



**DEGREE WORKSHEET FOR:  
BS Biological Sciences: Cell and Molecular Emphasis  
2011-2012 Catalog  
Degree Requirements – 120 credits**

<b>YEAR 1- FALL (16 credits)</b>		<b>YEAR 1- SPRING (15 credits)</b>	
ENG 122 College Composition (LAC Area 1a)	3 credits	BIO 111 Survey of Organismal Biology (F,S)	4 credits
BIO 110 Principles of Biology (LAC Area 6) (F,S)	4 credits	CHEM 112 Principles of Chemistry II (F,S)	5 credits
CHEM 111 Principles of Chem I (LAC Area 6) (F,S)	5 credits	SCI 291 Scientific Writing (LAC Area 1b) (F,S)	3 credits
MATH 171 Calc I for Life Sci (LAC Area 2) (F,S)	4 credits	Liberal Arts Core <sup>1</sup> (Areas 3, 4, 5, 7, or 8)	3 credits
<b>YEAR 2- FALL (16 credits)</b>		<b>YEAR 2-SPRING (14 credits)</b>	
BIO 210 Cell Biology (F,S)	3 credits	BIO 220 Genetics (F,S)	4 credits
PHYS 220 General Physics I <sup>2</sup> (LAC Area 6) (F)	5 credits	PHYS 221 General Physics II <sup>2</sup> (S)	5 credits
CHEM 331 Organic Chemistry I (F)	5 credits	CHEM 332 Organic Chemistry II (S)	5 credits
STAT 150 Intro. to Statistical Analysis (LAC Area 2)	3 credits		
<b>YEAR 3- FALL (14-19 credits)</b>		<b>YEAR 3- SPRING (10-14 credits)</b>	
BIO 360 Ecology (F, Su)	4 credits	BIO 351 Microbiology (S)	4 credits
University Wide Electives	4 credits	BIO 300+ Upper Division Elective in Major <sup>3</sup>	3 credits
CHEM 481 General Biochemistry I OR CHEM 381 Principles of Biochemistry <sup>4</sup> (F)	3-4 credits	Physiology <sup>5</sup>	0-4 credits
Physiology <sup>5</sup>	0-4 credits	Liberal Arts Core <sup>1</sup> (Areas 3, 4, 5, 7, or 8)	3 credits
Liberal Arts Core <sup>1</sup> (Areas 3, 4, 5, 7, or 8)	3 credits		
<b>YEAR 4- FALL (16 credits)</b>		<b>YEAR 4- SPRING (14 credits)</b>	
BIO 425 Molecular Genetics (F)	3 credits	BIO 450 Cell Physiology (S)	3 credits
BIO 300+ Upper Division Elective in Major <sup>3</sup>	4 credits	BIO 442 Molecular and Cellular Laboratory	2 credits
BIO 300+ Upper Division Elective in Major <sup>3</sup>	3 credits	BIO 465 Evolution (S, Su)	3 credits
Capstone Professional Experience <sup>6</sup>	1 credit	BIO>300 Upper Division Elective in Major <sup>3</sup>	3 credits
University Electives	5 credits	Liberal Arts Core <sup>1</sup> (Areas 3, 4, 5, 7, or 8)	3 credits
		School of Biological Sciences Exit Exam <sup>7</sup>	

(F) = offered in Fall (S) = offered in Spring (SU) = offered in summer

**Admission Requirement – No separate admission requirement.**

**Minor Required – No Minor required.**

**Notes – see page 2.**

**Contact Information – School of Biological Sciences**

**Ross Hall Room 2480, (970) 351-2921**

**School Web Page: <http://www.unco.edu/nhs/biology>**

## BS Biological Sciences – Cell and Molecular Emphasis (cont.)

This worksheet is a recommended schedule to complete your bachelor's degree in 4 years. Every UNC student must meet the following requirements in order to graduate with a bachelor's degree: earn a minimum of 120 semester credit hours; possess a minimum of a 2.00 cumulative grade point average; have at least 40 credit hours in courses designated as Liberal Arts Core and meet all degree requirements in the student's major field of study. Each major and/or emphasis may have additional requirements necessary for graduation. **Students must consult with their major advisor to receive information on any additional graduation requirements.**

### Notes

- <sup>1</sup>Liberal Arts Core courses can be taken any semester. It is strongly suggested that they be evenly distributed over the entire 4 years of study rather than concentrated in the first 2 years. **NOTE: Be certain to select courses from Areas 7 and 8 that also count for Areas 3, 4 or 5.**
- <sup>2</sup>Either PHYS 220/221 or PHYS 240/241 can be taken. PHYS 240/241 can be substituted but both MATH 131 and MATH 132 are required.
- <sup>3</sup>Elective Major Courses- Must take 13 credits from BIO courses level 300 or higher.
- <sup>4</sup>If CHEM 381 is completed in lieu of CHEM 481, the number of BIO Advanced Study credits required will be reduced by 1 credit. If BIO 552 and BIO 553 are completed for the Physiology requirement, the number of Advanced Study credits required will be reduced by (2).
- <sup>5</sup>Option 1: BIO 350 Human Physiology (4 credits) **or** BIO 354 Plant Physiology (4 credits). Option 2 BIO 552 (3 credits) **and** BIO 553 (3 credits) are required.
- <sup>6</sup>Capstone Professional Experience requirement can be met by completing a minimum of 1 credit hour from the following course options: BIO 422, BIO 492, or BIO 494.
- <sup>7</sup>All Biology Majors must take the School of Biological Sciences Exit Exam during the last semester of Senior Year. (Excluding summer). **Make an appointment at Testing Center.**
- All Biology Majors are required to have a minimum of a 2.0 GPA in all BIO prefix courses taken to meet their major requirements.
- Students receiving "D" or "F" in BIO courses taken to meet their major requirements must repeat the courses.
- Some Upper Division Biology courses are offered every other year. Check with your advisor to find out when they are offered.
- Remember to get a graduation check in Carter Hall (Room 3002) after 90 semester hours.
- A maximum of 6 credits total of BIO 422, 492, 494, 495, 585, and 592 can count toward the Biological Advanced study category.

### Minimum entrance requirements for University of Colorado Medical School (as of 5/09)

#### Check other schools in which you are interested for their current requirements.

- One year of biology with lab (8 semester hours)
- One year of general chemistry with lab (8 semester hours)
- One year of organic chemistry with lab (8 semester hours)
- One year of physics with lab (8 semester hours)
- Six credits of math (Algebra and above)
- Six credits of English (Composition and English Literature)