

Biochemistry

UNL College of Agricultural Sciences and Natural Resources

MAJOR REQUIREMENTS	Course	Hrs
Agricultural Sciences		15 Hours
AGRI/NRES 103 Food, Agriculture & Natural Resource Systems		3
BIOC 101 Career Oppor. in Biochemistry		1
BIOC 431 Biomolecules & Metabolism		4
BIOC 432 Gene Expression & Replication		2
BIOC 433 Biochemistry Lab		2
BIOC 435 Advanced Topics in Biochemistry Seminar		3

Natural Sciences		43-47 Hours
BIOS 102 Cell Structure & Function		4
BIOS 206 or AGRO 315 Genetics		4
BIOS 312 Fundamentals of Microbiology		3
BIOS 313 Microbiology A Lab (2 cr) or 314 Microbiology B Lab (1 cr)		1-2
Freshman Chemistry Sequence	OR	
CHEM 109 General Chemistry I		4
CHEM 110 General Chemistry II		4
CHEM 221 Elem. Quantitative Analysis		4
OR		
CHEM 113 Fundamental Chemistry I		4
CHEM 114 Fundamental Chemistry II		3
CHEM 116 Quantitative Chemistry Lab		2
CHEM 251 & 253 or 261 & 263 Organic Chemistry		4
CHEM 252 & 254 or 262 & 264 Organic Chemistry		4
CHEM 471 or 481 Physical Chemistry		4
Physics Sequence	OR	
PHYS 141 Elementary Gen. Physics I		5
PHYS 142 Elementary Gen. Physics II		5
OR		
PHYS 211 General Physics I		4
PHYS 212 General Physics II		4
PHYS 221 General Physics Lab I		1
PHYS 222 General Physics Lab II	1	

Mathematics and Statistics		10-15 Hours
MATH 101 Algebra (3 cr) and MATH 102 Trigonometry (2 cr); or MATH 103 Algebra & Trigonometry (5 cr); or equivalent preparation		
MATH 106 Analytical Geometry & Calculus I		5
MATH 107 Analytic Geometry & Calculus II		5

COLLEGE REQUIREMENTS	Course	Hrs
Communication		9 Hours
<i>Written:</i> Select from: ENGL 150, 151, 254; JGEN 120, 200, 300		3
<i>Oral:</i> COMM 109, 209, 212 or 311		3
<i>Comm. & Interpersonal Skills:</i> ENGL 101, 102, 150, 151, 152, 252, 253, 254; ALEC 102; JGEN 120, 200, 300; COMM 109, 209, 212, 311		3

Humanities and Social Sciences		21 Hours
AECN 141 Intro to Economics of Agriculture or ECON 212 Principles of Microeconomics or ECON 211 Principles of Macroeconomics		3
<i>Select one 3-credit course in each of the following CASNR Essential Studies categories:</i>		
C. Human Behavior, Culture & Social Organization		3
E. Historical Studies		3
F. Humanities		3
G. Arts		3
H. Race, Ethnicity & Gender		3
A course from any C, E, F, G or H area or any lower level modern language (not sign language)		3
International Focus Requirement Elective		3
See your adviser or refer to your Undergraduate Handbook for the listing of approved courses that meet the International course requirement.		

Free Electives		30 Hours

Minimum Requirements for Graduation is 128.

Integrative Studies (IS) Courses		10 required
CHEM 109/113	MATH 106	
MATH 107	AGRI 103	
BIOS 102	BIOC 435	
CHEM 471		<i>(200 level)</i>