

NAME _____ ID# _____ Career Interest _____

BIOLOGY CORE COURSES

- _____ BIOL 198 Principles of Biology (4)
- _____ BIOL 450 Modern Genetics (4)
- _____ BIOL 520 Evolution (3) F & SE

OPTIONS (Complete 1 or more of options A-G)

A. Animal biology option (26 credits)

- _____ BIOL 401 Organismic Biology (5)
- _____ BIOL 513 Physiological Adaptations of Animals (4) F
- _____ BIOL 541 Cell Biology (3)
- _____ *14 credits from the Biology Major Electives list, including 1 course with a lab experience.
- Lab course: _____
- _____
- _____

B. Cellular and molecular biology option (26 credits)

- _____ BIOL 455 Microbiology (4)
- _____ BIOL 541 Cell Biology (3)
- _____ BIOL 580 Molecular Biology of Genes and Genomes (3) F
- Choose one:
 - _____ BIOL 461 Phage Hunters 1 (3) F
 - _____ BIOL 676 Molecular Genetics Laboratory (3) F
 - _____ BIOL 695 Internship in Biology (3)
 - _____ BIOL 698 Research in Biology (3)
- _____ *13 credits from the Biology Major Electives list, including 2 courses with a lab experience.
- Lab course: _____
- Lab course: _____

C. Ecology and evolutionary biology option (26 credits)

- _____ BIOL 401 Organismic Biology (5)
- _____ BIOL 529 Ecology (3)
- _____ BIOL 632 Ecology Lab (1) S
- _____ BIOL 640 Population Biology (3) F
- _____ *14 credits from the Biology Major Electives list, including 1 course with a lab experience.
- Lab course: _____
- _____
- _____

D. Human health biology option (26 credits)

- _____ BIOL 441 Human Body 1 (4)
- _____ BIOL 442 Human Body 2 (4)
- _____ BIOL 455 Microbiology (4)
- _____ BIOL 541 Cell Biology (3)
- _____ *11 credits from the Biology Major Electives list.
- _____
- _____
- _____

E. Integrative biology option (26 credits)

- _____ BIOL 401 Organismic Biology (5)
- _____ BIOL 529 Ecology (3)
- _____ BIOL 541 Cell Biology (3)
- _____ *15 credits from the Biology Major Electives list, including 2 courses with a lab experience.
- Lab course: _____
- Lab course: _____

F. Plant biology option (26 credits)

- _____ BIOL 401 Organismic Biology (5)
- _____ BIOL 500 Plant Physiology (3) F
- _____ BIOL 551 Taxonomy of Flowering Plants (4) F
- Choose one:
 - _____ BIOL 461 Phage Hunters 1 (3) F
 - _____ BIOL 676 Molecular Genetics Lab (3) F
 - _____ BIOL 695 Internship in Biology (2)
 - _____ BIOL 698 Research in Biology (2)
- _____ *11 credits from the Biology Major Electives list if BIOL 461 or 676 is chosen above, OR 12 credits from the Biology Major Electives list if BIOL 695 or 698 is chosen above. Two courses must include a lab experience.
- Lab course: _____
- Lab course: _____

G. Computational biology option (45 credits)

- _____ MATH 312 Finite Applications of Mathematics (3)
- _____ CC 110 Introduction to Computing (2)
- _____ CC 111 Elements of Computer Programming (1)
- _____ CC 210 Programming Fundamentals (4)
- _____ CC 310 Data Structures and Algorithms 1 (3)
- _____ CC 315 Data Structures and Algorithms 2 (3)
- _____ CC 410 Advanced Programming (4)
- _____ CIS 531 Intro Programming Techniques for Data Sci & Analyt (3)
- OR
- _____ CC 535 Applied Data Science (3)
- _____ BIOL 734 Intro to Genetics and Bioinformatics (4)
- _____ Six credits Biol, Stats, CIS, CC, or Math at 400-level or above
- _____
- _____
- _____ *12 credits from the Biology Major Electives list.
- _____
- _____

***For each option, classes applied to the specific option requirements and those chosen from the Biology Major Electives list must be different classes.**

Note: F=offered fall only; S=spring only; E=even-numbered years; O=odd years. No indication=offered fall and spring.

Additional degree requirements on back

BIOLOGY MAJOR ELECTIVES

BIOL courses numbered 400 level or higher. Lab courses can be either strictly lab course such as BIOL 632 or 671, or course with lecture/lab such as BIOL 455 or 513. Biology course listing at <https://courses.k-state.edu/courses/>.

Exceptions to what may be used as biology elective credits:

- ▶ Up to 2 cr. hrs. of BIOL 365 Practicum in Biology
- ▶ No more than 3 cr. hrs. from combination of BIOL 695 Internship in Biology and/or BIOL 698 Research in Biology may be applied toward biology elective credit.
- ▶ One to five credit hours for the following courses can be applied as biology major elective credit: AGRON 610 (3), AGRON 630 (3), AGRON 645 (3), AGRON 646 (1), AGRON 680 (3), ASI 533 (4), BIOCH 522 (3), BIOCH 571 (3), BIOCH 755 (3) (if not used for Biochemistry cr. in req. course list), BIOCH 765 (3) (if not used for Biochemistry cr. in req. course list), ENTOM 312 (3), GEOG 445 (3), GEOG 508 (4), PLPTH 500 (3), PLPTH 610 (3), PSYCH 470 (3)

ARTS & SCIENCES BASIC REQUIREMENTS

- _____ ENGL 100 Expository Writing 1 (3)
- _____ ENGL 200 Expository Writing 2 (3)
- _____ COMM 105 or 106 Public Speaking 1 or 1A (2-3)

Humanities (4 courses, 11 cr. hrs. minimum. May not overlap with social science courses. Only courses taken for 2 or more credit hours satisfy these requirements. B.S. students may use 2 courses in one modern language to fulfill western heritage/literary arts requirements; B.A. students may not.)

- Fine Arts _____
- Philosophy _____
- Western Heritage _____
- Literary Arts _____

Social Sciences (4 courses, 12 cr. hrs. minimum, from at least 3 social science depts. One course must be upper level, i.e., have prerequisite in same dept. or 500 level or above. Taking both ECON 110 & 120 will also fulfill upper level req. Social science courses may not overlap with humanities courses.)

- _____
 - _____
 - _____
 - _____
- Upper Level:** _____

U.S. Multicultural Overlay (May overlap with humanities/social science courses.)

- _____

International Overlay (May overlap with humanities/social science courses. May use 4th course in a single foreign language, other than Latin.)

- _____

MAJOR COURSES Offered by Other Departments.

Mathematics/Statistics/Computing & Info Sciences

- _____ MATH 220 Calculus I (4)
- _____ One of: STAT 325, 340, 701, 703; MATH 221, 551, 615 (S); CC 110 plus CC 111, CC 210, CIS 200

Physics

- _____ PHYS 113 General Physics 1 (4)
- _____ PHYS 114 General Physics 2 (4)

Chemistry

- _____ CHM 210 Chem 1 (4)
- _____ CHM 230 Chem 2 (4)
- _____ CHM 350 General Organic Chem (3)
- _____ *Choose one OR CHM 351 General Organic Chem Lab (2)
- _____ set: CHM 531 Organic Chem 1 (3)
- _____ CHM 532 Organic Chem Lab (2)
- _____ CHM 550 Organic Chem 2 (3)
- _____ BIOCH 521 General Biochemistry (3)

*Students planning to apply to medical, dental or pharmacy programs or graduate school should take CHM 531, CHM 532 and CHM 550 in place of CHM 350 and CHM 351.


Only Students Completing B.A.

Complete requirements for the B.S. plus 4 courses in a foreign language sequence.


- _____
- _____
- _____
- _____

K-STATE 8 REQUIREMENTS

One course may fulfill more than one area, and courses required in a student's major may fulfill these requirements. A minimum of four different k course prefixes (e.g., AGECE, MATH, FSHS) must be represented. For more information on the K-State 8, go to <http://www.k-state.edu/kstate8/>.

 Aesthetic Experience & Interpretive Understanding

- _____

 Empirical and Quantitative Reasoning


- _____ BIOL 198 Principles of Biology

 Ethical Reasoning and Responsibility

- _____

 Global Issues and Perspectives


- _____

 Historical Perspectives

- _____

 Human Diversity within the U.S.

- _____

 Natural and Physical Sciences

- _____ BIOL 198 Principles of Biology

 Social Sciences

- _____

Course Record Sheet

FALL

CR NOTES

SPRING

CR NOTES

SUMMER

CR NOTES

FALL

SPRING

SUMMER

FALL

SPRING

SUMMER

FALL

SPRING

SUMMER

FALL

SPRING

SUMMER

Notes