratory..................................3

DHIN 212 Introductory Nutrition..................................................3

ECO 201 Principles of Economics I..............................................3

Subtotal: Premajor hours ................................................................18

Major Requirements

Environmental Stewardship Cluster

ASC 382 Animal Production Principles........................................3

PLS 366 Fundamentals of Soil Science........................................3

PLS/SAG 386 Plant Production Systems........................................4

Economic Profitability Cluster

AEC 302 Agricultural Management Principles................................4

AEC 305 Food and Agricultural Marketing Principles.........................3

AEC 445G Introduction to Resource and Environmental Economics........3

Social Responsibility Cluster

PHI 205 Food Ethics.......................................................................3

SOC 360 Environmental Sociology...............................................3

CLD/SOC 420 Sociology of Communities or
CLD/SOC 517 Rural Sociology....................................................3

Sustainable Agriculture Core

SAG 210 Introduction to Sustainable Agriculture and Community Food Systems........................................3

SAG 310 Cultural Perspectives on Sustainability........................3

SAG 397 Apprenticeship in Sustainable Agriculture........................3

SAG 490 Integration of Sustainable Agriculture Principles..................3

Subtotal: Major hours ....................................................................42

Specialty Support

Students must declare one program track in the SAG major.

Community Food Systems Track

Students must declare one track in the SAG major. At least 12 hours must come from this single track, with 9 additional credits selected from courses in either program track, or other supporting courses at the 200-level or above, with approval by the student’s academic advisor. For the Community Food Systems Track, select 12 hours from the following courses in consultation with your academic advisor. Additional course work, including education abroad credit and special topics courses, may be appropriate to fulfill this requirement, but must be approved in advance by the student’s academic advisor. All track course work must be taken for a grade, not pass/fail.

AEC 309 International Agriculture, World Food Needs and U.S. Trade in Agricultural Products........................................3

*AEC 300 Topics in Agricultural Economics (Subtitle required)........3

AEC 532 Agricultural and Food Policy............................................3

ANT 303 Topics in the Anthropology of Food and Nutrition (Subtitle required)........................................3

ANT 338 Economic Anthropology..................................................3

ANT 225 Culture, Environment and Global Issues..........................3

ANT 375 Ecology and Social Practice.............................................3

CLD 401 Principles of Cooperative Extension..................................3

CLD/SOC 420 Sociology of Communities........................................3

*CFL 475 Topics in Non-Formal Education (Subtitle required)........................................3

*CFL 480 Topics in Community (Subtitle required)..........................3

DHIN 318 Hunger, Food Behavior, and the Environment.................................3

DHIN 319 Seminar in Hunger Studies..............................................1

DHIN 320 Experiential Learning in Hunger Studies.............................2

*GEN 300 Special Course.............................................................3

GEO 235 Environmental Management and Policy................................3

GEO 316 Environment and Development........................................3

GEO 431 Political Ecology............................................................3

PHI 336 Environmental Ethics......................................................3

SOC 363 Environmental Justice......................................................3

SOC 534 Sociology of Appalachia....................................................3

*Courses must have appropriate subtitle. AEC 300: Economics of Nonprofits. CLD 475: An Entrepreneurial Approach to Community Education. CLD 480: Food, Culture and Community. GEN 300: Food Connections: Issues in Food Systems.

Farming Systems Track

Students must declare one track in the SAG major. At least 12 hours must come from this single track, with 9 additional credits selected from supporting courses in either program track, or other supporting courses at the 200-level or above, with approval by the student’s academic advisor. For the Farming Systems Track, select 12 hours from the following courses in consultation with your academic advisor. Additional course work, including education abroad credit and special topics courses, may be appropriate to fulfill this requirement, but must be approved in advance by the student’s academic advisor. All track course work must be taken for a grade, not pass/fail.

AEN 252 Fabrication and Construction for Technical Systems........................................3

AEC 309 International Agriculture, World Food Needs and U.S. Trade in Agricultural Products........................................3

AEC 311 Livestock and Meat Marketing........................................3

AEC 316 Cooperative Management and Marketing................................1

AEC 317 Marketing Horticultural Products....................................1

ASC 300 Meat Science.................................................................4

ASC 325 Animal Physiology.........................................................3

ASC 340 Poultry Production.........................................................2

ASC 362 Animal Breeding and Genetics.........................................4

ASC 364 Reproductive Physiology of Farm Animals............................4

ASC 378 Animal Nutrition and Feeding..........................................4

ASC 4040 Sheep Science..............................................................4

ASC 406 Beef Cattle Science.........................................................4

ASC 408G Swine Production.........................................................3

ASC 410G Equine Science............................................................3

ASC 420G Dairy Cattle Management............................................3

ENT 300 General Entomology.......................................................3

ENT 320 Horticultural Entomology................................................3

FOR 340 Forest Ecology...............................................................4

PLS 220 Introduction to Plant Identification....................................3

PLS 336 Introduction to Viticulture – Grape Production.................................3

PLS 337 Introduction to Enology: Wine Production..........................3
**MINORS IN AGRICULTURE, FOOD AND ENVIRONMENT**

**Minor in Agricultural Economics**

**Preprofessional Requirement**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 201 Principles of Economics I</td>
<td>3</td>
</tr>
</tbody>
</table>

**Minor Requirements**

Two courses selected from:

- AEC 302 Agricultural Management Principles: 4

**Minor in Animal Sciences**

**Prerequisites**

Note that several classes in both Group A and Group B have prerequisites beyond ASC 101. These are indicated in parentheses following the courses below. Students taking the minor are responsible for satisfying the prerequisites.

**Minor Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASC 101 Domestic Animal Biology</td>
<td>3</td>
</tr>
<tr>
<td>ASC 102 Introduction to Livestock and Poultry Production (ASC 101)</td>
<td></td>
</tr>
<tr>
<td>or ASC 382 Animal Production Principles</td>
<td>3</td>
</tr>
<tr>
<td>Additional Course Work</td>
<td>9</td>
</tr>
</tbody>
</table>

At least 9 credit hours must be selected from the list that follows (Groups A and B). At least one course must be selected from Group A and one course from Group B.

**Group A**

- ASC 300 Meat Science (ASC 101, 102)                                    | 4     |
- ASC 325 Animal Physiology (BIO 152)                                   | 3     |
- ASC 362 Animal Breeding and Genetics (ASC 101 and BIO 152)            | 2     |
- ASC 364 Reproductive Physiology of Farm Animals (ASC 101 and BIO 152)| 2     |
- ASC 378 Animal Nutrition and Feeding (ASC 101 and CHE 230 or 236)    | 3     |
- ASC 380 Applied Animal Nutrition (ASC 378)                            | 2     |

**Group B**

- ASC 340 Poultry Production (ASC 101 or 102)                           | 2     |
- ASC 404C Sheep Science (ASC 300, 362, 364, 378)                       | 4     |
- ASC 406 Beef Cattle Science (ASC 300, 362, 364, 378)                  | 4     |
- ASC 408G Swine Production (ASC 101, 102)                              | 3     |
- ASC 410E Equine Science (ASC 310, 364, 378)                          | 3     |
- ASC 420Q Dairy Cattle Management (ASC 325, 364, 378)                  | 3     |

**Elective Courses**

Two of the following:

- FSC 306 Introduction to Food Processing                               | 4     |
- AEN 340 Principles of Food Engineering                                | 3     |
- FSC 535 Food Analysis                                                 | 4     |

**Minor in Community and Leadership Development**

The minor in Community and Leadership Development requires 15 hours as follows:

**GROUPS**

- CLD 260 Community Portraits: 3
- CLD 320 Community and Communication: 3
- CLD 370 Learning in Society: 3
- CLD 430 Leading in Communities: Vision, Action, and Change: 3

Students must choose 6 hours of additional CLD courses at the 300 level and above, in consultation with their advisor.

**Total Hours Required**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLD 260 Community Portraits</td>
<td>3</td>
</tr>
<tr>
<td>CLD 320 Community and Communication</td>
<td>3</td>
</tr>
<tr>
<td>CLD 370 Learning in Society</td>
<td>3</td>
</tr>
<tr>
<td>CLD 430 Leading in Communities: Vision, Action, and Change</td>
<td>3</td>
</tr>
</tbody>
</table>

**Minor in Entomology**

**Preprofessional Requirement**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 105 General College Chemistry I</td>
<td>4</td>
</tr>
</tbody>
</table>

**Minor Requirements**

**Required:**

- ASC 378 Animal Nutrition and Feeding                                  | 3     |
- VS 351 Principles of Animal Hygiene and Disease Control               | 3     |

**Elective Courses**

Two of the following:

- FSC 535 Food Analysis                                                 | 4     |

**Minor in Food Science**

**Required Courses**

- FSC 535 Food Analysis                                                 | 4     |
- FSC 434G Food Chemistry                                               | 4     |
- FSC 536 Advanced Food Technology or                                  | 4     |
- FSC 538 Food Fermentation                                             | 4     |

**Minor in Pest Management**

**Prerequisite**

One course from the following:

- ASC 320, 404G, 406, 408G, 420G                                        | 4     |

**Minor Requirements**

- ENT 300 General Entomology                                           | 3     |
- ENT 404 Integrated Weed Management                                  | 4     |
- PPA 400G Principles of Plant Pathology                              | 4     |

Select at least 9 hours from the following:

- ENT 310 Insect Pests of Field Crops                                 | 3     |
- ENT 320 Horticultural Entomology                                    | 3     |
- ENT 340 Livestock Entomology                                         | 2     |
- ENT 502 Forest Entomology                                           | 3     |
- ENT 530 Integrated Pest Management                                  | 3     |
- ENT 574 Advanced Applied Entomology                                 | 4     |
- PPA 595 Epidemiology and Control of Plant Diseases                  | 4     |
- VS 351 Principles of Animal Hygiene and Disease Control             | 3     |
- PLS 470G Soil Nutrition Management                                  | 3     |
- ASC 378 Animal Nutrition and Feeding                                 | 3     |

**Minor in Plant and Soil Science**

**Preprofessional Requirement**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 105 General College Chemistry I</td>
<td>4</td>
</tr>
</tbody>
</table>

**Minor Requirements**

Required: 33 hours as follows:

- GEO 235 Environmental Management and Policy                          | 3     |
- PLS 366 Fundamentals of Soil Science                                 | 3     |

**Elective Courses**

Two of the following:

- FSC 535 Food Analysis                                                 | 4     |

**Minor in Sustainable Agriculture**

The minor in Sustainable Agriculture requires 21 to 23 hours as follows:

**Minor Prerequisite**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 201 Principles of Economics I</td>
<td>3</td>
</tr>
</tbody>
</table>

**Minor Requirements**

Required: 19 to 22 hours as follows:

- GEO 235 Environmental Management and Policy                          | 3     |
- PLS 366 Fundamentals of Soil Science                                 | 3     |

**Elective Courses**

Two of the following:

- FSC 535 Food Analysis                                                 | 4     |
Undergraduate Certificate in Distillation, Wine and Brewing Studies

The Undergraduate Certificate in Distillation, Wine and Brewing Studies (DWBS) is inclusive of students from all departments and colleges at UK. The Departments of Animal and Food Sciences; Biosystems and Agricultural Engineering; Chemistry; Chemical and Materials Engineering; History; Horticulture; Plant and Soil Sciences; Retailing and Tourism Management; and Writing, Rhetoric and Digital Studies are all engaged in DWBS. Three key student learning outcomes comprise the DWBS and are accomplished through a cluster of courses:

- Students will comprehend the breadth of the career opportunities in the DWBS industry.
- Students will be able to identify key technical methods and analytical skills required in the DWBS industry.
- Students will be capable of outlining the history of DWBS and clearly explain how this relates to human cultures.

UK is offering this program because, (a) this industry represents the science of one of the oldest products linked to human civilization; thus, education opportunities span a breadth of disciplines; and (b) this is a global industry that provides a wide and interdisciplinary range of careers. The curriculum was developed due to an urgent need to train people in this area as identified by the local industries. The Bluegrass is home to nearly 95 percent of the production of bourbon, one of the world’s premier distilled spirits. There are over 70 wineries in the area as well, in addition to numerous large and small breweries. The program is suited to an undergraduate certificate rather than a minor because the undergraduate certificate creates a framework for students from programs across the UK to gain a certificate without changing their major/minor of interest, which is congruent with the interdisciplinary nature of the career opportunities available in this space.

The DWBS is affiliated with the Department of Horticulture in the College of Agriculture, Food and Environment (CAFE). The DWBS will complement the undergraduate B.S. program in Horticulture, Plant and Soil Science by providing additional opportunities for students already interested in these industries (e.g., in...
wine-growing) to delve into the related areas of wine-making.

Distillation, wine and brewing industries form a multi-billion dollar industry with a myriad of careers in science, engineering and the arts. Regionally, Kentucky is famous for bourbon production and in 2013 the industry surpassed 5 million barrels in over 40 distilleries worth more than $8 billion/year. Current estimates suggest Kentucky employment may now number 10,000 within the bourbon industry alone.

Further, approximately 25 new craft and full scale distilleries are opening in the coming year with a shortage of trained intellectual infrastructure identified recently as a major hurdle to growth (by the Kentucky Distillers Association Technical Committee Meeting). There are over 70 wineries that also demand trained and knowledgeable employees, and a thriving craft beer movement has been established in the past 5 years.

Despite Kentucky being a landmark destination for producers, few courses focused on this industry have been delivered in the past at UK. The proposed certificate pedagogy will engage an inter-disciplinary team that will align certificate enrollees with skills and knowledge of career options. Intellectual infrastructure will immediately benefit the career opportunities and serve a rapidly growing industry.

The DWBS certificate program is designed to be applicable across many of the current UK academic majors. Most obviously, the DWBS would serve students in the colleges of Agriculture, Food and Environment; Arts & Sciences; Business & Economics; Education; and Engineering. However the DWBS is designed to also attract students from other colleges and units based on interest.

Distilling, Wine and Brewing Studies Curriculum

The Certificate in Distilling, Wine and Brewing Studies curricula are as follows:

- A minimum of 12 credits of course work taken for a letter grade.
- At least 12 credits must be 200 level or above, and a minimum of 6 credits must be at the 300-level or above.
- The student must complete a 3-credit breadth component. The breadth component requires that a student take courses in at least two colleges, with a minimum of three credits to be completed in a discipline other than the student’s major.
- Student must earn a C or better in each required certificate course to receive the certificate.
- Certificates will only be awarded to students who successfully complete a degree, or have completed a four-year degree.
- No more than 9 credits taken for a certificate can be used to satisfy the requirements for the student’s bachelor’s degree, a minor, or another certificate, exclusive of free or unrestricted electives.

Undergraduate Certificate in Food Systems and Hunger Studies

Career opportunities related to food systems and hunger are expanding domestically and abroad. However, there are limited academic programs that prepare the workforce with a comprehensive approach focused on the impact of food systems on food security and health. The 12-credit hour Certificate in Food Systems and Hunger Studies provides students with a cross-disciplinary approach to understanding the impact of food systems on food security, hunger, and the overall health and wellness of a community. Through structured experiential learning opportunities, students will apply knowledge of food systems and the environment to develop and implement evidence-based strategies to end hunger in both the United States and globally.

The Certificate in Food Systems and Hunger Studies will complement numerous majors and minors offered on campus, but through a multidisciplinary approach and structured experiential learning opportunities tailored towards the interests and professional goals of the student. Students completing the certificate will have the basic knowledge and skills to provide thoughtful and impactful strategies to promote a sustainable food system and fight hunger and related issues.

All undergraduate students in good standing at the University of Kentucky are invited to declare the Certificate in Food Systems and Hunger Studies and complete the required course work and certificate activities. Students must earn a C or better in each required certificate course to receive the certificate.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAG 210 Introduction to Sustainable Agriculture and Community Food Systems</td>
<td>3</td>
</tr>
<tr>
<td>DHN 318 Hunger, Food Behavior, and the Environment</td>
<td>3</td>
</tr>
<tr>
<td>DHN 319 Seminar in Hunger Studies</td>
<td>1</td>
</tr>
<tr>
<td>DHN 320 Experiential Learning in Hunger Studies</td>
<td>2</td>
</tr>
<tr>
<td>plus 3 hours of pre-approved elective course work at the 200-level or above</td>
<td></td>
</tr>
</tbody>
</table>

The elective course work includes pre-approved courses as well as additional course work (3 hours), such as education abroad credit and special topics courses, that are appropriate to fulfill this requirement and should be approved in advance by the Certificate Director.

PRE-VETERINARY MEDICINE (Non-Degree)

Students interested in becoming veterinarians may enroll in the College of Agriculture, Food and Environment at the University of Kentucky and complete their requirements for admission to veterinary school. Most students completing a science-based degree program can complete pre-vet requirements at the same time. Pre-veterinary advising is available for any UK student.

Although the Commonwealth of Kentucky does not have a school of veterinary medicine, it is a participating member of the Southern Regional Education Board plan, under which legal Kentucky residents may attend the Auburn University College of Veterinary Medicine. Each year 38 qualified Kentucky students are chosen from Kentucky to enter the Auburn program. There is also a plan whereby three legal Kentucky residents may be accepted by the Tuskegee University College of Veterinary Medicine each year.

Admission is on a competitive basis with the final selection being made by a committee from each of the veterinary schools.

Pre-veterinary studies is not a degree program, but a pre-professional curriculum. It is strongly recommended that all pre-veterinary students choose a degree goal early in their college career. Although it is possible to complete pre-vet requirements in three years, the majority of students accepted to veterinary school have a B.S. or B.A. degree.

Due to the high level of competition for admission to any veterinary school, a student should maintain at least a 3.2 academic standing on all college work. The average overall GPA for students accepted to veterinary schools is approximately 3.6. All required courses must have a grade of C or better.

Most US veterinary schools use the Veterinary Medical College Application Service (VMCAS) application.

The following is a list of courses for Auburn College of Veterinary Medicine requirements. However, some changes in the pre-veterinary curriculum may go into effect during the school year. The student has the responsibility to work closely with his or her pre-vet advisor in making certain that all requirements are met for consideration for acceptance.

All advanced placement credit for required courses must have prior approval by Dr. Dw-
Auburn does not accept correspondence credit for required courses, except for Animal Nutrition.

**Auburn’s Pre-Veterinary Curriculum**

Written Composition* .............................................. 6
Literature (e.g. ENG 251)** ................................. 3 or 6
Fine Arts (e.g. MUS 100)** ................................. 3
Humanities/Fine Arts electives** ......................... 3 or 6
History (e.g. HIS 108/109)** ............................. 3 or 6
Social sciences electives** ...................................... 9
MA 123 Elementary Calculus and Its Applications 1
MA 113 Calculus I .................................................. 4

The above courses are waived for students with a B.S. or B.A. degree.

BIO 148 Introductory Biology I ............................ 3
BIO 152 Principles of Biology II .......................... 3
Biology Laboratory I and II** .............................. 2
BIO 315 Introduction to Cell Biology .................. 4
CHE 105 General College Chemistry I .............. 4
CHE 107 General College Chemistry I .............. 3
CHE 111 General Chemistry I Laboratory .......... 1
CHE 113 General Chemistry II Laboratory ...... 2
CHE 230 Organic Chemistry I ......................... 3
CHE 231 Organic Chemistry I Laboratory ...... 1
CHE 232 Organic Chemistry II ......................... 3
CHE 233 Organic Chemistry Laboratory I ....... 1
PHY 211 General Physics ..................................... 5
BCH 401 Fundamentals of Biochemistry .......... 3
ASC 378 Animal Nutrition and Feeding .......... 3
Science Electives**** ........................................... 6

*Consult advisor.
**Students should contact a UK pre-veterinary advisor regarding approved courses.
***Check with pre-veterinary advisor for approved courses.
****Science electives must be two of the following courses:
   BIO 304, BIO 150 or ASC 325, BIO 308, BIO 542, ASC 364, BIO 561 or BIO 563, BIO 544, PHY 213.

Auburn strongly urges students to take organic chemistry and physics courses at a four-year college or university.

**Tuskegee’s Pre-Veterinary Curriculum**

Chemistry w/Lab ................................................. 4
Organic Chemistry w/Lab ................................. 4
Biochemistry w/Lab ......................................... 4
Physics w/Lab ................................................... 8
Advanced Biology (300 level or above) .............. 9
ASC 101 Domestic Animal Biology .................. 3
ASC 378 Animal Nutrition and Feeding .......... 3
Mathematics ....................................................... 6
English .............................................................. 6
Social Sciences/Humanities ............................ 6
Liberal Arts ...................................................... 6
Advanced Biology Electives ............................ 8
Medical Terminology ....................................... 1

The student has the responsibility to work closely with his or her pre-veterinary advisor in making certain that all requirements are met for consideration for acceptance.

All pre-veterinary students who enter veterinary school without obtaining an Animal Science degree and petition UK for one later must fulfill the departmental requirements for an Animal Science degree. In order to be eligible for the B.S. in Animal Sciences, students must have completed all UK Core courses, all college requirements and all of the required core courses and production courses required in the Animal Sciences degree program.

**SCHOOL OF HUMAN ENVIRONMENTAL SCIENCES**

Human Environmental Sciences provides science-based programs concerned with the interactions of individuals and families within multiple environmental contexts, including social, cultural, economic, and political. The specialized areas of study prepare graduates for professional roles through academic work, practicum or field experience, and research with a focus on improving quality of life for individuals and families throughout the lifespan.

There are three departments in the School of Human Environmental Sciences – Dietetics and Human Nutrition; Family Sciences; and Retailing and Tourism Management. Each department offers both undergraduate and graduate study.

For more information, visit: [http://hes.ca.uky.edu/](http://hes.ca.uky.edu/).

**Undergraduate Programs in Human Environmental Sciences**

The University of Kentucky grants the following degrees in Human Environmental Sciences:

- Bachelor of Science in Consumer Economics and Family Financial Counseling
- Bachelor of Science in Dietetics
- Bachelor of Science in Family Sciences
- Bachelor of Science in Hospitality Management and Tourism
- Bachelor of Science in Human Nutrition
- Bachelor of Science in Merchandising, Apparel and Textiles

**Minor Offered**

The following minor is available:

- Family Sciences

**Accreditations and Approvals**

The following programs that can be accredited or approved have achieved that recognition:

- Didactic and Coordinated Programs in Dietetics are both accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND)
- The Masters Specialization in Couple and Family Therapy (M.S. in Family Sciences) is accredited by the Commission on Accreditation for Couple and Family Therapy Education (COACFTE). The program includes course work and clinical practicum required for licensure.

**Unique Features of the School Facilities and Services**

The Family Center is a learning laboratory for students who provide services to students, staff, and community members. The Department of Retailing and Tourism Management oversees the Betty D. Eastin Costume Collection and the Textiles Quality Research Laboratory. The Department of Family Sciences includes two research labs. The Family Interaction Research Lab (FIRL) features equipment to measure family interactions, including psychological arousal and electrical brain activity. The Family Social Science Research Center includes equipment to complete random digit dialing research. The Department of Dietetics and Human Nutrition operates the Lemon Tree Restaurant and the Nutritional Assessment Laboratory.

**Scholarships**

Over fifty scholarships are awarded each year to undergraduate and graduate students enrolled in the School of Human Environmental Sciences. Information about scholarships is available from the College of Agriculture, Food and Environment Scholarship Office, N-8 Ag Science Building.

**Advising**

All students are assigned an advisor during their first semester in a program in the School of Human Environmental Sciences. For more information about programs or advising, contact:

**Center for Student Success**

N24 Ag Science Center
University of Kentucky
Lexington, KY 40506-0091
859-257-3468

**DEPARTMENT OF DIETETICS AND HUMAN NUTRITION**

The Department of Dietetics and Human Nutrition provides sound undergraduate and graduate programs in foods and nutrition, and is concerned with research and extension services.

The department offers the Bachelor of Science in Dietetics and the Bachelor of Science in Human Nutrition. A post-baccalaureate dietetic internship is also offered.

Visit us on the web at: [http://dhn.ca.uky.edu/](http://dhn.ca.uky.edu/).
Admission Policy

Admission to the University is sufficient for lower-division admission to the human nutrition and dietetics majors. However, lower-level admission to the majors or any admission to the University does not guarantee upper-division admission to either of the degree programs in the Department of Dietetics and Human Nutrition. In general, admission depends upon the qualifications and preparation of applicants, as well as the availability of resources for maintaining quality instruction.

Upper-division admission into the human nutrition or dietetics degree programs is necessary in order to be granted a baccalaureate degree from the Department of Dietetics and Human Nutrition. Students who have attained a 2.8 or higher grade-point average in the premajor component required for all students in the Department of Dietetics and Human Nutrition will be assured admission.

To be considered for upper-division admission to either the human nutrition or dietetics undergraduate degree programs, an applicant must fulfill the following requirements:

1. Enrollment in the University of Kentucky. (Students are considered for acceptance by the Department only after acceptance by the University of Kentucky);
2. Completion of the premajor component (premajor courses include: CHE 105, CHE 107, CHE 111, CHE 113, BIO 148, DHN 212, and DHN 241) required for all students within the Department of Dietetics and Human Nutrition with a minimum premajor course work grade-point average of 2.8.*
3. Submission of an application form to the Department of Dietetics and Human Nutrition Academic Coordinator.

* A student can repeat a premajor course to meet this GPA requirement. If a student repeats the course as one of their three University-accepted repeat options only the repeat grade will be factored into the premajor course work GPA. If a student repeats the course outside of the University-accepted repeat options then the course grades will be averaged and then factored into the premajor course work GPA.

Applications from students outside the University of Kentucky seeking admission to the Human Nutrition or Dietetics degree programs, whether for upper-division or lower-division status, must be received by the University Admissions Office no later than April 15 (first summer session); May 15 (second summer session); August 1 (fall semester); and December 1 (spring semester).

Students enrolled in other UK programs on campus should apply for admission prior to the priority registration period. (The appropriate deadlines are listed in the University calendar for approved times to change major.)

Lower-division students enrolled in the Department of Dietetics and Human Nutrition should apply for upper-division admission to the Human Nutrition Program or Didactic Program in Dietetics during the semester they are completing the premajor course work. The application for upper-division admission should be made before the priority registration period for the upcoming semester.

Appeal Process

Students with a GPA below 2.8 and who have completed all premajor requirements may appeal for admission into the human nutrition or dietetics programs. If the Appeals Committee feels that there is persuasive evidence that personal, academic or professional circumstances have affected a student’s grades and the student shows promise for successful completion of a degree in the Department of Dietetics and Human Nutrition, acceptance may be granted. Materials and information necessary for the appeals process will be available from the DHN Academic Coordinator. The deadline for submission of the appeals is generally 45 days prior to the beginning of the semester; however, appeals materials are not accepted for the first summer session.

BACHELOR OF SCIENCE IN DIETETICS with a major in Dietetics

Dietetics prepares professionals who are recognized for expertise in food and nutrition. Graduates of the University of Kentucky Dietetics Program are prepared to apply to an accredited Dietetic Internship program to become Registered Dietitians to function as entry level professionals with opportunities for practice in medical nutrition therapy, community dietetics, food systems management, and/or the business of dietetics. Becoming a registered dietitian involves a combination of academic preparation, including a minimum of a baccalaureate degree, and a supervised practice component and successfully passing the registration examination for dietitians.

The UK DHN Dietetics Program offers two options to earn a bachelor’s degree in dietetics. Option A is the Didactic Program in Dietetics (DPD) and Option B is the Coordinated Program in Dietetics (CP). Both options lead to the Bachelor of Science in Dietetics and fulfill the foundation knowledge and/or competencies established by the Accreditation Council for Education in Nutrition and Dietetics, ACEND, the accrediting agency for the Academy of Nutrition and Dietetics, AND. The DPD and the CP are both fully accredited by ACEND. Option B, CP, is a selective admission program to which students must apply prior to beginning the major course work in the third year of the dietetics program.

Option A, designated as the Didactic Program in Dietetics, DPD, focuses on the foundation knowledge requirements provided by the academic component of dietitian education. A student must be a declared dietetics major in the Department of Dietetics and Human Nutrition to complete the DPD. Students must attain a cumulative grade-point average of 2.4 or above to progress into course work designated as major requirements.

Successful completion of the DPD curriculum enables graduates to apply to a ACEND-accredited supervised practice program, SPP, in a post-baccalaureate Dietetic Internship.

Upon successful completion of the Dietetic Internship the individual is eligible to sit for the national registry exam administered by the Commission on Dietetic Registration, CDR, the credentialing agency of the AND, which grants use of the nationally recognized credential “RD” Registered Dietitian.

Graduates of the UK DHN Option A may apply for placement in the Dietetic Internship program offered by the Department of Dietetics and Human Nutrition, School of Human Environmental Sciences, or any other ACEND-accredited dietetic internship outside the department. Students must consider the highly competitive scenario in competing for acceptance into a Dietetic Internship.

Option B, designated as the Coordinated Program in Dietetics, CP, provides the foundation knowledge requirements provided by the academic component of dietitian education (see DPD above) and an ACEND-accredited supervised practice component. Students who have completed the premajor requirements and are interested in the Coordinated Program to attain the academic preparation and supervised practice program through the UK DHN Dietetics Program may apply for admission to Option B, the CP. Option B requires three additional semesters of didactic course work in the major requirements prior to beginning the 1,200 hour supervised practice program. Students in the CP must successfully complete the didactic and supervised practice component to receive the B.S. in Dietetics degree.

The ACEND-accredited CP is a selective admission program. Admission to the University of Kentucky DHN Dietetics Program does not guarantee admission to the Coordinated Program, CP. A limited number of students who have completed the required preprofessional courses will be admitted on the basis of cumulative grade-point average, potential qualities for becoming a successful dietitian, leadership potential and professional involvement and commitment.

The application deadline for the UK DHN CP is February 1, prior to potential fall admission in Year Three of the Dietetics Program. Year Three of the Dietetics Program is the beginning of the Major Requirements for com-
The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements.

I. Intellectual Inquiry in Arts and Creativity
Choose one course from approved list

II. Intellectual Inquiry in the Humanities
Choose one course from approved list

III. Intellectual Inquiry in the Social Sciences
PSY 100 Introduction to Psychology
or
SOC 101 Introduction to Sociology

IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences
CHE 105 General College Chemistry I
CHE 111 General Chemistry I Laboratory

V. Composition and Communication I
CIS/WRD 110 Composition and Communication I

VI. Composition and Communication II
CIS/WRD 111 Composition and Communication II

VII. Quantitative Foundations
MA 111 Introduction to Contemporary Mathematics

VIII. Statistical Inferential Reasoning
STA 210 Making Sense of Uncertainty:
An Introduction to Statistical Reasoning

IX. Community, Culture and Citizenship in the USA
Recommended:
GEN 100 Issues in Agriculture, Food and Environment

X. Global Dynamics
Choose one course from approved list

UK Core hours

Graduation Composition and Communication Requirement (GCCR)

Graduation Composition and Communication Requirement hours (GCCR)

Progression Requirements

Students must attain a grade-point average of 2.4 or above to progress into course work designated as major requirements. In addition, students must achieve a grade of C or better in all course work designated as major requirements.

Students must complete the following requirements:

Premajor Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 148</td>
<td>Introductory Biology I</td>
<td>3</td>
</tr>
<tr>
<td>BIO 208</td>
<td>Principles of Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>CHE 105</td>
<td>General College Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHE 107</td>
<td>General College Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHE 111</td>
<td>General Chemistry I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHE 113</td>
<td>General Chemistry II Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CHE 230</td>
<td>Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHE 236</td>
<td>Survey of Organic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CLA 131</td>
<td>Medical Terminology from Greek and Latin</td>
<td>3</td>
</tr>
</tbody>
</table>

ECO 201 | Principles of Economics I | 3 |
DHN 212 | Introductory Nutrition | 3 |
DHN 241 | Food Service Sanitation | 1 |
PSY 206 | Elementary Physiology | 3 |
PSY 100 | Introduction to Psychology | 4 |
SOC 101 | Introduction to Sociology | 3 |
STA 210 | Making Sense of Uncertainty: An Introduction to Statistical Reasoning | 3 |

Subtotal: Premajor hours

Major Requirements

Hours

Prior to beginning the major requirements, students should indicate a choice of Option A or Option B with the UK DHN Academic Coordinator, 203 Funkhouser Building. Option B is a selective admissions program.

DHN 301 | Dietetics Practice | 2 |
DHN 302 | Principles of Food Preparation | 3 |
DHN 304 | Experimental Foods | 3 |
DHN 311 | Nutritional Biochemistry | 3 |
DHN 312 | Life Cycle and Community Nutrition I | 3 |
DHN 313 | Life Cycle and Community Nutrition II | 3 |
DHN 342 | Quantity Food Production | 4 |
DHN 346 | Management for Food Industries | 3 |
DHN 374 | Research and Writing in Dietetics | 3 |
DHN 408G | Seminar in Dietetics and Human Nutrition | 3 |
DHN 510 | Advanced Nutrition | 4 |
DHN 512 | Medical Nutrition Therapy I | 4 |
DHN 514 | Dietetics: Counseling and Communication Theories and Applications | 3 |
DHN 517 | Medical Nutrition Therapy II | 3 |

Subtotal: Major hours

Electives

Professional Support Elective

Electives should be selected by the student to lead to the minimum total hours required for graduation.

Subtotal: Elective hours Option A

Subtotal: Elective hours Option B

OPTIONS

Option A – Didactic Program in Dietetics (DPD)

DHN 480 | Dietetics Pre-Professional Practice | 1-6 |

Subtotal: Option A

Option B – Coordinated Program in Dietetics (CP)

Option B requires the student to apply to admission to the CP after completion of premajor requirements. See Bulletin for details.

DHN 518 | Evaluation of Dietetic Issues and Leadership | 2 |
DHN 520 | Medical Nutrition Therapy I: Supervised Practice | 5 |
DHN 522 | Food Service Systems Management I: Supervised Practice | 5 |
DHN 524 | Food Service Systems Management II: Supervised Practice | 3 |
DHN 526 | Medical Nutrition Therapy II: Supervised Practice | 3 |
DHN 530 | Community Nutrition I: Supervised Practice | 1 |

Subtotal: Option B

Subtotal: Total hours

Degree Requirements

Each student must complete the following:

1. Complete UK Core requirements.
2. Complete 124-133 credit hours with a minimum grade-point average of 2.0.
3. Complete the required curriculum in the major program.

College of Agriculture, Food and Environment

Director, Dietetic Internship Program
203 Funkhouser Building
University of Kentucky
Lexington, KY 40506-0054

College of Agriculture, Food and Environment

Director, Dietetic Internship Program
203 Funkhouser Building
University of Kentucky
Lexington, KY 40506-0054

Degree Requirements

Each student must complete the following:

1. Complete UK Core requirements.
2. Complete 124-133 credit hours with a minimum grade-point average of 2.0.
The Bachelor of Science in Human Nutrition offers appropriate preparation for further study in nutritional sciences and health-related sciences, particularly public health, pharmacy, medicine, dentistry, physical therapy, physician assistant school, optometry, and nutrition research.

Each student must complete the following:
1. Complete UK Core requirements.
2. Complete 120 credit hours with a minimum grade-point average of 2.0.
3. Complete the required curriculum in the major program.

UK Core Requirements
See the UK Core section of this Bulletin for the complete UK Core requirements. The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements.

I. Intellectual Inquiry in Arts and Creativity
Choose one course from approved list ........................................... 3

II. Intellectual Inquiry in the Humanities
Choose one course from approved list ........................................... 3

III. Intellectual Inquiry in the Social Sciences
PSY 100 Introduction to Psychology ............................................. 4

IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences
CHE 105 General College Chemistry I ......................................... 4
CHE 111 General Chemistry I Laboratory ................................... 1

V. Composition and Communication I
CIS/WRD 110 Composition and Communication I ........................ 3

VI. Composition and Communication II
CIS/WRD 111 Composition and Communication II ....................... 3

VII. Quantitative Foundations
MA 123 Elementary Calculus and its Applications 
or
MA 113 Calculus I ................................................................. 4

VIII. Statistical Inferential Reasoning
STA 296 Statistical Methods and Motivations ................................ 3

IX. Community, Culture and Citizenship in the USA
Recommended:
GEN 100 Issues in Agriculture, Food and Environment ................ 3

X. Global Dynamics
Choose one course from approved list ........................................... 3

UK Core hours ................................................................. 33-34

Graduation Composition and Communication Requirement (GCCR)
DHN 474 Research in Nutrition: Theory ..................................... 3
DHN 475 Research in Nutrition: Application ............................... 3
Graduation Composition and Communication Requirement hours (GCCR) ........................................... 6

Premajor Requirements

PSY 100 Introduction to Psychology ............................................. 4

MA 113 Calculus I

or
MA 123 Elementary Calculus and Its Applications .......................... 4

CHE 105 General College Chemistry I ......................................... 4
CHE 107 General College Chemistry II ....................................... 3
CHE 111 General Chemistry I Laboratory ................................... 1
CHE 113 General Chemistry II Laboratory ................................... 2
CHE 230 Organic Chemistry I ............................................... 3
CHE 231 Organic Chemistry Laboratory I ................................... 1
CHE 232 Organic Chemistry II ............................................... 3
CHE 233 Organic Chemistry Laboratory II .................................. 1
STA 296 Statistical Methods and Motivations ................................ 3

BIO 148 Introductory Biology I ............................................... 3
BIO 152 Principles of Biology II .............................................. 3
BIO 155 Laboratory for Introductory Biology I ............................. 1
BIO 208 Principles of Microbiology .......................................... 3
POY 206 Elementary Physiology .............................................. 3
ANA 209 Principles of Human Anatomy ...................................... 3

Subtotal: Premajor hours .................................................. 45

Major Requirements

DHN 212 Introductory Nutrition ................................................ 3
DHN 241 Food Service Sanitation ............................................. 1
DHN 302 Principles of Food Preparation ..................................... 3
DHN 311 Nutritional Biochemistry ........................................... 3
DHN 312 Life Cycle and Community Nutrition I .......................... 3
DHN 313 Life Cycle and Community Nutrition II ......................... 3
DHN 315 Nutrition Issues in Physical Activity ............................. 3
DHN 318 Hunger, Food Behavior, and the Environment ................ 3
DHN 408G Seminar in Dietsetics and Human Nutrition ................ 3
DHN 474 Research in Nutrition: Theory ..................................... 3
DHN 475 Research in Nutrition: Application ............................... 3
DHN 510 Advanced Nutrition ................................................ 3
DHN 599 Introduction to Culinary Medicine ............................... 3
PHI 305 Health Care Ethics .................................................. 3

At least 45 hours of course credit at the 300-level or above is required for graduation.

Subtotal: Major hours ................................................... 38

Professional Support Electives
Select 18 hours in Professional Support Electives at the 200 level or above.

Subtotal: Professional Support hours ................................ 18

Electives
Electives should be selected by the student to complete the minimum total of 120 hours required for graduation.

Subtotal: Minimum Elective hours ................................ 1

TOTAL HOURS: ................................................. 120

BACHELOR OF SCIENCE IN HUMAN NUTRITION
with a major in Human Nutrition

The Bachelor of Science in Human Nutrition offers appropriate preparation for further study in nutritional sciences and health-related sciences, particularly public health, pharmacy, medicine, dentistry, physical therapy, physician assistant school, optometry, and nutrition research.

Each student must complete the following:
1. Complete UK Core requirements.
2. Complete 120 credit hours with a minimum grade-point average of 2.0.
3. Complete the required curriculum in the major program.

UK Core Requirements
See the UK Core section of this Bulletin for the complete UK Core requirements. The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements.

I. Intellectual Inquiry in Arts and Creativity
Choose one course from approved list ........................................... 3

II. Intellectual Inquiry in the Humanities
Choose one course from approved list ........................................... 3

III. Intellectual Inquiry in the Social Sciences
PSY 100 Introduction to Psychology ............................................. 4

IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences
CHE 105 General College Chemistry I ......................................... 4
CHE 111 General Chemistry I Laboratory ................................... 1

V. Composition and Communication I
CIS/WRD 110 Composition and Communication I ........................ 3

VI. Composition and Communication II
CIS/WRD 111 Composition and Communication II ....................... 3

VII. Quantitative Foundations
MA 123 Elementary Calculus and its Applications 
or
MA 113 Calculus I ................................................................. 4

VIII. Statistical Inferential Reasoning
STA 296 Statistical Methods and Motivations ................................ 3

IX. Community, Culture and Citizenship in the USA
Recommended:
GEN 100 Issues in Agriculture, Food and Environment ................ 3

X. Global Dynamics
Choose one course from approved list ........................................... 3

UK Core hours ................................................................. 33-34

Graduation Composition and Communication Requirement (GCCR)
DHN 474 Research in Nutrition: Theory ..................................... 3
DHN 475 Research in Nutrition: Application ............................... 3
Graduation Composition and Communication Requirement hours (GCCR) ........................................... 6

Premajor Requirements

PSY 100 Introduction to Psychology ............................................. 4

MA 113 Calculus I

or
MA 123 Elementary Calculus and Its Applications .......................... 4

CHE 105 General College Chemistry I ......................................... 4
CHE 107 General College Chemistry II ....................................... 3
CHE 111 General Chemistry I Laboratory ................................... 1
CHE 113 General Chemistry II Laboratory ................................... 2
CHE 230 Organic Chemistry I ............................................... 3
CHE 231 Organic Chemistry Laboratory I ................................... 1
CHE 232 Organic Chemistry II ............................................... 3
CHE 233 Organic Chemistry Laboratory II .................................. 1
STA 296 Statistical Methods and Motivations ................................ 3

BIO 148 Introductory Biology I ............................................... 3
BIO 152 Principles of Biology II .............................................. 3
BIO 155 Laboratory for Introductory Biology I ............................. 1
BIO 208 Principles of Microbiology .......................................... 3
POY 206 Elementary Physiology .............................................. 3
ANA 209 Principles of Human Anatomy ...................................... 3

Subtotal: Premajor hours .................................................. 45

Major Requirements

DHN 212 Introductory Nutrition ................................................ 3
DHN 241 Food Service Sanitation ............................................. 1
DHN 302 Principles of Food Preparation ..................................... 3
DHN 311 Nutritional Biochemistry ........................................... 3
DHN 312 Life Cycle and Community Nutrition I .......................... 3
DHN 313 Life Cycle and Community Nutrition II ......................... 3
DHN 315 Nutrition Issues in Physical Activity ............................. 3
DHN 318 Hunger, Food Behavior, and the Environment ................ 3
DHN 408G Seminar in Dietsetics and Human Nutrition ................ 3
DHN 474 Research in Nutrition: Theory ..................................... 3
DHN 475 Research in Nutrition: Application ............................... 3
DHN 510 Advanced Nutrition ................................................ 3
DHN 599 Introduction to Culinary Medicine ............................... 3
PHI 305 Health Care Ethics .................................................. 3

At least 45 hours of course credit at the 300-level or above is required for graduation.

Subtotal: Major hours ................................................... 38

Professional Support Electives
Select 18 hours in Professional Support Electives at the 200 level or above.

Subtotal: Professional Support hours ................................ 18

Electives
Electives should be selected by the student to complete the minimum total of 120 hours required for graduation.

Subtotal: Minimum Elective hours ................................ 1

TOTAL HOURS: ................................................. 120
3. a grade of C or higher in the following Consumer Economics and Family Financial Counseling courses required to graduate: CEF 350, CEF 351, CEF 352, CEF 402, and CEF 403; and
4. a minimum of 45 credit hours from upper division courses (300 level and above).

UK Core Requirements
See the UK Core section of this Bulletin for the complete UK core requirements. The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements.

I. Intellectual Inquiry in Arts and Creativity
Choose one course from approved list.........3

II. Intellectual Inquiry in the Humanities
Choose one course from approved list.........3

III. Intellectual Inquiry in the Social Sciences
Choose one course from approved list.........3

IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences
Choose one course from approved list.........3

V. Composition and Communication I
CIS/WRD 110 Composition and Communication I ..........3

VI. Composition and Communication II
CIS/WRD 111 Composition and Communication II ..........3

VII. Quantitative Foundations
Choose one course from approved list..........3

VIII. Statistical Inferential Reasoning
STA 210 Making Sense of Uncertainty:
An Introduction to Statistical Reasoning ..........3

IX. Community, Culture, and Citizenship in the USA
GEN 100 Issues in Agriculture,
Food and Environment................................3

X. Global Dynamics
Choose one course from approved list.........3

UK Core hours .........................................30

Graduation Composition and Communication Requirement (GCCR)
CEF 390 Introduction to Research Methods........3
CEF 402 Theories and Applications
in Consumer Economics..........................3
FAM 360 Introduction to Family Intervention:
Working With Families and Individuals.........3
Graduation Composition and Communication Requirement hours (GCCR) .................9

Premajor Requirements Hours
ACC 201 Financial Accounting I..................3
ECO 201 Principles of Economics I .................3
ECO 202 Principles of Economics II ................3
PSY 100 Introduction to Psychology .................4
SOC 101 Introduction to Sociology
or
SOC 235 Inequalities in Society .....................3
STA 210 Making Sense of Uncertainty:
An Introduction to Statistical Reasoning ........3
Premajor Requirement hours ..................19

Students must have a C or higher in ECO 201 to enroll in the core classes. Students must receive a grade of C or better in the following consumer economics and family financial counseling courses required to graduate: CEF 350, CEF 351, CEF 352, CEF 402, and CEF 403.

Program Core Hours
CEF 251 Personal and Family Finance Introduction........3
CEF 350 Consumer Economics ..................................3
CEF 351 Advanced Personal and Family Finance I ........3
CEF 352 Advanced Personal and Family Finance II ......3
CEF 390 Introduction to Research Methods .................3
CEF 402 Theories and Applications in Consumer Economics ........3
CEF 403 Family Financial Counseling ......................3
CEF 496 Accredited Financial Counselor
Review Course ................................................3
CEF 498 Internship in Consumer Economics
and Personal Finance .........................................3
CEF 499 Advanced Internship in Consumer Economics
and Personal Finance .........................................3
FAM 360 Introduction to Family Intervention:
Working With Families and Individuals .................3
Program Core hours ........................................36

Electives
In addition to the major requirements, each student will select 35 hours of electives. Electives are chosen in consultation with the academic advisor and should be chosen to support the academic content of the Consumer Economics and Family Financial Counseling major; while also keeping in mind that electives should be chosen to complete the requirement of a minimum of 45 credit hours from upper division courses (300 level and above).

Elective hours ........................................35
TOTAL HOURS: ........................................120

BACHELOR OF SCIENCE IN FAMILY SCIENCES

Family sciences prepares students to work with individuals and families in unique ways. Positions include coordinators of community education and outreach, crisis management, residential care, family financial management, research and planning, and social service workers. Students completing the program are eligible to apply to become certified family life educators through the National Council on Family Relations. Contact the Department of Family Sciences, 315 Funkhouser Building, 859-257-7750, for more information about this optional credential.

Each student must complete the following:
1. Complete UK Core requirements.
2. Complete 120 credit hours with a minimum grade-point average of 2.0.
3. Complete the required curriculum in the major program.

UK Core Requirements
See the UK Core section of this Bulletin for the complete UK core requirements. The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements.

I. Intellectual Inquiry in Arts and Creativity
Choose one course from approved list .................3

II. Intellectual Inquiry in the Humanities
Choose one course from approved list .................3

III. Intellectual Inquiry in the Social Sciences
Choose one course from approved list .................3

IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences
Choose one course from approved list .................3

V. Composition and Communication I
CIS/WRD 110 Composition and Communication I ..........3

VI. Composition and Communication II
CIS/WRD 111 Composition and Communication II ..........3

VIII. Statistical Inferential Reasoning
STA 210 Making Sense of Uncertainty:
An Introduction to Statistical Reasoning ..........3

IX. Community, Culture, and Citizenship in the USA
Recommended:
GEN 100 Issues in Agriculture,
Food and Environment................................3

X. Global Dynamics
Choose one course from approved list .................3

UK Core hours ........................................30-31

Graduation Composition and Communication Requirement (GCCR)
FAM 357 Adolescent Development .........................3
FAM 360 Introduction to Family Intervention:
Working With Families and Individuals .................3
FAM 390 Introduction to Research Methods .................3
Graduation Composition and Communication Requirement hours (GCCR) .................9

Premajor Requirements Hours
COM 252 Introduction to Interpersonal Communication ........3
PHI 120 The Art of Thinking:
An Introduction to Logic or
PHI 332 Professional Ethics ................................3
PSY 100 Introduction to Psychology ..................4
STA 210 Making Sense of Uncertainty:
An Introduction to Statistical Reasoning .............3
DHN 101 Human Nutrition and Wellness .................3
SOC 101 Introduction to Sociology .....................3
ECO 201 Principles of Economics I .....................3
Subtotal: Premajor hours ................................22

Major Requirements
FAM 251 Personal and Family Finance ..................3
FAM 253 Human Sexuality: Development,
Behavior and Attitudes ................................3
FAM 254 Life Course Human Development .............3
FAM 352 Issues in Family Sciences .....................3
FAM 357 Adolescent Development .....................3
FAM 360 Introduction to Family Intervention:
Working With Families and Individuals .................3
FAM 390IntroductiontoResearchMethods .................3
FAM 402 Issues in Family Resource Management .........3
FAM 499 Internship in Family Sciences ..................3
FAM 544 Cultural Diversity in American Children
and Families ........................................3
FAM 354 The Family in Cross-Cultural Perspective ....3
Subtotal: Major hours ..................................30
The courses listed below are:

**BACHELOR OF SCIENCE IN HOSPITALITY MANAGEMENT AND TOURISM**

The Hospitality Management and Tourism program focuses on the specialized knowledge needed for careers in the hospitality industry. The degree develops graduates who are consumer and technology focused within the service industry. Course work integrates hospitality marketing strategies, communications and financial management through a curriculum focused on management of facilities and operations that provide hospitality services to the public.

The curriculum challenges students to exercise an integration of creativity and business components for various tourism services such as, Food & Beverage, Lodging, Attractions, Convention and Meeting Planning, Non-Profit Management, and Special Event Coordinating. The hospitality and tourism industries are rapidly growing; as the United States' second largest employer, a degree in Hospitality Management and Tourism provides many career opportunities for graduates.

Internships are a required component of the program, which can lead to permanent professional placement. The internship provides students with first-hand experience in hospitality and tourism related fields, allowing them to exercise classroom knowledge in a real-world setting. Visit us at: [http://rtm.ca.uky.edu/content/bachelor-science-hospitality-management-and-tourism](http://rtm.ca.uky.edu/content/bachelor-science-hospitality-management-and-tourism).

**Entrance Requirement**

The minimum grade-point average for entrance of all students into the Hospitality Management and Tourism program is 2.0.

**Graduation Requirement**

Students must fulfill all prerequisites and achieve a grade of C or better in all HMT and RTM courses that are major requirements, and DHN 342.

Each student must complete the following:

1. Complete UK Core requirements.
2. Complete 120 credit hours with a minimum grade-point average of 2.0.
3. Complete the required curriculum in the major program.

**UK Core Requirements**

See the UK Core section of this Bulletin for the complete UK Core requirements. The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements.

**I. Intellectual Inquiry in Arts and Creativity**

Choose one course from approved list

**II. Intellectual Inquiry in the Humanities**

Choose one course from approved list

**III. Intellectual Inquiry in the Social Sciences**

Choose one course from approved list

**IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences**

Choose one course from approved list

**V. Composition and Communication I**

CIS/WRD 110 Composition and Communication I

**VI. Composition and Communication II**

CIS/WRD 111 Composition and Communication II

**VII. Quantitative Foundations**

MA 123 Elementary Calculus and its Applications

**VIII. Statistical Inferential Reasoning**

STA 296 Statistical Methods and Motivations

**IX. Community, Culture and Citizenship in the USA**

Recommended:

GEN 100 Issues in Agriculture, Food and Environment

**X. Global Dynamics**

ANT 160 Cultural Diversity in the Modern World

**UK Core hours**

**Graduation Composition and Communication Requirement (GCCR)**

RTM 425 Human Resource Management

**Graduation Composition and Communication Requirement hours (GCCR)**

**Premajor Requirements**

Two semesters of a single foreign language chosen from: Arabic; Chinese; English as a Second Language; French; German; Italian; Japanese; Russian; Spanish; and Sign Language (exclude: Latin, Hebrew, Greek)

**Diversity Requirements**

ANT 160 Cultural Diversity in the Modern World

plus 3 hours, to be chosen with approval of academic advisor, from classes related to the study of current cultures

**Subtotal: Diversity Requirement hours**

**Major Requirements**

DHN 241 Food Service Sanitation

HMT 120 Introduction to Hospitality Management and Tourism

HMT 210 Hotel Rooms Division Management

HMT 270 Principles of Travel and Tourism

HMT 308 Principles of Food and Beverage

HMT 350 Revenue Management

RTM 340 Professional Practice/Pre-Internship

RTM 345 Service Management

RTM 425 Human Resource Management

RTM 499 Retailing and Tourism Management Internship

DHN 342 Quantity Food Production

**Subtotal: Major Core hours**

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**Minor in Family Sciences**

Any student interested in a minor in family sciences should file an application with the student’s college prior to entering the program.

**Minor Requirements**

FAM 251 Personal and Family Finance

FAM 254 Life Course Human Development

FAM 352 Issues in Family Sciences

Plus 12 additional hours in family sciences with at least 6 hours at the 300-level or above.

**DEPARTMENT OF RETAILING AND TOURISM MANAGEMENT**

The Department of Retailing and Tourism Management is committed to excellence in teaching, service and research resulting from innovative interdisciplinary education with a global, product, and consumer focus. Students build competencies for outstanding business and customer service in retail and hospitality organizations in a changing society. Opportunities are provided for experiential education through industry-related work experiences, internships, study tours, and exchange programs. Graduates are prepared for careers in the merchandising, hospitality and tourism industries in the developing experience economy. The department offers the Bachelor of Science in Hospitality Management and the Bachelor of Science in Merchandising, Apparel and Textiles.

Visit us on the Web at: [http://rtm.ca.uky.edu/](http://rtm.ca.uky.edu/).
### Professional Support

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 300 Corporation Finance</td>
<td>3</td>
</tr>
<tr>
<td>MGT 301 Business Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 300 Marketing Management</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal: Professional Support hours</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

Plus 15 hours from HMT major selections:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMT 320 Hospitality and Tourism Marketing</td>
<td></td>
</tr>
<tr>
<td>HMT 330 Meetings and Convention Management</td>
<td></td>
</tr>
<tr>
<td>HMT 359 Hospitality and Tourism Special Topics (Subtitle required)</td>
<td>1-3</td>
</tr>
<tr>
<td>HMT 360 Tourism Planning and Development</td>
<td></td>
</tr>
<tr>
<td>HMT 395 Hospitality and Tourism</td>
<td></td>
</tr>
<tr>
<td>Independent Study</td>
<td></td>
</tr>
<tr>
<td>HMT 414 Entrepreneurship in the Hospitality Industry</td>
<td>1-3</td>
</tr>
<tr>
<td>HMT 420 Beer, Wine and Spirits Tourism</td>
<td></td>
</tr>
<tr>
<td>Principles and Practice</td>
<td>3</td>
</tr>
<tr>
<td>HMT 470 Hospitality and Tourism Law and Ethics</td>
<td></td>
</tr>
<tr>
<td>HMT 486 HMT Study Tour</td>
<td></td>
</tr>
<tr>
<td>HMT 560 Advanced Seminar in Lodging and Tourism</td>
<td></td>
</tr>
<tr>
<td>HMT 570 Event Planning and Coordination</td>
<td></td>
</tr>
<tr>
<td>HMT 580 Trends Analysis for the Hospitality Industry</td>
<td></td>
</tr>
<tr>
<td>HMT 588 Strategic Management in the Hospitality and Food Service Industry</td>
<td></td>
</tr>
<tr>
<td>PLS 389 Wine Appreciation</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal: Major Selection</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

Plus additional upper-level credits to complete 45 hours of 300-400 level courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subtotal: Major Requirements</strong></td>
<td><strong>47</strong></td>
</tr>
</tbody>
</table>

**Electives**

Electives should be selected by the student to lead to the minimum total of 120 hours required for graduation.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subtotal: Minimum Elective hours</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

**TOTAL HOURS:** **120**

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### BACHELOR OF SCIENCE IN MERCHANDISING, APPAREL, AND TEXTILES

The Merchandising, Apparel, and Textiles program blends creativity with business components to develop graduates who are consumer and technology focused. Students study concepts and develop skills necessary for understanding market trends, retail strategies, and industry structures that facilitate the development, sourcing, marketing, and merchandising of consumer goods and services in the domestic and international marketplace.

The curriculum challenges students to exercise resourceful thinking in business operations, merchandising strategies, and the interrelationships of people, technology, and materials. Course work is designed to match industry expectations and intended to provide students with the knowledge and experience they will need to understand trends and applications in the merchandising, apparel, and textiles industries.

Internships are a required component of the program, which can lead to permanent professional placement. The internship provides students with first-hand experience in merchandising, apparel, and textiles related fields, allowing them to exercise classroom knowledge in a real-world setting. Visit us at: [http://rtm.ca.uky.edu/content/bachelor-science-merchandising-apparel-and-textiles](http://rtm.ca.uky.edu/content/bachelor-science-merchandising-apparel-and-textiles).

Each student must complete the following:

1. Complete UK Core requirements.
2. Complete 120 credit hours with a minimum grade-point average of 2.0.
3. Complete the required curriculum in the major program.

### UK Core Requirements

See the **UK Core** section of this Bulletin for the complete UK Core requirements. The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements.

I. **Intellectual Inquiry in Arts and Creativity**
   - Choose one course from approved list
   - 3

II. **Intellectual Inquiry in the Humanities**
   - Choose one course from approved list
   - 3

III. **Intellectual Inquiry in the Social Sciences**
    - Choose one course from approved list
    - 3

IV. **Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences**
   - Choose one course from approved list
   - 3

V. **Composition and Communication I**
   - CIS/WRD 110 Composition and Communication I
   - 3

VI. **Composition and Communication II**
    - CIS/WRD 111 Composition and Communication II
    - 3

VII. **Quantitative Foundations**
    - MA 123 Elementary Calculus and its Applications
    - MA 113 Calculus I
    - 4

VIII. **Statistical Inferential Reasoning**
   - Choose one:
   - STA 210 Making Sense of Uncertainty: An Introduction to Statistical Reasoning
   - STA 296 Statistical Methods and Motivations
   - 3

IX. **Community, Culture and Citizenship in the USA**
    - GEN 100 Issues in Agriculture, Food and Environment
    - 3

X. **Global Dynamics**
   - MAT 247 Dress and Culture
   - 3
   - **UK Core hours**
   - 32

### Graduation Composition and Communication Requirement (GCCR)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTM 425 Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td><strong>Graduation Composition and Communication Requirement hours (GCCR)</strong></td>
<td><strong>3</strong></td>
</tr>
</tbody>
</table>

### Program Entrance Requirements

The minimum grade-point average for entrance of all students into the Merchandising, Apparel and Textiles program is 2.0.

### Graduation Requirements

Students must fulfill all prerequisites and achieve a grade of C or better in all MAT and RTM courses which are major requirements.

### Premajor Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 100 Introduction to Psychology</td>
<td>4</td>
</tr>
<tr>
<td>SOC 101 Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201 Principles of Economics I</td>
<td>3</td>
</tr>
<tr>
<td>ECO 202 Principles of Economics II</td>
<td>3</td>
</tr>
<tr>
<td>STA 210 Making Sense of Uncertainty: An Introduction to Statistical Reasoning or STA 296 Statistical Methods and Motivations</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal: Premajor hours</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

### Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 114 Introduction to Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>MAT 120 Textiles for Consumers</td>
<td>3</td>
</tr>
<tr>
<td>MAT 237 Aesthetic Experience in Retail</td>
<td>3</td>
</tr>
<tr>
<td>MAT 247 Dress and Culture</td>
<td>3</td>
</tr>
<tr>
<td>MAT 315 Merchandise Planning and Control</td>
<td>3</td>
</tr>
<tr>
<td>MAT 414 Merchandising Strategy Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MAT 510 Brand Management</td>
<td>3</td>
</tr>
<tr>
<td>MAT 514 Retail Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>MAT 572 International Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>RTM 340 Professional Practice/Pre-Internship</td>
<td>3</td>
</tr>
<tr>
<td>RTM 345 Service Management</td>
<td>3</td>
</tr>
<tr>
<td>RTM 499 Retailing and Tourism Management</td>
<td>3</td>
</tr>
<tr>
<td>STA 515 Specification and Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>of Textiles and Apparel</td>
<td>3</td>
</tr>
<tr>
<td>MAT 520 Textiles for Interiors</td>
<td>3</td>
</tr>
<tr>
<td>MAT 522 History of Textiles</td>
<td>3</td>
</tr>
<tr>
<td>MAT 533 History of Costume</td>
<td>3</td>
</tr>
<tr>
<td>MAT 547 Social and Psychological Aspects of Apparel</td>
<td>3</td>
</tr>
<tr>
<td>MAT 559 Special Topic in Merchandising, Apparel and Textiles</td>
<td>3</td>
</tr>
<tr>
<td>MAT 570 Electronic Retailing (E-Tailing)</td>
<td>3</td>
</tr>
<tr>
<td>MAT 595 Independent Study in Merchandising, Apparel and Textiles</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal: Major hours</strong></td>
<td><strong>46</strong></td>
</tr>
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### Graduation Composition and Communication Requirement (GCCR)

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### Professional Support (27 hours)

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ACC 201 Financial Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACC 202 Managerial Uses of Accounting Information</td>
<td>3</td>
</tr>
<tr>
<td>MGT 300 Marketing Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 320 Retail and Distribution Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 301 Business Management</td>
<td>3</td>
</tr>
<tr>
<td>plus 6 hours at the 200 level or above to be chosen with approval of the academic advisor from such areas as business, communication and social sciences or additional MAT courses.</td>
<td>3</td>
</tr>
<tr>
<td>plus 6 hours at the 300 level or above</td>
<td>6</td>
</tr>
<tr>
<td><strong>Subtotal: Professional Support</strong></td>
<td><strong>27</strong></td>
</tr>
</tbody>
</table>

### Electives

Electives should be selected to complete the minimum total of 120 hours required for graduation.

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<tr>
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**TOTAL HOURS:** **120**