Chemistry Degree Requirements (Fall 2021 →) (*Fall '23 update*)

CHEM Traditional BS	Chem BIOCHEM BS	CHEM Traditional BA	Chem BIOCHEM BA
CP1 and lab (4+1=5) (160:115 and 125)	CP1 and lab (4+1=5) (160:115 and 125)	CP1 and lab (4+1=5) (160:115 and 125)	CP1 and lab (4+1=5) (160:115 and 125)
CP2 and lab (4+1=5) (160:116 and 126)	CP2 and lab (4+1=5) (160:116 and 126)	CP2 and lab (4+1=5) (160:116 and 126)	CP2 and lab (4+1=5) (160:116 and 126)
Org1 and lab (4+1=5) (160:335 and 339)	Org1 and lab (4+1=5) (160:335 and 339)	Org1 and lab (4+1=5) (160:335 and 339)	Org1 and lab (4+1=5) (160:335 and 339)
Org2 and lab (4+1=5) (160:336 and 340)	Org2 and lab (4+1=5) (160:336 and 340)	Org2 and lab (4+1=5) (160:336 and 340)	Org2 and lab (4+1=5) (160:336 and 340)
Instr. An. and lab (3+1=4) (160:326 and 330)	Instr. An. and lab (3+1=4) (160:326 and 330)	Instr. An. and lab (3+1=4) (160:326 and 330)	Instr. An. and lab (3+1=4) (160:326 and 330)
PChem1 and Lab (3+1=4) (160:345 and 347)	PChem1 and Lab (3+1=4) (160:345 and 347)	PChem1 and Lab (3+1=4) (160:345 and 347)	PChem1 and Lab (3+1=4) (160:345 and 347)
PChem2 and Lab (3+1=4) (160:346 and 348)	PChem2 and Lab (3+1=4) (160:346 and 348)	PChem2 and Lab (3+1=4) (160:346 and 348)	PChem2 and Lab (3+1=4) (160:346 and 348)
Competence (1) (160:492)	Competence (1) (160:492)	Competence (1) (160:492)	Competence (1) (160:492)
Physics1 and lab (3+1=4) (750:131 and 133)	Physics1 and lab (3+1=4) (750:131 and 133)	Physics1 and lab (3+1=4) (750:131 and 133)	Physics1 and lab (3+1=4) (750:131 and 133)
Physics2 and lab (3+1=4) (750:132 and 134)	Physics2 and lab (3+1=4) (750:132 and 134)	Physics2 and lab (3+1=4) (750:132 and 134)	Physics2 and lab (3+1=4) (750:132 and 134)
Calc1 (4) (640:121)	Calc1 (4) (640:121)	Calc1 (4) (640:121)	Calc1 (4) (640:121)
Calc2 (4) (640:122)	Calc2 (4) (640:122)	Calc2 (4) (640:122)	Calc2 (4) (640:122)
Calc3 (4) (640:221)	Calc3 (4) (640:221)	Calc3 (4) (640:221)	Calc3 (4) (640:221)
Analyt. and lab (3+1=4) (160:325 and 329)		Analyt. and lab (3+1=4) (160:325 and 329)	
	Biochem1 and lab (4) (115:403 and 407)		Biochem1 and lab (4) (115:403 and 407)
	Biochem2 and Lab (4) (115:404 and 408)		Biochem2 and Lab (4) (115:404 and 408)
*Elective 1 (3)	*Elective 1 (3)	Elective 1 (3)	Elective 1 (3)
*Elective 2 (3)	**Elective 2* (3)	Elective 2 (3)	**Elective 2* (3)
Elective 3 (3)			
*Adv. lab (1)		Adv. lab (1)	
Lin. Alg. (3) (640:250)		Lin. Alg. (3) (640:250)	
Diff. Eq. (3) (640:314)		Diff. Eq. (3) (640:314)	
Research (2) (160:495)	Research (2) (160:495)		
Research (2) (160:496)	Research (2) (160:496)		
		SULI (1) (160:493)	SULI (1) (160:493)
	Gen.Bio1 and 2 (6) (120:101 and 102)		Gen.Bio1 and 2 (6) (120:101 and 102)
	Mol. Bio (3) (120:305)		Mol. Bio (3) (120:305)
77 total	80 total	71 total	77 total
For ACS:	*For ACS:*		
**INORG (160:413)*	**INORG (160:413)*		
**BIOCHEM (115:403)*	**ANALYT (160:325)*		
**BIOCHEM lab (115:407)*			

Substitutions / Equivalencies

Physics 50:750:131 & 132 ("*Elements*") is preferred, but may be substituted with 50:750:203 & 204 ("*General*").

Calculus 50:640:123 & 124 "*Active Calc I & II*" are equivalent to 50:640:121 & 122 "*Calc I & II*".

CHEM Traditional Electives:

A total of 10 credits for BS, or 7 credits for BA, where at least one credit is from an advanced laboratory,

50:160:400-level Any 400-level chemistry lecture course
50:115:400-level Any 400-level biochemistry lecture course
56:160:500-level Any 500-level graduate chemistry lecture course
56:115:500-level Any 500-level graduate biochemistry lecture course
50:160:400-level Any 400-level chemistry laboratory course
50:115:400-level Any 400-level biochemistry laboratory course
56:160:500-level Any 500-level chemistry laboratory course
56:115:500-level Any 500-level biochemistry laboratory course

One Advanced Chemistry (115 or 160) course may be substituted with a 500- level graduate Computational & Integrative Biology 121 lecture course

Program Links:
https://chemistry.camden.rutgers.edu/programs/bachelors-of-science-b-s-in-chemistry/
https://chemistry.camden.rutgers.edu/programs/b-a-chemistry-degree-requirements/

Chem BIOCHEM Electives:

6 credits from:

50:160:400-level Any 400-level chemistry lecture or laboratory course
50:115:400-level Any 400-level biochemistry lecture or laboratory course
56:160:500-level Any 500-level graduate chemistry lecture or laboratory course
56:115:500-level Any 500-level graduate biochemistry lecture or laboratory course

OR

at least 3 credits from the courses above, and one choice from the list below:

50:960:283 Introduction to Statistics (3 credits)
50:640:182 Elements of Probability (3 credits)
50:120:307 (with 308) Genetics (with Genetics Lab) (3+1 credits)
50:120:311 Human Genetics (3 credits)
50:120:338 (with 339) Immunology and Serology (with Immunology and Serology Lab) (3+1 credits)
50:120:341 (with 342) General Physiology (with General Physiology Lab) (3+1 credits)
50:120:334 (with 335) Cell Biology (with Cell Biology Lab) (3+1 credits)
50:120:480 Recombinant DNA Technology (3 credits)
50:120:444 Molecular Diagnostics (3 credits)
56:120:509 Cytogenetics (4 credits)
56:120:513 Population Genetics (3 credits)
56:121:500-level Any 500- level graduate Computational & Integrative Biology lecture course

Program Links:
https://chemistry.camden.rutgers.edu/programs/b-s-chemistry-biochemistry-track/
https://chemistry.camden.rutgers.edu/programs/b-a-chemistry-biochemistry-track-degree-requirements/