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 116.

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 Admissions.

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 117.

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 116 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 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 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 Horticulture, Plant and Soil Sciences
- Bachelor of Science in Hospitality Management
- Bachelor of Science in Human Nutrition
- Bachelor of Science in Landscape Architecture
- Bachelor of Science in Merchandising, Apparel and Textiles
- Bachelor of Science in Natural Resources and Environmental Science

Information and degree requirements for each program follow. Students may obtain additional information on programs and recommended plans of study from the Office of Academic Programs Advising Resource Centers.

Freshman scholarship applications are due January 15. Upperclass and transfer scholarship applications are due April 1. For more information go to: http://academics.ca.uky.edu/scholarships

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:

- Feb. 1 For fall entry to Coordinated Program

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

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 116 of this Bulletin for the list of degree requirements for majors in the School of Human Environmental Sciences.

Undeclared Majors

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 general 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 Office of Academic Programs.
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. Each student’s academic record is maintained in the Office of Academic Programs Advising Resource Centers in N8 Ag. Science Center or 112 Erikson Hall. Students needing assistance selecting an advisor or general information about academics may go to either of the Office of Academic Programs Advising Resource Centers.

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

College of Agriculture, Food and Environment
Office of Academic Programs
N6 Ag. Science Building – North
University of Kentucky
Lexington, KY 40546-0091
(859) 257-3468 or (859) 257-3469

Graduate Work

The College of Agriculture, Food and Environment offers the Master of Science degree in the following areas: Agricultural Economics, Animal and Food Sciences, Biosystems Engineering, Career, Technical and Leadership Education, Entomology, Family Sciences, Forestry, Hospitality and Dietetic Administration, Integrated Plant and Soil Science, Merchandising, Apparel and Textiles, Plant Pathology and Veterinary Science.

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 Web site at: www.research.uky.edu/gs/.

MINIMUM REQUIREMENTS
FOR GRADUATION

NOTE: The following graduation requirements do not apply to degree programs in the School of Human Environmental Sciences; those requirements are described in the corresponding section of this Bulletin. Except where noted in specific degree programs, all students pursuing a Bachelor of Science degree in the College of Agriculture, Food and Environment must complete:

1. the UK Core and University graduation requirements;
2. GEN 100: Issues in Agriculture, Food and Environment is required for all first semester Freshmen. Students who transfer into the College and have already completed the UK Core U.S. Citizenship requirement are not required to take GEN 100;
3. a minimum of 120 credit hours with at least a 2.0 grade-point average. Some programs require more than the minimum 120 credit hours and have other grade-point average requirements. Remedial courses may not be counted toward the total hours required for the degree;
4. an Agriculture Major with a minimum of 24 hours including 3 hours in a 400-level capstone course;
5. a core of specialty or professional support courses outside the major department totaling at least 18 hours at the 200 level or above; and
6. a minimum of 45 credit hours from upper division courses (300 and above).

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. Students pursuing the Bachelor of Science in Agriculture may pursue an individualized program in agriculture such as Entomology or Sustainable Agriculture.

The procedure for entering an individualized program is as follows:

1. Each student must apply to the Associate Dean for Instruction. The student will receive an explanation of the program and its objectives, and the possible risks involved, including prospective employment and acceptance for advanced graduate degree work.
2. Students who continue their interest in the individualized program develop, with the assistance of an advisor, the plan which they propose to follow.
3. This plan must be submitted to the Associate Dean for consideration and possible approval.
4. Approval of the student’s program by the Associate Dean will admit the student to the individualized program option.

For more information, contact:

College of Agriculture, Food and Environment
Office of Academic Programs
N6 Ag. Science Building – North
University of Kentucky
Lexington, KY 40546-0091
(859) 257-3468 or (859) 257-3469

BACHELOR OF SCIENCE IN
AGRICULTURAL BIOTECHNOLOGY

Agricultural 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 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 Biotechnology the student must complete 128 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
Choose one course from approved list

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

Biotechnology
ABT 101 Introduction to Biotechnology .......................... 1
ABT 201 Scientific Method in Biotechnology ................. 1
ABT 301 Writing and Presentations in the Life Sciences ........................................ 2

Microbiology
BIO 208 Principles of Microbiology ................................ 3
BIO 209 Principles of Microbiology Laboratory ............... 2

Biochemistry
BCH 401G Fundamentals of Biochemistry .................... 3

Genetics
ABT 120 Genetics and Society ..................................... 3
ABT/ENT 360 Genetics or BIO 304 Principles of Genetics ........................................ 3-4
ABT 460 Introduction to Molecular Genetics ................. 3
ABT 461 Introduction to Population Genetics ................. 3

Statistics
STA 296 Statistical Methods and Motivations or
BST 330 Statistical Thinking for Population Health ...... 3

Advanced Practical Skills
ABT 495 Experimental Methods in Biotechnology or
BIO 510 Recombinant DNA Techniques Laboratory ........ 4

Independent Study
ABT 395 Independent Study in Biotechnology or
ABT 399 Experiential Learning in Biotechnology ........ 3

Graduation Composition and Communication Requirement (GCCR)
ABT 201 Scientific Method in Biotechnology ................. 1
ABT 301 Writing and Presentations in the Life Sciences ........................................ 2

Subtotal: Major hours ................................. 34-35

Premajor Requirements

BIO 148 Introductory Biology I .................................. 3
BIO 152 Principles of Biology II .................................. 3
BIO 155 Laboratory for Introductory Biology I ............... 1
CHE 105 General College Chemistry I ......................... 4
CHE 107 General College Chemistry II ....................... 3
CHE 111 Laboratory to Accompany General Chemistry I ........................................ 1
CHE 113 Laboratory to Accompany General Chemistry II ........................................ 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
MA 123 Elementary Calculus and Its Applications or
MA 133 Calculus I or
MA 137 Calculus I With Life Science Applications .......... 4

PHY 211 General Physics ........................................... 5
PHY 213 General Physics ........................................... 5
(or equivalent with laboratory)

Subtotal: Premajor hours ......................... 39-42

BACHELOR OF SCIENCE IN AGRICULTURAL ECONOMICS

The Agricultural Economics program enables graduates to pursue careers in agribusiness and food industries, international marketing and trade, or farm management and production. 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. 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 two options – Option A: Agricultural Economics; and Option B: Agribusiness Management and Food Marketing.

Graduation Requirements

To earn the Bachelor of Science in Agricultural Economics, the student must have a minimum of 120 credit hours with at least a 2.0 grade-point average in one of the two program options. A student must earn a minimum grade of C in each of the four 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 the Natural, Physical, and Mathematical Sciences
Choose one course from approved list ......................... 3

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

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

IV. Intellectual Inquiry in Arts and Creativity
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 113 Calculus I or MA 123 Elementary Calculus and Its Applications or
MA 113 Calculus I ............................................... 4

VIII. Statistical Inferential Reasoning
Choose one course from approved list ......................... 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 .................................................................. 31

Graduation Composition and Communication Requirement (GCCR)
One of the following options:
Option 1:
AEC 306 Food and Agricultural Marketing Principles (Writing Intensive) ......................................... 4
AEC 399 Experiential Learning in Agricultural Economics ................................................................. 3
Option 2:
AEC 306 Food and Agricultural Marketing Principles (Writing Intensive) ......................................... 4
AEC 396 International Studies in Agricultural Economics ................................................................. 1
Option 3:
AEC 395 Independent Research in Agriculture Economics ................................................................. 1+

Subtotal: Graduation Composition and Communication Requirement hours (GCCR) .......................... 1-7

OPTIONS
Option A – Agricultural Economics
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 a more individualized program.

Premajor Requirements
ECO 201 Principles of Economics I ........................................ 3
ECO 202 Principles of Economics II ....................................... 3
MA 113 Calculus I ................................................................ 4
or
MA 123/MA 162 Elementary Calculus and Its Applications/ Finite Mathematics and Its Applications ........... 7
STA 291 Statistical Methods ................................................ 3
ECO 391 Economic and Business Statistics ......................... 3
WRD 203 Business Writing .................................................. 3

Subtotal: Premajor hours ............................................. 19-22

Major Requirements
Notes: Students must have a C or higher in ECO 201 to enroll in the core classes and a C or higher in ECO 201 and MA 123 to enroll in AEC 303. Students must receive a grade of C or better in each of the following four agricultural economics courses required for graduation:
AEC 302 Agricultural Management Principles .................. 4
AEC 303 Microeconomic Concepts in Agricultural Economics ......................................................... 3
AEC 305 Food and Agricultural Marketing Principles .......... 3
AEC 490 Quantitative Methods and Price Analysis ............. 3
plus, after completing AEC 302 or AEC 303 or AEC 365: AEC 301 Career Readiness for Agricultural Economics ......................................................... 1
plus one of the following:
AEC 395 Independent Research in Agricultural Economics AEC 396 International Studies in Agricultural Economics AEC 399 Experiential Learning in Agricultural Economics ......................................................... 3
plus 12 additional hours in the major
(at least 3 hours at 400+ level) ........................................... 12
Subtotal: Major hours .................................................. 29

Specialty Support
ACC 201 Financial Accounting I .......................................... 3
ACC 202 Managerial Uses of Accounting Information ................. 3

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

Electives
Electives should be selected by the student to lead to the minimum total of 120 hours required for graduation.
Subtotal: Electives ......................................................... minimum of 14

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

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Choose one course from approved list</td>
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II. Intellectual Inquiry in the Humanities

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<th>Course</th>
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<td>Choose one course from approved list</td>
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</table>

III. Intellectual Inquiry in the Social Sciences

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<th>Course</th>
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<td>Choose one course from approved list</td>
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IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CHE 105 General College Chemistry I</td>
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<tr>
<td>CHE 111 Laboratory to Accompany General Chemistry I</td>
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</table>

V. Composition and Communication I

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<th>Course</th>
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<tbody>
<tr>
<td>CIS/WRD 110 Composition and Communication I</td>
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VI. Composition and Communication II

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<th>Course</th>
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<tbody>
<tr>
<td>CIS/WRD 111 Composition and Communication II</td>
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VII. Quantitative Foundations

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<th>Course</th>
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<tbody>
<tr>
<td>MA 123 Elementary Calculus and Its Applications</td>
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<tr>
<td>or</td>
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<tr>
<td>MA 113 Calculus I</td>
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<tr>
<td>or</td>
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<tr>
<td>MA 137 Calculus I With Life Science Applications</td>
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VIII. Statistical Inferential Reasoning

Recommended:

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>STA 210 Making Sense of Uncertainty: An Introduction to Statistical Reasoning</td>
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IX. Community, Culture and Citizenship in the USA

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

X. Global Dynamics

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<th>Course</th>
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<tr>
<td>Choose one course from approved list</td>
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UK Core hours

33

Graduation Composition and Communication Requirement (GCCR)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ASC 470 Capstone for Animal Agriculture</td>
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Graduation Composition and Communication Requirement hours (GCCR)

3

Premajor Requirements

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>MA 123 Elementary Calculus and Its Applications</td>
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<td>or</td>
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<tr>
<td>MA 113 Calculus I</td>
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<tr>
<td>or</td>
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<tr>
<td>MA 137 Calculus I With Life Science Applications</td>
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<tr>
<td>BIO 148 Introductory Biology I</td>
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<tr>
<td>BIO 152 Principles of Biology II</td>
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<tr>
<td>CHE 105 General College Chemistry I</td>
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<tr>
<td>CHE 107 General College Chemistry II</td>
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<tr>
<td>CHE 111 Laboratory to Accompany General Chemistry I</td>
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<tr>
<td>CHE 113 Laboratory to Accompany General Chemistry II</td>
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<tr>
<td>WRD 203 Business Writing</td>
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Subtotal: Premajor hours

23

Major Requirements

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ASC 101 Domestic Animal Biology</td>
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<td>ASC 102 Applications of Animal Science</td>
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<tr>
<td>ASC 205 Livestock, People and Their Interactions</td>
</tr>
<tr>
<td>ASC 325 Animal Physiology</td>
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<tr>
<td>ASC 362 Animal Genetics</td>
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<tr>
<td>ASC 364 Reproduction of Farm Animals</td>
</tr>
<tr>
<td>ASC 378 Animal Nutrition and Feeding</td>
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<tr>
<td>ASC 470 Capstone for Animal Agriculture</td>
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<tr>
<td>ASC 499 Academic Enrichment Experience in Animal Sciences</td>
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plus at least three of the following courses:

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ASC 340 Poultry Production</td>
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<tr>
<td>ASC 4040 Sheep Science</td>
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<tr>
<td>ASC 406 Beef Cattle Science</td>
</tr>
<tr>
<td>ASC 408G Swine Production</td>
</tr>
<tr>
<td>ASC 410G Equine Science</td>
</tr>
<tr>
<td>ASC 420G Dairy Cattle Science</td>
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</tbody>
</table>

Subtotal: Major hours

33-37

In addition to the Major Requirements, students choose one of three options:

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) and 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)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Livestock Specialization ASC 300 Meat Science</td>
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and at least two from:

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ASC 340 Poultry Production</td>
</tr>
<tr>
<td>ASC 4040 Sheep Science</td>
</tr>
<tr>
<td>ASC 406 Beef Cattle Science</td>
</tr>
<tr>
<td>ASC 408G Swine Production</td>
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Equine Specialization

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<th>Course</th>
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<tr>
<td>ASC 310 Equine Anatomy</td>
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<tr>
<td>ASC 320 Equine Management</td>
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<tr>
<td>ASC 410G Equine Science</td>
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Dairy Specialization

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<th>Course</th>
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<tbody>
<tr>
<td>ASC 420G Dairy Cattle Science</td>
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<tr>
<td>ASC 564 Milk Secretion</td>
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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:

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ASC 300 Meat Science</td>
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<tr>
<td>FSC 107 Introduction to Food Science</td>
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</table>

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

CHE 236 Survey of Organic Chemistry

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

Food Industry Option

CHE 230 Organic Chemistry I

CHE 236 Survey of Organic Chemistry

FSC 304 Animal Food Products

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

Pre-Professional Option*

BIO 304 Principles of Genetics

ABT/ENT 360 Genetics

CHE 230/231 Organic Chemistry and Laboratory I

CHE 232/233 Organic Chemistry and Laboratory II

PHY 211 General Physics

PHY 213 General Physics

*Students must consult the pre-professional advisor or graduate school advisor of the university to which they will apply for additional or specific requirements.

Subtotal: Specialty Support

18-22

Electives

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

Subtotal: Electives minimum of 14

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 the area of their 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

The degree requirements and curriculum are listed in the College of Engineering section of this Bulletin.
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 you apply, 60 semester hours of course work and AED/FCS 110 Introduction to Career and Technical Education and have at least a 2.75 grade-point standing (on a 4.0 scale). See a full description of “Admission, Retention, and Completion from Teacher Education Programs” in the College of Education section of this Bulletin.

Applicants are evaluated on an interview, recommendations, scholastic achievement, demonstrated skills, and professional commitment and goals. A student’s progress is continuously monitored, assessed, and reviewed throughout the teacher education program as described in the Teacher Education Programs section of this Bulletin. You must successfully complete assessment items and portfolio items as required. Further, you must successfully complete the Principles of Learning and Teaching Exam and a professional exam, scoring above cutoff scores specified by the State Board of Education for each exam. After completing these exams, students hired by Kentucky schools will complete a one-year paid internship as a first-year teacher and will be evaluated at least three times by a three-person committee before certification is completed.

Note: Because graduation and teacher certification requirements change frequently, students should obtain more complete information from their advisors.

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.

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
CLD 102 The Dynamics of Rural Social Life .......................... 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)
AED/FCS 583 Designing Curriculum and Assessment in Career and Technical Education .......................... 3
Graduation Composition and Communication Requirement hours (GCCR) ................................................................. 3

Major Requirements

AED/FCS 110 Introduction to Career and Technical Education ................................................................. 3
AED/FCS 362 Field Experiences in Career and Technical Education ................................................................. 3
AED/FCS 371 Advising a Career and Technical Student Organization ................................................................. 3
AED/FCS 580 Foundations of Teaching Career and Technical Education ................................................................. 3
AED/FCS 583 Designing Curriculum and Assessment in Career and Technical Education .......................... 3
AED/FCS 586 Methods of Teaching Career and Technical Education ................................................................. 3
AED/FCS 592 Teaching Experience in Career and Technical Education ................................................................. 12
EDP 203 Teaching Exceptional Learners in Regular Classrooms ................................................................. 3
FAM 357 Adolescence Development ................................... 3
Subtotal: Major Required hours ........................................... 36

Agricultural Education Requirements

*AEC 302 Agricultural Management Principles .................. 4
AEN 252 Farm Shop ............................................................. 3
ASC 101 Domestic Animal Biology ....................................... 3
ASC 102 Applications of Animal Science .......................... 3
CLD 102 The Dynamics of Rural Social Life (or other Social Science elective) ................................................................. 3
ECO 201 Principles of Economics I ...................................... 3
PLS 210 The Life Processes of Plants .................................... 3
or
PLS 386 Plant Production Systems ..................................... 3
**PLS 366 Fundamentals of Soil Science .............................. 4

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

*ECO 201 is a prerequisite for AEC 302.
**CHE 105 is a prerequisite for PLS 366.

Specialty Support Requirements

Students must complete one additional agricultural economics course, one additional animal sciences course, one additional agricultural engineering course, two additional plant and soil sciences courses, and three additional courses in the College of Agriculture, Food and Environment in consultation with your advisor.

Subtotal: Specialty Support ................................................. 24

Other agriculture majors can also qualify to teach agricultural education provided they meet current certification requirements.

Electives

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

Subtotal: Electives .............................................................. minimum of 7

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.

College of Agriculture, Food and Environment
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
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
CLD 102 The Dynamics of Rural Social Life ......................... 3

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 150 Global Climate Change
EES 120 Sustainable Planet: The Geology of Natural Resources ................................. 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 111 Introduction to Contemporary Mathematics or
MA 123 Elementary Calculus and Its Applications ... 3-4

VIII. Statistical Inferential 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 479 Professional Practicum in Community and Leadership Development ................. 3

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

Premajor Requirements
CLD 100 Introduction to Community and Leadership Development ...................... 1
CLD 225 Community and Communication: Exploring Their Intersections .................. 3
CLD 230 Intrapersonal Leadership .......... 3
CLD 260 Community Portraits .......... 3

Students must earn at least a C in the above four courses before they will be admitted to any upper-division courses in the program.

Students in Career and Technical Education who are admitted into the Teacher Education Program would also be able to register for upper-division courses in the program.

Subtotal: Premajor Requirements ............. 10

Major Requirements
CLD 300 Foundational Theories in Community and Leadership Development ................................. 3
CLD 305 Research Methods in Community and Leadership Development ................................. 3
CLD 362 Field Experience in CLD ........................................ 3
CLD 370 Learning in Society ........................................ 3
CLD 490 Senior Seminar in Community Communications and Leadership Development ............. 3
CLD 497 Professional Practicum in Community and Leadership Development ......................... 3

Students must choose 18 hours of additional CLD courses from the following list:
CLD 325 Writing for Community Media ...................................... 3
CLD 330 Interpersonal Skills for Tomorrow’s Leaders .................................... 3
CLD 340 Community Interaction ........................................ 3
CLD 375 Community Diversity and Leadership .................................... 3
CLD 420 Sociology of Communities ........................................ 3
CLD 430 Leading in Communities: Vision, Action, and Change ......................... 3
CLD 440 Community Processes and Communication ........................................ 3
CLD 460 Community Development and Change ........................................ 3
CLD 465 Topics in Community Communications (Subtitle required) ................................. 3
CLD 470 Topics in Leadership (Subtitle required) ........................................ 3
CLD 475 Topics in Non-Formal Education (Subtitle required) ................................. 3
CLD 480 Topics in Community (Subtitle required) ........................................ 3
CLD 525 Community Diversity and Media ....................................... 3
CLD 530 Fundamentals of Organizational Leadership .............................................. 3
CLD 560 Community Inequalities ........................................ 3
CLD 575 Schools, Community and Society ........................................ 3
plus other CLD courses such as CLD 360, CLD 401, CLD 517, CLD 534.  

Subtotal: Major Requirements ....................... 36

Specialty Support Requirements
Depending on the student’s area of interest and subject to his/ her academic advisor’s approval, he/she will complete an additional 6 hours of courses in the College of Agriculture, Food and Environment and 12 hours in related areas at the 200 level or higher.

Subtotal: Option 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 23

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 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
## Emphasis Areas

Students must have one emphasis area. In order to have an emphasis area, students must take 9 credits in one area. Students will then select 12 additional credits from any emphasis area:

### Community Leadership and Development

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 100 Introduction to Community and Leadership Development
- CLD 102 The Dynamics of Rural Social Life
- CLD 225 Community and Communication: Exploring Their Intersections
- CLD 230 Intrapersonal Leadership
- CLD 260 Community Portraits
- CLD 401 Principles of Cooperative Extension

### Equine Business

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.

- AEC 300 Special Topics in Agricultural Economics
- AEC 305 Food and Agricultural Marketing Principles
- AEC 320 Agricultural Product Marketing and Sales
- AEC 324 Agricultural Law
- AEC 325 Equine Law
- AEC 340 Human Resource Management in Agriculture
- EQM 106 Introduction to Careers in the Equine Industry
- EQM 205 Equine Career Preparation
- EQM 301 Thoroughbred Sales
- EQM 302 Equine Event Planning

### 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 311 Advanced Equine Evaluation
- ASC 325 Animal Physiology
- ASC 362 Animal Genetics
- ASC 364 Reproductive Physiology of Farm Animals
- ASC 378 Animal Nutrition and Feeding
- ASC 389 Advanced Equine Nutrition and Feeding
- ASC 410G Equine Science
- VS 307 Genetics of Horses
- VS 500 Advanced Equine Reproduction

### Forage/Pasture

Students will obtain knowledge in agronomic practices focusing on pasture and forage management. This area will prepare students for careers related to general horse farm management or graduate school. These students will take courses in soil composition and fertility, forages, weed identification and control, and pest management.

- PLS 366 Fundamentals of Soil Science

**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.

Career 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 128 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 Laboratory to Accompany
General Chemistry I .................................................. 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 133 Calculus I
or
MA 137 Calculus I
With Life Science Applications .......................... 4

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** .......................... 33

**Graduation Composition and Communication Requirement (GCCR)**
After attaining sophomore status, students must complete the Graduation Composition and Communication Requirement. Please see your academic advisor for courses that meet this requirement.

PLEASE NOTE: The following courses are prerequisites for required upper-division courses in the Food Science degree program.

BIO 150 Principles of 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 Laboratory to Accompany
General Chemistry I .................................................. 1
CHE 113 Laboratory to Accompany
General Chemistry II .................................................. 2
MA 123 Elementary Calculus and Its Applications or
MA 133 Calculus I
or
MA 137 Calculus I With Life Science Applications .......................... 4

**Subtotal: Prerequisite hours** .......................... 20

**Premajor Requirements**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA 132 Calculus for the Life Sciences</td>
<td>3</td>
</tr>
<tr>
<td>BIO 208 Principles of Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 209 Introductory Microbiology Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CHE 236 Survey of Organic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>DHN 212 Introductory Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>PHY 211 General Physics</td>
<td>5</td>
</tr>
<tr>
<td>STA 291 Statistical Methods</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal: Premajor hours** .......................... 22

**Major Requirements**

**Hours**

**Required:**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSC 107 Introduction to Food Science</td>
<td>3</td>
</tr>
<tr>
<td>AEN 340 Principles of Food Engineering</td>
<td>4</td>
</tr>
<tr>
<td>DHN 311 Nutritional Biochemistry</td>
<td>4</td>
</tr>
</tbody>
</table>
| or
| BCH 401G Fundamentals of Biochemistry | 3 |
| FSC 306 Introduction to Food Processing | 4 |
| FSC 434G Food Chemistry | 4 |
| FSC 530 Food Microbiology | 5 |
| FSC 535 Food Analysis | 4 |
| FSC 536 Advanced Food Technology | 4 |

**Subtotal: Major hours** .......................... 31

**Specialty Support**

Students must select 22 credits from the following suggested list of support courses:

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEC 305 Food and Agricultural Marketing Principles</td>
<td>3</td>
</tr>
<tr>
<td>ABT/ENT 360 Genetics</td>
<td>3</td>
</tr>
<tr>
<td>CS 101 Introduction to Computing I</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201 Principles of Economics I</td>
<td>3</td>
</tr>
<tr>
<td>FSC 304 Animal Food Products</td>
<td>4</td>
</tr>
<tr>
<td>FSC 395 Special Problem in Food Science</td>
<td>1/4</td>
</tr>
<tr>
<td>FSC 399 Experiential Learning in Animal Sciences/Food Science</td>
<td>1/6</td>
</tr>
<tr>
<td>FSC 430G Sensory Evaluation of Foods</td>
<td>3</td>
</tr>
<tr>
<td>FSC 538 Food Fermentation and Thermal Processing</td>
<td>4</td>
</tr>
<tr>
<td>FSC 540 Food Sanitation</td>
<td>3</td>
</tr>
<tr>
<td>DHN 304 Experimental Foods</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal: Specialty Support** .......................... 22

**Electives**

Elective courses should be selected by the student to lead to the minimum total of 128 hours required for graduation.

**Subtotal: Electives** .......................... minimum of 15

**TOTAL HOURS:** .......................... 128

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**BACHELOR OF SCIENCE IN FORESTRY**

Kentucky boasts many forested areas with famous reputations, such as Natural Bridge, Red River Gorge, Daniel Boone National Forest, and Robinson Forest. Robinson Forest is one of the largest research and educational forests in the eastern United States. It is managed by the Department of Forestry, and as a forestry student at 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 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 120 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, 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
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
Choose one course from approved list .......................... 3

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 .................................................. 30

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

Hours
GEN 100 Issues in Agriculture, Food and Environment .......................... 3
BIO 103 Basic Ideas of Biology ................................. 3
or
BIO 150 Principles of Biology I .................................. 3
CHE 104 Introductory General Chemistry ........................... 3
or
CHE 105 General College Chemistry I ............................. 3

Subtotal: Premajor hours ......................... 9-10

Major Requirements

Hours
FOR 110 Natural Resource Issues .................................. 1
FOR 150 Computer Applications in Natural Resource Professions .................................. 2
FOR 200 Basics of Geospatial Technology .......................... 2
FOR 219 Dendrology ................................................. 4
FOR 230 Conservation Biology ....................................... 3
FOR 240 Forestry and Natural Resource Ethics .................... 3
FOR 250 Statistics and Measurements I .......................... 3
FOR 260 Forest Products and Wood Science ...................... 4
FOR 280 Forest Policy .................................................. 2
FOR 310 Introduction to Forest Health and Protection ............... 3
FOR 320 Forest Valuation and Economics ...................... 3
FOR 330 GIS and Spatial Analysis ................................ 3
FOR 340 Forest Ecology ............................................. 4
FOR 350 Silviculture .................................................. 4
FOR 355 Forest Fire Control and Use .............................. 1
FOR 356 Landscape Assessment .................................... 5
FOR 357 Inventory and Measurements II ........................ 2
FOR 358 Silvicultural Practices ..................................... 3
FOR 359 Forest Operations and Utilization ......................... 3
FOR 370 Wildlife Biology and Management ....................... 4
FOR 400 Human Dimensions of Forestry and Natural Resources ......................... 4
FOR 425 Forest Management ........................................ 4
FOR 460 Forest Hydrology and Watershed Management ........ 4
FOR 470 Interdependent Natural Resource Issues ............ 3
FOR 480 Integrated Forest Resource Management ............. 5
PLS 366 Fundamentals of Soil Science .......................... 4
Subtotal: Major hours ......................... 81

Electives
Elective courses should be selected by the student to lead to the minimum total of 121 hours required for graduation.
Subtotal: Electives ........................................... 2
TOTAL HOURS: ............................................. 120

BACHELOR OF SCIENCE IN HORTICULTURE, PLANT AND SOIL SCIENCES

The Horticulture, Plant and Soil Sciences 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. Each Option prepares graduates for specific professional opportunities.

Options
Students pursuing a Horticulture, Plant and Soil Sciences degree may choose from the following Options:
• Horticulture Enterprise Management
• Turfgrass Science
• Crops and Livestock
• Crop, Soil and Horticulture 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 .......................... 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
Choose one course from approved list .......................... 3

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)
After attaining sophomore status, students must complete the Graduation Composition and Communication Requirement. Please see your academic advisor for courses that meet this requirement.

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

Premajor Requirements

Hours
CHE 105 General College Chemistry I ............................ 4
CHE 107 General College Chemistry II ............................ 3
CHE 111 Laboratory to Accompany General Chemistry I .................. 1
CHE 113 Laboratory to Accompany General Chemistry II .................. 2
MA 123 Elementary Calculus and Its Applications .................. 4
WRD 201 Business Writing ...................................... 3

Subtotal: Premajor hours ......................... 17

Premajor Requirements
Students choose one of four Options in the Horticulture, Plant and Soil Science program – Horticulture Enterprise Management; Turfgrass Science; Crops and Livestock; and Crop, Soil and Horticulture Science. All students take the Major Requirements listed below. Then, depending on their Option, take specific courses and 21 hours of Specialty Support courses, some of which may be specified. Option requirements follow Major Requirements.
<table>
<thead>
<tr>
<th>Major Requirements</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLS 104 Plants, Soils, and People:</td>
<td>3</td>
</tr>
<tr>
<td>A Science Perspective</td>
<td></td>
</tr>
<tr>
<td>PLS 210 The Life Processes of Plants</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>BHO 150 Principles of Biology I</td>
<td></td>
</tr>
<tr>
<td>and</td>
<td></td>
</tr>
<tr>
<td>BHO 152 Principles of Biology II</td>
<td>6</td>
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<tr>
<td>PLS 220 Introduction to Plant Identification</td>
<td>3</td>
</tr>
<tr>
<td>PLS 366 Fundamentals of Soil Science</td>
<td>4</td>
</tr>
<tr>
<td>PLS 368 Plant Production Systems</td>
<td>4</td>
</tr>
<tr>
<td>PLS 395 Special Problems in Plant and Soil Science</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>PLS 399 Experimental Learning in Plant and Soil Science</td>
<td>3</td>
</tr>
<tr>
<td>PLS 404 Integrated Weed Management</td>
<td>4</td>
</tr>
<tr>
<td>PLS 470G Soil Nutrient Management</td>
<td>3</td>
</tr>
<tr>
<td>PLS 490 Topics in Plant and Soil Science</td>
<td>3</td>
</tr>
</tbody>
</table>

*Students in the Crop, Soil and Horticulture Science Option take BIO 150/152.

Subtotal: Major hours .................................. 30-33

OPTIONS

Horticulture Enterprise Management Option

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLS 100 An Introduction to Horticulture Professions</td>
<td>1</td>
</tr>
<tr>
<td>PLS 440 Plant Propagation</td>
<td>3</td>
</tr>
<tr>
<td>PLS 465 Greenhouses and Controlled Environments</td>
<td>3</td>
</tr>
<tr>
<td>PLS 520 Fruit and Vegetable Production</td>
<td>4</td>
</tr>
<tr>
<td>PPA 400G Principles of Plant Pathology</td>
<td>3</td>
</tr>
<tr>
<td>Select 9 credit hours from the following courses:</td>
<td></td>
</tr>
<tr>
<td>PLS 320 Woody Horticultural Plants</td>
<td>4</td>
</tr>
<tr>
<td>PLS 330 Herbaceous Horticultural Plants I</td>
<td>2</td>
</tr>
<tr>
<td>PLS 332 Herbaceous Horticultural Plants II</td>
<td>2</td>
</tr>
<tr>
<td>PLS 352 Nursery Production</td>
<td>3</td>
</tr>
<tr>
<td>PLS 451 Landscape Management and Arboriculture</td>
<td>3</td>
</tr>
<tr>
<td>PLS 515 Turf Management</td>
<td></td>
</tr>
<tr>
<td>PLS 525 Greenhouse Floral Crop Management</td>
<td></td>
</tr>
<tr>
<td>Other PLS courses with consent of advisor</td>
<td></td>
</tr>
</tbody>
</table>

Subtotal: Option hours .................................. 23

Specialty Support Requirements

Select 21 hours of courses with consent of advisor ... 21

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

Turfgrass Science Option

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLS 514 Grass Taxonomy and Identification</td>
<td>3</td>
</tr>
<tr>
<td>PLS 515 Turf Management</td>
<td>3</td>
</tr>
<tr>
<td>PPA 400G Principles of Plant Pathology</td>
<td>3</td>
</tr>
<tr>
<td>Select additional 9 credit hours of PLS courses</td>
<td>9</td>
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</table>

Subtotal: Option hours .................................. 18

Specialty Support Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ENT 320 Horticultural Entomology</td>
<td>3</td>
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<tr>
<td>CHE 226 Analytical Chemistry</td>
<td></td>
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<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>CHE 236 Survey of Organic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>Select additional 15 credit hours of specialty support in consultation with academic advisor:</td>
<td>15</td>
</tr>
</tbody>
</table>

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

Crops and Livestock Option

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLS 510 Forage Management and Utilization</td>
<td>3</td>
</tr>
<tr>
<td>Select 15 credit hours of additional PLS courses</td>
<td>15</td>
</tr>
</tbody>
</table>

Subtotal: Option hours .................................. 18

Specialty Support Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 236 Survey of Organic Chemistry</td>
<td>3</td>
</tr>
</tbody>
</table>

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 high quality instruction. Applicants will be reviewed on a comparative basis. Determination of acceptability into the program is based on the following.

Entering freshmen and transfer students from degree programs other than Landscape Architecture must:

1. submit a formal application to the Undergraduate Admissions Office indicating Landscape Architecture as your major;
2. meet the minimum criteria for admission or readmission to the University as specified in this Bulletin (The Landscape Architecture program requires a minimum of a 2.0 grade-point average on a 4.0 scale for eligibility to transfer into the program.); and
3. successfully complete the aptitude testing designated by the Landscape Architecture program.

If a student transferring from another degree program has a background in related design fields, he or she may submit available work, such as a portfolio or other work examples, as an indication of potential success.

Transfer students from degree programs in Landscape Architecture at other accredited institutions must:

1. submit a formal application to the Office of Undergraduate Admissions indicating Landscape Architecture as your major;
2. meet the minimum criteria for admission to the University as specified in this Bulletin (The Landscape Architecture program requires a minimum of a 2.0 grade-point average on a 4.0 scale for eligibility to transfer into the program.); and
3. submit a portfolio for review which, combined with an evaluation of courses completed, will determine acceptance into 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 129 semester hours with at least a 2.0 grade-point standing (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 pre-major, 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 Arts and Creativity
LA 111 Living on the Right Side of the Brain ............. 3
LA 205 History of Landscape Architecture ................... 3
LA 222 Landscape Architecture Design Studio II .......... 6
LA 233 Landscape Architecture Design Studio III .......... 6
LA 307 Cultural Landscape Preservation ...................... 3
LA 355 Introductory Geospatial Applications ................. 3
LA 556 Contemporary Geospatial Applications
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
LA 121 Landscape Architecture Design Studio I ............ 6
LA 111 Living on the Right Side of the Brain ............. 3
LA 262 Graphics I ................................................. 3
LA 271 Design Implementation I ................................ 4
LA 324 Landscape Architecture Design Studio IV .......... 6
LA 325 Landscape Architecture Design Studio V .......... 6
LA 333 Design Implementation II .............................. 4
LA 373 Design Implementation III ............................. 6
LA 390 International Study ....................................... 3
LA 399 Internship in Landscape Architecture .............. 3
LA 425 Landscape Architecture Design Studio VI .......... 6
LA 426 Landscape Architecture Design Studio VII ........ 6
LA 490 Capstone and Professional Practice Seminar .... 2
LA 499 Geospatial Applications for Land Analysis ....... 3
LA 395 Independent Study in Landscape Architecture .... 1-6

Subtotal: Major hours ............................................. 79

Specialty Support Requirements

PLS 220 Introduction to Plant Identification .................... 3
PLS 370 Woody Horticultural Plants ............................. 4
PLS 462 Digital Representation II .................................. 3
PLS 470 Contemporary Regional Land Use Planning Applications ............................................. 3
PLS 471 Contemporary Geospatial Applications

Electives

Electives should be selected by the student to lead to the minimum total of 129 hours required for graduation. Electives may be chosen from the Landscape Architecture Topical Studies or other university courses at any level.

Subtotal: Electives .................................................. 3
TOTAL HOURS: .................................................... 129

BACHELOR OF SCIENCE IN NATURAL RESOURCES AND ENVIRONMENTAL SCIENCE

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 ................. 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 1......................... 4
CHE 111 Laboratory to Accompany
General Chemistry I ........................................... 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 
or MA 137 Calculus I With Life Sciences Applications .... 4

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 .................................................. 33

Graduation Composition and Communication Requirement (GCCR)

NRE 201 Natural Resources and Environmental Science .......................... 3
Graduation Composition and Communication Requirement hours (GCCR) ............ 3

Premajor Requirements

BIO 148 Introductory Biology I ........................................ 3
BIO 152 Principles of Biology II ..................................... 3
CHE 105 General College Chemistry I .......................... 4
CHE 111 Laboratory to Accompany
General Chemistry I ........................................... 1
ECO 201 Principles of Economics I ............................... 3
EES 220 Principles of Physical Geology ........................ 4
MA 123 Elementary Calculus and Its Applications  
or MA 113 Calculus I 
or MA 137 Calculus I With Life Sciences Applications .... 4
STA 210 Making Sense of Uncertainty: An Introduction to Statistical Reasoning ........ 3

Subtotal: Premajors hours .................. 25

Major Requirements

AEC 326 Principles of Environmental Law ........................ 3
AEC 445G Introduction to Resource and Environmental Economics .......................... 3
FOR 230 Conservation Biology ................................. 3
FOR 240 Forestry and Natural Resource Ethics  
or PHI 336 Environmental Ethics ................................... 2-3
FOR 325 Economic Botany: Plants and Human Affairs ...... 3
FOR 340 Forest Ecology ........................................... 4
FOR 460 Forest Hydrology and Watershed Management  
or EES 385 Hydrology and Water Resources ................. 3-4
NRE 201 Natural Resources and Environmental Science ................. 3

* NRE 320 Natural Resource and Environmental Analysis ................................. 3
NRE 381 Natural Resource and Environmental Policy Analysis .......................... 3
NRE 395 Independent Study in Natural Resources and Environmental Science  
or NRE 399 Experiential Education in Natural Resources and Environmental Science .... 3
NRE 471 Senior Problem in Natural Resources and Environmental Science  ...... 4
NRE 355 Introductory Geospatial Applications for Land Analysis ......................... 3
PLS 366 Fundamentals of Soil Science ................................ 4
+NRE 310 is a three-week summer camp field data collection experience. The student will attend this camp after the sophomore or junior year. This camp exposes the student to a wide range of natural resource techniques and concepts, including aquatic ecology, soil and plant sciences, wildlife and forestry, and waste management.  
*Requires an approved Learning Contract through the Stuckert Career Center prior to registration.

Subtotal: Major hours .................. 44-45

Analytical Skill Development (ASD) and Environmental System Emphasis Areas (ESEA)

Students must select one area within Analytical Skill Development and one Environmental System Emphasis Area and complete nine hours of course work in each area from the list of courses provided below. Students must select from the courses listed under each ASD and ESEA but may request one (1) substitute course per ASD and ESEA, subject to approval by both their academic advisor and the DUS. For the 18 hours of ASD and ESEA course work, all classes must be 200-level or above and at least twelve (12) credit hours must be in 300-level or above courses. Classes taken to complete the ASD requirement may not count towards the ESEA course requirement and vice versa. Research experiences, internships, or apprenticeships cannot be used to satisfy the ASD and ESEA requirements, including individualized options.

Analytical Skill Development Areas

1. Economic and Policy Analysis

   Hours
   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
   FOR 320 Forest Valuation and Economics ....................... 3
   FOR 400 Human Dimensions of Forestry and Natural Resources  
   GEO 235 Environmental Management and Policy ............... 3
   GEO 455 Globalization and the Changing World Economy .... 3

2. Field and Laboratory Analysis of Ecosystems

   BIONRE 202G Nomenclature of Vascular Plants ............. 4
   ENT 300 General Entomology .................................... 3
   ENT/FOR 402 Forest Entomology ................................ 3
   FOR 219 Dendrology ............................................. 4
   FOR 250 Statistics and Measurements I ........................ 3
   PLS 396 Soil Judging ............................................ 3
   PLS/NRE 455G Wetland Delineation ............................ 3
   PLS 573 Soil Morphology and Classification .................. 3
   PLS 597 Special Topics in Plant and Soil Science  
   (Subtitle required) .............................................. 3

*Requires an approved Learning Contract through the Stuckert Career Center prior to registration.
3. Geospatial Analysis
BAE 538 GIS Applications for Water Resources ..........3
FOR 200 Basics of Geospatial Technology ...............2
FOR 330 GIS and Spatial Analysis ..........................3
GEO 309 Introduction to GIS ................................3
GEO 409 Advanced GIS .......................................3
GEO 415 Map Interpretation ..................................3
LA/NRE 556 Contemporary Geospatial Applications for Land Analysis ........................................3

4. Environmental Education
*FOR 390 Special Topics in Natural Resources and Environmental Science .................................3
CLD 230 Intrapersonal Leadership ............................3
CLD/SOC 360 Environmental Sociology ....................3
AED/FCS 583 Designing Curriculum and Assessment in Career and Technical Education ................3
EDP 202 Human Development and Learning ..............3

*For the environmental education ASD, students must take NRE 390 Special Topics in Natural Resources and Environmental Science.

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO/PLS 210</td>
<td>The Life Processes of Plants</td>
<td>3</td>
</tr>
<tr>
<td>BIO 325</td>
<td>Ecology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 375</td>
<td>Behavioral Ecology and Sociobiology</td>
<td>3</td>
</tr>
<tr>
<td>BIO/NRE 420G</td>
<td>Taxonomy of Vascular Plants</td>
<td>4</td>
</tr>
<tr>
<td>BIO/GEO 530</td>
<td>Biogeography and Conservation</td>
<td>3</td>
</tr>
<tr>
<td>FOR 219</td>
<td>Dendrology</td>
<td>4</td>
</tr>
<tr>
<td>FOR 370</td>
<td>Wildlife Biology and Management</td>
<td>4</td>
</tr>
</tbody>
</table>

2. Forestry

*FOR 219 Dendrology .......................................4

*FOR 350 Silviculture ........................................3
FOR 320 Forest Valuation and Economics ..................3
FOR 400 | Human Dimensions of Forestry and Natural Resources | 3 |
FOR 402 | Forest Entomology | 3 |
FOR 425 | Forest Management | 4

*For the Forestry ESE, students must take FOR 219 and FOR 350.

3. Human Dimensions and Natural Resource Planning

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO/GEO 530</td>
<td>Biogeography and Conservation</td>
<td>3</td>
</tr>
<tr>
<td>CLD/SOC 340</td>
<td>Community Interaction ..................3</td>
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<tr>
<td>CLD/SOC 360</td>
<td>Environmental Sociology ...............3</td>
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</tr>
<tr>
<td>CLD/SOC 420</td>
<td>Sociology of Communities ................3</td>
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</tr>
<tr>
<td>CLD/SOC 440</td>
<td>Community Processes and Communication</td>
<td>3</td>
</tr>
<tr>
<td>FOR 400</td>
<td>Human Dimensions of Forestry and Natural Resources</td>
<td>3</td>
</tr>
<tr>
<td>FOR 470</td>
<td>Interdependent Natural Resource Issues</td>
<td>3</td>
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<tr>
<td>GEO 285</td>
<td>Introduction to Planning ..............3</td>
<td></td>
</tr>
<tr>
<td>GEO 485G</td>
<td>Urban Planning and Sustainability ....3</td>
<td></td>
</tr>
<tr>
<td>GEO 490G</td>
<td>American Landscapes ....................3</td>
<td></td>
</tr>
<tr>
<td>GEO 531</td>
<td>Landscape Ecology ..........................3</td>
<td></td>
</tr>
<tr>
<td>LA 308</td>
<td>Regional Land Use Planning Systems</td>
<td>3</td>
</tr>
<tr>
<td>LA 457</td>
<td>Contemporary Regional Land Use Planning Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

4. Environmental Soil Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>PLS 306</td>
<td>Soil Judging ..................................3</td>
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</tr>
<tr>
<td>PLS/NRE 450G</td>
<td>Biogeochemy</td>
<td>3</td>
</tr>
<tr>
<td>PLS/NRE 455G</td>
<td>Wetland Delineation .....................3</td>
<td></td>
</tr>
<tr>
<td>PLS 405G</td>
<td>Soil Use and Management ................3</td>
<td></td>
</tr>
<tr>
<td>PLS/NRE 470G</td>
<td>Soil Nutrient Management ..............3</td>
<td></td>
</tr>
<tr>
<td>PLS 566</td>
<td>Soil Microbiology ................................3</td>
<td></td>
</tr>
<tr>
<td>PLS 573</td>
<td>Soil Morphology and Classification ......3</td>
<td></td>
</tr>
<tr>
<td>PLS 575</td>
<td>Soil Physics ..................................3</td>
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5. Water Resources

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>AEN 461G</td>
<td>Biometeorology ................................3</td>
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<tr>
<td>BIO 532/C</td>
<td>542 Introduction to Stream Restoration</td>
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</tr>
<tr>
<td>BIO 538</td>
<td>GIS Applications for Water Resources ....3</td>
<td></td>
</tr>
<tr>
<td>BIO/GEO 530</td>
<td>Biogeography and Conservation ..........3</td>
<td></td>
</tr>
<tr>
<td>CHE 365</td>
<td>Environmental Chemistry ................3</td>
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<tr>
<td>EES 530</td>
<td>Low Temperature Geochemistry ..........3</td>
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<tr>
<td>EES 585</td>
<td>Hydrogeology ..................................3</td>
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<tr>
<td>GEO 230</td>
<td>Weather and Climate ........................3</td>
<td></td>
</tr>
<tr>
<td>GEO 451G</td>
<td>Fluvial Flows and Processes ............3</td>
<td></td>
</tr>
<tr>
<td>PLS/NRE 450G</td>
<td>Biogeochemy ................................3</td>
<td></td>
</tr>
<tr>
<td>PLS/NRE 455G</td>
<td>Wetland Delineation .....................3</td>
<td></td>
</tr>
<tr>
<td>PLS 573</td>
<td>Soil Morphology and Classification ......3</td>
<td></td>
</tr>
<tr>
<td>PLS 575</td>
<td>Soil Physics ..................................3</td>
<td></td>
</tr>
</tbody>
</table>

6. Wildlife Management

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO/ENT 300</td>
<td>General Entomology ..........................3</td>
<td></td>
</tr>
<tr>
<td>BIO 304</td>
<td>Principles of Genetics ....................4</td>
<td></td>
</tr>
<tr>
<td>BIO 325</td>
<td>Ecology .......................................4</td>
<td></td>
</tr>
<tr>
<td>BIO 350</td>
<td>Animal Physiology or ASC 325 Animal Physiology ................................3-4</td>
<td></td>
</tr>
<tr>
<td>BIO 375</td>
<td>Behavioral Ecology and Sociobiology ....3</td>
<td></td>
</tr>
<tr>
<td>BIO 559</td>
<td>Ornithology ....................................4</td>
<td></td>
</tr>
<tr>
<td>FOR 370</td>
<td>Wildlife Biology and Management ........4</td>
<td></td>
</tr>
<tr>
<td>PLS/NRE 455G</td>
<td>Wetland Delineation .....................3</td>
<td></td>
</tr>
</tbody>
</table>

7. Global Sustainable Food Systems

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEC 309</td>
<td>International Agriculture, World Food Needs and U.S. Trade in Agricultural Products</td>
<td>3</td>
</tr>
<tr>
<td>CLD/SOC 360</td>
<td>Environmental Sociology ..................3</td>
<td></td>
</tr>
<tr>
<td>ECO 410</td>
<td>Current Issues in Economics: (Subtitle required) ..................3</td>
<td></td>
</tr>
<tr>
<td>ENT 300</td>
<td>General Entomology ..........................3</td>
<td></td>
</tr>
<tr>
<td>ENT 310</td>
<td>Insect Pests of Field Crops ..............3</td>
<td></td>
</tr>
<tr>
<td>PLS 404</td>
<td>Integrated Weed Management .............4</td>
<td></td>
</tr>
<tr>
<td>SAG 201</td>
<td>Cultural Perspectives on Sustainability ........3</td>
<td></td>
</tr>
<tr>
<td>SAG/PLS 386</td>
<td>Plant Production Systems ................3</td>
<td></td>
</tr>
<tr>
<td>SAG 390</td>
<td>Agroecology .....................................3</td>
<td></td>
</tr>
</tbody>
</table>

8. Earth Systems Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EES 210</td>
<td>Habitable Planet: Evolution of the Earth System ....3</td>
<td></td>
</tr>
<tr>
<td>EES 230</td>
<td>Fundamentals of Geology I ................3</td>
<td></td>
</tr>
<tr>
<td>EES 235</td>
<td>Fundamentals of Geology II .................3</td>
<td></td>
</tr>
<tr>
<td>EES 323</td>
<td>Field Work in Regional Geology ............6</td>
<td></td>
</tr>
<tr>
<td>EES 360</td>
<td>Mineralogy ....................................4</td>
<td></td>
</tr>
<tr>
<td>EES 420G</td>
<td>Structural Geology ..........................4</td>
<td></td>
</tr>
<tr>
<td>EES 450G</td>
<td>Sedimentary Geology ........................4</td>
<td></td>
</tr>
<tr>
<td>EES 461</td>
<td>Igneous and Metamorphic Petrology .........4</td>
<td></td>
</tr>
<tr>
<td>EES 530</td>
<td>Low Temperature Geochemistry .............3</td>
<td></td>
</tr>
<tr>
<td>EES 550</td>
<td>Fundamental Geophysics ....................3</td>
<td></td>
</tr>
<tr>
<td>EES 585</td>
<td>Hydrogeology ..................................3</td>
<td></td>
</tr>
<tr>
<td>GEO 331</td>
<td>Global Environmental Change .............3</td>
<td></td>
</tr>
<tr>
<td>GEO 351</td>
<td>Physical Landscapes ........................3</td>
<td></td>
</tr>
<tr>
<td>GEO 451G</td>
<td>Fluvial Flows and Processes ...............3</td>
<td></td>
</tr>
<tr>
<td>PLS 405G</td>
<td>Biogeochemy ..................................3</td>
<td></td>
</tr>
</tbody>
</table>

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 ........................................18

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

Subtotal: Electives ........................................9-7

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

MINORS IN AGRICULTURE, FOOD AND ENVIRONMENT

Minor in Agricultural Economics

Preprofessional Requirement

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

Minor Requirements

Two courses selected from:

AEC 302 | Agricultural Management Principles ............4 |
AEC 303 | Microeconomic Concepts in Agricultural Economics ..................3 |
AEC 305 | Food and Agricultural Marketing Principles ............3

In addition, students should select nine hours from other agricultural economics courses. A maximum of three credit hours from AEC 312, 313, 314, 315, or 341 may be credited to the minor. AEC 399 may not be included.

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 parenthesis following the course below. Students taking the minor are responsible for satisfying the prerequisites.

Minor Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASC 101</td>
<td>Domestic Animal Biology ....................3</td>
<td></td>
</tr>
<tr>
<td>ASC 102</td>
<td>Applications of Animal Science ............3</td>
<td></td>
</tr>
</tbody>
</table>

Additional Course Work

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASC 300</td>
<td>Meats Science ..................................4</td>
<td></td>
</tr>
<tr>
<td>ASC 325</td>
<td>Animal Physiology (BIO 152 and CHE 107/113) ..........3</td>
<td></td>
</tr>
<tr>
<td>ASC 362</td>
<td>Animal Genetics ..................................3</td>
<td></td>
</tr>
<tr>
<td>ASC 364</td>
<td>Reproductive Physiology of Farm Animals (CHE 230 or 226) ..........4</td>
<td></td>
</tr>
<tr>
<td>ASC 378</td>
<td>Animal Nutrition and Feeding (CHE 230 or 226) ..........4</td>
<td></td>
</tr>
</tbody>
</table>

Group B

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASC 340</td>
<td>Poultry Production ..........................2</td>
<td></td>
</tr>
<tr>
<td>ASC 404G</td>
<td>Sheep Science (ASC 300, 362, 364) ............4</td>
<td></td>
</tr>
<tr>
<td>ASC 406</td>
<td>Beef Cattle Science (ASC 300, 362, 364) .........4</td>
<td></td>
</tr>
<tr>
<td>ASC 408G</td>
<td>Swine Production (ASC 378) ....................2</td>
<td></td>
</tr>
<tr>
<td>ASC 410G</td>
<td>Equine Science (ASC 362, 364) ...............3</td>
<td></td>
</tr>
<tr>
<td>ASC 420G</td>
<td>Dairy Cattle Science (ASC 362, 364) ............3</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours Required ................................15
Minor in Community and Leadership Development

The minor in Community and Leadership Development requires 22 hours as follows:

**Preminor Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLD 100 Introduction to Community Leadership Development</td>
<td>3</td>
</tr>
<tr>
<td>CLD 225 Community and Communication: Exploring Their Intersections</td>
<td>3</td>
</tr>
<tr>
<td>CLD 260 Community Portraits</td>
<td>3</td>
</tr>
</tbody>
</table>

Students must earn at least a C in the above four courses before they will be admitted to any upper-division courses in the program.

**Subtotal: Preminor Requirements** | 10 |

**Minor Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLD 300 Foundational Theories in Community and Leadership Development</td>
<td>3</td>
</tr>
<tr>
<td>CLD 370 Learning in Society</td>
<td>3</td>
</tr>
</tbody>
</table>

Select two additional CLD courses at the 300 level and above, with advisor’s approval.

**Subtotal: Minor Requirements** | 12 |

Minor in Entomology

**Preminor Requirement**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two semesters of introductory biology</td>
<td>6</td>
</tr>
</tbody>
</table>

**Minor Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required:</td>
<td></td>
</tr>
<tr>
<td>ENT 100 General Entomology</td>
<td>3</td>
</tr>
<tr>
<td>Select the remaining credits (12 hours) from:</td>
<td></td>
</tr>
<tr>
<td>ENT 110 Insect Pests of Field Crops</td>
<td>3</td>
</tr>
<tr>
<td>ENT 320 Horticultural Entomology</td>
<td>3</td>
</tr>
<tr>
<td>ENT 340 Livestock Entomology</td>
<td>2</td>
</tr>
<tr>
<td>ENT 360 Genetics</td>
<td>3</td>
</tr>
<tr>
<td>ENT 395 Independent Work</td>
<td>1-3</td>
</tr>
<tr>
<td>ENT 402 Forest Entomology</td>
<td>3</td>
</tr>
<tr>
<td>ENT 530 Integrated Pest Management</td>
<td>3</td>
</tr>
<tr>
<td>ENT 561 Insects Affecting Human and Animal Health</td>
<td>3</td>
</tr>
<tr>
<td>ENT 563 Parasitology</td>
<td>4</td>
</tr>
<tr>
<td>ENT 564 Insect Taxonomy</td>
<td>4</td>
</tr>
<tr>
<td>ENT 568 Insect Behavior</td>
<td>3</td>
</tr>
<tr>
<td>ENT 574 Advanced Applied Entomology</td>
<td>4</td>
</tr>
</tbody>
</table>

Minor in Food Science

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSC 535 Food Analysis</td>
<td>4</td>
</tr>
<tr>
<td>FSC 434G Food Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>FSC 530 Food Microbiology</td>
<td>5</td>
</tr>
<tr>
<td>FSC 536 Advanced Food Technology</td>
<td>4</td>
</tr>
<tr>
<td>FSC 538 Food Fermentation and Thermal Processing</td>
<td>4</td>
</tr>
</tbody>
</table>

**Elective Courses**

Two of the following:

FSC 306 Introduction to Food Processing | 4 |
AEN 340 Principles of Food Engineering | 4 |
FSC 535 Food Analysis | 4 |
FSC 434G Food Chemistry | 4 |
FSC 536 Advanced Food Technology | 4 |
FSC 538 Food Fermentation and Thermal Processing | 4 |

*If not taken as one of the required courses.

Minor in Pest Management

**Prequisite**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course from the following:</td>
<td></td>
</tr>
<tr>
<td>ASC 320, 404G, 406G, 420G</td>
<td>4</td>
</tr>
<tr>
<td>PLS 352, 386, 402, 408, 512, 515, 520, 525, 556</td>
<td>4</td>
</tr>
</tbody>
</table>

**Minor Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT 300 General Entomology</td>
<td>3</td>
</tr>
<tr>
<td>PLS 404 Integrated Weed Management</td>
<td>4</td>
</tr>
<tr>
<td>PPA 400 Principles of Plant Pathology</td>
<td>3</td>
</tr>
<tr>
<td>Select at least nine hours from the following:</td>
<td></td>
</tr>
<tr>
<td>ENT 310 Insect Pests of Field Crops</td>
<td>3</td>
</tr>
<tr>
<td>ENT 320 Horticultural Entomology</td>
<td>3</td>
</tr>
<tr>
<td>ENT 340 Livestock Entomology</td>
<td>2</td>
</tr>
<tr>
<td>ENT 402 Forest Entomology</td>
<td>3</td>
</tr>
<tr>
<td>ENT 530 Integrated Pest Management</td>
<td>3</td>
</tr>
<tr>
<td>ENT 574 Advanced Applied Entomology</td>
<td>4</td>
</tr>
<tr>
<td>PPA 595 Epidemiology and Control of Plant Diseases</td>
<td>4</td>
</tr>
<tr>
<td>VS 351 Principles of Animal Hygiene and Disease Control</td>
<td>3</td>
</tr>
<tr>
<td>PLS 470G Soil Nutrient Management</td>
<td>3</td>
</tr>
<tr>
<td>ASC 378 Animal Nutrition and Feeding</td>
<td>4</td>
</tr>
</tbody>
</table>

Minor in Plant and Soil Science

**Preminor 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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required:</td>
<td></td>
</tr>
<tr>
<td>PLS 104 Plants, Soils, and People: A Science Perspective</td>
<td>3</td>
</tr>
<tr>
<td>PLS/BIO 210 The Life Processes of Plants</td>
<td>3</td>
</tr>
<tr>
<td>or BIO 152 Principles of Biology II</td>
<td>3</td>
</tr>
<tr>
<td>PLS 366 Fundamentals of Soil Science</td>
<td>4</td>
</tr>
<tr>
<td>plus nine more hours of plant and soil science courses chosen from the following prefixes: PLS, PPA.</td>
<td></td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required:</td>
<td></td>
</tr>
<tr>
<td>SAG 101 Introduction to Sustainable Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>SAG 201 Cultural Perspectives on Sustainability</td>
<td>3</td>
</tr>
<tr>
<td>SAG 397 Apprenticeship in Sustainable Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>Select one from:</td>
<td></td>
</tr>
<tr>
<td>GEO 235 Environmental Management and Policy</td>
<td>3</td>
</tr>
<tr>
<td>EES 210 Habitable Planet</td>
<td>3</td>
</tr>
<tr>
<td>Evolution of the Earth System</td>
<td>3</td>
</tr>
<tr>
<td>PLS 366 Fundamentals of Soil Science</td>
<td>4</td>
</tr>
<tr>
<td>Select one from:</td>
<td></td>
</tr>
<tr>
<td>AEC 302 Agricultural Management Principles</td>
<td>4</td>
</tr>
<tr>
<td>AEC 305 Food and Agricultural Marketing Principles</td>
<td>3</td>
</tr>
<tr>
<td>AEC 445G Introduction to Resource and Environmental Economics</td>
<td>3</td>
</tr>
<tr>
<td>Select one from:</td>
<td></td>
</tr>
<tr>
<td>**SOC 360 Environmental Sociology</td>
<td>3</td>
</tr>
<tr>
<td>GEN 501 Agricultural and Environmental Ethics</td>
<td>3</td>
</tr>
<tr>
<td>*Prerequisite: CHE 105. **Prerequisite: SOC 101.</td>
<td></td>
</tr>
</tbody>
</table>

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 (e.g., Animal Science, Agricultural Biotechnology, etc.) can complete pre-vet requirements at the same time.

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 School 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 School 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 Auburn have a B.S. or B.A. degree.

An overall grade-point average of 2.50 (on a 4.0 basis) is required prior to consideration for admission to Auburn; 2.70 is required for Tuskegee. Due to the high level of competition for admission to any veterinary school, a student should maintain at least a 3.0 academic standing on all college work. The average overall GPA for students accepted to veterinary schools is approximately 3.50. All required courses must have a grade of "C" or greater.

Auburn applicants use the Veterinary Medical College Application Service (VMCAS) application. Tuskegee requires a separate application form. Additional forms are required for both schools which are available from Dr. Dwyer after June 1 of the application year.

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-veterinary 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. Dwyer. 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** ...................................... 6
History (e.g. HIS 108/109)** .......................................... 3 or 6
Social sciences electives** ............................................... 9
MA 123 Elementary Calculus and Its Applications
or MA 113 Calculus I ..................................................... 4
The above courses are waived for students with a B.S. or B.A. degree.

BIO 148 (or 150)/152 Principles of Biology I and II ...... 6
BIO 151/153 Principles of Biology Laboratory I and II** 4
CHE 105 General College Chemistry I ...................... 4
CHE 107 General College Chemistry II ................. 3
CHE 111 Laboratory to Accompany
General Chemistry I .................................................... 1
CHE 113 Laboratory to Accompany
General Chemistry II ................................................. 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
PHY 211 General Physics ............................................. 5
PHY 213 General Physics ............................................. 5
BCH 401G Fundamentals of Biochemistry .......... 3
ASC 378 Animal Nutrition and Feeding ..................... 4
or ASC 380 Feeds and Feeding ................................... 3
Science Electives**** .................................................... 6

*Consult advisor.
**Students should contact a UK pre-veterinary advisor regarding alternative courses.
***Check with pre-veterinary advisor for alternative courses.
****Science electives must be two of the following courses:
BIO 304, BIO 350 or ASC 325, BIO 308, BIO 315, BIO 542,
ASC 364, BIO 561 or BIO 563, BIO 529

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

Tuskegee’s Pre-Veterinary Curriculum

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

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 of study with specializations in nutrition, hospitality management, and human nutrition. These programs provide students with a broad foundation in the sciences and liberal arts. Students may choose to pursue a B.S. degree or a B.A. degree.

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

BIO 148 (or 150)/152 Principles of Biology I and II ...... 6
BIO 151/153 Principles of Biology Laboratory I and II** 4
CHE 105 General College Chemistry I ...................... 4
CHE 107 General College Chemistry II ..................... 3
CHE 111 Laboratory to Accompany
General Chemistry I .................................................... 1
CHE 113 Laboratory to Accompany
General Chemistry II ................................................. 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
PHY 211 General Physics ............................................. 5
PHY 213 General Physics ............................................. 5
BCH 401G Fundamentals of Biochemistry .......... 3
ASC 378 Animal Nutrition and Feeding ..................... 4
or ASC 380 Feeds and Feeding ................................... 3
Science Electives**** .................................................... 6

*Consult advisor.
**Students should contact a UK pre-veterinary advisor regarding alternative courses.
***Check with pre-veterinary advisor for alternative courses.
****Science electives must be two of the following courses:
BIO 304, BIO 350 or ASC 325, BIO 308, BIO 315, BIO 542,
ASC 364, BIO 561 or BIO 563, BIO 529

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

Tuskegee’s Pre-Veterinary Curriculum

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

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.

Undergraduate Programs in Human Environmental Sciences

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

- Bachelor of Science in Dietetics
- 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

All undergraduate programs in the School of Human Environmental Sciences are accredited by the American Association of Family and Consumer Sciences.

Additionally, all programs and facilities which 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

The School oversees the Research Center for Families and Children and the Family Center. 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 Advising Resource Office, 112 Erikson Hall, and the College of Agriculture, Food and Environment Scholarship Office, N-6 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:

Advising Resource Office
112 Erikson Hall
University of Kentucky
Lexington, KY 40506-0050
(859) 257-2855
www.ca.uky.edu/hes/

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:
www.ca.uky.edu/hes/?p=4

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 152, DHN 212, and DHN 241) 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 in the School of Human Environmental Science Advising Resource Center. 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 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.

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 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 an 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 completion of course work. Program application materials should include an application form, a letter of professional goals and qualifications, three letters of reference, and record of academic performance.

The CP Admissions Committee considers grade-point average, letter of application, work experience, honors and extracurricular activities and letters of recommendation. Students who apply to the UK DHN CP will be granted an interview where the applicant’s goals, communication skills, knowledge of the profession, and organizational and leadership skills are evaluated.
### Degree Requirements

Each student must complete the following:

1. Complete UK Core requirements.
2. Complete the School requirements listed below.
3. Complete 128 credit hours with a minimum grade-point average of 2.0.
4. Complete the required curriculum in the major program.

### School Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HES 100 An Introduction to Professions in Environmental Sciences</td>
<td>1</td>
</tr>
<tr>
<td>FAM 552 Issues in Family Sciences</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal: School required hours</strong></td>
<td><strong>4</strong></td>
</tr>
</tbody>
</table>

### 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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA 111 Introduction to Modern Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>CIS/WRD 111 Composition and Communication II</td>
<td>3</td>
</tr>
<tr>
<td>CHE 105 General College Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHE 111 Laboratory to Accompany General Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CHE 107 General College Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHE 111 Laboratory to Accompany General Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CHE 113 Laboratory to Accompany General Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHE 230 Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHE 236 Survey of Organic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CLA 131 Medical Terminology from Greek and Latin</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201 Principles of Economics I</td>
<td>3</td>
</tr>
<tr>
<td>DHN 212 Introductory Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>DHN 241 Food Service Sanitation</td>
<td>1</td>
</tr>
<tr>
<td>PGY 206 Elementary Physiology</td>
<td>2</td>
</tr>
<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>STA 210 Making Sense of Uncertainty: An Introduction to Statistical Reasoning</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal: Premajor hours</strong></td>
<td><strong>42</strong></td>
</tr>
</tbody>
</table>

### Major Requirements

Prior to beginning the major requirements, students should indicate a choice of Option A or Option B with the Advising Resources Office, 112 Erikson Hall, and the UK DHN Dietetics Program, 203 Funkhouser. Option B is a selective admissions program.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHN 301 Didactic Practice</td>
<td>2</td>
</tr>
<tr>
<td>DHN 302 Principles of Food Preparation</td>
<td>3</td>
</tr>
<tr>
<td>DHN 304 Experimental Foods</td>
<td>3</td>
</tr>
<tr>
<td>DHN 311 Nutritional Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>DHN 312 Nutrition and Wellness in the Life Cycle</td>
<td>3</td>
</tr>
<tr>
<td>DHN 340 Institutional Purchasing</td>
<td>3</td>
</tr>
<tr>
<td>DHN 342 Quality Food Production</td>
<td>4</td>
</tr>
<tr>
<td>DHN 346 Human Resources Management for the Food and Hospitality Industries</td>
<td></td>
</tr>
<tr>
<td>MGT 301 Business Management</td>
<td>3</td>
</tr>
<tr>
<td>DHN 374 Research and Writing in Dietetics</td>
<td>3</td>
</tr>
<tr>
<td>DHN 403 Community Nutrition and Wellness</td>
<td>3</td>
</tr>
<tr>
<td>DHN 409G Seminar in Dietetics and Human Nutrition</td>
<td>1</td>
</tr>
<tr>
<td>DHN 510 Advanced Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>DHN 512 Medical Nutrition Therapy I</td>
<td>4</td>
</tr>
<tr>
<td>DHN 514 Dietetics: Counseling and Communication Theories and Applications</td>
<td>3</td>
</tr>
<tr>
<td>DHN 517 Medical Nutrition Therapy II</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal: Major hours</strong></td>
<td><strong>44</strong></td>
</tr>
</tbody>
</table>

### Option Requirements

One option must be completed concurrently with the major requirements stated above.

#### OPTIONS

**Option A – Didactic Program in Dietetics (DPD)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHN 480 Dietetics Pre-Professional Practice</td>
<td>1-6</td>
</tr>
<tr>
<td><strong>Subtotal: Option A</strong></td>
<td><strong>1-6</strong></td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHN 800 Nutrition in the Life Cycle: Pracicum*</td>
<td>1</td>
</tr>
<tr>
<td>DHN 808 Community Nutrition II: Supervised Practice*</td>
<td>2</td>
</tr>
<tr>
<td>DHN 810 Medical Nutrition Therapy I: Supervised Practice*</td>
<td>5</td>
</tr>
<tr>
<td>DHN 812 Food Service Systems Management: Supervised Practice*</td>
<td>5</td>
</tr>
<tr>
<td>DHN 814 Food Service Systems Management II: Supervised Practice*</td>
<td>3</td>
</tr>
<tr>
<td>DHN 816 Medical Nutrition Therapy II: Supervised Practice*</td>
<td>2</td>
</tr>
<tr>
<td>DHN 518 Evaluation of Dietetic Issues and Leadership</td>
<td>2</td>
</tr>
<tr>
<td><strong>Subtotal: Option B</strong></td>
<td><strong>21</strong></td>
</tr>
</tbody>
</table>

### 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                                   | **1-6** |
| Subtotal: Elective hours Option B                                  | **21**  |
| **TOTAL HOURS: Option A**                                          | **128** |
| **Subtotal: Elective hours Option B**                              | **137** |
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 the School requirements listed below.
3. Complete 120 credit hours with a minimum grade-point average of 2.0.
4. Complete the required curriculum in the major program.

School Requirements

HES 100 An Introduction to Professions in Human Environmental Sciences .......................... 1
FAM 352 Issues in Family Sciences ....................................... 3

Subtotal: School Required hours .............................. 4

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 Laboratory to Accompany General Chemistry I .................................................. 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 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 .................................................. 34

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

Graduation Composition and Communication Requirement hours (GCCCR) .................... 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 Laboratory to Accompany
   General Chemistry I ............................................ 1
CHE 113 Laboratory to Accompany
   General Chemistry II ........................................... 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 291 Statistical Methods ...................................... 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
PGY 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 304 Experimental Foods ....................................... 3
DHN 311 Nutritional Biochemistry ............................... 3
DHN 312 Nutrition and Wellness in the Life Cycle ......... 3
DHN 313 Nutrition Issues in Physical Activity ............... 3
DHN 403 Community Nutrition and Wellness ............... 3
DHN 408G Seminar in Dieties and Human Nutrition ........ 1
DHN 474 Research in Nutrition: Theory ....................... 3
DHN 475 Research in Nutrition: Application ............... 3
PH 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 ............................................. 35

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

DEPARTMENT OF FAMILY SCIENCES

The Department of Family Sciences is committed to offering quality programs for students preparing to work with individuals and families in various settings including schools, private and public social agencies, and business. The focus is on enhancing the quality of life for families. Undergraduate programming is at an applied level using an interdisciplinary approach from the perspectives of individual and family development, family resource management, and family systems.

The department offers a major in family sciences. Students in the family sciences major earn the degree Bachelor of Science in Family Sciences. A minor in family sciences is available.

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.

Visit us on the Web at:
www.ca.uky.edu/hes/?p=2

BACHELOR OF SCIENCE IN FAMILY SCIENCES

Each student must complete the following:

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

School Requirements

HES 100 An Introduction to Professions in Human Environmental Sciences .......................... 1
FAM 352 Issues in Family Sciences ....................................... 3

Subtotal: School Required hours .............................. 4

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 Laboratory to Accompany General Chemistry I .................................................. 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

MA 113 Calculus I .................................................... 4
III. Intellectual Inquiry in the Social Sciences
PSY 100 Introduction to Psychology or
SOC 101 Introduction to Sociology ......................... 3-4

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 Introductory Logic ........................................... 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 ................................................................ 30-31

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

COM 252 Introduction to Interpersonal Communication (GWR) ..................... 3
PHI 120 Introductory Logic ............................................. 3

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 357 Adolescent Development ............................... 3
FAM 360 Introduction to Family Intervention:
Working With Families and Individuals ........................ 3
FAM 390 Introduction to Research Methods ..................... 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
or
FAM 354 The Family in Cross-Cultural Perspective ....... 3

Subtotal: Major hours ............................................. 27

Professional Support
In addition to the major requirements, each student in consultation with his or her academic advisor will select a minimum of 18-21 credits in course work in a university-recognized minor. At least 12 of these hours must be at the 300 level or above. A minor is a structured group of courses that leads to considerable knowledge and understanding of a subject. Suggested minors include Psychology, Sociology, Gender and Women’s Studies, Anthropology, Economics, Political Science, Appalachian Studies, Business, Communication, Health Promotion, Human Nutrition, Community and Leadership Development, etc.

Students must contact the department responsible for the minor program for guidance and advising.

Subtotal: Professional Support hours ........................................ 18-21

Electives
Electives at the 300 level or above to reach 120 credits including sufficient credits to reach 45 hours at the 300 level or above. Work with an advisor to select additional FAM classes if available.

Subtotal: Electives ....................................................... 6
TOTAL HOURS: ................................................................ 120

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 ......................... 3
FAM 254 Life Course Human Development ...................... 3
FAM 352 Issues in Family Sciences ............................... 3
Plus twelve additional hours in family sciences with at least six 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: www.ca.uky.edu/hes/?p=3

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: www2.ca.uky.edu/HES/index.php?p=997

Entrance Requirement
The minimum grade-point average for entrance of all students into the Hospitality Management and Tourism program is 2.30.

Progression Requirement
In addition, students must have completed the following premajor courses with a grade of C or better in order to progress to courses which are major requirements: CS 101, ACC 201, ACC 202, ECO 201, ECO 202, HMT 120, HMT 210, DHN 241, and HMT 270.

Graduation Requirement
Students must fulfill all prerequisites and achieve a grade of C or better in all DHN and HMT courses which are major requirements.

Each student must complete the following:
1. Complete UK Core requirements.
2. Complete the School requirements listed below.
3. Complete 128 credit hours with a minimum grade-point average of 2.0.
4. Complete the required curriculum in the major program.

School Requirements
HES 100 An Introduction to Professions in Human Environmental Sciences .................. 1
FAM 352 Issues in Family Sciences ......................... 3

Subtotal: School Required hours ......................... 4
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 ......... 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
Choose one course from approved list .............................. 3

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

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

Graduation Composition and Communication Requirement (GCCR)
RTM 425 Human Resource Management ........................ 3

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

Premajor Requirements
Two semesters of a single foreign language ................. 6-8

Diversity Requirements
ANT 140 Cultural Diversity in the Modern World ......... 3
plus one of the following courses:
ANT 220 Introduction to Cultural Anthropology .............. 3
ANT 324 Contemporary Latin American Cultures .......... 3
ANT 327 Culture and Societies of India and South Asia .... 3
AAS 200 Introduction to African-American Studies ......... 3
GWS 200 Sex and Power .............................................. 3

CS 101 Introduction to Computing I ............................... 3
ACC 201 Financial Accounting I .................................. 3
ACC 202 Managerial Uses of Accounting Information .... 3
ECON 201 Principles of Economics I ......................... 3
ECON 202 Principles of Economics II ......................... 3
WRD 203 Business Writing ....................................... 3

HMT 120 Introduction to Hospitality Management and Tourism .................................. 3
HMT 210 Hotel Rooms Division Management .......... 3
HMT 270 Principles of Travel and Tourism ............. 3
MA 123 Elementary Calculus and Its Applications (prerequisite for STA 291) .... 3

STA 291 Statistical Methods ....................................... 3
DHN 241 Food Service Sanitation ................................ 1

Subtotal: Premajor hours ........................................... 47-49

Major Requirements
Required:
HMT 308 Principles of Food and Beverage .......... or
DHN 302 Principles of Food Preparation ................. 3

HMT 345 Information Technology in the Hospitality Industry ... 3
HMT 350 Hospitality Managerial Accounting .......... 3
HMT 499 Hospitality and Tourism Internship .......... 3
DHN 342 Quantity Food Production ....................... 4
FIN 300 Corporation Finance ................................... 3
MGT 301 Business Management ............................ 3
MKT 300 Marketing Management ......................... 3

Subtotal: Major core hours ........................................ 25

Plus at least 15 hours selected from the following courses:

HMT 340 Institutional Purchasing ............................. 3
DHN 346 Human Resources Management for the Food and Hospitality Industries ............. 3
HMT 320 Hospitality and Tourism Marketing .......... 3
HMT 330 Meetings and Convention Management ....... 3
HMT 360 Tourism Planning and Development .......... 3
HMT 560 Advanced Seminar in Lodging and Tourism ......................................................... 1-3
HMT 470 Hospitality and Tourism Law and Ethics .... 3
HMT 580 Trends Analysis for the Hospitality Industry ......................................................... 3
HMT 588 Strategic Management in the Hospitality and Food Service Industry .......... 3
HMT 359 Hospitality and Tourism Special Topics:
Subtitle required ...................................................... 1-3
HMT 395 Hospitality and Tourism Independent Study ......................................................... 1-3

Subtotal: Major Selection ........................................... 15

Electives
Electives should be selected by the student to lead to the minimum total of 128 hours required for graduation.

Subtotal: Minimum Elective hours .................................. 12

TOTAL HOURS: .......................................................... 128

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:

wv2.ca.uky.edu/thes/index.php?p=1100

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

School Requirements
HES 100 An Introduction to Professions in Human Environmental Sciences ...................... 1
FAM 352 Issues in Family Sciences ..................... 3

Subtotal: School required hours .............................. 4

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
Recommended:
MA 123 Elementary Calculus and Its 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
Choose one course from approved list ......................... 3

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

UK Core hours ......................................................... 32

Graduation Composition and Communication Requirement (GCCR)
RTM 425 Human Resource Management ........................ 3

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

MAT majors and transfer students must obtain or have received a C or better in ALL premajor, professional support and MAT major required courses. No letter grade of a D would be accepted in the premajor, professional support and MAT major required courses.

Premajor Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing course (200 level or above)</td>
<td>3</td>
</tr>
<tr>
<td>FAM 350 Consumer Issues</td>
<td>3</td>
</tr>
<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</td>
<td>3</td>
</tr>
</tbody>
</table>

Subtotal: Premajor hours ........................................... 22

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 340 Professional Practice</td>
<td>1</td>
</tr>
<tr>
<td>MAT 414 Merchandising Strategy Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MAT 425 Economics of Merchandise Sourcing</td>
<td>3</td>
</tr>
<tr>
<td>MAT 470 International Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>MAT 490 Internship</td>
<td>6</td>
</tr>
<tr>
<td>RTM 345 Service Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose 6 credits from:

- MAT 359 Special Topic in Merchandising, Apparel and Textiles (Subtitle required) | 3 |
- MAT 395 Independent Study in Merchandising, Apparel and Textiles | 3 |
- MAT 480 Merchandising, Apparel and Textiles Study Tour | 3 |
- MAT 515 Specification and Evaluation of Textiles and Apparel | 3 |
- MAT 520 Textiles for Interiors | 3 |
- MAT 522 History of Textiles | 3 |
- MAT 533 History of Costume | 3 |
- MAT 547 Social and Psychological Aspects of Apparel | 3 |
- MAT 559 Special Topic in Merchandising, Apparel and Textiles (Subtitle required) | 3 |
- MAT 570 Electronic Retailing (E-Tailing) | 3 |
- MAT 595 Independent Study in Merchandising, Apparel and Textiles | 3 |

Subtotal: Major hours ........................................... 40

Professional Support

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</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>MKT 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 six 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></td>
</tr>
</tbody>
</table>

Subtotal: Professional Support ........................................... 21

Electives

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

Subtotal: Minimum Elective hours ........................................... 10

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