

GENETICS

BACHELOR OF SCIENCE

At least **124 hrs.** (of which 45 must be Jr/Sr hrs.—courses numbered 300 or above) **must be completed for graduation.**

Completing the minimum requirements listed on this sheet will result in **108 overall hrs.** and **44 Jr/Sr hrs.**

Double majors must complete at least 15 hrs. unique to the major.

I. General College Requirements (33 hrs):

English (9 hrs.): ENGL 101 ___; ENGL 102 (or 105) ___;
ENGL 203 (or 205, 209, 210, 211) ___

Argument & Reason (3 hrs., one of the following): ___
COMS 130, 230, PHIL 148, 310

Western Civilization (6 hrs.): HWC 204 (or 114) ___;
HWC 205 (or 115) ___

Principal Course and/or Foreign Language Requirements (No more than one course from each topical subgroup from the principal course list can be applied toward fulfillment of this requirement. See:

http://www2.ku.edu/~clasus/pnwc/principal_courses.shtml):

Social Science (3 hrs.) ___; **Humanities** (3 hrs.) ___; and three additional courses in foreign language, social sciences, or humanities: _____, _____, _____.

II. General Science Requirements (28-29 hrs):

- _____ CHEM 184 Foundations of Chemistry I (5 hrs.)
- _____ CHEM 188 Foundations of Chemistry II (5 hrs.)
- _____ CHEM 622 Fund. Organic Chem. (3 hrs.) **OR**
- _____ CHEM 624 Organic Chem. I (3 hrs.)
- _____ CHEM 625 Organic Chemistry I lab (2 hrs.)
- _____ MATH 121 Calculus I (5 hrs.) **OR**
- _____ MATH 115 & MATH 116 Calculus I & II (6 hrs.)
- _____ PHSX 114 & PHSX 115 Coll. Physics I & II (8 hrs.) **OR**
- _____ PHSX 211 & PHSX 212 Gen. Physics I & II (8 hrs.)

*Students planning to enter graduate school (particularly those interested in applying molecular techniques) or medical school are advised to also enroll in CHEM 626/627.

III. General Biology Requirements (24 hrs.):

- _____ BIOL 150 (or 151, Honors) Principles of Molecular & Cellular Biology (4 hrs.)
- _____ BIOL 152 (or 153, Honors) Principles of Organismal Biology (4 hrs.)
- _____ BIOL 412 Evolutionary Biology (3 hrs.)
- _____ BIOL 416 Cell Structure and Function (3 hrs.)
- _____ BIOL 570 Introduction to Biostatistics (3 hrs.)
- _____ BIOL 600 Introductory Biochemistry (4 hrs.)

_____ ONE OF THE FOLLOWING THREE COURSES (3 hrs.)

- BIOL 400 Fundamentals of Microbiology (3 hrs.)
- BIOL 408 Physiology of Organisms (3 hrs.)
- BIOL 417 Biology of Development (3 hrs.)

IV. Genetics Requirements (15 hrs.):

- _____ BIOL 350 Principles of Genetics (3 hrs.)
- _____ BIOL 405 Laboratory in Genetics (2 hrs.)
- _____ BIOL 672 Gene Expression (3 hrs.)
- _____ BIOL 599 Senior Seminar in Genetics (1 hr.)
(must be taken in senior year)

_____ TWO COURSES FROM THE FOLLOWING LIST (6 HRS.)

- BIOL 512 General Virology (3 hrs.)
- BIOL 518 Microbial Genetics (3 hrs.)
- BIOL 595 Human Genetics (3 hrs.)
- BIOL 611 Molecular Evolution/Systematics (4 hrs.)
- BIOL 688 Molecular Biology of Cancer (3 hrs.)
- BIOL 690 Control Mechanisms/Development (3 hrs.)
- BIOL 692 Developmental Genetics (3 hrs.)
- BIOL 743 Population Genetics (3 hrs.)
- BIOL 747 Quantitative Genetics (3 hrs.)
- ANTH 340 Human Variation and Evolution (3 hrs.)
- ANTH 442 Anthropological Genetics (3 hrs.)
- ANTH 652 Population Dynamics (3 hrs.)

V. Elective and Laboratory Requirements (8 hrs.):

BIOL courses numbered 400 or higher, including at least 3 hrs. of lab credit and 2 hrs. of a seminar/topics course (BIOL 419, 420, 701). Courses listed above which have not been used to fulfill the above requirements may be used as electives. No more than 3 hrs. of BIOL 423 Non-Lab Independent Study and/or BIOL 424 Independent Study (combined) can be applied towards the elective requirement with no more than 2 hours of BIOL 424 being applied towards the laboratory requirement.

BIOL ____ (____ hrs.) BIOL ____ (____ lab hrs.)

BIOL ____ (____ lab hrs.) BIOL ____ (____ seminar hrs.)