College of Agriculture, Food and Environment

M. Scott Smith, Ph.D., is Dean and Director of the College of Agriculture, Food and Environment; Nancy M. Cox, Ph.D., is Associate Dean for Research; Jimmy C. Henning, Ph.D., is Associate Dean for Extension; Larry J. Grabau, Ph.D., is Associate Dean for Instruction.

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

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

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

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

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

Students must apply for the Coordinated Program in Dietetics by February 1 prior to potential admission to year three in the Dietetics Program. For additional information, please go to page 112.

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

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

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

- Bachelor of Science in Agriculture
- Bachelor of Science in Agricultural Biotechnology
- Bachelor of Science in Agricultural Economics
- Bachelor of Science in Animal Sciences
- Bachelor of Science in Career and Technical Education
- Bachelor of Science in Community and Leadership Development
- Bachelor of Science in Dietetics
- Bachelor of Science in Equine Science and Management
- Bachelor of Science in Family Sciences
- Bachelor of Science in Forestry
- Bachelor of Science in Horticulture, Plant and Soil Sciences
- Bachelor of Science in Hospitality Management
- Bachelor of Science in Human Nutrition
- Bachelor of Science in Landscape Architecture
- Bachelor of Science in Merchandising, Apparel and Textiles
- Bachelor of Science in Natural Resources and Environmental Science

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

SPECIAL APPLICATION DEADLINE FOR SCHOOL OF HUMAN ENVIRONMENTAL SCIENCES

Coordinated Program in Dietetics

<table>
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<tr>
<th>Deadline</th>
<th>Description</th>
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<tr>
<td>Feb. 1</td>
<td>For fall entry to Coordinated Program</td>
</tr>
</tbody>
</table>

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

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

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

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

Scholarships and Financial Aid
The College of Agriculture, Food and Environment offers scholarship awards to students on the basis of academic accomplishment and involvement in extracurricular activities. Many of the departments in the college employ students in laboratories, greenhouses, barns, and field work in connection with the 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.
Academic Advising

Students in the College of Agriculture, Food and Environment are advised by selected faculty or academic coordinators in the department of the student’s major. Each student’s academic record is maintained in the Office of Academic Programs Advising Resource Centers in N8 Ag. Science Center or 112 Erikson Hall. Students needing assistance selecting an advisor or general information about academics may go to either of the Office of Academic Programs Advising Resource Centers.

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

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

Graduate Work

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

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

MINIMUM REQUIREMENTS FOR GRADUATION

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

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

B.S. in Agriculture with a major in INDIVIDUALIZED PROGRAMS

Individualized program opportunities have been developed to assist students with academic goals that cross several disciplines. Students pursuing the Bachelor of Science in Agriculture may pursue an individualized program in agriculture such as Entomology or Sustainable Agriculture.

The procedure for entering an individualized program is as follows:

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

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
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 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
GEN 100 Issues in Agriculture ...................................... 1

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

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

Graduation Writing Requirement
ABT 201 Scientific Method in Biotechnology .............. 1
ABT 301 Writing and Presentations in the Life Sciences ............................................. 2

Graduation Writing Requirement hours ........................ 3

Premajor Requirements
BIO 148 Introductory Biology I .................................. 3
BIO 152 Principles of Biology II ................................ 3
BIO 155 Laboratory for Introductory Biology I .......... 1
CHE 105 General College Chemistry I .......................... 4
CHE 107 General College Chemistry II ......................... 4
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 .......................... 3
MA 132 Calculus for the Life Sciences .......................... 3

Totals: Electives .................................................. 4

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

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

Subtotal: Electives .................................................. 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 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

Subtotal: Electives .................................................. 4

TOTAL HOURS: .................................................. 128
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 Introduction to Computing 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

Graduation Writing Requirement
WRD 203 Business Writing .......................................3

Graduation Writing Requirement hours ..........3

OPTIONS

Option A – Agricultural Economics
This option provides a program of study for students interested in careers in rural public policy analysis, rural economic development, natural resource and environmental economics, cooperative extension, or a more individualized program.

Premajor Requirements Hours
ECO 201 Principles of Economics I .............................3
ECO 202 Principles of Economics II .............................3
MA 113 Calculus I ..................................................4
OR
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

Subtotal: Premajor hours .......................... 19-22
*May be used to satisfy the Graduation Writing Requirement.

Major Requirements Hours
Notes: Students must have a C or higher in ECO 201 to enroll in the core classes and a C or higher in ECO 201 and MA 123 to enroll in AEC 303. Students must receive a grade of C or better in each of the following four agricultural economics courses required for graduation:
AEC 302 Agricultural Management Principles .............4
AEC 303 Microeconomic Concepts in
Agricultural Economics ........................................3
AEC 305 Food and Agricultural Marketing Principles ....3
AEC 490 Quantitative Methods and Price Analysis ..........3
plus 12 additional hours in the major ......................12

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

Specialty Support Hours
ACC 201 Financial Accounting I ................................3
ACC 202 Managerial Uses of Accounting Information .....3
plus 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, PSY, SOC, VS .............. 15

Subtotal: Specialty Support hours .................21
Electives
Elections should be selected by the student to lead to the minimum total of 120 hours required for graduation.

Subtotal: Electives minimum of 23

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

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.

Premajor Requirements Hours
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
OR
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 .......................... 22-25
*May be used to satisfy the Graduation Writing Requirement.

Major Requirements Hours
Notes: Students must have a C or higher in ECO 201 to enroll in the core classes and a C or higher in ECO 201 and MA 123 to enroll in AEC 303. Students must receive a grade of C or better in each of the following four agricultural economics courses required for graduation:
AEC 302 Agricultural Management Principles .............4
AEC 303 Microeconomic Concepts in
Agricultural Economics ........................................3
AEC 305 Food and Agricultural Marketing Principles ....3
AEC 422 Agribusiness Management .........................3
plus 12 additional hours in the major ......................12

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

Specialty Support Hours
ACC 201 Financial Accounting I ................................3
ACC 202 Managerial Uses of Accounting Information .....3
plus 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, PSY, SOC, VS

Subtotal: Specialty Support hours .................21
Electives
Elections should be selected by the student to lead to the minimum total of 120 hours required for graduation.

Subtotal: Electives minimum of 23

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

BACHELOR OF SCIENCE IN ANIMAL SCIENCES

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

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

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

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

Graduation Requirements
To earn the Bachelor of Science in Animal Sciences, the student must have a minimum of 120 credit hours with at least a 2.0 grade-point standing. A minimum of 45 credit hours must be from upper division courses (300 and above). Remedial courses may not be counted toward the total hours.
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**

<table>
<thead>
<tr>
<th>GEN 100 Issues in Agriculture</th>
<th>3</th>
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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.

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

**VIII. Statistical Inferential Reasoning**

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

IX. Community, Culture and Citizenship in the USA

GEN 100 Issues in Agriculture ......................... 3

X. Global Dynamics

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

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

**Graduation Writing Requirement**

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

**Graduation Writing Requirement hours ............ 3**

**Premajor Requirements**

<table>
<thead>
<tr>
<th>MA 123 Elementary Calculus and Its Applications</th>
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<tr>
<td>or MA 113 Calculus I ....................................</td>
<td>4</td>
</tr>
<tr>
<td>BIO 148 Introductory Biology I ........................</td>
<td>3</td>
</tr>
<tr>
<td>or BIO 152 Principles of Biology II ..................</td>
<td>3</td>
</tr>
<tr>
<td>CHE 105 General College Chemistry I ..................</td>
<td>4</td>
</tr>
<tr>
<td>CHE 107 General College Chemistry II ..................</td>
<td>3</td>
</tr>
</tbody>
</table>
| 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 .........................| 4 |
| 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:

**OPTIONS**

**Option A – Animal Industry**

Students fulfilling the Major Requirements are eligible for the Animal Industry Option by taking certain 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 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 .............................. 2
ASC 320 Equine Management ........................... 3
ASC 410E Equine Science .............................. 3

**Dairy Specialization**

ASC 420I 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 ........................... 3
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 ........................... 3
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 .......................... 3
or ABT/ENT 360 Genetics ................................. 3-4

*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 15

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

**BACHELOR OF SCIENCE IN BIOSYSTEMS ENGINEERING**

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

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

Teacher Certification

Besides receiving the B.S. in Career and Technical Education, students completing the requirements obtain a letter of endorsement to teach agricultural education. Requirements for teacher certification are as follows:

You must be admitted to the teacher education program (TEP) after you have completed, or complete during the semester in which you apply, 60 semester hours of course work and AED/FCS 110 Introduction to Career and Technical Education and have at least a 2.75 grade-point standing (on a 4.0 scale). See a full description of “Admission, Retention, and Completion from Teacher Education Programs” in the College of Education section of this Bulletin.

Candidates 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

| 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 the Humanities

Choose one course from approved list: 3

II. Intellectual Inquiry in the Arts and Creativity

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

Choose one course from approved list: 3

VI. Composition and Communication II

Choose one course from approved list: 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

Graduation Writing Requirement

After attaining sophomore status, students must complete a Graduation Writing Requirement course. Please see your academic advisor for courses that meet this requirement.

Graduation Writing Requirement hours 3

Major Requirements

| AED/FCS 110 Introduction to Career and Technical Education | 3 |
| AED/FCS 362 Field Experiences in Career and Technical Education | 3 |
| AED/FCS 371 Advising a Career and Technical Student Organization | 3 |
| AED/FCS 580 Foundations of Teaching Career and Technical Education | 3 |
| AED/FCS 583 Designing Curriculum and Assessment in Career and Technical Education | 3 |
| AED/FCS 585 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 |

Subtotal: Major Required hours 36

Agricultural Education Requirements

| AEC 302 Agricultural Management Principles | 4 |
| AEN 252 Farm Shop | 3 |
| ASC 101 Domestic Animal Biology | 3 |
| ASC 102 Applications of Animal Science | 3 |
| CLD 102 The Dynamics of Rural Social Life (or other Social Science elective) | 3 |
| ECO 201 Principles of Economics I | 3 |
| PLS 210 The Life Processes of Plants | 3 |
| PLS 365 Plant Production Systems | 3-4 |

**PLS 366 Fundamentals of Soil Science 4

Subtotal: Agricultural Education hours 26-27

Specialty Support Requirements

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

Subtotal: Specialty Support 24

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

Electives

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

Subtotal: Electives minimum of 7

Total Minimum Hours for Program 120

BACHELOR OF SCIENCE IN COMMUNITY AND LEADERSHIP DEVELOPMENT

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

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

Graduation Requirements

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

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

**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.

1. **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

2. **Intellectual Inquiry in the Humanities**
   - Choose one of the following:
     - EGR 201 Literature, Technology, and Culture
     - ENG 230 Introduction to Literature
     - ENG 264 Introduction to Black Writers
     - GWS 201 Gender and Popular Culture
     - HIS 112 The Making of Modern Kentucky
     - MCL 100 The World of Language

3. **Intellectual Inquiry in the Social Sciences**
   - CLD 102 The Dynamics of Rural Social Life

4. **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
     - BID 102 Human Ecology
     - GEO 130 Earth’s Physical Environment
     - GEO 135 Global Climate Change
     - EES 120 Sustainable Planet: The Geology of Natural Resources

5. **Composition and Communication I**
   - CIS/WRD 110 Composition and Communication I

6. **Composition and Communication II**
   - CIS/WRD 111 Composition and Communication II

7. **Quantitative Foundations**
   - MA 111 Introduction to Contemporary Mathematics
   - MA 123 Elementary Calculus and Its Applications

8. **Statistical Inferential Reasoning**
   - STA 210 Making Sense of Uncertainty: An Introduction to Statistical Reasoning

9. **Academic Programs**
   - PSY 215 Experimental Psychology
   - PSY 216 Applications of Statistics in Psychology
   - IX. Community, Culture and Citizenship in the USA
   - CLD 360 Environmental Sociology
   - GEN 100 Issues in Agriculture
   - X. Global Dynamics
   - CLD 380 Globalization: A Cross-Cultural Perspective
   - 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

**Graduation Writing Requirement hours:** 3

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

**Premajor Requirements Hours:** 1

**Major Requirements**
- CLD 300 Foundational Theories in Community and Leadership Development
- CLD 305 Research Methods in Community and Leadership Development
- CLD 362 Field Experience in CLD
- CLD 370 Learning in Society
- CLD 490 Senior Seminar in Community Communications and Leadership Development
- CLD 497 Professional Practicum in Community and Leadership Development
- Students must choose 18 hours of additional CLD courses from the following list:
  - CLD 325 Writing for Community Media
  - CLD 330 Interpersonal Skills for Tomorrow’s Leaders
  - CLD 340 Community Interaction
  - CLD 375 Contemporary Adult Learning
  - CLD 420 Sociology of Community
  - CLD 430 Leading in Communities
  - Vision, Action, and Change
  - CLD 440 Community Processes and Communication
  - CLD 460 Community Development and Change
  - CLD 465 Topics in Community Communications
  - CLD 470 Topics in Leadership
  - CLD 475 Topics in Non-Formal Education
- Students in Career and Technical Education who are admitted before they will be admitted to any upper-division courses in the program.

**Subtotal: Premajor Requirements** 10

**Major Requirements Hours:**

**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**

**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

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

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
*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
GEN 100 Issues in Agriculture ......................................................... 3

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

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.

Graduation Writing Requirement

After attaining sophomore status, students must complete a Graduation Writing Requirement course. Please see your academic advisor for courses that meet this requirement.

Graduation Writing Requirement hours ...... 3

Options

<table>
<thead>
<tr>
<th>OPTIONS</th>
<th>Option A – Equine Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premajor Requirements</td>
<td>Hours</td>
</tr>
<tr>
<td>BIO 150 Principles of Biology I</td>
<td>3</td>
</tr>
<tr>
<td>BIO 152 Principles of Biology II</td>
<td>3</td>
</tr>
<tr>
<td>CHE 105 General College Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHE 107 General College Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHE 111 Laboratory to Accompany General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>CHE 113 Laboratory to Accompany General Chemistry II</td>
<td>2</td>
</tr>
<tr>
<td>ECO 201 Principles of Economics I</td>
<td>3</td>
</tr>
<tr>
<td>MA 123 Elementary Calculus and Its Applications or MA 113 Calculus I</td>
<td>4</td>
</tr>
</tbody>
</table>

Subtotal: Premajor hours ........... $$23$$

<table>
<thead>
<tr>
<th>Major Requirements</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASC 101 Domestic Animal Biology</td>
<td>3</td>
</tr>
<tr>
<td>EQM 101 Introduction to the Horse and the Horse Industry</td>
<td>2</td>
</tr>
<tr>
<td>EQM 105 Equine Behavior and Handling</td>
<td>2</td>
</tr>
<tr>
<td>ASC 310 Equine Anatomy</td>
<td>2</td>
</tr>
<tr>
<td>ASC 320 Equine Management</td>
<td>3</td>
</tr>
<tr>
<td>EQM 351 Equine Health and Diseases</td>
<td>3</td>
</tr>
<tr>
<td>EQM 399 Equine Science Management Internship</td>
<td>3</td>
</tr>
<tr>
<td>ASC 410G Equine Science</td>
<td>3</td>
</tr>
<tr>
<td>EQM 490 Capstone in Equine Science and Management</td>
<td>3</td>
</tr>
<tr>
<td>AEC 302 Agricultural Management Principles</td>
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</tr>
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</table>

Subtotal: Major hours ................... $$28$$

Option A Hours

<table>
<thead>
<tr>
<th>Option A</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 236 Survey of Organic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>ASC 225 Animal Physiology</td>
<td>3</td>
</tr>
<tr>
<td>ASC 364 Reproductive Physiology of Farm Animals</td>
<td>4</td>
</tr>
<tr>
<td>ASC 378 Animal Nutrition and Feeding</td>
<td>4</td>
</tr>
<tr>
<td>PLS 366 Fundamentals of Soil Science</td>
<td>4</td>
</tr>
<tr>
<td>PLS 510 Forage Management and Utilization</td>
<td>3</td>
</tr>
</tbody>
</table>

Subtotal: Option A hours ........... $$21$$

Specialty Support Requirement

The student will choose, in consultation with an advisor, at least 18 hours of courses at the 200 level or above that will strengthen the program in an area of importance to the student. To aid in developing this area of study, a list of suggested courses is available 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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEN 100 Issues in Agriculture</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal: College Required hours</strong></td>
<td>3</td>
</tr>
</tbody>
</table>

**UK Core Requirements**

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

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

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

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

| IV.  Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences | 3 |
| CHE 105 General College Chemistry I           | 4  |
| CHE 111 Laboratory to Accompany General Chemistry I | 1  |

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

| VI. Composition and Communication II          | 3 |
| 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 | 4 |

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

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

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

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

**Graduation Writing Requirement**

After attaining sophomore status, students must complete a Graduation Writing Requirement course. Please see your academic advisor for courses that meet this requirement.

**Graduation Writing Requirement hours** ........ 3

**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    | 3 |
| MA 113 Calculus I                                  | 3 |
| MA 137 Calculus I With Life Science Applications   | 4 |

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

**Premajor Requirements**

| 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  |
| DHN 212 Introductory Nutrition                   | 2  |
| PHY 211 General Physics                          | 5  |
| STA 291 Statistical Methods                      | 3  |

| **Subtotal: Premajor hours**                      | 22 |
| **Major Requirements**                            | 31 |

| Required:                                         |     |
| FSC 107 Introduction to Food Science              | 3  |
| AEN 340 Principles of Food Engineering            | 4  |
| DHN 311 Nutritional Biochemistry                  | 3  |
| or BCH 401G Fundamentals of Biochemistry          | 3  |
| FSC 306 Introduction to Food Processing           | 4  |
| FSC 434G Food Chemistry                           | 4  |
| FSC 530 Food Microbiology                         | 5  |
| FSC 535 Food Analysis                             | 4  |
| FSC 536 Advanced Food Technology                  | 4  |

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

**Specialty Support**

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

| 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                    | 3  |
| FSC 304 Animal Derived Foods                       | 5  |
| FSC 395 Special Problem in 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  |
| DHN 304 Experimental Foods                         | 3  |

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

**Electives**

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

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

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

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**BACHELOR OF SCIENCE IN FORESTRY**

Kentucky boasts many forested areas with famous reputations, such as Natural Bridge, Red River Gorge, Daniel Boone National Forest, and Robinson Forest. Robinson Forest is one of the largest research and educational forests in the eastern United States. It is managed by the Department of Forestry, and as a forestry student at the University of Kentucky all of its resources will be available to you as a unique outdoor laboratory.

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

Accomplishment of these objectives will ensure a continuing supply of entry-level professionals for Kentucky and the nation.

The undergraduate (B.S.) program leading to the professional degree in forestry is accredited by the Society of American Foresters (SAF). SAF is the specialized accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation as the accrediting agency for forestry in the United States. Additionally, you may become certified by The Wildlife Society if you choose appropriate elective courses.
Career Opportunities
Forestry graduates are employed as professional foresters in private forest industries and organizations, consulting companies, and public agencies, including the U.S. Forest Service, Soil Conservation Service, and state, county, or urban forestry programs. Graduates are also qualified to be research technicians in government, university, and private laboratories, or may continue their studies in specialized graduate programs.

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

Graduation Requirements
To earn the Bachelor of Science in Forestry, the student must complete a minimum of 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.

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

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

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

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

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

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

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

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

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

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

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

Graduation Writing Requirement
Either of the following required courses fulfills the Graduation Writing Requirement:

FOR 400 Human Dimensions of Forestry and Natural Resources .................................................................3
FOR 460 Forest Hydrology and Watershed Management .................................................................3

Graduation Writing Requirement hours ...................................3-4

Premajor Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEN 100 Issues in Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>CHE 105 General College Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHE 104 Introductory General Chemistry</td>
<td>3</td>
</tr>
</tbody>
</table>

Subtotal: Premajors hours ..........................9-10

Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR 150 Computer Applications in Natural Resources</td>
<td>3</td>
</tr>
<tr>
<td>FOR 200 Basics of Geospatial Technology</td>
<td>2</td>
</tr>
<tr>
<td>FOR 219 Dendrology</td>
<td>4</td>
</tr>
<tr>
<td>FOR 230 Conservation Biology</td>
<td>3</td>
</tr>
<tr>
<td>FOR 240 Forestry and Natural Resource Ethics</td>
<td>2</td>
</tr>
<tr>
<td>FOR 250 Statistics and Measurements I</td>
<td>3</td>
</tr>
<tr>
<td>FOR 260 Forest Products and Wood Science</td>
<td>4</td>
</tr>
<tr>
<td>FOR 280 Forest Policy</td>
<td>2</td>
</tr>
<tr>
<td>FOR 300 Introduction to Forest Health and Protection</td>
<td>3</td>
</tr>
<tr>
<td>FOR 320 Forest Valuation and Economics</td>
<td>3</td>
</tr>
<tr>
<td>FOR 330 GIS and Spatial Analysis</td>
<td>3</td>
</tr>
<tr>
<td>FOR 340 Forest Ecology</td>
<td>4</td>
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<td>FOR 350 Silviculture</td>
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<tr>
<td>FOR 355 Forest Fire Control and Use</td>
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<tr>
<td>FOR 356 Landscape Assessment</td>
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<tr>
<td>FOR 357 Inventory and Measurements II</td>
<td>2</td>
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<tr>
<td>FOR 358 Silvicultural Practices</td>
<td>3</td>
</tr>
<tr>
<td>FOR 359 Forest Operations and Utilization</td>
<td>3</td>
</tr>
<tr>
<td>FOR 370 Wildlife Biology and Management</td>
<td>4</td>
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<tr>
<td>FOR 400 Human Dimensions of Forestry and Natural Resources</td>
<td>3</td>
</tr>
<tr>
<td>FOR 425 Forest Management</td>
<td>4</td>
</tr>
<tr>
<td>FOR 460 Forest Hydrology and Watershed Management</td>
<td>3</td>
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<tr>
<td>FOR 470 Interdependent Natural Resource Issues</td>
<td>3</td>
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<tr>
<td>FOR 480 Integrated Forest Resource Management</td>
<td>5</td>
</tr>
<tr>
<td>PLS 366 Fundamentals of Soil Science</td>
<td>4</td>
</tr>
</tbody>
</table>

Subtotal: Major hours ..................................81

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

Subtotal: Electives ...........................................2

TOTAL HOURS: ................................................121

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
## College of Agriculture, Food and Environment

### 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
- CHE 226 Analytical Chemistry ........................................ 3
- CHE 233 Organic Chemistry Laboratory II ....................... 1

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

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

## Graduation Writing Requirement
After attaining sophomore status, students must complete a Graduation Writing Requirement course. Please see your academic advisor for courses that meet this requirement.

### Graduation Writing Requirement hours ...... 3

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

### Premajor Requirements Hours
- CHE 105 General College Chemistry I .......................... 4
- CHE 107 General College Chemistry II .......................... 3
- CHE 111 Laboratory to Accompany General Chemistry I ........ 1
- CHE 113 Laboratory to Accompany General Chemistry II ....... 2
- MA 123 Elementary Calculus and Its Applications ............... 4
- WRD 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 Hours
- PLS 104 Plants, Soils, and People: A Science Perspective ........ 3
- PLS 210 The Life Processes of Plants ................................ 3
- or
- CHE 230 Principles of Plant Pathology .............................. 3
- 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

### Specialty Support Requirements
- CHE 226 Analytical Chemistry ........................................ 3
- CHE 230 Principles of Plant Pathology .............................. 3
- 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
  - 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**

### Specialty Support Requirements

### 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) ................. 3
- Select one course from approved list ............................ 3

#### Group B
- ASC 340 Poultry Production ......................................... 2
- ASC 404C Sheep Science (ASC 300, 362, 364) .................... 4
- ASC 406 Beef Cattle Science (ASC 300, 362, 364) ............... 3
- ASC 408G Swine Production (ASC 378) .......................... 2
- ASC 410Q Equine Science (ASC 362, 364) ....................... 3
- ASC 420Q 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

### Crops and Livestock Option
- PLS 515 Turf Management ........................................... 3
- PLS 525 Greenhouse Floral Crop Management ..................... 3
- PLS 440 Plant Propagation ........................................... 3
- PLS 395 Special Problems in Plant and Soil Science .......................... 3
- PLS 399 Experiential Learning in Plant and Soil Science ........ 3
- PLS 404 Integrated Weed Management ............................ 4
- PLS 470Q 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 ........................................... 1
- PLS 465 Greenhouses and Controlled Environments ............... 3
- Select 9 credit hours from the following courses:
  - PLS 320 Woody Horticultural Plants ................................ 4
  - PLS 330 Herbaceous Horticultural Plants ........................ 2
  - PLS 382 Herbaceous Horticultural Plants II ..................... 2
  - PLS 352 Nursery Production ....................................... 3
  - PLS 415 Landscape Management and Arboriculture ............. 3
  - PLS 515 Turf Management ........................................... 3
  - PLS 525 Greenhouse Floral Crop Management ..................... 3
  - Other PLS courses with consent of advisor .................... 3

**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

### Specialty Support Requirements

### Minor Support Requirements

- CHE 230 Principles of Plant Pathology .............................. 3
- BIO 205 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
  - 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**
The profession of landscape architecture has grown out of the tradition of the great garden designers of Italy, France, England, and China to encompass the art and science of design, planning, and management of the land. The science of landscape architecture is concerned with the conservation and management of natural resources. The art of landscape architecture is concerned with the creation of more enjoyable, comfortable, and safe outdoor areas where human use requires adaptation of the natural environment.

This 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, Food and Environment does not guarantee admission to the Landscape Architecture program. All applicants must be reviewed by the Landscape Architecture Program Chairperson. The number of applicants ultimately admitted is determined by the resources available to provide high quality instruction. Applicants will be reviewed on a comparative basis. Determination of acceptability into the program is based on the following.

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

1. submit a formal application to the Undergraduate Admissions Office indicating Landscape Architecture as your major;
2. meet the minimum criteria for admission 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 pre-major, professional, and specialty support requirements. The Landscape Architecture program policy requires a student to achieve a C grade or better in major design studios in order to advance to the next level.

UK Core Requirements

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

I. Intellectual Inquiry in Arts and Creativity

LA 111 Living on the Right Side of the Brain .......... 3

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 ................. 3
or
SOC 101 Introduction to Sociology ......................... 3

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

EES 110 Endangered Planet: An Introduction to Environmental Geology
or
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

Graduation Writing Requirement

After attaining sophomore status, students must complete a Graduation Writing Requirement course. Please see your academic advisor for courses that meet this requirement.

Graduation Writing Requirement hours .......... 3

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 ................. 3
or
SOC 101 Introduction to Sociology ......................... 3
EES 110 Endangered Planet: An Introduction to Environmental Geology
or
EES 120 Sustainable Planet: The Geology of Natural Resources ................. 3
Subtotal: Premajor hours ...................................... 9

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 .......
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

Electives

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

Subtotal: Electives .................................................. 1

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

**College Required Hours**

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

**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) required 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 Chemistry 1 4

CHE 111 Laboratory to Accompany General Chemistry 1 1

V. **Composition and Communication I**

CIS/WRD 110 Composition and Communication 1 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

**Graduation Writing Requirement**

NRE 301 Natural Resources and Environmental Science 3

Graduation Writing Requirement hours 3

**Premajor Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 150 Principles of Biology I</td>
<td>3</td>
</tr>
<tr>
<td>BIO 152 Principles of Biology II</td>
<td>3</td>
</tr>
<tr>
<td>CHE 105 General College Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHE 107 General College Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHE 111 Laboratory to Accompany General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>CHE 113 Laboratory to Accompany General Chemistry II</td>
<td>2</td>
</tr>
<tr>
<td>ECO 201 Principles of Economics I</td>
<td>3</td>
</tr>
<tr>
<td>EES 220 Principles of Physical Geology</td>
<td>4</td>
</tr>
<tr>
<td>MA 123 Elementary Calculus and Its Applications</td>
<td>4</td>
</tr>
<tr>
<td>STA 291 Statistical Methods</td>
<td>4</td>
</tr>
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</table>

**Subtotal: Premajor hours** 30

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>AEC 424 Principles of Environmental Law</td>
<td>3</td>
</tr>
<tr>
<td>AEC 445G Introduction to Resource and Environmental Economics</td>
<td>3</td>
</tr>
<tr>
<td>FOR 230 Conservation Biology</td>
<td>3</td>
</tr>
<tr>
<td>FOR 240 Forestry and Natural Resource Ethics</td>
<td>2</td>
</tr>
<tr>
<td>FOR 325 Economic Botany: Plants and Human Affairs</td>
<td>3</td>
</tr>
<tr>
<td>FOR 340 Forest Ecology</td>
<td>4</td>
</tr>
<tr>
<td>FOR 460 Forest Hydrology and Watershed Management</td>
<td>3-4</td>
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<tr>
<td>EES 385 Hydrology and Water Resources</td>
<td>3-4</td>
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<tr>
<td>*NRE 301 Natural Resources and Environmental Science</td>
<td>3</td>
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<tr>
<td>**NRE 320 Natural Resource and Environmental Analysis</td>
<td>3</td>
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<tr>
<td>NRE 381 Natural Resource and Environmental Policy Analysis</td>
<td>3</td>
</tr>
<tr>
<td>†NRE 395 Independent Study in Natural Resources and Environmental Science or</td>
<td></td>
</tr>
<tr>
<td>‡NRE 399 Experiential Education in Natural Resources and Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>NRE 471 Senior Problem in Natural Resources and Environmental Science</td>
<td>3</td>
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<tr>
<td>NRE 555 Introductory Geospatial Applications for Land Analysis</td>
<td>3</td>
</tr>
<tr>
<td>PLS 366 Fundamentals of Soil Science</td>
<td>4</td>
</tr>
</tbody>
</table>

*May be used to satisfy the Graduation Writing Requirement.

**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.

*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.

| Subtotal: Major hours | 43-44 |

### 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>AEC 483</td>
<td>Regional Economics</td>
</tr>
<tr>
<td>AEC 532</td>
<td>Agricultural and Food Policy</td>
</tr>
<tr>
<td>AEC/NRE 545</td>
<td>Resource and Environmental Economics</td>
</tr>
<tr>
<td>CLD/SOC 360</td>
<td>Environmental Sociology</td>
</tr>
<tr>
<td>FOR 280</td>
<td>Forest Policy</td>
</tr>
<tr>
<td>FOR 320</td>
<td>Forest Valuation and Economics</td>
</tr>
<tr>
<td>GEO 235</td>
<td>Environmental Management and Policy</td>
</tr>
<tr>
<td>GEO 455</td>
<td>Globalization and the Changing World Economy</td>
</tr>
<tr>
<td>PS 489G</td>
<td>The Analysis of Public Policy</td>
</tr>
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</table>

#### Geospatial Analysis

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BIO/NRE 420G</td>
<td>420G Taxonomy of Vascular Plants</td>
</tr>
<tr>
<td>BIO 452G</td>
<td>Laboratory in Ecology</td>
</tr>
<tr>
<td>ENT/FOR 402</td>
<td>Forest Entomology</td>
</tr>
<tr>
<td>FOR 219</td>
<td>Dendrology</td>
</tr>
<tr>
<td>FOR 250</td>
<td>Statistics and Measurements I</td>
</tr>
<tr>
<td>PLS 396</td>
<td>Soil Judging</td>
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<tr>
<td>PLS/NRE 455G</td>
<td>455G Soil Physics</td>
</tr>
<tr>
<td>PLS 573</td>
<td>Soil Morphology and Classification</td>
</tr>
<tr>
<td>PLS 597</td>
<td>Special Topics in Plant and Soil Science</td>
</tr>
</tbody>
</table>

#### Environmental Systems Emphasis Area

<table>
<thead>
<tr>
<th>Conservation Biology</th>
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<tbody>
<tr>
<td>BIO/PLS 210</td>
</tr>
<tr>
<td>BIO 325</td>
</tr>
<tr>
<td>BIO 361</td>
</tr>
<tr>
<td>BIO 375</td>
</tr>
<tr>
<td>BIO/NRE 420G</td>
</tr>
<tr>
<td>BIO/GEQ 530</td>
</tr>
<tr>
<td>FOR 219</td>
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<tr>
<td>FOR 370</td>
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<td>GEO 365</td>
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</table>

<table>
<thead>
<tr>
<th>Forestry</th>
</tr>
</thead>
<tbody>
<tr>
<td>*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.</td>
</tr>
<tr>
<td>*FOR 219 Dendrology</td>
</tr>
<tr>
<td>*FOR 350 Silviculture</td>
</tr>
<tr>
<td>FOR 310</td>
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<tr>
<td>FOR 320</td>
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<td>FOR 400</td>
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<table>
<thead>
<tr>
<th>Human Dimensions and Natural Resource Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO/GEO 530</td>
</tr>
<tr>
<td>CLD/SOC 360</td>
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<tr>
<td>CLD/SOC 360</td>
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<tr>
<td>CLD/SOC 420</td>
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<tr>
<td>CLD/SOC 440</td>
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<td>GEO 531</td>
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<tr>
<td>LA 588</td>
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<td>LA 595</td>
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<table>
<thead>
<tr>
<th>Environmental Soil Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLS 396</td>
</tr>
<tr>
<td>PLS/NRE 455G</td>
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<tr>
<td>PLS/NRE 455G</td>
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<tr>
<td>PLS 468G</td>
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<tr>
<td>PLS/NRE 470G</td>
</tr>
<tr>
<td>PLS/NRE 477G</td>
</tr>
<tr>
<td>PLS 566</td>
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<tr>
<td>PLS 573</td>
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<td>PLS 575</td>
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<table>
<thead>
<tr>
<th>Environmental System Emphasis Area</th>
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</thead>
<tbody>
<tr>
<td>AEC 581</td>
</tr>
<tr>
<td>AEC 582</td>
</tr>
<tr>
<td>AEC 583</td>
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<td>AEC 584</td>
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<td>AEC 585</td>
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<tr>
<td>AEC 586</td>
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<tr>
<td>AEC 587</td>
</tr>
<tr>
<td>AEC 588</td>
</tr>
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### 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO/PLS 210</td>
<td>The Life Processes of Plants</td>
</tr>
<tr>
<td>BIO 325</td>
<td>Ecology</td>
</tr>
<tr>
<td>BIO 361</td>
<td>Ecology of the Kentucky Flora and Vegetation</td>
</tr>
<tr>
<td>BIO 375</td>
<td>Behavioral Ecology and Sociobiology</td>
</tr>
<tr>
<td>BIO/NRE 420G</td>
<td>Taxonomy of Vascular Plants</td>
</tr>
<tr>
<td>BIO/GEQ 530</td>
<td>Biogeography and Conservation</td>
</tr>
<tr>
<td>FOR 219</td>
<td>Dendrology</td>
</tr>
<tr>
<td>FOR 370</td>
<td>Wildlife Biology and Management</td>
</tr>
<tr>
<td>GEO 365</td>
<td>Special Topics in Regional Geography</td>
</tr>
</tbody>
</table>

### Forestry

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BIO 304</td>
<td>Principles of Genetics</td>
</tr>
<tr>
<td>BIO 325</td>
<td>Ecology</td>
</tr>
<tr>
<td>BIO 350</td>
<td>Animal Physiology</td>
</tr>
<tr>
<td>ASC 325</td>
<td>Animal Physiology</td>
</tr>
<tr>
<td>BIO 375</td>
<td>Behavioral Ecology and Sociobiology</td>
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</tbody>
</table>

### Human Dimensions and Natural Resource Planning

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BIO/GEO 530</td>
<td>Biogeography and Conservation</td>
</tr>
<tr>
<td>CLD/SOC 360</td>
<td>Community Interaction</td>
</tr>
<tr>
<td>CLD/SOC 360</td>
<td>Environmental Sociology</td>
</tr>
<tr>
<td>CLD/SOC 420</td>
<td>Sociology of Communities</td>
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<tr>
<td>CLD/SOC 440</td>
<td>Community Processes and Communication</td>
</tr>
<tr>
<td>ENS 400</td>
<td>Senior Seminar (Subtitle required)</td>
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<tr>
<td>FOR 400</td>
<td>Human Dimensions of Forestry and Natural Resources</td>
</tr>
<tr>
<td>FOR 470</td>
<td>Intergovernmental Natural Resource Issues</td>
</tr>
<tr>
<td>GEO 285</td>
<td>Introduction to Planning</td>
</tr>
<tr>
<td>GEO 485</td>
<td>Urban Planning and Sustainability</td>
</tr>
<tr>
<td>GEO 490</td>
<td>American Landscapes</td>
</tr>
<tr>
<td>GEO 531</td>
<td>Landscape Ecology</td>
</tr>
<tr>
<td>LA 588</td>
<td>Regional Land Use Planning Systems</td>
</tr>
<tr>
<td>LA 595</td>
<td>Advanced Regional Land Use Planning Applications</td>
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### Environmental Soil Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PLS 396</td>
<td>Soil Judging</td>
</tr>
<tr>
<td>PLS/NRE 455G</td>
<td>455G Biogeochemistry</td>
</tr>
<tr>
<td>PLS/NRE 455G</td>
<td>455G Wetland Delineation</td>
</tr>
<tr>
<td>PLS 468G</td>
<td>Soil Use and Management</td>
</tr>
<tr>
<td>PLS/NRE 470G</td>
<td>Soil Nutrient Management</td>
</tr>
<tr>
<td>PLS/NRE 477G</td>
<td>Land Treatment of Waste</td>
</tr>
<tr>
<td>PLS 566</td>
<td>Soil Microbiology</td>
</tr>
<tr>
<td>PLS 573</td>
<td>Soil Morphology and Classification</td>
</tr>
<tr>
<td>PLS 575</td>
<td>Soil Physics</td>
</tr>
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### Water Resources

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>AEN 461G</td>
<td>Biometricology</td>
</tr>
<tr>
<td>BAE 438G/CE 460</td>
<td>Fundamentals of Groundwater Hydrology</td>
</tr>
<tr>
<td>EES 585</td>
<td>Hydrogeology</td>
</tr>
<tr>
<td>BAE 532</td>
<td>532/CE 542 Introduction to Stream Restoration</td>
</tr>
<tr>
<td>BAE 538</td>
<td>GIS Applications for Water Resources</td>
</tr>
<tr>
<td>BIO/GEO 530</td>
<td>Biogeography and Conservation</td>
</tr>
<tr>
<td>CHE 565</td>
<td>Environmental Chemistry</td>
</tr>
<tr>
<td>GEO 230</td>
<td>Weather and Climate</td>
</tr>
<tr>
<td>GEO 236</td>
<td>Environmental Chemistry</td>
</tr>
<tr>
<td>GEO 451G</td>
<td>Fluvial Forms and Processes</td>
</tr>
<tr>
<td>EES 530</td>
<td>Low Temperature Geochemistry</td>
</tr>
<tr>
<td>PLS/NRE 450G</td>
<td>Biogeochemistry</td>
</tr>
<tr>
<td>PLS/NRE 455G</td>
<td>Wetland Delineation</td>
</tr>
<tr>
<td>PLS 573</td>
<td>Soil Morphology and Classification</td>
</tr>
<tr>
<td>PLS 575</td>
<td>Soil Physics</td>
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</tbody>
</table>

### Minor in Animal Sciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>BIO 325</td>
<td>Ecology</td>
</tr>
<tr>
<td>BIO 350</td>
<td>Animal Physiology</td>
</tr>
<tr>
<td>ASC 325</td>
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</tr>
<tr>
<td>BIO 375</td>
<td>Behavioral Ecology and Sociobiology</td>
</tr>
</tbody>
</table>

### MINORS IN AGRICULTURE, FOOD AND ENVIRONMENT

<table>
<thead>
<tr>
<th>Minor in Agricultural Economics</th>
</tr>
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</table>

### Preprofessional Requirement

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

### Minor Requirements

Two courses selected from:

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

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.

### 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

<table>
<thead>
<tr>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASC 101 Domestic Animal Biology</td>
</tr>
<tr>
<td>ASC 102 Applications of Animal Science</td>
</tr>
<tr>
<td>Additional Course Work</td>
</tr>
</tbody>
</table>

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

#### Group A

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ASC 300</td>
<td>Meat Science</td>
</tr>
<tr>
<td>ASC 352</td>
<td>Animal Physiologic (BIO 152 and CHE 107/113)</td>
</tr>
<tr>
<td>ASC 362</td>
<td>Animal Genetics</td>
</tr>
<tr>
<td>ASC 364</td>
<td>Reproductive Physiology of Farm Animals (CHE 230 or 236)</td>
</tr>
<tr>
<td>ASC 378</td>
<td>Animal Nutrition and Feeding (CHE 230 or 236)</td>
</tr>
</tbody>
</table>
College of Agriculture, Food and Environment

Group B
ASC 340 Poultry Production ............................................. 2
ASC 404G Sheep Science (ASC 360, 362, 364) .................... 4
ASC 406 Beef Cattle Science (ASC 390, 362, 364) ............... 4
ASC 408G Swine Production (ASC 378) ............................ 2
ASC 4100 Equine Science (ASC 362, 364) ......................... 3
ASC 4200 Dairy Cattle Science (ASC 362, 364) ................... 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 Intraperssonal Leadership ........................................ 3
CLD 260 Community Portraits ........................................... 3

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

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 .......................................................... 3
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 or .................................................. 4
FSC 434G Food Chemistry .................................................. 4
FSC 530 Food Microbiology ................................................. 5
FSC 536 Advanced Food Technology or ............................. 4
FSC 538 Food Fermentation and Thermal Processing ......... 4

Minor in Pest Management

Pre requisite Hours
One course from the following:
ASC 720, 404G, 406, 408G, 420G
PLS 352, 386, 402, 408, 512, 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

Minor Requirements
Required: ........................................................................ 18
PLS 104 Plants, Soils, and People:
A Science Perspective ......................................................... 3
PLS/BIO 210 The Life Processes of Plants or
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 Sustainable Agriculture

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

Minor Prerequisite Hours
ECO 201 Principles of Economics I ..................................... 3

Minor Requirements
Required: .......................................................................... 9
SAG 101 Introduction to Sustainable Agriculture .................. 3
SAG 201 Cultural Perspectives on Sustainability ................. 3
SAG 397 Apprenticeship in Sustainable Agriculture ................
Select one from:
GEO 235 Environmental Management and Policy ............. 3
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, Food and Environment at the University of Kentucky and complete their requirements for admission to veterinary school. Most students completing a science-based degree program (e.g., Animal Science, Agricultural Biotechnology, etc.) can complete pre-vet requirements at the same time.

Although the Commonwealth of Kentucky does not have a school of veterinary medicine, it is a participating member of the Southern Regional Education Board plan, under which legal Kentucky residents may attend the Auburn University College of Veterinary Medicine. Each year 38 qualified Kentucky students are chosen from Kentucky to enter the Auburn program. There is also a plan whereby three legal Kentucky residents may be accepted by the Tuskegee University 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 3.50. 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
Auburn strongly urges students to take organic chemistry and/or PHY 213 General Physics. 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**

<table>
<thead>
<tr>
<th>Hours</th>
<th>Course Name</th>
</tr>
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<tbody>
<tr>
<td>5</td>
<td>PHY 211 General Physics</td>
</tr>
<tr>
<td>1</td>
<td>CHE 233 Organic Chemistry Laboratory II</td>
</tr>
<tr>
<td>1</td>
<td>CHE 231 Organic Chemistry Laboratory I</td>
</tr>
<tr>
<td>2</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>1</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>4</td>
<td>CHE 105 General College Chemistry I Laboratory I and II***</td>
</tr>
<tr>
<td>6</td>
<td>BIO 151/153 Principles of Biology</td>
</tr>
<tr>
<td>6</td>
<td>BIO 148 (or 150)/152 Principles of Biology I and II</td>
</tr>
<tr>
<td>3</td>
<td>Athens Electives**</td>
</tr>
<tr>
<td>6</td>
<td>History (e.g. IHS 108/109)**</td>
</tr>
<tr>
<td>9</td>
<td>Social Sciences electives***</td>
</tr>
<tr>
<td>4</td>
<td>MA 132 Elementary Calculus and Its Applications</td>
</tr>
<tr>
<td>4</td>
<td>MA 113 Calculus I</td>
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</tbody>
</table>

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

**College of Agriculture, Food and Environment**

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.

**Tuskegee’s Pre-Veterinary Curriculum**

<table>
<thead>
<tr>
<th>Hours</th>
<th>Course Name</th>
</tr>
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<tbody>
<tr>
<td>4</td>
<td>Organic Chemistry w/Lab</td>
</tr>
<tr>
<td>4</td>
<td>Biochemistry w/Lab</td>
</tr>
<tr>
<td>4</td>
<td>Physics w/Lab</td>
</tr>
<tr>
<td>9</td>
<td>Advanced Biology (300 level or above)</td>
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<td>3</td>
<td>ASC 101 Domestic Animal Biology</td>
</tr>
<tr>
<td>4</td>
<td>ASC 378 Animal Nutrition and Feeding</td>
</tr>
<tr>
<td>6</td>
<td>Mathematics</td>
</tr>
<tr>
<td>6</td>
<td>English</td>
</tr>
<tr>
<td>6</td>
<td>Social Sciences/Humanities</td>
</tr>
<tr>
<td>6</td>
<td>Liberal Arts</td>
</tr>
<tr>
<td>8</td>
<td>Advanced Biology Electives</td>
</tr>
</tbody>
</table>

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. 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.

**SCHOOL OF HUMAN ENVIRONMENTAL SCIENCES**

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

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

**Undergraduate Programs in Human Environmental Sciences**

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

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

**Minor Offered**

The following minor is available:
- Family Sciences

**Accreditations and Approvals**

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

Additionally, all programs and facilities which can be accredited or approved have achieved that recognition:
- Didactic and Coordinated Programs in Dietetics are both accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND)
- The Masters Specialization in Couple and Family Therapy (M.S. in Family Sciences) is accredited by the Commission on Accreditation for Couple and Family Therapy Education (COACFTE). The program includes coursework work and clinical practicum required for licensure.

**Unique Features of the School**

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

Over fifty scholarships are awarded each year to undergraduate and graduate students enrolled in the School of Human Environmental Sciences. Information about scholarships is available from the Advising Resource Office, 112 Erikson Hall, and the College of Agriculture, Food and Environment Scholarship Office, N-6 Ag Science Building.

Advising

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

Advising Resource Office
School of Human Environmental Sciences
College of Agriculture, Food and Environment
112 Erikson Hall
University of Kentucky
Lexington, KY 40506-0050
(859) 257-2855
www.ca.uky.edu/hes/

DEPARTMENT OF DIETETICS AND HUMAN NUTRITION

The Department of Dietetics and Human Nutrition provides sound undergraduate and graduate programs in foods and nutrition, and is concerned with research and extension services. The department offers the Bachelor of Science in Dietetics and the Bachelor of Science in Human Nutrition. A post-baccalaureate dietetic internship is also offered.

Visit us on the Web at: www.ca.uky.edu/hes/?p=4.

PLEASE NOTE

The following Admission Policy for majors in the Department of Dietetics and Human Nutrition is effective for Fall 2014.

Admission Policy

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

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

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

1. Enrollment in the University of Kentucky. (Students are considered for acceptance by the Department only after acceptance by the University of Kentucky.);

2. Completion of the premajor component (premajor courses include: CHE 105, CHE 107, CHE 111, CHE 113, BIO 152, DHN 212, and DHN 241) required for all students within the Department of Dietetics and Human Nutrition with a minimum premajor course work grade-point average of 2.8.*

3. Submission of an application form to the Department of Dietetics and Human Nutrition Academic Coordinator.

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

Applications from students outside the University of Kentucky seeking admission to the Human Nutrition or Dietetics degree programs, whether for upper-division or lower-division status, must be received by the University Admissions Office no later than April 15 (first summer session); May 15 (second summer session); August 1 (fall semester); and December 1 (spring semester). Students enrolled in other UK programs on campus should apply for admission prior to the priority registration period. (The appropriate deadlines are listed in the University calendar for approved times to change major.)

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

Appeal Process

Students with a GPA below 2.8 and who have completed all premajor requirements may appeal for admission into the human nutrition or dietetics programs. If the Appeals Committee feels that there is persuasive evidence that personal, academic or professional circumstances have affected a student’s grades and the student shows promise for successful completion of a degree in

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

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

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

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

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

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

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

The application deadline for the UK DHN CP is February 1, prior to potential fall admission in Year Three of the Dietetics Program. Year Three of the Dietetics Program is the beginning of the Major Requirements for completion of course work. Program application materials should include an application form, a letter of professional goals and qualifications, three letters of reference, and record of academic performance.

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

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 DHN dietetics program or a transfer student, indicate intent to declare dietetics as their major. Students accepted into the CP must be majors in the UK DHN dietetics program.

Successful completion of Option B, the UK 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 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 DHN DI. For information regarding the UK DHN Dietetic Internship, the application and/or screening procedures, please contact:

**College of Agriculture, Food and Environment and School of Human Environmental Sciences**

**Department of Dietetics and Human Nutrition**

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

**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

or

SOC 101 Introduction to Sociology ................................. 3-4

**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**

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 .......................................................... 32-33**

**Graduation Writing Requirement**

After attaining sophomore status, students must complete a Graduation Writing Requirement course. Please see your academic advisor for courses that meet this requirement.

**Graduation Writing Requirement hours ............ 3**

**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 ................................. 3

or

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

CLA 131 Medical Terminology from Greek and Latin .... 3

ECO 201 Principles of Economics I ............................. 3
DHN 212 Introductory Nutrition ................................. 3
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

**Subtotal: Premajor hours .................. 44**

**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.

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

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

OPTIONS
Option A – Didactic Program in Dietetics (DPD)
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.
DHN 800 Nutrition in the Life Cycle: Practicum*............. 1
DHN 808 Community Nutrition II: Supervised Practice* .... 2
DHN 810 Medical Nutrition Therapy I: Supervised Practice* 5
DHN 812 Food Service Systems Management: Supervised Practice* .................................................. 5
DHN 814 Food Service Systems Management II: Supervised Practice* .................................................. 3
DHN 816 Medical Nutrition Therapy II: Supervised Practice* .................................................. 3
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 in Dietetics and Human Nutrition
203 Funkhouser Building
University of Kentucky

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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 .............................................. 2

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 .............................................. 4
   or
   MA 113 Calculus I .............................................. 4

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

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

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

UK Core hours .............................................. 34

**Graduation Writing Requirement**

After attaining sophomore status, students must complete a Graduation Writing Requirement course. Please see your academic advisor for courses that meet this requirement.

Graduation Writing Requirement hours ........ 3

**Premajor Requirements**

Hours
PSY 100 Introduction to Psychology .............................................. 4
MA 113 Calculus I .............................................. 4
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 I .............................................. 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
DHN 212 Introductory Nutrition .............................................. 3
DHN 241 Food Service Sanitation .............................................. 1
DHN 302 Principles of Food Preparation .............................................. 3
DHN 304 Experimental Foods .............................................. 3
DHN 311 Nutritional Biochemistry .............................................. 3
DHN 312 Nutrition and Wellness in the Life Cycle .............................................. 3
DHN 315 Nutrition Issues in Physical Activity .............................................. 3
DHN 403 Community Nutrition and Wellness .............................................. 3
DHN 408G Seminar in Food and Nutrition .............................................. 1
DHN 474 Research in Nutrition: Theory .............................................. 3
DHN 475 Research in Nutrition: Application .............................................. 3
DHN 510 Advanced Nutrition .............................................. 3
PHI 365 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
I. Intellectual Inquiry in Arts and Creativity
   Students should work closely with their instructors to become certified family life educators through their work. The department offers a major in family sciences. Each student must complete the following:

1. Complete UK Core requirements.
2. Complete the School of Social Work 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 advisors to complete the UK Core requirements.

I. Intellectual Inquiry in the Humanities

Choose one course from approved list 3

II. Intellectual Inquiry in the Social Sciences

PSY 100 Introduction to Psychology or SOC 101 Introduction to Sociology 3-4

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

Choose one course from approved list 3

V. Composition and Communication I

CIS/WRD 110 Composition and Communication I 3

VI. Composition and Communication II

CIS/WRD 111 Composition and Communication II 3

VIII. Statistical Inferential Reasoning

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

IX. Community, Culture, and Citizenship in the USA

Choose one course from approved list 3

X. Global Dynamics

Choose one course from approved list 3

UK Core hours 30-31

Graduation Writing Requirement

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 courses if available.

Subtotal: Electives 6

TOTAL HOURS: 120

Minor in Family Sciences

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

Minor Requirements

FAM 251 Personal and Family Finance 3
FAM 254 Life Course Human Development 3
FAM 352 Issues in Family Sciences 3

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

DEPARTMENT OF RETAILING AND TOURISM MANAGEMENT

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

Visit us on the Web at: www.ca.uky.edu/hes/?p=3.
BACHELOR OF SCIENCE IN HOSPITALITY MANAGEMENT

In the Hospitality Management and Tourism program option leading to the B.S. in Hospitality Management, students acquire the specialized knowledge needed for careers in the hospitality industry. The degree integrates hospitality marketing strategies, communications and financial management through a curriculum focused on management of facilities and operations that provide hospitality services to the public. A required senior internship is a culminating experience applying classroom knowledge to real-world experiences. Opportunities are available for exchange experiences and international study tours.


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

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

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

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

School Requirements
HES 100 An Introduction to Professions in Human Environmental Sciences .......................... 1
FAM 552 Issues in Family Sciences .................. 3
Subtotal: School Required Hours .................. 4

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

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

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

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

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

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

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

VII. Quantitative Foundations
   MA 123 Elementary Calculus and Its Applications ........ 4

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

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

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

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

Graduation Writing Requirement
After attaining sophomore status, students must complete a Graduation Writing Requirement course. Please see your academic advisor for courses that meet this requirement.

Graduation Writing Requirement hours ........ 3

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

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 and South Asia
   AAS 200 Introduction to African-American Studies
   GWS 200 Sex and Power .................................. 6
   CS 101 Introduction to Computing ..................... 3
   ACC 201 Financial Accounting ......................... 3
   ACC 202 Managerial Uses of Accounting Information ........................................ 3
   ECO 201 Principles of Economics ...................... 3
   ECO 202 Principles of Economics ...................... 3
   WRD 203 Business Writing ............................... 3
   HMT 120 Introduction to Hospitality Management and Tourism .................................. 3
   HMT 210 Hotel Rooms Division Management .......... 3
   HMT 270 Principles of Travel and Tourism .......... 3
   MA 123 Elementary Calculus and Its Applications (prerequisite for STA 291) .......... 4
   STA 291 Statistical Methods ............................. 3
   DHN 241 Food Service Sanitation ...................... 1
Subtotal: Premajor hours .................. 47-49

Major Requirements Hours
Required:
   HMT 308 Principles of Food and Beverage or
   DHN 302 Principles of Food Preparation ................ 3
   HMT 345 Information Technology in the Hospitality Industry .................................. 3
   HMT 350 Hospitality Managerial Accounting .......... 3
   HMT 499 Hospitality and Tourism Internship .......... 3
   DHN 342 Quantity Food Production ..................... 4
   FIN 300 Corporation Finance .......................... 3
   MGT 301 Business Management ........................ 3
   MKT 300 Marketing Management ...................... 3
Subtotal: Major Core hours .............. 25

Plus at least 15 hours selected from the following courses.
Only three hours of HMT 395 may count for this requirement:
   DHN 340 Institutional Purchasing ...................... 3
   DHN 346 Human Resources Management for the Food and Hospitality Industries .......... 3
   HMT 320 Hospitality and Tourism Marketing 3
   HMT 330 Meetings and Convention Management .......... 3
   HMT 360 Tourism Planning and Development .......... 3
   HMT 460 Advanced Seminar in Lodging and Tourism .................................. 3
   HMT 470 Hospitality and Tourism Law and Ethics .......... 3
   HMT 480 Trends Analysis for the Hospitality Industry .................................. 3
   HMT 488 Strategic Management in the Hospitality and Food Service Industry ........ 3
   HMT 359 Hospitality and Tourism Special Topics:
      (Subtitle required) ...................................... 1-3
   HMT 395 Hospitality and Tourism Independent Study .................................. 1-3
Subtotal: Major Selection .............. 15

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

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

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

BACHELOR OF SCIENCE IN MERCHANDISING, APPAREL, AND TEXTILES

The Merchandising, Apparel, and Textiles program 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.

Visit us on the Web at: www.ca.uky.edu/hes/?p=3.

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

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

V. Composition and Communication I

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

VI. Composition and Communication II

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

VII. Quantitative Foundations

Recommended:

MA 123 Elementary Calculus and its Applications

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

**Graduation Writing Requirement**

After attaining sophomore status, students must complete a Graduation Writing Requirement course. Please see your academic advisor for courses that meet this requirement.

**Graduation Writing Requirement hours .................. 3**

**Program Entrance Requirements**

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

**Graduation Requirements**

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

**Premajor Requirements**

**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**

**Hours**

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