

# College of Agriculture and School of Human Environmental Sciences

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The research, teaching, extension, and regulatory functions of the College of Agriculture 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.

Degree and study programs in the college run 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 studies.

On July 1, 2003, the School of Human Environmental Sciences joined the College of Agriculture. Degree requirements and information pertaining to these programs are listed beginning on page 110.

## Admission

All students planning to study any phase of agriculture or human environmental sciences, including pre-veterinary medicine, are admitted directly into the College of Agriculture. 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.

## Accreditation

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

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

## Undergraduate Programs in Agriculture

The University of Kentucky grants the following degrees in the College of Agriculture:

- 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 Equine Science and Management
- Bachelor of Science in Food Science
- Bachelor of Science in Forestry
- Bachelor of Science in Horticulture, Plant and Soil Sciences
- Bachelor of Science in Landscape Architecture
- Bachelor of Science in Natural Resources and Environmental Science

Information on each major program (premajor, major, and specialty support course requirements) follows. Students may obtain additional information on programs and recommended plans of study from the Office of Academic Programs.

Also available to students are minors in agricultural economics, community and leadership development, animal sciences, entomology, food science, pest management, plant and soil science, rural sociology,\* 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 pages 110-111 of this Bulletin for the list of degrees offered through the School of Human Environmental Sciences.

*\*At the time of publication, the minor in rural sociology was in the process of being suspended. Consult your advisor for more information.*

## 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:

**Fall** Feb. 1

## Undeclared Majors

Students who are interested in the College of Agriculture or School of Human Environmental Sciences but are undecided about a major should work closely with advisors in the College of Agriculture. With careful course selection, students can work toward fulfilling general requirements while exploring the various areas of study in agriculture, natural resources, and human environmental sciences.

## Scholarships and Financial Aid

The College of Agriculture 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 research program in agriculture. Information about scholarships and work opportunities is available in the Office of Academic Programs.

Freshman scholarship applications are due **January 15**. Upperclass and transfer scholarship applications are due **April 1**. For more information go to: [www2.ca.uky.edu/Academics](http://www2.ca.uky.edu/Academics).

## Academic Advising

Students in the College of Agriculture are advised by selected faculty in the department of the student's major. Each student's academic plan and records is maintained in the Office of Academic Programs, N8 Ag. Science Building – North, and in the Advising Resource Office, School of Human Environmental Sciences, 112 Erikson Hall. Students needing assistance selecting an advisor or general information about academics may come to the Office of Academic Programs or the School of Human Environmental Sciences Advising Resource Office.

Inquiries about programs or majors within the College of Agriculture may be directed to:

**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 offers the Master of Science degree in all college departments.

Doctor of Philosophy degrees are offered in the following areas: agricultural economics, animal sciences, biosystems and agricultural engineering, crop science, entomology, family studies, plant pathology, plant physiology, sociology, soil science, and veterinary science. For more information, visit the Graduate School web site at: [www.research.uky.edu/gsl/](http://www.research.uky.edu/gsl/).

**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 must complete:

1. the UK Core and University graduation requirements;
2. GEN 100: Issues in Agriculture, except for students who enter the College after having already completed the U.S. Citizenship requirement of the UK Core;
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.

The procedure for entering an individualized program is as follows:

1. Each student must apply to the Associate Dean for Academic Programs. 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 individual program option.

For more information, contact:

**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.

**Plan of Study**

As an agricultural biotechnology major you are required to develop an acceptable **Plan of Study** during your sophomore year for your junior and senior years. The plan must be signed by your advisor and returned to the Office of Academic Programs.

If you are an upper division transfer student (from another university or from another UK college or department) then you will submit your plan during the first semester you are enrolled in the program.

Consult your academic advisor in developing your Plan of Study.

**College Required Hours**

GEN 100 Issues in Agriculture .....	3
<b>Subtotal: College Required Hours .....</b>	<b>3</b>

**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.

<b>I. Intellectual Inquiry in Arts and Creativity</b>	
Choose one course from approved list .....	3
<b>II. Intellectual Inquiry in the Humanities</b>	
Choose one course from approved list .....	3
<b>III. Intellectual Inquiry in the Social Sciences</b>	
Choose one course from approved list .....	3
<b>IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences</b>	
CHE 105 General College Chemistry I .....	4
CHE 111 Laboratory to Accompany General Chemistry I .....	1
<b>V. Composition and Communication I</b>	
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 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 ..... 3

**X. Global Dynamics**

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

**UK Core Hours** ..... **33****Premajor Requirements****Hours**

BIO 150 Principles of Biology I ..... 3

BIO 151 Principles of Biology Laboratory I ..... 2

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

BIO 153 Principles of Biology Laboratory II ..... 2

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 **and**

MA 132 Calculus for the Life Sciences ..... 7

or

MA 113 Calculus I ..... 4

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** ..... **42-45****Major Requirements****Hours****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/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 291 Statistical Methods

or

STA 570 Basic Statistical Analysis

or

STA 580 Biostatistics I ..... 3-4

**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

All students are expected to undertake an independent study project in an area of their interest for a minimum of 3 credit hours. This requirement can be met by a research project or an internship that is agreed upon by a student's advisor and approved by the Biotechnology Coordinating Committee prior to initiation of the project. Both written and oral reports are required when the project is completed.

**Subtotal: Major Hours** ..... **31-33**

\*The combination of ABT 201 and ABT 301 may be used to satisfy the University Writing Requirement.

**Specialty Support****Hours**

Students must take a minimum of 21 credit hours of specialty support courses including at least one of the courses listed below. A number of the courses listed here may have additional prerequisites. Additional specialty support courses will be selected according to the student's area of interest with approval of the academic advisor.

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

BIO 315 Introduction to Cell Biology ..... 4

BIO 350 Animal Physiology ..... 4

BIO/PGY 502 Principles of Systems,

Cellular and Molecular Physiology ..... 5

**Subtotal: Specialty Support Hours** ..... **21****Electives**

Electives should be selected to complete the 128 hours required for graduation.

**Subtotal: Electives** ..... **minimum of 4****TOTAL HOURS:** ..... **128**

## 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.

**Plan of Study**

As an agricultural economics major you are required to develop an acceptable **Plan of Study** in your chosen area of emphasis for your junior and senior years. The plan must be signed by your advisor and returned to the Office of Academic Programs.

If you are an upper division transfer student (from another university or from another UK college or department) then you will submit your plan for approval during the first semester you are enrolled in the department.

Consult your academic advisor in developing your Plan of Study.

**College Required Hours**

GEN 100 Issues in Agriculture ..... 3

**Subtotal: College Required Hours** ..... **3****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

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 ..... 3

**X. Global Dynamics**

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

**UK Core Hours** ..... **31**

**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.

<b>Premajor Requirements</b>	<b>Hours</b>
ECO 201 Principles of Economics I .....	3
ECO 202 Principles of Economics II .....	3
MA 113 Calculus I .....	4
<b>OR</b>	
MA 123 Elementary Calculus and Its Applications and	
MA 162 Finite Mathematics and Its Applications .....	7
STA 291 Statistical Methods .....	3
ECO 391 Economic and Business Statistics .....	3
*WRD 203 Business Writing .....	3
<b>Subtotal: Premajor Hours</b> .....	<b>19-22</b>

\*May be used to satisfy the University Writing Requirement.

<b>Major Requirements</b>	<b>Hours</b>
<b>Note:</b> 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
<b>plus</b> 12 additional hours in the major .....	12
<b>Subtotal: Major Hours</b> .....	<b>25</b>

<b>Specialty Support</b>	<b>Hours</b>
ACC 201 Financial Accounting I .....	3
ACC 202 Managerial Uses of Accounting Information .....	3
<b>plus</b> 15 additional hours of courses at the 200 level or higher to fulfill the student's area of interest and selected with advisor's approval from the following departments: ACC, AEN, AN, ASC, BAE, COM, CS, ECO, ENT, FIN, FOR, MA, MGT, MKT, PLS, PS, PSY, SOC, VS .....	15
<b>Subtotal: Specialty Support Hours</b> .....	<b>21</b>

<b>Electives</b>	<b>Hours</b>
Electives should be selected by the student to lead to the minimum total of 120 hours required for graduation.	
<b>Subtotal: Electives</b> .....	<b>minimum of 23</b>
<b>TOTAL HOURS:</b> .....	<b>120</b>

**Option B: Agribusiness Management and Food Marketing**

A student in this option should be qualified for careers in marketing, sales, and management of farms or firms involved in production, financing, processing, marketing and distribution of food and agricultural products, depending on the electives chosen.

<b>Premajor Requirements</b>	<b>Hours</b>
CS 101 Introduction to Computing I .....	3
ECO 201 Principles of Economics I .....	3
ECO 202 Principles of Economics II .....	3
ECO 391 Economic and Business Statistics .....	3
MA 113 Calculus I .....	4
<b>OR</b>	
MA 123 Elementary Calculus and Its Applications and	

MA 162 Finite Mathematics and Its Applications .....	7
STA 291 Statistical Methods .....	3
*WRD 203 Business Writing .....	3

**Subtotal: Premajor Hours** .....

\*May be used to satisfy the University Writing Requirement.

**Major Requirements** **Hours**  
**Note:** 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 422 Agribusiness Management .....	3
<b>plus</b> 12 additional hours in the major .....	12
<b>Subtotal: Major Hours</b> .....	<b>25</b>

<b>Specialty Support</b>	<b>Hours</b>
ACC 201 Financial Accounting I .....	3
ACC 202 Managerial Uses of Accounting Information .....	3
<b>plus</b> completion of the requirements of a minor in Business, plus 3 additional hours of courses at the 200 level or higher selected with advisor's approval from the following departments: ACC, AEN, AN, ASC, BAE, COM, CS, ECO, ENT, FIN, FOR, MA, MGT, MKT, PLS, PS, PSY, SOC, VS ...	15
<b>Subtotal: Specialty Support Hours</b> .....	<b>21</b>

<b>Electives</b>	<b>Hours</b>
Electives should be selected by the student to lead to the minimum total of 120 hours required for graduation.	
<b>Subtotal: Electives</b> .....	<b>minimum of 23</b>
<b>TOTAL HOURS:</b> .....	<b>120</b>

**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.

**Plan of Study**

As an animal sciences major you are required to develop an acceptable **Plan of Study** during your sophomore year for your junior and senior years. The plan must be signed by your advisor and returned to the Office of Academic Programs.

If you are an upper division transfer student (from another university or from another UK college or department) then you will submit your plan during the first semester you are enrolled in the program. Consult your academic advisor in developing your Plan of Study.

Each student must complete the following:

**College Required Hours**

GEN 100 Issues in Agriculture .....	3
<b>Subtotal: College Required Hours</b> .....	<b>3</b>

**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 113 Calculus I ..... 4

**VIII. Statistical Inferential Reasoning**

Recommended:

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

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

GEN 100 Issues in Agriculture ..... 3

**X. Global Dynamics**

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

**UK Core Hours** ..... **33**

**Premajor Requirements**

MA 123 Elementary Calculus and Its Applications

or

MA 113 Calculus I ..... 4

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

\*WRD 203 Business Writing ..... 3

**Subtotal: Premajor Hours** ..... **23**

*\*Satisfies the Graduation Writing Requirement.*

**Major Requirements**

ASC 101 Domestic Animal Biology ..... 3

ASC 102 Applications of Animal Science ..... 3

ASC 205 Livestock, People and Their Interactions ..... 1

ASC 325 Animal Physiology ..... 3

ASC 362 Animal Genetics ..... 4

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

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

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

plus at least **three** of the following courses:

ASC 340 Poultry Production ..... 2

ASC 404G Sheep Science ..... 4

ASC 406 Beef Cattle Science ..... 4

ASC 408G Swine Production ..... 2

ASC 410G Equine Science ..... 3

ASC 420G Dairy Cattle Science ..... 3

**Subtotal: Major Hours** ..... **32-36**

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

**Option A: Animal Industry**

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

**No Specialization**

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

**Livestock Specialization**

ASC 300 Meat Science ..... 4

and at least **two** from:

ASC 340 Poultry Production ..... 2

ASC 404G Sheep Science ..... 4

ASC 406 Beef Cattle Science ..... 4

ASC 408G Swine Production ..... 2

**Equine Specialization**

ASC 310 Equine Anatomy and Conformation ..... 2

ASC 320 Equine Management ..... 3

ASC 410G Equine Science ..... 3

**Dairy Specialization**

ASC 420G Dairy Cattle Science ..... 3

ASC 564 Milk Secretion ..... 3

**Subtotal: Option A Hours** ..... **0-5**

**Option B: Food Industry**

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

ASC 300 Meat Science ..... 4

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

**Subtotal: Option B Hours** ..... **7**

**Option C: Pre-Professional**

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

**Specialty Support****Animal Industry Option**

CHE 230 Organic Chemistry I

or

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

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

**Food Industry Option**

CHE 230 Organic Chemistry I

or

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

FSC 304 Animal Derived Foods ..... 5

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

**Pre-Professional Option\***

BIO 304 Principles of Genetics

or

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

CHE 230/231 Organic Chemistry

and Laboratory I ..... 4

CHE 232/233 Organic Chemistry

and Laboratory II ..... 4

PHY 211 General Physics ..... 5

PHY 213 General Physics ..... 5

\*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** ..... **18-23**

**Electives**

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

**Subtotal: Electives** ..... **minimum of 19**

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

**BACHELOR OF SCIENCE IN BIOSYSTEMS ENGINEERING**

The Biosystems Engineering curriculum is administered jointly by the College of Agriculture and the College of Engineering. Biosystems Engineering provides an essential link between the biological sciences and the engineering profession. This linkage is necessary for the development of food and fiber production and processing systems which preserve our natural resource base. Students in the biosystems engineering program can pursue one of four areas of specialization: Bioenvironmental Engineering, Food and Bioprocess Engineering, Machine Systems Automation Engineering and Thermal Environmental Engineering.

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

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

The Career and Technical Education degree involves Agricultural Education and Family and Consumer Sciences Education. Students take courses in technical education and professional content.

Graduates of this degree pursue careers in both formal and informal education of agriculture or family and consumer sciences. 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.

Students choose one of two options – Option A: Agricultural Education; or Option B: Family and Consumer Sciences Education. In addition to receiving the degree, graduates also attain Rank III teaching certification in Agricultural Education (Option A) or a Rank III teaching certification in Family and Consumer Sciences Education (Option B).

Both options lead to the Bachelor of Science in Career and Technical 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 or family and consumer sciences 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 Exit from Teacher Education Programs” on pages 196-197 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 Career and Technical Education, the student must have a minimum of 120 credit hours with at least a 2.75 grade-point average (required for Teacher Certification). 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.

**Plan of Study**

As a career and technical education major you are required to develop an acceptable **Plan of Study** during your sophomore year for your junior and senior years. The plan must be signed by your advisor and returned to the Office of Academic Programs.

If you are an upper division transfer student (from another university or from another UK college or department) then you will submit your

plan during the first semester you are enrolled in the program.

Students must complete the following:

**College Required Hours**

Agricultural Education option students complete the following:

GEN 100 Issues in Agriculture ..... 3

Family and Consumer Sciences Education option students complete the following:

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

**Subtotal: College Required Hours ..... 3-4**

**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**  
 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 ..... 3

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

**UK Core Hours ..... 30**

**Major Requirements Hours**

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 Adolescent Development ..... 3

**Oral Communication for Family and Consumer Sciences Education Option**

COM 181 Basic Public Speaking  
 or  
 COM 252 Introduction to Interpersonal Communication ..... 3  
**Subtotal: Major-Required Hours ..... 36-39**

In addition to the Major Requirements, students choose **one** of two options.

**OPTIONS**

**Option A: Agricultural Education**

**Option Requirements Hours**  
 \*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  
 or  
 PLS 386 Plant Production Systems ..... 3-4  
 \*\*PLS 366 Fundamentals of Soil Science ..... 4  
**Subtotal: Option A 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 in consultation with your advisor.

**Subtotal: Option A Specialty Support ..... 24**

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

**Option B: Family and Consumer Sciences Education**

**NOTE:** At the time of publication, the Family and Consumer Sciences Education Option was in the process of being suspended.

**Option Requirements Hours**  
 FAM 251 Personal and Family Finance ..... 3  
 FAM 253 Human Sexuality: Development, Behavior and Attitudes ..... 3  
 FAM 352 Issues in Family Sciences ..... 3  
 IEC 255 Child Development ..... 3  
 IEC 256 Guidance Strategies for Working with Young Children ..... 3  
 FCS 350 Design Issues for Family and Consumer Sciences Educators ..... 3  
 MAT 120 Textiles for Consumers ..... 3  
 NFS/DHN 101 Human Nutrition and Wellness ..... 3  
 NFS/DHN 241 Food Service Sanitation ..... 1  
 NFS/DHN 302 Principles of Food Preparation ..... 3  
 PSY 100 Introduction to Psychology ..... 4  
**Subtotal: Option B Hours ..... 32**

**Specialty Support Requirements**

In consultation with their advisor, select **five** courses from the following list:

CLD 401 Principles of Cooperative Extension .....	3
FAM 360 Introduction to Family Intervention: Working with Families and Individuals .....	3
FAM 473 Family Life Education .....	3
FAM 544 Cultural Diversity in American Children and Families .....	3
FAM 553 Parent-Child Relationships Across the Lifecourse .....	3
FAM 554 Working with Parents .....	3
FAM 563 Families, Legislation and Public Policy .....	3

**Subtotal: Option B Specialty Support ..... 15**

**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.

**Plan of Study**

As a community communications and leadership development major you are required to develop an acceptable **Plan of Study** during your sophomore year for your junior and senior years. The plan must be signed by your advisor and returned to the Office of the Associate Dean for Academic Programs.

If you are an upper division transfer student (from another university or from another UK college or department) then you will submit your plan during the first semester you are enrolled in the program.

Students must complete the following:

**College Required Hours**

GEN 100 Issues in Agriculture .....	3
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**Subtotal: College Required Hours ..... 3**

**UK Core Requirements**

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

The UK Core courses listed below are **recommended** by the College to fulfill each area.

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

Choose **one** of the following:

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

**II. Intellectual Inquiry in the Humanities**

Choose **one** of the following:

EGR 201 Literature, Technology, and Culture	
ENG 230 Introduction to Literature	
ENG 264 Major Black Writers	
GWS 201 Introduction to Gender and Women's Studies in the Arts and Humanities	
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
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**IV. Intellectual Inquiry in the Natural, Physical,  
and Mathematical Sciences**

Choose **one** of the following:

PLS 104 Plants, Soils, and People: A Science Perspective	
ANT 230 Introduction to Biological Anthropology	
BIO 102 Human Ecology	
GEO 130 Earth's Physical Environment	
GEO 135 Global Climate Change	
GLY/EES 120 Sustainable Planet: The Geology of Natural Resources .....	3

**V. Composition and Communication I**

CIS/WRD 110 Composition and Communication I .....	3
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**VI. Composition and Communication II**

CIS/WRD 111 Composition and Communication II .....	3
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**VII. Quantitative Foundations**

MA 111 Introduction to Contemporary Mathematics or MA 123 Elementary Calculus and Its Applications ....	3-4
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**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
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**IX. Community, Culture and Citizenship in the USA**

CLD 360 Environmental Sociology or GEN 100 Issues in Agriculture .....	3
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**X. Global Dynamics**

CLD 380 Globalization: A Cross-Cultural Perspective .....	3
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**UK Core Hours ..... 30-36**

**Graduation Writing Requirement**

CLD 250 Reading Critically and Writing Well: Community Communications and Leadership Development or other approved GWR course .....	3
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**Graduation Writing Requirement Hours: ..... 3**

**Premajor Requirements**

**Hours**

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**

**Hours**

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 <b>18 hours</b> 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 Contemporary Adult Learning .....	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 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 by selecting either the equine science option or the equine management option.

The equine science option is for students who have a primary interest in horse production. The equine management option is designed for students who are interested in the business aspect of 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.

### Plan of Study

As an equine science and management major you are required to develop an acceptable **Plan of Study** during your sophomore year for your junior and senior years. The plan must be signed by your advisor and returned to the Office of the Associate Dean for Academic Programs.

If you are an upper division transfer student (from another university or from another UK college or department) then you will submit your plan during the first semester you are enrolled in the program.

Students must complete the following:

### College Required Hours

GEN 100 Issues in Agriculture .....	3
<b>Subtotal: College Required Hours .....</b>	<b>3</b>

### 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
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#### II. Intellectual Inquiry in the Humanities

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

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

*CHE 105 General College Chemistry I .....	4
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*CHE 111 Laboratory to Accompany General Chemistry I .....	1
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#### V. Composition and Communication I

CIS/WRD 110 Composition and Communication I .....	3
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#### VI. Composition and Communication II

CIS/WRD 111 Composition and Communication II .....	3
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#### VII. Quantitative Foundations

MA 123 Elementary Calculus and Its Applications or MA 113 Calculus I .....	4
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#### VIII. Statistical Inferential Reasoning

STA 210 Making Sense of Uncertainty: An Introduction to Statistical Reasoning .....	3
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#### IX. Community, Culture and Citizenship in the USA

GEN 100 Issues in Agriculture .....	3
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#### X. Global Dynamics

Choose one course from approved list .....	3
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### UK Core Hours .....

**32**  
*\*CHE 105/111 are part of the premajor requirement for Option A: Equine Science. Students pursuing Option B: Equine Management should choose from the approved list of courses to fulfill this area.*

### Option A: Equine Science

#### Premajor Requirements

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
ECO 201 Principles of Economics I .....	3
MA 123 Elementary Calculus and Its Applications or MA 113 Calculus I .....	4
<b>Subtotal: Premajor Hours .....</b>	<b>23</b>

#### Major Requirements

ASC 101 Domestic Animal Biology .....	3
EQM 101 Introduction to the Horse and the Horse Industry .....	2
EQM 105 Equine Behavior and Handling .....	2
ASC 310 Equine Anatomy and Conformation .....	2
ASC 320 Equine Management .....	3

EQM 351 Equine Health and Diseases .....	3
EQM 399 Equine Science and Management Internship .....	3
ASC 410G Equine Science .....	3
EQM 490 Capstone in Equine Science and Management .....	3
AEC 302 Agricultural Management Principles .....	4
<b>Subtotal: Major Hours .....</b>	<b>28</b>

### Option A Hours

CHE 236 Survey of Organic Chemistry .....	3
ASC 325 Animal Physiology .....	3
ASC 364 Reproductive Physiology of Farm Animals ....	4
ASC 378 Animal Nutrition and Feeding .....	4
PLS 366 Fundamentals of Soil Science .....	4
PLS 510 Forage Management and Utilization .....	3
<b>Subtotal: Option A Hours .....</b>	<b>21</b>

### Specialty Support Requirement

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

**Subtotal: Option A 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 4

**Total Minimum Hours for Program .....** 120

### Option B: Equine Management

#### Premajor Requirements

BIO 150 Principles of Biology I .....	3
BIO 152 Principles of Biology II .....	3
*CHE 104 Introductory General Chemistry .....	3
*CHE 106 Introduction to Inorganic, Organic and Biochemistry .....	4
ECO 201 Principles of Economics I .....	3
MA 123 Elementary Calculus and Its Applications or MA 113 Calculus I .....	4
<b>Subtotal: Premajor Hours .....</b>	<b>20</b>

*\*This sequence of chemistry courses will not satisfy requirements for admission to Veterinary School. Consult your advisor for more details.*

#### Major Requirements

ASC 101 Domestic Animal Biology .....	3
EQM 101 Introduction to the Horse and the Horse Industry .....	2
EQM 105 Equine Behavior and Handling .....	2
ASC 310 Equine Anatomy and Conformation .....	2
ASC 320 Equine Management .....	3
EQM 351 Equine Health and Diseases .....	3
EQM 399 Equine Science and Management Internship .....	3
ASC 410G Equine Science .....	3
EQM 490 Capstone in Equine Science and Management .....	3
AEC 302 Agricultural Management Principles .....	4
<b>Subtotal: Major Hours .....</b>	<b>28</b>



**Option B Hours**

STA 291 Statistical Methods .....	3
ACC 201 Financial Accounting I .....	3
ECO 202 Principles of Economics II .....	3
MKT 300 Marketing Management .....	3
AEC 305 Food and Agricultural Marketing Principles .....	3
AEC 320 Agriculture Product Marketing and Sales .....	3
HMT 320 Hospitality and Tourism Marketing .....	3
<b>Subtotal: Option B Hours .....</b>	<b>21</b>

**Specialty Support Requirement**

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

**Subtotal: Option B 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 4

**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.

**Plan of Study**

As a food science major you are required to develop an acceptable **Plan of Study** during your sophomore year for your junior and senior years. The plan must be signed by your advisor and returned to the Office of Academic Programs.

If you are an upper division transfer student (from another university or from another UK college or department) then you will submit your plan during the first semester you are enrolled in the program.

Consult your academic advisor in developing your Plan of Study.

Each student must complete the following:

**College Required Hours**

GEN 100 Issues in Agriculture .....	3
<b>Subtotal: College Required Hours .....</b>	<b>3</b>

**UK Core Requirements**

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

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

Choose one course from approved list .....

**II. Intellectual Inquiry in the Humanities**

Choose one course from approved list .....

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

Choose one course from approved list .....

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

CHE 105 General College Chemistry I .....

CHE 111 Laboratory to Accompany  
General Chemistry I .....

**V. Composition and Communication I**

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

**VI. Composition and Communication II**

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

**VII. Quantitative Foundations**

MA 123 Elementary Calculus and Its Applications

or  
MA 113 Calculus I

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

**VIII. Statistical Inferential Reasoning**

STA 210 Making Sense of Uncertainty:

An Introduction to Statistical Reasoning .....

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

GEN 100 Issues in Agriculture .....

**X. Global Dynamics**

Choose one course from approved list .....

**UK Core Hours .....** 33

**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 113 Calculus I or MA 137 Calculus I With Life Science Applications .....	4
<b>Subtotal: Prerequisite Hours .....</b>	<b>20</b>

**Premajor Requirements Hours**

MA 132 Calculus for the Life Sciences .....	3
BIO 208 Principles of Microbiology .....	3
BIO 209 Introductory Microbiology Laboratory .....	2
CHE 236 Survey of Organic Chemistry .....	3
NFS/DHN 212 Introductory Nutrition .....	3
PHY 211 General Physics .....	5
STA 291 Statistical Methods .....	3
<b>Subtotal: Premajor Hours .....</b>	<b>22</b>

**Major Requirements Hours**

<b>Required:</b>	
FSC 107 Introduction to Food Science .....	3
AEN 340 Principles of Food Engineering .....	4
NFS/DHN 311 Nutritional Biochemistry 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
<b>Subtotal: Major Hours .....</b>	<b>31</b>

**Specialty Support**

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

AEC 305 Food and Agricultural Marketing Principles .....	3
ABT/ENT 360 Genetics .....	3
CS 101 Introduction to Computing I .....	3
ECO 201 Principles of Economics I .....	3
FSC 304 Animal Derived Foods .....	5
FSC 395 Special Problem in Animal Science/Food Science .....	1-4
FSC 399 Experiential Learning in Animal Sciences/Food Science .....	1-6
FSC 430G Sensory Evaluation of Foods .....	3
FSC 538 Food Fermentation and Thermal Processing .....	4
FSC 540 Food Sanitation .....	3
NFS/DHN 304 Experimental Foods .....	3
<b>Subtotal: Specialty Support .....</b>	<b>22</b>

**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

**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 121 semester hours. Eight of these hours are earned while attending a Summer Camp between the third and fourth academic years. 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.

<b>I. Intellectual Inquiry in Arts and Creativity</b>	
Choose one course from approved list .....	3
<b>II. Intellectual Inquiry in the Humanities</b>	
Choose one course from approved list .....	3
<b>III. Intellectual Inquiry in the Social Sciences</b>	
Choose one course from approved list .....	3
<b>IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences</b>	
BIO 103 Basic Ideas of Biology .....	3
<b>V. Composition and Communication I</b>	
CIS/WRD 110 Composition and Communication I .....	3
<b>VI. Composition and Communication II</b>	
CIS/WRD 111 Composition and Communication II .....	3
<b>VII. Quantitative Foundations</b>	
Choose one course from approved list .....	3
<b>VIII. Statistical Inferential Reasoning</b>	
Recommended:	
STA 210 Making Sense of Uncertainty: An Introduction to Statistical Reasoning .....	3
<b>IX. Community, Culture and Citizenship in the USA</b>	
GEN 100 Issues in Agriculture .....	3
<b>X. Global Dynamics</b>	
Choose one course from approved list .....	3
<b>UK Core Hours .....</b>	<b>30</b>

<b>Premajor Requirements</b>	<b>Hours</b>
GEN 100 Issues in Agriculture .....	3
BIO 103 Basic Ideas of Biology or	
BIO 150 Principles of Biology I .....	3
CHE 104 Introductory General Chemistry or	

CHE 105 General College Chemistry I .....	3-4
<b>Subtotal: Premajor Hours .....</b>	<b>9-10</b>
<b>Major Requirements</b>	<b>Hours</b>
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 .....	2
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 .....	3
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
<b>Subtotal: Major Hours .....</b>	<b>81</b>

**Electives**

Elective courses should be selected by the student to lead to the minimum total of 121 hours required for graduation.

<b>Subtotal: Electives .....</b>	<b>2</b>
<b>TOTAL HOURS: .....</b>	<b>121</b>

**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.

**Plan of Study**

As a horticulture, plant and soil sciences major you are required to develop an acceptable **Plan of Study** during your sophomore year for your junior and senior years. The plan must be signed by your advisor and returned to the Office of Academic Programs.

If you are an upper division transfer student (from another university or from another UK college or department) then you will submit your plan during the first semester you are enrolled in the program.

Consult your academic advisor in developing your Plan of Study.

**College Required Hours**

GEN 100 Issues in Agriculture ..... 3

**Subtotal: College Required Hours ..... 3**

**UK Core Requirements**

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

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

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

**II. Intellectual Inquiry in the Humanities**

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

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

Recommended:

CLD 102 The Dynamics of Rural Social Life ..... 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 ..... 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 ..... 3

**X. Global Dynamics**

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

**UK Core Hours ..... 33**

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

**Premajor Requirements**

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 203 Business Writing ..... 3

**Subtotal: Premajor Hours ..... 17**

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.

**Major Requirements**

PLS 104 Plants, Soils, and People:

A Science Perspective ..... 3

PLS 210 The Life Processes of Plants ..... 3

**or**

†BIO 150 Principles of Biology I

**and**

†BIO 152 Principles of Biology II ..... 6

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

PLS 366 Fundamentals of Soil Science ..... 4

PLS 386 Plant Production Systems ..... 4

PLS 395 Special Problems in Plant and Soil Science

**or**

PLS 399 Experiential Learning in

Plant and Soil Science ..... 3

PLS 404 Integrated Weed Management ..... 4

PLS 470G Soil Nutrient Management ..... 3

PLS 490 Topics in Plant and Soil Science ..... 3

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

**Subtotal: Major Hours ..... 30-33**

**Options****Horticulture Enterprise Management Option**

PLS 100 An Introduction

to Horticulture Professions ..... 1

PLS 440 Plant Propagation ..... 3

PLS 465 Greenhouses and

Controlled Environments ..... 3

PLS 520 Fruit and Vegetable Production ..... 4

PPA 400G Principles of Plant Pathology ..... 3

Select 9 credit hours from the following courses:

PLS 320 Woody Horticultural Plants ..... 4

PLS 330 Herbaceous Horticultural Plants I ..... 2

PLS 332 Herbaceous Horticultural Plants II ..... 2

PLS 352 Nursery Production ..... 3

PLS 451 Landscape Management

and Arboriculture ..... 3

PLS 515 Turf Management ..... 3

PLS 525 Greenhouse Floral Crop Management ..... 3

Other PLS courses with consent of advisor

**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**

PLS 514 Grass Taxonomy and Identification ..... 3

PLS 515 Turf Management ..... 3

PPA 400G Principles of Plant Pathology ..... 3

Select additional 9 credit hours of PLS courses ..... 9

**Subtotal: Option Hours ..... 18**

**Specialty Support Requirements**

ENT 320 Horticultural Entomology ..... 3

CHE 226 Analytical Chemistry

**or**

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

Select additional 15 credit hours of specialty support

in consultation with academic advisor ..... 15

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

**Electives**

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

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

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

**Crops and Livestock Option**

PLS 510 Forage Management and Utilization ..... 3

Select 15 credit hours of additional PLS courses ..... 15

**Subtotal: Option Hours ..... 18**

**Specialty Support Requirements**

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

Earn a minor in Animal Science ..... 18

**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 courses below. Students taking the minor are responsible for satisfying the prerequisites.

**Minor Requirements**

ASC 101 Domestic Animal Biology ..... 3

ASC 102 Applications of Animal Science ..... 3

Additional Course Work ..... 9

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

**Group A**

ASC 300 Meat Science ..... 4

ASC 325 Animal Physiology (*BIO 152 and*

*CHE 107/113*) ..... 3

ASC 362 Animal Genetics ..... 4

ASC 364 Reproductive Physiology

of Farm Animals (*CHE 230 or 236*) ..... 4

ASC 378 Animal Nutrition and Feeding

(*CHE 230 or 236*) ..... 4

**Group B**

ASC 340 Poultry Production ..... 2  
 ASC 404G Sheep Science (ASC 300, 362, 364) ..... 4  
 ASC 406 Beef Cattle Science (ASC 300, 362, 364) ..... 4  
 ASC 408G Swine Production (ASC 378) ..... 2  
 ASC 410G Equine Science (ASC 362, 364) ..... 3  
 ASC 420G Dairy Cattle Science (ASC 362, 364) ..... 3

**Total Hours Required ..... 15**

Additional specialty support classes may be selected in consultation with your academic advisor for a total of 21 hours in specialty support.

**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**

**Crop, Soil and Horticulture Science Option**

Select **18** hours of PLS courses with consent of advisor ..... 18

**Subtotal: Option Hours ..... 18**

**Specialty Support Requirements**

CHE 226 Analytical Chemistry  
 or  
 CHE 230 Organic Chemistry I  
 or  
 CHE 236 Survey of Organic Chemistry ..... 3

STA 291 Statistical Methods ..... 3  
 Select additional **15** credit hours from following list or other science courses selected with consent of advisor:

BIO 304 Principles of Genetics ..... 4  
 BIO 308 General Microbiology ..... 3  
 BIO 315 Introduction to Cell Biology ..... 4  
 BIO 430G Plant Physiology ..... 4  
 GLY/EES 220 Principles of Physical Geology ..... 4  
 PHY 211 General Physics ..... 5  
 PHY 213 General Physics ..... 5  
 CHE 231 Organic Chemistry Laboratory I ..... 1  
 CHE 232 Organic Chemistry II ..... 3  
 CHE 233 Organic Chemistry Laboratory II ..... 1

**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**

**NOTE:** At the time of publication, the B.S. in Landscape Architecture program was provisionally revised; formal approval is expected in Fall 2012.

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 re-

sources. 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 five-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 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 145 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 premajor, professional, and specialty support requirements. The Landscape Architecture program policy requires a student to achieve a C grade or better in major design studios in order to advance to the next level.

**UK Core Requirements**

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

**I. Intellectual Inquiry in Arts and Creativity**  
 LA 111 Living on the Right Side of the Brain ..... 3

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

**III. Intellectual Inquiry in the Social Sciences**  
 ECO 101 Contemporary Economic Issues  
 or  
 SOC 101 Introduction to Sociology ..... 3

**IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences**  
 GLY/EES 110 Endangered Planet: An Introduction to Environmental Geology  
 or  
 GLY/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**  
 Choose one course from approved list ..... 3

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

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

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

**UK Core Hours ..... 30**

**Premajor Requirements Hours**

Premajor requirements met by UK Core courses:  
 LA 111 Living on the Right Side of the Brain ..... 3  
 ECO 101 Contemporary Economic Issues  
 or  
 SOC 101 Introduction to Sociology ..... 3

GLY/EES 110 Endangered Planet: An Introduction to Environmental Geology	
or	
GLY/EES 120 Sustainable Planet: The Geology of Natural Resources	3
<b>Subtotal: Premajor Hours</b>	<b>9</b>

### Departmental Professional Requirements

LA 105 Introduction to Landscape Architecture	3
LA 205 History of Landscape Architecture	3
LA 805 Graphics I	3
LA 821 Landscape Architecture Design Studio I	6
LA 822 Landscape Architecture Design Studio II	6
LA 825 Digital Representation I	3
LA 833 Landscape Architecture Design Studio III	6
LA 834 Landscape Architecture Design Studio IV	6
LA 841 Landscape Architecture Design Studio V	6
LA 842 Landscape Architecture Design Studio VI	6
LA 871 Design Implementation I	4
LA 872 Design Implementation II	4
LA 890 International Study	3
LA 973 Design Implementation III	6
LA 975 Landscape Architecture Design Studio VII	6
LA 990 Capstone Seminar	2

Students must complete **15** hours from the following list of Topical Studies courses:

LA 851 Design with Plants	3
LA 854 Cultural Landscape Preservation	3
LA 855 Introductory Geospatial Applications for Land Analysis	3
LA 856 Contemporary Geospatial Applications for Land Analysis	3
LA 857 Design Theories in Landscape Architecture	3
LA 858 Regional Land Use Planning Systems	3
LA 862 Graphics II	3
LA 863 Digital Representation II	3
LA 869 Advanced Regional Land Use Planning Applications	3
LA 895 Independent Study in Landscape Architecture	1-6
LA 897 Special Topics in Landscape Architecture (Subtitle required)	3
LA 899 Internship in Landscape Architecture	3

**Subtotal: Major Hours** ..... **88**

### Specialty Support Requirements

PLS 220 Introduction to Plant Identification	3
PLS 320 Woody Horticultural Plants	4
PLS 366 Fundamentals of Soil Science	4

**One** course in ecology from the following or other ecology-focused courses approved by Director of Undergraduate Studies:

FOR 230 Conservation Biology	3
FOR 340 Forest Ecology	4

Select **two** additional upper-level courses from the 300-500 series with advisor assistance ..... 6

**Subtotal: Specialty**

**Support** ..... **minimum of 20**

### Electives

Electives should be selected by the student to lead to the minimum total of 145 hours required for graduation. Electives may be chosen from the Landscape Architecture Topical Studies or other university courses at any level.

**Subtotal: Electives** ..... **minimum of 6**

**TOTAL HOURS:** ..... **145**

## 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 and policy. As the world population grows, and as nations are drawn closer together through technology and trade, the conservation and management of natural resources will become increasingly important to the sustained well-being of all societies. The curriculum provides students with exposure to a broad array of key disciplines involved with natural resources. As a result, graduates have the capacity to integrate different perspectives and diverse bodies of knowledge in dealing with real resource management problems.

All students in the program share a common core of major requirements. This core is designed to provide the student with broad exposure to the technical and socioeconomic dimensions of natural resources and their management. Important components of this core of courses are a required three-week summer camp after the sophomore or junior year and a required internship or research experience. In addition to this core, all students must develop a Concentration Area consisting of at least 18 hours of course work. This Concentration Area allows the student to focus the degree on an area of interest in the technical or policy oriented aspects of natural resource management. These courses must be chosen in consultation with the academic advisor and must be approved by the advisor and the NRES Steering Committee as part of the plan of study for the student.

Graduates of the Natural Resources and Environmental Science degree program are employed as professionals in both the public and private sectors. Industries which have an impact upon the environment maintain a staff of environmental scientists and technicians to ensure compliance with the standards of our society. Government agencies employ broadly trained natural resource scientists to serve in regulatory or management functions for the resources in their jurisdiction. Additional employment opportunities exist in environmental journalism and education, and with the many nonprofit organizations which have environmental concerns. In addition, students in either option are well prepared for graduate programs dealing with resource and environmental issues and in traditional academic disciplines.

### Graduation Requirements

To earn a Bachelor of Science in Natural Resources and Environmental Science, the student must complete at least 120 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, the student must complete college, premajor, major and concentration requirements, including an internship or research experience. The student will construct their concentration area with the approval of a faculty advisor in the area of interest.

### Plan of Study

As a Natural Resources and Environmental Science major, you are required to work with your advisor to develop a complete **Plan of Study** during your sophomore year for your junior and senior years. The plan will be signed by your advisor, approved by the NRES Steering Committee, and placed in your file in the Office of the Associate Dean for Academic Programs. If you are an upper division transfer student (from another university or from another UK college or department) then you will submit your plan during the first semester you are enrolled in the program.

### UK Core Requirements

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

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

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

#### II. Intellectual Inquiry in the Humanities

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

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

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

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

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 ..... 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 ..... 3

#### X. Global Dynamics

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

**UK Core Hours** ..... **33**

### College Required Hours

GEN 100 Issues in Agriculture ..... 3

**Subtotal: College Required Hours** ..... **3**

Premajor Requirements	Hours
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
ECO 201 Principles of Economics I .....	3
GLY/EES 220 Principles of Physical Geology .....	4
MA 123 Elementary Calculus and Its Applications .....	4
STA 291 Statistical Methods .....	3
<b>Subtotal: Premajor Hours .....</b>	<b>30</b>

Major Requirements	Hours
AEC 424 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 .....	2
FOR 325 Economic Botany: Plants and Human Affairs .....	3
FOR 340 Forest Ecology .....	4
FOR 460 Forest Hydrology and Watershed Management <b>or</b> GLY/EES 385 Hydrology and Water Resources .....	3-4
*NRE 301 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 <b>or</b> †NRE 399 Experiential Education in Natural Resources and Environmental Science .....	3
NRE 471 Senior Problem in Natural Resources and Environmental Science .....	3
NRE 555 Introductory Geospatial Applications for Land Analysis .....	3
PLS 366 Fundamentals of Soil Science .....	4
<i>*May be used to satisfy the University Writing Requirement.</i>	
<i>**NRE 320 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.</i>	
<i>†All students must complete either an internship (NRE 399) or a supervised research project (NRE 395). This requirement is designed to give the student real world exposure to natural resource work in their area of interest.</i>	
<b>Subtotal: Major Hours .....</b>	<b>43-44</b>

### Analytical Skill Development and Environmental System Emphasis Areas

Students must take nine hours in one of four Analytical Skill Development Areas and nine hours in one of seven Environmental System Emphasis Areas. A total of seven hours of 300-level and above courses must be completed between the Analytical Skill Development section and the Environmental System Emphasis Area. Depending on the student's interest and career goals they will select from a list of courses in specific topic areas. Courses taken to complete the Analytical Skill Development section may not count towards the Environmental System Emphasis Area and vice versa.

### Analytical Skill Development Area

Economic and Policy Analysis	Hours
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 280 Forest Policy .....	2
FOR 320 Forest Valuation and Economics .....	3
GEO 235 Environmental Management and Policy .....	3
GEO 455 Globalization and the Changing World Economy .....	3
PS 489G The Analysis of Public Policy .....	3

### Field and Laboratory Analysis of Ecosystems

BIO/NRE 420G Taxonomy of Vascular Plants .....	4
BIO 452G Laboratory in Ecology .....	2
ENT/FOR 402 Forest Entomology .....	3
FOR 219 Dendrology .....	4
FOR 250 Statistics and Measurements I .....	3
PLS 396 Soil Judging .....	up to 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

### 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 856/NRE 556 Contemporary Geospatial Applications for Land Analysis .....	3

### Individualized Analytical Skill Development

A written proposal must be submitted to the NRES Steering Committee to approve courses for the Individualized Analytical Skill Development.

### Environmental System Emphasis Area

#### Conservation Biology

BIO/PLS 210 The Life Processes of Plants .....	3
BIO 325 Ecology .....	4
BIO 361 Ecology of the Kentucky Flora and Vegetation .....	3
BIO 375 Behavioral Ecology and Sociobiology .....	3
BIO/NRE 420G Taxonomy of Vascular Plants .....	4
BIO/GEO 530 Biogeography and Conservation .....	3
FOR 219 Dendrology .....	4
FOR 370 Wildlife Biology and Management .....	4
GEO 365 Special Topics in Regional Geography (Subtitle required) .....	3

#### Forestry

\*For the Forestry Environmental System Emphasis Area students must take FOR 219 Dendrology and FOR 350 Silviculture. FOR 219 can be taken as part of Analytical Skill Development but the hours will not count towards both Analytical Skill Development courses and Environmental System Emphasis Area courses.

*FOR 219 Dendrology .....	4
*FOR 350 Silviculture .....	4
FOR 310 Introduction to Forest Health and Protection .....	3
FOR 320 Forest Valuation and Economics .....	3
FOR 400 Human Dimensions of Forestry and Natural Resources .....	3
FOR 425 Forest Management .....	4

### Human Dimensions and Natural Resource Planning

BIO/GEO 530 Biogeography and Conservation .....	3
CLD/SOC 340 Community Interaction .....	3
CLD/SOC 360 Environmental Sociology .....	3
CLD/SOC 420 Sociology of Communities .....	3
CLD/SOC 440 Community Processes and Communication .....	3
ENS 400 Senior Seminar (Subtitle required) .....	3
FOR 400 Human Dimensions of Forestry and Natural Resources .....	3
FOR 470 Interdependent Natural Resource Issues .....	3
GEO 285 Introduction to Planning .....	3
GEO 485G Urban Planning and Sustainability .....	3
GEO 490G American Landscapes .....	3
GEO 531 Landscape Ecology .....	3
LA 858 Regional Land Use Planning Systems .....	3
LA 859 Advanced Regional Land Use Planning Applications .....	3

### Environmental Soil Science

PLS 396 Soil Judging .....	up to 3
PLS/NRE 450G Biogeochemistry .....	3
PLS/NRE 455G Wetland Delineation .....	3
PLS 468G Soil Use and Management .....	3
PLS/NRE 470G Soil Nutrient Management .....	3
PLS/NRE 477G Land Treatment of Waste .....	3
PLS 566 Soil Microbiology .....	3
PLS 573 Soil Morphology and Classification .....	3
PLS 575 Soil Physics .....	3

### Water Resources

AEN 461G Biometeorology .....	3
BAE 438G/CE 460 Fundamentals of Groundwater Hydrology <b>or</b> GLY/EES 585 Hydrogeology .....	3
BAE 532/CE 542 Introduction to Stream Restoration .....	3
BAE 538 GIS Applications for Water Resources .....	3
BIO/GEO 530 Biogeography and Conservation .....	3
CHE 565 Environmental Chemistry .....	3
GEO 230 Weather and Climate .....	3
GEO 451G Fluvial Forms and Processes .....	3
GLY/EES 530 Low Temperature Geochemistry .....	3
PLS/NRE 450G Biogeochemistry .....	3
PLS/NRE 455G Wetland Delineation .....	3
PLS 573 Soil Morphology and Classification .....	3
PLS 575 Soil Physics .....	3

### Wildlife Management

BIO/ENT 300 General Entomology .....	3
BIO 304 Principles of Genetics .....	4
BIO 325 Ecology .....	4
BIO 350 Animal Physiology <b>or</b> ASC 325 Animal Physiology .....	3-4
BIO 375 Behavioral Ecology and Sociobiology .....	3
BIO 555 Vertebrate Zoology .....	5
BIO 559 Ornithology .....	4
FOR 370 Wildlife Biology and Management .....	4
PLS/NRE 455G Wetland Delineation .....	3

### Individualized System Emphasis Area

A written proposal must be submitted by a student with an advisor's approval to the NRES Steering Committee for an Individualized System Emphasis Area. Potential topics may include renewable energy, sustainability, or outdoor recreation. The student's proposal should also include an explanation of how the Experiential Learning requirement will be coordinated with the Emphasis Area.

<b>Subtotal: Analytical Skill Development and Environmental System Emphasis Areas .....</b>	<b>18</b>
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**Electives**

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

<b>Subtotal: Electives</b> .....	<b>minimum of 11</b>
<b>TOTAL HOURS:</b> .....	<b>120</b>

**MINORS IN AGRICULTURE**

**Minor in Agricultural Economics**

<b>Preprofessional Requirement</b>	<b>Hours</b>
ECO 201 Principles of Economics I .....	3

**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 311, 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 courses below. Students taking the minor are responsible for satisfying the prerequisites.

**Minor Requirements**                      **Hours**

ASC 101 Domestic Animal Biology .....	3
ASC 102 Applications of Animal Science .....	3
Additional Course Work .....	9
At least <b>9 credit hours</b> must be selected from the list that follows (Groups A and B). At least one course must be selected from Group A and one course from Group B.	

**Group A**

ASC 300 Meat Science .....	4
ASC 325 Animal Physiology ( <i>BIO 152 and CHE 107/113</i> ) .....	3
ASC 362 Animal Genetics .....	4
ASC 364 Reproductive Physiology of Farm Animals ( <i>CHE 230 or 236</i> ) .....	4
ASC 378 Animal Nutrition and Feeding ( <i>CHE 230 or 236</i> ) .....	4

**Group B**

ASC 340 Poultry Production .....	2
ASC 404G Sheep Science ( <i>ASC 300, 362, 364</i> ) .....	4
ASC 406 Beef Cattle Science ( <i>ASC 300, 362, 364</i> ) .....	4
ASC 408G Swine Production ( <i>ASC 378</i> ) .....	2
ASC 410G Equine Science ( <i>ASC 362, 364</i> ) .....	3
ASC 420G Dairy Cattle Science ( <i>ASC 362, 364</i> ) .....	3

**Total Hours Required** ..... **15**

**Minor in Community and Leadership Development**

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

**Preminor Requirements**                      **Hours**

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.

**Subtotal: Preminor Requirements** ..... **10**

**Minor Requirements**                      **Hours**

CLD 300 Foundational Theories in Community and Leadership Development .....	3
CLD 370 Learning in Society .....	3

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

**Subtotal: Minor Requirements** ..... **12**

**Minor in Entomology**

**Preminor Requirement**                      **Hours**

Two semesters of introductory biology .....	6
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**Minor Requirements**

Required: .....	15
ENT 300 General Entomology .....	3

Select the remaining credits (12 hours) from:

ENT 310 Insect Pests of Field Crops .....	3
ENT 320 Horticultural Entomology .....	3
ENT 340 Livestock Entomology .....	2
ENT 360 Genetics .....	3
ENT 395 Independent Work .....	1-3
ENT 402 Forest Entomology .....	3
ENT 530 Integrated Pest Management .....	3
ENT 561 Insects Affecting Human and Animal Health ..	3
ENT 563 Parasitology .....	4
ENT 564 Insect Taxonomy .....	4
ENT 568 Insect Behavior .....	3
ENT 574 Advanced Applied Entomology .....	4

**Minor in Food Science**

**Required Courses**                      **Hours**

FSC 535 Food Analysis <b>or</b> .....	4
FSC 434G Food Chemistry .....	4
FSC 530 Food Microbiology .....	5
FSC 536 Advanced Food Technology <b>or</b> .....	4
FSC 538 Food Fermentation and Thermal Processing ....	4

**Elective Courses**

Two of the following:

FSC 306 Introduction to Food Processing .....	4
AEN 340 Principles of Food Engineering .....	4
FSC 535 Food Analysis* <b>or</b> .....	4
FSC 434G Food Chemistry* .....	4
FSC 536 Advanced Food Technology* <b>or</b> .....	4
FSC 538 Food Fermentation and Thermal Processing* ..	4

\*If not taken as one of the required courses.

**Minor in Pest Management**

**Prerequisite**                      **Hours**

One course from the following:	
ASC 320, 404G, 406, 408G, 420G	
PLS 352, 386, 402, 408, 412, 515, 520, 525, 556 .....	2-4

**Minor Requirements**

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

Select at least nine hours from the following:

ENT 310 Insect Pests of Field Crops .....	3
ENT 320 Horticultural Entomology .....	3
ENT 340 Livestock Entomology .....	2
ENT 402 Forest Entomology .....	3
ENT 530 Integrated Pest Management .....	3
ENT 574 Advanced Applied Entomology .....	4
PPA 595 Epidemiology and Control of Plant Diseases .....	4

VS 351 Principles of Animal Hygiene and Disease Control .....	3
PLS 470G Soil Nutrient Management .....	3
ASC 378 Animal Nutrition and Feeding .....	4

**Minor in Plant and Soil Science**

**Preminor Requirement**                      **Hours**

CHE 105 General College Chemistry I .....	4
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**Minor Requirements**

Required: .....	18
PLS 104 Plants, Soils, and People: A Science Perspective .....	3
PLS/BIO 210 The Life Processes of Plants <b>or</b> BIO 152 Principles of Biology II .....	3
PLS 366 Fundamentals of Soil Science .....	4
plus nine more hours of plant and soil science courses chosen from the following prefixes: PLS, PPA.	

**Minor in Rural Sociology**

**NOTE:** At the time of publication, the minor in rural sociology was in the process of being suspended. Consult your advisor for more information.

**Prerequisites**

Students must complete SOC 101 or CLD 102 and one other sociology course at the 100 or 200 level.

Any student wishing to minor in rural sociology should file an application with and be interviewed by the Director of Undergraduate Studies in sociology prior to entering the program.

**Minor Requirements**

Students must complete 15 hours in sociology, at least 12 of which must be at the 300 level or above, including one of the following six-hour blocks:

SOC 302 and SOC 303 <b>or</b>
SOC 304 and SOC 305 <b>or</b>
SOC 302 and SOC 304

**Minor in Sustainable Agriculture**

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

**Minor Prerequisite**                      **Hours**

ECO 201 Principles of Economics I .....	3
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**Minor Requirements**

Required: .....	9
SAG 101 Introduction to Sustainable Agriculture .....	3
SAG 201 Cultural Perspectives on Sustainability .....	3
SAG 397 Apprenticeship in Sustainable Agriculture ...	3

Select **one** from:

GEO 235 Environmental Management and Policy .....	3
GLY/EES 210 Habitable Planet: Evolution of the Earth System .....	3
*PLS 366 Fundamentals of Soil Science .....	4

Select **one** from:

AEC 302 Agricultural Management Principles .....	4
AEC 305 Food and Agricultural Marketing Principles .....	3
AEC 445G Introduction to Resource and Environmental Economics .....	3

Select **one** from:

**SOC 360 Environmental Sociology .....	3
GEN 501 Agricultural and Environmental Ethics .....	3

\*Prerequisite: CHE 105.

\*\*Prerequisite: SOC 101.

**PRE-VETERINARY MEDICINE  
(Non-Degree)**

Students interested in becoming veterinarians may enroll in the College of Agriculture 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 two legal Kentucky residents may be accepted by the Tuskegee University School of Veterinary Medicine each year.

Under the Auburn program students selected are exempt from the out-of-state tuition that would normally apply to a Kentucky resident. 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 3.45. The student must have completed all of the required courses by June 15 of the year of possible acceptance to Auburn. Courses in certain advanced sciences must be taken within six years of entry to Auburn. All required courses must have a grade of "C" or greater.

Auburn applicants can use the Veterinary Medical College Application Service (VMCAS) application. The deadline for Auburn applications is October 1. Auburn requires the General Aptitude portion of the Graduate Record Examination (GRE). Tuskegee requires a separate application form and the GRE, taken within three years of application. Additional forms are required for both schools which are available from Dr. Dwyer after June 1.

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**

	<b>Hours</b>
UK Written Communication requirement*	6-7
Literature (e.g. ENG 334)**	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	4
PHY 213 General Physics	4
BCH 401G Fundamentals of Biochemistry	3
ASC 378 Animal Nutrition and Feeding	4
or	
ASC 380 Feeds and Feeding	3
Science Electives****	6

\*HON 101/102 can be used.

\*\*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, Comparative Anatomy (not taught at UK).

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

**Tuskegee's Pre-Veterinary Curriculum**

	<b>Hours</b>
Organic Chemistry w/Lab	4
Biochemistry w/Lab	4
Physics w/Lab	8
Advanced Biology (300 level or above)	9
Animal Science†	9
Mathematics	6
English	6
Social Sciences	6
Liberal Arts	6
Elective	8

†Applicants who do not include animal science and nutrition courses in their pre-professional studies may be admitted at the discretion of the Committee on Veterinary Admissions if they have fulfilled all other requirements. However, these courses must be completed prior to attaining third-year status in the School of Veterinary Medicine.

Please be advised of Tuskegee's time limitation of six (6) years for all pre-veterinary courses. **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.

Direct further inquiries to:

**Roberta M. Dwyer, DVM**  
**MS Department of Veterinary Science**  
**Gluck Equine Research Center**  
**College of Agriculture**  
**University of Kentucky**  
**Lexington, KY 40546-0099**  
**(859) 218-1122**  
**e-mail: rmdwyer@uky.edu**  
**www.ca.uky.edu/gluck/index.htm**

**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 – Family Sciences; Merchandising, Apparel and Textiles; and Nutrition and Food Science. 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 Career and Technical Education\* (see pages 100-101).
- Bachelor of Science in Dietetics



- Bachelor of Science in Family Sciences
- Bachelor of Science in Hospitality Management
- Bachelor of Science in Human Nutrition
- Bachelor of Science in Merchandising, Apparel and Textiles

*\*At the time of publication, the Family and Consumer Sciences option in the B.S. in Career and Technical Education degree was in the process of being suspended; this option is no longer available.*

**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 is accredited by the Commission on Accreditation for Couple and Family Therapy Education (COACFTE). The program includes course work and clinical practicum required for licensure.

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

The 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 Merchandising, Apparel and Textiles 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 Nutrition and Food Science 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 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**  
**School of Human Environmental Sciences**  
**College of Agriculture**  
**112 Erikson Hall**  
**University of Kentucky**  
**Lexington, KY 40506-0050**  
**(859) 257-2855**  
**www.ca.uky.edu/hes/**

**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. (The College also offers a Bachelor of Science in Career and Technical Education with an option in Family and Consumer Sciences Education\*; see pages 110-111.) 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](http://www.ca.uky.edu/hes/?p=2).

*\*At the time of publication, the Family and Consumer Sciences option in the B.S. in Career and Technical Education degree was in the process of being suspended; this option is no longer available.*

**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
<b>Subtotal: School Required Hours .....</b>	<b>4</b>

**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.

<b>I. Intellectual Inquiry in Arts and Creativity</b> Choose one course from approved list .....	3
<b>II. Intellectual Inquiry in the Humanities</b> Choose one course from approved list .....	3
<b>III. Intellectual Inquiry in the Social Sciences</b> PSY 100 Introduction to Psychology or SOC 101 Introduction to Sociology .....	3-4
<b>IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences</b> Choose one course from approved list .....	3
<b>V. Composition and Communication I</b> CIS/WRD 110 Composition and Communication I .....	3
<b>VI. Composition and Communication II</b> CIS/WRD 111 Composition and Communication II .....	3
<b>VII. Quantitative Foundations</b> PHI 120 Introductory Logic .....	3
<b>VIII. Statistical Inferential Reasoning</b> STA 210 Making Sense of Uncertainty: An Introduction to Statistical Reasoning .....	3
<b>IX. Community, Culture and Citizenship in the USA</b> Choose one course from approved list .....	3
<b>X. Global Dynamics</b> Choose one course from approved list .....	3
<b>UK Core Hours .....</b>	<b>30-31</b>

**Graduation Writing Requirement**

Choose one of the following:	
WRD 203 Business Writing .....	3
ENG 230 Introduction to Literature .....	3
ENG 233 Literature and Identities .....	3
ENG 234 Introduction to Women's Literature .....	3
<b>Graduation Writing Requirement Hours .....</b>	<b>3</b>

**Premajor Requirements Hours**

COM 252 Introduction to Interpersonal Communication .....	3
PHI 120 Introductory Logic or PHI 332 Professional Ethics .....	3

PSY 100 Introduction to Psychology ..... 4  
 STA 210 Making Sense of Uncertainty:  
     An Introduction to Statistical Reasoning ..... 3  
 Two courses in BIO, CHE, or PHY ..... 6  
 SOC 101 Introduction to Sociology ..... 3  
 ECO 201 Principles of Economics I ..... 3  
**Subtotal: Premajor Hours ..... 25**

**Major Requirements**

FAM 251 Personal and Family Finance ..... 3  
 FAM 253 Human Sexuality: Development,  
     Behavior and Attitudes ..... 3  
 FAM 254 Life Course Human Development ..... 3  
 FAM 352 Issues in Family Sciences ..... 3  
 FAM 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 ..... 9  
 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.

**BACHELOR OF SCIENCE  
 INCAREER AND  
 TECHNICAL EDUCATION  
 with an Option in Family and Consumer  
 Sciences Education**

**NOTE:** At the time of publication, the Family and Consumer Sciences option in the B.S. in Career and Technical Education degree was in the process of being suspended; this option is no longer available.

The Family and Consumer Sciences Education option of the Bachelor of Science in Career and Technical Education prepares graduates for careers in teaching, extension services, adult education and related activities for consumer and family science programs. Professional education courses in teaching methods and supervised teaching in family and consumer sciences classes at the middle school and high school levels are included in the option. **See further information under Career and Technical Education on pages 100-101.**

**DEPARTMENT OF NUTRITION  
 AND FOOD SCIENCE**

**NOTE:** At the time of publication, the Department of Nutrition and Food Science was being renamed the Department of Dietetics and Human Nutrition. The NFS course prefix will change to **DHN** in spring 2013.

The Department of Nutrition and Food Science 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, the Bachelor of Science in Hospital-ity Management, 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](http://www.ca.uky.edu/hes/?p=4).

**BACHELOR OF SCIENCE IN  
 DIETETICS with a major in  
 Nutrition and Food Science**

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 NFS/DHN Dietetics Program offers two options to earn a bachelor’s degree in dietet-

ics. 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 Nutrition and Food Science 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 a ACEND-accredited supervised practice program, SPP, in a post-baccalaureate Dietetic Internship.

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

Graduates of the UK NFS/DHN Option A may apply for placement in the Dietetic Internship program offered by the Department of Nutrition and Food Science, 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 NFS/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 NFS/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 NFS/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 NFS/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.

Successful CP applicants will be notified of provisional acceptance into the CP before UK's priority registration dates for the ensuing fall semester. Final acceptance depends on successful completion of the work in progress at the time of the application and throughout the remaining didactic component prior to beginning the supervised practice component of the undergraduate dietetics program.

Transfer students are urged to contact the Advising Resource Office, 112 Erikson Hall, for a preliminary evaluation of credits well in advance of the application date. Year Three of the Dietetics Program is the beginning of the Major Requirements for completion of course work. CP applicants must be a declared major in the UK NFS/DHN dietetics program or if a transfer student, indicate intent to declare dietetics as their major. Students accepted into the CP must be majors in the UK NFS/DHN dietetics program.

Successful completion of Option B, the UK NFS/DHN CP, results in the Bachelor of Science in Dietetics degree. Graduates of Option B are 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.

The UK NFS/DHN ACEND-accredited Dietetic Internship, DI, is offered for students who have completed a Didactic Program in Dietetics at UK or other ACEND-accredited institutions. Qualified graduates compete for a limited number

of positions in the UK NFS/DHN DI. For information regarding the UK NFS/DHN Dietetic Internship, the application and/or screening procedures, please contact:

**College of Agriculture and School of Human Environmental Sciences**  
**Director, Dietetic Internship Program**  
**Department of Nutrition and Food Science**  
**203 Funkhouser Building**  
**University of Kentucky**  
**Lexington, KY 40506-0054**

### Degree Requirements

Each student must complete the following:

1. Complete UK Core requirements.
2. Complete 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
<b>Subtotal: School Required Hours .....</b>	<b>4</b>

### UK Core Requirements

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

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

Choose one course from approved list .....

#### II. Intellectual Inquiry in the Humanities

Choose one course from approved list .....

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

PSY 100 Introduction to Psychology  
 or  
 SOC 101 Introduction to Sociology .....

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

CHE 105 General College Chemistry I .....

#### V. Composition and Communication I

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

#### VI. Composition and Communication II

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

#### VII. Quantitative Foundations

Choose one course from approved list .....

#### VIII. Statistical Inferential Reasoning

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

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

Choose one course from approved list .....

### X. Global Dynamics

Choose one course from approved list .....

**UK Core Hours .....** **32-33**

### Progression Requirements

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

Students must complete the following requirements:

### Premajor Requirements Hours

ACC 201 Financial Accounting I .....	3
BIO 152 Principles of Biology II .....	3
BIO 208 Principles of Microbiology .....	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
CHE 230 Organic Chemistry I or CHE 236 Survey of Organic Chemistry .....	3
CLA 131 Medical Terminology from Greek and Latin ...	3
ECO 201 Principles of Economics I .....	3
NFS/DHN 212 Introductory Nutrition .....	3
NFS/DHN 241 Food Service Sanitation .....	1
PGY 206 Elementary Physiology .....	3
PSY 100 Introduction to Psychology .....	4
SOC 101 Introduction to Sociology .....	3
STA 210 Making Sense of Uncertainty: An Introduction to Statistical Reasoning .....	3
<b>Subtotal: Premajor Hours .....</b>	<b>44</b>

### Major Requirements Hours

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.

NFS/DHN 301 Dietetics Practice .....	2
NFS/DHN 302 Principles of Food Preparation .....	3
NFS/DHN 304 Experimental Foods .....	3
NFS/DHN 311 Nutritional Biochemistry .....	3
NFS/DHN 312 Nutrition and Wellness in the Life Cycle .....	3
NFS/DHN 340 Institutional Purchasing .....	3
NFS/DHN 342 Quantity Food Production .....	4
NFS/DHN 346 Human Resources Management for the Food and Hospitality Industries or MGT 301 Business Management .....	3
NFS/DHN 403 Community Nutrition and Wellness .....	3
NFS/DHN 408G Seminar in Food and Nutrition .....	1
NFS/DHN 510 Advanced Nutrition .....	3
NFS/DHN 512 Medical Nutrition Therapy I .....	4
NFS/DHN 514 Dietetics: Counseling and Communication Theories and Applications .....	3
NFS/DHN 517 Medical Nutrition Therapy II .....	3
<b>Subtotal: Major Hours .....</b>	<b>41</b>

### Option Requirements

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

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

NFS/DHN 480 Dietetics Pre-Professional Practice .... 1-6  
**Subtotal: Option A ..... 1-6**

**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.

NFS/DHN 800 Nutrition in the Life Cycle:  
 Practicum\* ..... 1  
 NFS/DHN 808 Community Nutrition II:  
 Supervised Practice\* ..... 2  
 NFS/DHN 810 Medical Nutrition Therapy I:  
 Supervised Practice\* ..... 5  
 NFS/DHN 812 Food Service Systems Management:  
 Supervised Practice\* ..... 5  
 NFS/DHN 814 Food Service Systems Management II:  
 Supervised Practice\* ..... 3  
 NFS/DHN 816 Medical Nutrition Therapy II:  
 Supervised Practice\* ..... 3  
 NFS/DHN 518 Evaluation of Dietetic Issues  
 and Leadership ..... 2  
 \*800-level course requires admission to CP.  
**Subtotal: Option B ..... 21**

**Electives**

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

**Subtotal: Minimum Elective Hours ..... 1-13**  
**TOTAL HOURS: Option A ..... 128**  
**TOTAL HOURS: Option B ..... 137**

Requests for applications or further information may be directed to:

**Director, Coordinated Program  
 Department of Nutrition  
 and Food Science  
 203 Funkhouser Building  
 University of Kentucky  
 Lexington, KY 40506-0054**

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

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

Each student must complete the following:

1. Complete UK Core requirements.
2. Complete 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**

**Premajor Requirements**

**Hours**

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**

**Hours**

NFS/DHN 212 Introductory Nutrition ..... 3  
 NFS/DHN 241 Food Service Sanitation ..... 1  
 NFS/DHN 302 Principles of Food Preparation ..... 3  
 NFS/DHN 304 Experimental Foods ..... 3  
 NFS/DHN 311 Nutritional Biochemistry ..... 3  
 NFS/DHN 312 Nutrition and Wellness  
 in the Life Cycle ..... 3

NFS/DHN 315 Nutrition Issues in Physical Activity ... 3  
 NFS/DHN 403 Community Nutrition and Wellness ..... 3  
 NFS/DHN 408G Seminar in Food and Nutrition ..... 1  
 NFS/DHN 474 Research in Nutrition: Theory ..... 3  
 NFS/DHN 475 Research in Nutrition: Application ..... 3  
 NFS/DHN 510 Advanced Nutrition ..... 3  
 PHI 305 Health Care Ethics ..... 3

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

**Subtotal: Major Hours ..... 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**

**BACHELOR OF SCIENCE IN  
 HOSPITALITY MANAGEMENT**

In the Hospitality Management and Tourism program option in Nutrition and Food Science, which leads to the B.S. in Hospitality Management, students acquire the specialized knowledge needed for careers in the hospitality industry. They also receive training in the basic functions, objectives, and techniques of management. The student is prepared for managerial positions in hotels, restaurants, non-commercial food service and tourism areas, as well as positions as purchasing agents, food service equipment specialists, food service planning specialists, and other careers.

**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, NFS/DHN 241, and HMT 270.

**Graduation Requirement**

Students must fulfill all prerequisites and achieve a grade of **C** or better in all NFS/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
<b>Subtotal: School Required Hours .....</b>	<b>4</b>

**UK Core Requirements**

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

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

Choose one course from approved list .....

**II. Intellectual Inquiry in the Humanities**

Choose one course from approved list .....

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

Choose one course from approved list .....

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

Choose one course from approved list .....

**V. Composition and Communication I**

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

**VI. Composition and Communication II**

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

**VII. Quantitative Foundations**

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

**VIII. Statistical Inferential Reasoning**

Recommended:

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

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

Choose one course from approved list .....

**X. Global Dynamics**

Choose one course from approved list .....

**UK Core Hours .....** 31

**Premajor Requirements****Hours**

Two semesters of a single foreign language .....

Diversity Requirements

ANT 160 Cultural Diversity in the Modern World

plus one of the following courses:

ANT 220 Introduction to Cultural Anthropology

ANT 324 Contemporary Latin American Cultures

ANT 327 Culture and Societies of India

AAS 200 Introduction to African-American Studies

GWS 200 Introduction to Gender and

Women's Studies in the Social Sciences .....

CS 101 Introduction to Computing I .....

ACC 201 Financial Accounting I .....

ACC 202 Managerial Uses of

Accounting Information .....

ECO 201 Principles of Economics I .....

ECO 202 Principles of Economics II .....

WRD 203 Business Writing .....

HMT 120 Introduction to Hospitality

Management and Tourism .....

HMT 210 Hotel Rooms Division Management .....

HMT 270 Principles of Travel and Tourism .....

MA 123 Elementary Calculus and Its Applications (prerequisite for STA 291) .....

STA 291 Statistical Methods .....

NFS/DHN 241 Food Service Sanitation .....

**Subtotal: Premajor Hours .....** 47-49

**Major Requirements****Hours****Required:**

HMT 308 Principles of Food and Beverage

or

NFS/DHN 302 Principles of Food Preparation .....

HMT 345 Information Technology

in the Hospitality Industry .....

HMT 350 Hospitality Managerial Accounting .....

HMT 499 Hospitality and Tourism Internship .....

NFS/DHN 342 Quantity Food Production .....

FIN 300 Corporation Finance .....

MGT 301 Business Management .....

MKT 300 Marketing Management .....

**Subtotal: Major Core Hours .....** 25

Plus at least 15 hours selected from the following courses.

Only three hours of HMT 395 may count for this requirement:

NFS/DHN 340 Institutional Purchasing .....

NFS/DHN 346 Human Resources Management

for the Food and Hospitality Industries .....

HMT 320 Hospitality and Tourism Marketing .....

HMT 330 Meetings and Convention Management .....

HMT 360 Tourism Planning and Development .....

HMT 460 Advanced Seminar in

Lodging and Tourism .....

HMT 470 Hospitality and Tourism Law and Ethics .....

HMT 480 Trends Analysis for the

Hospitality Industry .....

HMT 488 Strategic Management in the

Hospitality and Food Service Industry .....

HMT 359 Hospitality and Tourism Special Topics:

(Subtitle required) .....

HMT 395 Hospitality and Tourism

Independent Study .....

**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

## DEPARTMENT OF MERCHANDISING, APPAREL, AND TEXTILES

The Department of Merchandising, Apparel, and Textiles is committed to excellence as it prepares students for merchandising, apparel, and textiles positions in an increasingly diverse and technological world. Teaching, research, and service programs support student development and contribute to the economic and social well-being of the Commonwealth, the nation, and the world. The department offers the Bachelor of Science in Merchandising, Apparel, and Textiles.

Visit us on the Web at: [www.ca.uky.edu/hes/?p=3](http://www.ca.uky.edu/hes/?p=3).

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

The Merchandising, Apparel, and Textiles program develops graduates who are consumer and technology focused with a global orientation. Students study concepts and develop skills necessary for understanding consumer and market trends, 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 think creatively, to learn research and problem solving techniques, and to interact in team efforts, while gaining knowledge of the merchandising process. Students gain awareness of the interrelationships of people, technology, and materials in the dynamic social, economic, and global environment of the merchandising, apparel and textile industry. Course work includes a strong business component, interaction with professionals and field experience. Internships are a required component of the program, which can lead to permanent professional placement. Faculty encourage student participation in industry-sponsored projects related to merchandising and product development.

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
<b>Subtotal: School Required Hours .....</b>	<b>4</b>

**UK Core Requirements**

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

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

Choose one course from approved list .....

**II. Intellectual Inquiry in the Humanities**

Choose one course from approved list .....

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

PSY 100 Introduction to Psychology .....

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

Choose one course from approved list .....

**V. Composition and Communication I**

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

**VI. Composition and Communication II**

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

**VII. Quantitative Foundations**

Recommended:

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 ..... 32**

**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 Hours**

Writing course (200 level or above) ..... 3

FAM 350 Consumer Issues ..... 3

PSY 100 Introduction to Psychology ..... 4

SOC 101 Introduction to Sociology ..... 3

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

ECO 202 Principles of Economics II ..... 3

STA 210 Making Sense of Uncertainty:

An Introduction to Statistical Reasoning ..... 3

**Subtotal: Premajor Hours ..... 22**

**Major Requirements**

MAT 114 Introduction to Merchandising ..... 3

MAT 120 Textiles for Consumers ..... 3

MAT 237 Aesthetic Experience in Retail ..... 3

MAT 247 Dress and Culture ..... 3

MAT 315 Merchandise Planning and Control ..... 3

MAT 340 Professional Practice ..... 1

MAT 350 Problem Solving in Merchandising ..... 3

MAT 414 Merchandising Strategy Analysis ..... 3

MAT 425 Economics of Merchandise Sourcing ..... 3

MAT 470 International Merchandising ..... 3

MAT 490 Internship ..... 6

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 (21 hours)**

ACC 201 Financial Accounting I ..... 3

ACC 202 Managerial Uses of

Accounting Information ..... 3

MKT 300 Marketing Management ..... 3

MKT 320 Retail and Distribution Management ..... 3

MGT 301 Business Management ..... 3

**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.

**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**