Any student earning a Bachelor of Science (BS) degree must complete a minimum of 60 hours in natural, physical, mathematical, and computer science. See the complete description of College requirements for a Bachelor of Science degree, including a specific listing of courses applicable to the 60-hour requirement, on pages 113-114 (http://www.uky.edu/Registrar/bulletinCurrent/a_s.pdf)

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 ........................... 3
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 .......................... 3-4

VIII. Statistical Inferential Reasoning
Choose one course from approved list ............................. 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 .................................... 31-32

College Requirements
Humanities – one course .................................................. 3
Social Science – one course ............................................. 3
Third and fourth semesters of language ............................ 6
Free Electives ................................................................. 6
Lab or Field Experience – satisfied by major
Graduation Writing Requirement (choose any GWR Humanities 300-level course; this will also count as one of the two Humanities courses in the College Requirements)

General Education
and College hours: ................................. 48 (39)

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 ............... 3
*CHE 111 Laboratory to Accompany
general Chemistry I ........................................... 1
CHE 107 General College Chemistry II ............... 3
CHE 113 Laboratory to Accompany
general Chemistry II ....................................... 2
MA 137/138 Calculus I/II With Life
Science Applications
or
*MA 113/114 Calculus I/II ................................. 8
Premajor hours: ........................................... 24

Major Requirements
Minimum major requirement for graduation is 57 credit hours in courses not open to freshmen. The minimum GPA of all major and premajor courses must be at least 2.0.

#These courses below are tailored training for the Physiology Major within the Topical studies. (any 600 level course an undergraduate can take as long as they are only so many hours from graduation and there is an agreement from instructor, along with a good GPA.)

See Graduate School rules:
Graduating Seniors as Part-Time Graduate Students

Seniors at the University of Kentucky lacking no more than 6 credit hours for graduation and having an undergraduate average of at least 2.75 on all work attempted may register in the Graduate School in conditional status with the consent of the undergraduate college dean, the appropriate Director of Graduate Studies, and the Dean of the Graduate School. The total load of such students may not exceed 12 credit hours. Graduate credit will be allowed for each credit hour of graduate work beyond the six or fewer credit hours needed to complete undergraduate requirements. Requirements for the undergraduate degree must be completed during the semester in which the student is allowed to register for part-time graduate work. Students applying for admission to the Graduate School under these conditions must fill out a petition form listing the course or courses to be taken.
to complete the undergraduate requirements
http://www.research.uky.edu/gs/ProspectiveStudents/admission_categories.html

Major Core
PGY 412G Human Physiology…………………………3
BIO 315 Introduction to Cell Biology (with wet lab)…. 4
BIO 350 Animal Physiology (with wet lab)
or
BIO 430G Plant Physiology ................................. 4
Statistics (take any UK Core Statistical
Reasoning course) ......................................................... 3
PGY 425 Physiology Seminar (Subtitle required) {In course development by the
Physiology Department}
Or BIO 425 Biology Seminar that has a physiology focus for that
semester............................................................ 1
PGY 502 Principles of Physiology .........................5 hrs
Core hours: ......................................................... 20

Other Course Work Required for the Major
CHE 230 Organic Chemistry I ............................. 3
CHE 231 Organic Chemistry Laboratory I ........... 2
CHE 232 Organic Chemistry II ........................... 3
*PHY 211/213 General Physics
or
*PHY 231/241 General University Physics/Laboratory
and
PHY 232/242 General University Physics/
Laboratory .......................................................... 10

Electives
Choose 15 hours of acceptable electives .......... 15
Fifteen hours to be chosen from 200+ level courses
or the list below. Two courses must have labs.
One of which may be BIO 395 (involved in a physiology research project) or Anatomy
and Neurobiology 395 (involved in a physiology research project), ABT 395 (involved in
a physiology research project) or Physiology 395 {In course development by the
Physiology Department}. A maximum of 6 credits of course 395 credits may be used as
electives in this section. A total of 6 hours of Independent Research (395) from the
various departments may be counted within the 15 hour requirement
NOTE: ANA 209, BIO 208 and PGY 206 cannot be used for this requirement.

Other Major hours: ............................................. 33
Acceptable electives
Other courses may be accepted at the discretion of the Topical Studies program Director

**A&S 300, 500** *(acceptable as upper-level credit only when content is related to Physiology for the majority of the course)*

**ABT 460** *(Introduction to Molecular Genetics)*

**ANA 511, 512, 516** *(some other anatomy courses at the 500-level are accepted, but are usually restricted to professional students)*

**ASC 364** *(Reproductive physiology of farm animals), 378 (Animal nutrition), 601 (Mammalian endocrinology), 660 (Physiology of reproduction)*

**BIO 550** *(Advanced Comparative Physiology)*

**BCH 401G** *(Biochemistry)*

**CHE 233, 440G, 441G, 442G, 550** *(Biological Chemistry), 552, 558, 580 (Elements of Neurochemistry- this course is heavy in physiological diseases)*

**ENT 561** *(Medical Entomology), 568 (Insect Behavior)*

**IBS-603 Cell Biology (3 credits)** *(Instructor permission required)*

**IBS-604 Cell Signaling (3 credits)** *(Instructor permission required)*

**MI 494G** *(Immunology), 595 (IMMUNOCHEMISTRY LABORATORY), 598 (CLINICAL MICROBIOLOGY)*

**PGY 560** *(pathophysiology-1 credits), 535 (Comparative Neurobiology and Behavior-3 credits), 504 (Independent work in physiology 1- credit), 590 (Cellular and molecular physiology-4 credits), New PGY 417 (Genomics and epigenetics with PGY/PHA 617 physiological genomics-3 credits)*

*(prerequisite for these courses is that the student must have had PGY502. Also one must seek approval of course instructor)*

**PGY 601 Mammalian Endocrinology**

**PGY 604 Advanced Cardiovascular Physiology**

**PGY 605 Principles of Neurobiology**

**PGY 606 Advanced Neurophysiology**

**PGY 608 Advanced Renal Physiology**

**PGY 609 Advanced Respiratory Physiology**

**PGY 617 Physiological Genomics**

**PGY 618 Molecular Neurobiology**

**PGY 638 Developmental Neurobiology**

**PGY 660 Biology of Reproduction**

**PHA** *(Introduction to pharmacology- New course planned to appear in near future)*

**PSY 456** *(BEHAVIORAL NEUROSCIENCE), 459 (Drugs and Behavior)*

**STA 570, 580** *(Only one of these courses for each student).*
Other STA courses may be accepted at the discretion of your advisor, and this may depend upon the area of physiology in which you choose to specialize.

TOX 508 (RESEARCH METHODS IN TOXICOLOGY)

Total Minimum Hours
Required for Degree ................................ 120