## Minor: Chemistry CLARION UNIVERSITY OF PENNSYLVANIA College of Arts and Sciences

## REQUIREMENTS FOR MINOR IN CHEMISTRY: Complete 21-24 CREDITS from the 2 categories.

1. Core Courses (8 credits)			SEMESTER
	<u>CR</u>	<u>GR</u>	COMPLETED
CHEM 154: General Chemistry II*	<u>CR</u> <u>3</u> <u>1</u>		
CHEM 164: General Chemistry II (lab)* *CHEM 153/163 are prerequisite courses. CHEM 152/162 may substi	<u>1</u> itute		
OTILINI 100/100 die prefequisite courses. OTILINI 102/102 May substi	ilulG.		
CHEM 251: Organic Chemistry I	<u>3</u> 1		
CHEM 261: Organic Chemistry I (lab)	<u>1</u>		
2. Introductory Level Courses (10-12 credits)			
2. Introductory Level Courses (10-12 credits) Select any three (3) of the four following options (A-D)			
coloctally alloc (b) of allo roal following opacine (1.12)			SEMESTER
	<u>CR</u> <u>3</u> <u>1</u>	<u>GR</u>	<u>COMPLETED</u>
A. CHEM 353: Analytical Chemistry I CHEM 363: Analytical Chemistry I (lab)	<u>3</u>		
OR	<u>1</u>		
CHEM 358: Analytical Chemistry II	<u>3</u> <u>1</u>		
CHEM 368: Analytical Chemistry II (lab)	<u>1</u>		
B. CHEM 265: Inorganic Chemistry I	3		
CHEM 266: Inorganic Chemistry I (lab)	<u>3</u> <u>1</u>		
C. CHEM 354: Chemical Thermodynamics**	<u>3</u> <u>1</u>		
CHEM 364: Physical Chemistry (lab)**  OR	<u>1</u>		
CHEM 355: Quantum Chemistry**	<u>3</u>		
** MATH 271 (Calc II) and PH 252 (General Physics II) are prerequisi	ite courses.		
D. BCHM 453: Biochemistry	3_		
2. 20 100. 2.00.10.1100.	<u> </u>		
3. Advanced Level Course (3-4 credits)			
Select any one (1) of the following options (A-E) that was not used		0.0	SEMESTER
A. CHEM 252: Organic Chemistry II	<u>CR</u> <u>3</u> <u>1</u>	<u>GR</u>	COMPLETED
CHEM 262: Organic Chemistry II (lab)	<u>3</u> 1		
B. CHEM 358: Analytical Chemistry II	3_4		
CHEM 368: Analytical Chemistry II (lab)	<u>1</u>	<del></del>	
C. CHEM 366: Inorganic Chemistry II	<u>3</u>		
CHEM 367: Inorganic Chemistry II (lab)	<u>3</u> <u>1</u>		
D. CHEM 355: Quantum Chemistry	2		
D. OHEM 300. Quantum Onemstry	<u>3</u>		
E. BCHM 454: Biochemistry II	<u>3</u>		
Signatures (upon completion of the minor requirements):			
Minor Advisor			Date
Department Chairperson			Date
Department Chailbelson			Dait