Requirement Checksheet - Biological Sciences BS
Concentration in Cell and Molecular Biology & Genetics

Effective Catalog Year 2020 and later

University Requirements	Credits	Course	✓
English 110 (need a C-)	3		
Multicultural Course	3		
First Year Experience	1		
Discovery Learning Experience (Experimental Biology course)	3		
Capstone Experience (for students entering in Fall 2017 and later)			
Residency: must complete either 90 out of the first 100 credits at UD, or 30 out of the final 36 credits at UD.			

College of A&S Skills Requirements	Credits	Course	✓
Second Writing Course (min. grade C-; *course must be taken after completion of at least **60** college credits to satisfy this requirement*; approved courses are ***section-specific***)	3		
Foreign Language *(min. grade D-; must complete the intermediate level (107 or 112 or 202 (depending on the language)or higher or exemption*	0-12		
Math *(min. grade D-; MATH 113, 114, 115 or 117 or a MATH course at the 2xx level or above (but NOT 201, 202, 205, 250, 251, 252, 253, 266, 300, or 450). Or proficiency exam*	3-4	MATH 221 or 241	

University and College of Arts and Sciences Breadth Requirements (combined) *Min. grade C- in each course (may not be taken pass/fail). University Breadth courses must be taken from **four** different subject areas. Students in a single major may NOT satisfy these with courses from their major area. A total of **21** credits from Group A, Group B, and Group C is required with a minimum of **six** credits in each group.*	Credits	Course	✓
Group A: Creative Arts and Humanities			
University Course	3		
College Course	3		
Group B: History and Cultural Change			
University Course	3		
College Course	3		
Group C: Social and Behavioral Sciences			
University Course	3		
College Course	3		
Additional course from Group A, B, or C			
College Course	3		

Biology Major Requirements	Credits	Completed?
Biology Courses: Minimum grade C- required in all BISC courses for a total of at least 43 credits in biology		
Required Lecture Courses: Take all five		
BISC 207 Introductory Biology I	4	
BISC 208 Introductory Biology II	4	
BISC 305 Cell Biology	3	
BISC 401 Molecular Biology of the Cell	3	
BISC 403 Genetics	3	
Elective Lecture Courses: Select any 1 of the following 3		
BISC 300 Introduction to Microbiology	4	
BISC 302 General Ecology	3	
BISC 306 General Physiology	3	
*Course in Experimental Biology: The corresponding lecture is a prerequisite. (THE LECTURE AND THE LAB CANNOT BE TAKEN SIMULTANEOUSLY). Select **2** of the 7 options:*	6-7	
BISC 312 Field Ecology	3	
BISC 315 Experimental Cell Biology	3	
BISC 316 Experimental Physiology	3	
BISC 411 Experimental Molecular Biology	4	
BISC 413 Advanced Genetics Laboratory	3	
BISC 484 Computer Based Genetics Laboratory	3	
BISC 451/452 Senior Thesis or UNIV 401/402 Senior Thesis for Degree with Distinction	6 6	
*Literature-based Biology Course: Choose **one** from approved list (see catalog for current list); must also be listed in groups A-E below.*	3-4	
*Biology Electives from the following groups to total 43 cr.: Must select from a min. of 2 groups (see catalog for courses). **Six** of the 43 credit hours may come from a list of approved courses from other academic units (min. grade C, not C-).*		
Group A. Genetics		
Group B. Molecular Biology and Biochemistry		
Group C. Cell Biology		
Group D. Physiology		
Group E. Bioinformatics		
Related Coursework: Min. grade of D (not D-) is required.		
CHEM 103/133 or CHEM 107	4	
CHEM 104/134 or CHEM 108	4	
CHEM 321/325 and CHEM 322/326	8	
CHEM 527 or equivalent	3	
PHYS 201 or PHYS 207	4	
PHYS 202 or PHYS 208	4	
MATH 221 or MATH 241	3-4	
STAT 200 or equivalent	3	
Free Electives: sufficient elective credits must be taken to meet the minimum credit requirement for the degree= 124 credits		