

# B.S. BIOLOGY

## GENETICS

Use with your Degree Progress Report (DPR).

To learn about requirements for admission to the major, please visit our online course catalog page: <http://www2.ku.edu/~distinction/cgi-bin/admission368>

**KU CORE REQUIREMENTS** See <https://kucore.ku.edu/fulfilling-the-core> for approved KU Core courses and/or experiences.

Goal 1. Critical Thinking & Quantitative Literacy	Outcome 1 <input type="checkbox"/>	Outcome 2 (Can be satisfied by degree reqs.)
Goal 2. Communication	Outcome 1 <input type="checkbox"/> <input type="checkbox"/>	Outcome 2 <input type="checkbox"/>
Goal 3. Breadth of Knowledge	Arts & Humanities <input type="checkbox"/>	Social Sciences <input type="checkbox"/>
Goal 4. Culture & Diversity	Outcome 1 <input type="checkbox"/>	Outcome 2 <input type="checkbox"/>
Goal 5. Social Responsibility & Ethics	<input type="checkbox"/>	Natural Sciences (Can be satisfied by degree reqs.)
Goal 6. Integration & Creativity	<input type="checkbox"/>	

**BS GENERAL EDUCATION REQUIREMENTS** Focus on completing KU Core reqs first. Refer to your DPR and talk with a biology advisor.

**GENERAL SCIENCE REQUIREMENTS (28–30 h)**

CHEM 130 Foundations of Chemistry I (5)	<input type="checkbox"/>	CHEM 331 Organic Chemistry I Lab (2)	<input type="checkbox"/>
CHEM 135 Foundations of Chemistry II (5)	<input type="checkbox"/>	MATH 121 Calculus I (5) <b>OR</b> MATH 115 & 116 Calculus I & II (6)	<input type="checkbox"/> ( <input type="checkbox"/> )
CHEM 310 Fund Organic Chemistry (3) <b>OR</b>	<input type="checkbox"/>	PHSX 114 & 115 College Physics I & II (8) <b>OR</b>	<input type="checkbox"/> <input type="checkbox"/>
CHEM 330* Organic Chemistry I (3)		PHSX 211+216 & 212+236 Gen. Physics I & II (9)	

\*Students planning to enter graduate school (particularly those interested in applying molecular techniques) or medical school are advised to enroll also in CHEM 335 & 336.

**GENERAL BIOLOGY REQUIREMENTS (24 h)**

BIOL 150/151 Prin Molecular & Cell Biol (4)	<input type="checkbox"/>	BIOL 416/536 Cell Structure & Function (3)	<input type="checkbox"/>
BIOL 152/153 Prin Organismal Biology (4)	<input type="checkbox"/>	BIOL 570 Introduction to Biostatistics (3)	<input type="checkbox"/>
BIOL 412 Evolutionary Biology (3-4)	<input type="checkbox"/>	BIOL 600 Introductory Biochemistry, Lectures (4)	<input type="checkbox"/>
One (3 h) of the following three courses:	<input type="checkbox"/>		
BIOL 400/401 Fundamentals of Microbiology (3)		BIOL 417 Biology of Development (3)	
BIOL 408 Physiology of Organisms (3)			

**GENETICS REQUIREMENTS (15 h)**

BIOL 350/360 Principles of Genetics (3-4)	<input type="checkbox"/>	BIOL 672 Gene Expression (3)	<input type="checkbox"/>
BIOL 405 Laboratory in Genetics (2)	<input type="checkbox"/>	BIOL 599 Senior Seminar: Genetics (1) (must be taken Sr yr)	<input type="checkbox"/>
Two courses (6 h) from the following list:	<input type="checkbox"/> <input type="checkbox"/>		
BIOL 512 General Virology (3)		BIOL 747 Quantitative Genetics (3)	
BIOL 518 Microbial Genetics (3)		BIOL 753 Advanced Genetics (3)	
BIOL 595 Human Genetics (3)		BIOL 755 Mechanisms of Development (3)	
BIOL 655 Behavioral Genetics (3)		ANTH 340 Human Variation and Evolution (3)	
BIOL 688 Molecular Biology of Cancer (3)		ANTH 442 Anthropological Genetics (3)	
BIOL 743 Population Genetics (3)		ANTH 652 Population Dynamics (3)	

**GENETICS ELECTIVE AND LABORATORY REQUIREMENTS (8 h):** BIOL courses numbered 400 or higher, including  $\geq 3$  h of lab credit and  $\geq 2$  h of seminar/topics course (BIOL 419, 420, 499, 701). Courses listed above that have not been used to fulfill the above requirements may be used as electives. No more than 3 h 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 h of BIOL 424 being applied towards the laboratory requirement.

BIOL _____ ( __ h)	<input type="checkbox"/>	BIOL _____ ( __ lab h)	<input type="checkbox"/>
BIOL _____ ( __ lab h)	<input type="checkbox"/>	BIOL _____ ( __ seminar h)	<input type="checkbox"/>

- Completing the minimum General Science and major requirements set forth above results in **75 overall h** and **44 Jr/Sr h**. Double majors must complete  $\geq 15$  h in the major (i.e., not in Core/Gen Ed Req or General Science Req) that are *unique* to that major. **75 h**  **44 Jr/Sr h**
- At least **120 h** (of which **45 must be Jr/Sr h**—courses numbered 300 or above) must be completed for graduation. **120 h**  **45 Jr/Sr h**