

Year 1, fall semester			Year 1, spring semester		
Course		Cr	Course		Cr
BIOC 932	Proteins	2	BIOC 934	Genome Dynamics and Gene Expression	3
BIOC 933	Enzymes	2	BIOC 836	Physical Basis of Macromolecular Function	3
	Specialty course *	3	BIOC 898	Research credit	3
BIOC 898	Research credit #	3	BIOC992k	Research seminar/journal club	1
BIOC992k	Research seminar/journal club	1			
	Credits toward 35	11		Credits toward 35	10
Year 2, fall semester			Year 2, spring semester		
BIOC 935	Metabolic function and dysfunction	3			
	Specialty course *	3		Specialty course **	3
BIOC 999	Dissertation research (credits variable)	2	BIOC 999	Dissertation research	8
BIOC992k	Research seminar/journal club	1	BIOC992k	Research seminar/journal club	1
	Credits toward 35	7		Credits toward 35	4
Year 3, fall semester			Year 3, spring semester		
BIOC 999	Dissertation research	8	BIOC 999	Dissertation research	8
BIOC992k	Research seminar/journal club	1	BIOC992k	Research seminar/journal club	1
	Credits toward 35	1		Credits toward 35	1
Year 4, fall semester			Year 4, spring semester		
BIOC 999	Dissertation research	8	BIOC 999	Dissertation research	8
BIOC992k	Research seminar/journal club	1	BIOC992k	Research seminar/journal club	1
	Credits toward 35	1		Credits toward 35	1
	* Options for fall specialty courses			** Options for spring specialty courses	
CHEM871	Physical Chemistry (if needed ^)		BIOS 964	Signal Transduction	
CHEM855	Advanced Organic Chemistry		BIOS 843	Immunology	
CHEM964	Bioorganic Chemistry		BIOS 841	Pathogenic Microbiology	
ASCI 842	Endocrinology		BIOC 810	Plant Molecular Biology	
BIOS 812	Human Genetics		BIOC 834	Plant Biochemistry	
BIOS 818	Advanced Genetics		BIOC 848	Redox Biochemistry	
BIOS 843	Immunology		BIOC 837	Research Techniques in Biochemistry	
BIOS 840	Microbial physiology		STAT 841	Stat Methods for High Throughput Biol Data	
STAT 842	Computational Biology				
	<i>Other course approved by supervisory cmte</i>			<i>Other course approved by supervisory cmte</i>	

## Comments on Center for Biological Chemistry Program

- Shaded boxes indicate core Program elements.
- PhD students need 35 credits of formal coursework  
90 total credits  
55 credits from BIOC 999 Dissertation Research

Credit totals from courses that are eligible to count toward the 35 credits are given in red font.

- MS students need 20-24 credits of formal coursework  
30 total credits  
6-10 credits from BIOC 899 Research
- In their first semester, international students may need to take the English as a second language course, which does not count toward the 35 total course credits.
- BIOC 992k is required for all PhD students in both Fall and Spring semester for four years, for a total of up to 8 credits. For MS students, the requirement is for each semester throughout their program, with a total of 4 credits counting toward the degree. To earn credit, students will consistently attend both the weekly Graduate Seminar / Journal Club (currently noon Thursday) AND the Biochemistry Departmental Seminar (currently 4pm Tuesday).

**# A maximum of 6 credits in BIOC 898 (rotation research or first year research) may be applied toward the total 35 credits.**