

# BACHELOR OF SCIENCE, BIOCHEMISTRY

## GENERAL EDUCATION REQUIREMENTS

44 S.H.

(Parentheses indicate prerequisites)

<b>CHECK TO BE SURE THE FOLLOWING REQUIREMENTS ARE COMPLETED:</b>				
<input type="checkbox"/> Writing Intensive Course (WI) <input type="checkbox"/> Multicultural/Global Course (M/G) <input type="checkbox"/> Lab Science Course (LAB)		<input type="checkbox"/> Broad Based Literature Course (LIT) <input type="checkbox"/> Computer Competency Exam or Computer Literacy Course <input type="checkbox"/> Rowan Seminar (RS) – Freshmen Only		
<b>Transfer</b>	<b>Rowan</b>	<b>Rowan #</b>	<b>COMMUNICATIONS BANK</b>	<b>9 S.H.</b>
		COMP 01111	College Composition I (3 s.h.)	3 s.h.
		COMP 01112	College Composition II ( <i>College Composition I</i> )	3 s.h.
		CMS 06202	Public Speaking ( <i>College Composition II</i> )	3 s.h.
<b>Transfer</b>	<b>Rowan</b>	<b>Rowan #</b>	<b>SCIENCE/MATHEMATICS BANK</b>	<b>12 S.H.</b>
		MATH 01130	Calculus I *	4 s.h.
		PHYS 02200	Physics I (w/ calculus) *	4 s.h.
		MATH 01131 STAT 02260	Calculus II * OR Statistics I *	4 s.h.
<b>Transfer</b>	<b>Rowan</b>	<b>Rowan #</b>	<b>SOCIAL &amp; BEHAVIORAL SCIENCES BANK</b>	<b>6 S.H.</b>
			Student's choice	3 s.h.
			Student's choice	3 s.h.
<b>Transfer</b>	<b>Rowan</b>	<b>Rowan #</b>	<b>HISTORY/HUMANITIES/LANGUAGE BANK</b>	<b>6 S.H.</b>
		PHIL 09369	Philosophy of Science	3 s.h.
			Student's choice	3 s.h.
<b>Transfer</b>	<b>Rowan</b>	<b>Rowan #</b>	<b>ARTISTIC &amp; CREATIVE EXPERIENCE BANK</b>	<b>3 S.H.</b>
			Student's choice	3 s.h.
<b>Transfer</b>	<b>Rowan</b>	<b>Rowan #</b>	<b>NON-PROGRAM COURSES</b>	<b>8 S.H.</b>
		PHYS 02201	Physics II (w/ calculus) *	4 s.h.
		BIOL 01106	Biology II: Concepts Genetics *	4 s.h.

- ◆ This information has been provided by the department listed above as of the date listed below and is subject to change.
  - ◆ To declare this major go to the CAP Center in Savitz Hall, or
  - ◆ If this is a restricted major, Requirements for entering this major are attached.
  - ◆ A suggested sequence of courses is also attached.
- \* Must earn a grade of C or better.

**Bachelor of Science, Biochemistry**

**120 S.H.**

**Common Core**

**43 s.h.**

ROWAN #	COURSE NAME	S.H.	PREREQUISITES
CS 01102/CS 01200	Intro to Programming or Computing Environments	3	
CHEM 06100/ CHEM 06105	Chemistry I (or Advanced Chemistry I) *	4	
CHEM 06200/ CHEM 06106	Chemistry II (or Advanced Chemistry II) *	4	<i>Chemistry I - CHEM 06100 or Adv. Chemistry I - CHEM 06105</i>
CHEM 07200	Organic Chemistry I *	4	<i>Chemistry II - CHEM 06101 or Adv. Chemistry II - CHEM 06106</i>
CHEM 07201	Organic Chemistry II *	4	<i>Chemistry II - CHEM 06101 or Adv. Chemistry II - CHEM 06106 and Organic Chemistry I - CHEM 07200</i>
CHEM 09250	Quantitative Analysis	4	<i>Chemistry II - CHEM 06101 or Adv. Chemistry II - CHEM 06106</i>
CHEM 08305	Biophysical Chemistry	4	<i>Organic Chemistry II - CHEM 07201, Calculus II - MATH 01131, Physics II - 1902201, Quantitative Analysis - CHEM 09250, and Biology III - BIOL 01203</i>
BIOL 01203	Biology III *	4	<i>Biology II - BIOL 01106</i>
CHEM 07348	Biochemistry	4	<i>CHEM 07201 or CHEM 07202</i>
CHEM 07408	Advanced BioChemistry	4	<i>Biochemistry – CHEM 07348</i>
CHEM 05440	Intro to Research I	4	<i>permission</i>
CHEM 05450	Seminar I	1	<i>senior status</i>

**Major Electives/Restrictive**

**20 s.h.**

	Chosen with approval of advisor. Choose at least two chemistry courses from the approved list. Three biology courses from the following:		
BIOL 22450	Molecular Genetics	4	<i>BIOL 01100 and BIOL 01101, and any of the following: BIOL 22335, BIOL 14400, or BIOL 14348, or permission of instructor</i>
BIOL 01430	Cell Biology	4	<i>BIOL 01100 and BIOL 01101</i>
BIOL 11330	Microbiology	4	<i>BIOL 01100 and BIOL 01101</i>
	other appropriate bio course:	4	
CHEM 07410	Medicinal Chemistry	3	<i>CHEM 07201</i>
CHEM 07466	Advanced Organic Chemistry II	3	<i>CHEM 07201</i>
CHEM 09410	Instrumental Methods	4	<i>CHEM 09350</i>

\* Must earn a grade of C or better.

NOTE:

**Free Electives..... 13 s.h.**

**General Education (see other side)..... 44 s.h.**

**Total Credits in Program .....120 S.H.**

**Suggested Course Sequence**

## Biochemistry

PLEASE NOTE: Considerable flexibility exists for moving courses between spring and fall semesters, except when a course is only offered in spring or fall (noted in some Specialization Courses). When altering course sequences, give careful consideration to prerequisites.

FIRST SEMESTER		SECOND SEMESTER	
Chemistry I CHEM 06100	4	Chemistry II CHEM 06200	4
Calculus I MATH 01130	4	Calculus II MATH 01131	4
Intro to Programming CS 01102	3	Biology II BIOL 01106	4
College Composition I COMP 01111	3	College Comp II COMP 01112	3
	14		15
THIRD SEMESTER		FOURTH SEMESTER	
Organic Chemistry I CHEM 07200	4	Organic Chemistry II CHEM 07201	4
Biology III BIOL 01203	4	Quantitative Analysis CHEM 09250	4
Physics I (w/ calculus) PHYS 02200	4	Physics II (w/ calc) PHYS 02201	4
Public Speaking CMS 06202	3	General Ed. Choice	3
General Ed. Choice	3		
	15		15
FIFTH SEMESTER		SIXTH SEMESTER	
Biophysical Chemistry CHEM 08305	4	Advanced Biochem CHEM 07408	4
Microbiology BIOL 11330	4	Cell Biology BIOL 01430	4
Biochemistry CHEM 07348	4	Molecular Genetics BIOL 22450	4
General Ed. Choice	3	General Ed. Choice	3
		Free Elective	3
	15		18
SEVENTH SEMESTER		EIGHTH SEMESTER	
Seminar I CHEM 05450	1	Restricted Elective	4
Restricted Elective	4	General Ed. Choice	3
Intro to Research CHEM 05440	3	General Ed. Choice	3
General Ed. Choice	3	Free Elective	3
Free Elective	3	Free Elective	3
	14		16
NOTES OR COMMENTS			