

PROGRAM NAME: CHEMISTRY, ACS-approved Track  
 PROGRAM COLLEGE: ARTS AND SCIENCES  
 CATALOG TERM: 2019-2020

Our chemistry department is accredited by the American Chemical Society (ACS). We offer a broad spectrum of courses designed to meet the specific needs of students and a variety of vocational objectives. Our faculty work closely with each chemistry student in both the class and lab setting as well as during independent research in order to provide practical, real-world exposure to important scientific questions. We are proud that our graduates have very high success rates in continuing their education in graduate and professional schools as well as direct placement in regional industries.

Note below that the required courses often add up to 15-16 credits per semester. This allows our students to double major or get a minor in another discipline if this is their desire.

NOTE: Individual Programs of Study will vary in consultation with your Advisor and course/section availability each term. The below schedule serves only as an **example** four-year degree plan. **Courses that are required to be taken in the respective semester are given in bold.**

### YEAR 1

#### Fall Semester

Course Name	Credits	Minimum Grade Required	Experience Notes
MT 1800 Calculus I (MTP)	4		<ul style="list-style-type: none"> <li>Join an RU Academy</li> <li>Participate in the Finucane Service Project</li> <li>Attend the New Student Retreat</li> </ul>
<b>CH 2610 General Chemistry I (SCI)</b>	3		
<b>CH 2620 General Chemistry I Laboratory (SCI)</b>	1		
NS 1000 Freshman in Science Seminar	1		
Core: Written Communication I (WCP)	3		
BL 1250 General Biology I**	3		
BL 1251 General Biology I Laboratory**	1		
TOTAL HOURS	16		

\*\*Not required.

#### Spring Semester

Course Name	Credits	Minimum Grade Required	Notes
MT 1810 Calculus II	4		<ul style="list-style-type: none"> <li>Join our ACS student chapter</li> </ul>
<b>CH 2630 General Chemistry II (SCII)</b>	3		
<b>CH 2640: General Chemistry II Laboratory (SCII)</b>	1		
BL 1250 General Biology II***	3		
BL 1251 General Biology II Laboratory***	1		
Core: Theological Mode Lv I (THI)	3		
TOTAL HOURS	15		

\*\*\*Not required.

### YEAR 2

#### Fall Semester

Course Name	Credits	Minimum Grade Required	Notes
<b>CH 2710 Organic Chemistry I</b>	3		<ul style="list-style-type: none"> <li>Consider getting involved in undergraduate research. One semester of undergraduate research (CH 3990 or CH 4990) is required for this track. Two or more semesters are recommended.</li> </ul>
<b>CH 2720 Organic Chemistry Laboratory I</b>	1		
PH 2700 Physics for Life Sciences I***	3		
PH 2710 Physics for Life Sciences I Laboratory***	1		
Core: Written Communication II (WCP)	3		
Core: Oral Communication (OCP)	3		
Core: PL 1100 Philosophical Mode Lv I (PLI)	3		
TOTAL HOURS	17		

\*\*\* The American Chemical Society strongly recommends the PH 2850/2860 and PH 2940/2920 series.

#### Spring Semester

Course Name	Credits	Minimum Grade Required	Notes
<b>CH 2710 Organic Chemistry II</b>	3	C	<ul style="list-style-type: none"> <li>It is very important to take Analytical Chemistry this semester or your graduation could be postponed.</li> <li>Join our chapter of The National Chemistry Honor Society, Phi Lambda Upsilon</li> </ul>
<b>CH 2720 Organic Chemistry Laboratory II</b>	1	C	
<b>CH 3450 Analytical Chemistry</b>	3	C	
<b>CH 3460 Analytical Chemistry Lab</b>	1	C	
PH 2750 Physics for Life Sciences II***	3		
PH 2760 Physics for Life Sciences II Laboratory***	1		
Core: PL 3100 Philosophical Mode Lv II (PLII)	3		
TOTAL HOURS	15		

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### YEAR 3

#### Fall Semester

Course Name	Credits	Minimum Grade Required	Notes
CH 3310 Biochemistry I	3	C	
CH 3320 Biochemistry Laboratory I	1	C	
CH 3510 Physical Chemistry I***	3	C	
CH 4650 Inorganic Chemistry (even years) or Upper-level elective in related area	3	C	
Core: Theological Mode Lv II (THII)	3		
Core: Global Perspectives	3		
TOTAL HOURS	16		

\*\*\* CH 3560 Physical Chemistry Laboratory is offered only on even years. Take the Physical Chemistry sequence in your junior or senior year.

#### Spring Semester

Course Name	Credits	Minimum Grade Required	Notes
CH 3330 Biochemistry II	3	C	
CH 3340 Biochemistry II Laboratory	1	C	
CH 3530 Physical Chemistry II***	3		
CH 3560 Physical Chemistry Laboratory (even years)	1		
CH 4430 Applied Instrumental Methods of Analysis I (even years) or CH 4450 Applied	3		
TOTAL HOURS	15		

Instrumental Methods of Analysis II (odd years)			
Core: Scientific-Relational Mode Lv I (SRI)	3		
Upper-level elective in related area	3-4		
TOTAL HOURS	17-18		

\*\*\* CH 3560 Physical Chemistry Laboratory is offered only on even years. Take the Physical Chemistry sequence in your junior or senior year.

#### YEAR 4

##### Fall Semester

Course Name	Credits	Minimum Grade Required	Notes
CH 4650 Inorganic Chemistry (even years) or Upper-level elective in related area	3		
CH 4960 Chemical Literature and Seminar	1		
Core: Historical Mode Lv I (HSI)	3		
Core: Literary Mode Lv I (LTI)	3		
Core: Scientific-Relational Mode Lv I/II (SRI/SRII)	3		
Upper-level elective in related area	3-4		
TOTAL HOURS	16-17		

##### Spring Semester

Course Name	Credits	Minimum Grade Required	Notes
CH 4430 Applied Instrumental Methods of Analysis I (even years) or CH 4450 Applied Instrumental Methods of Analysis II (odd years)	3	C	
Upper-level elective in related area	3-4		
Core: Philosophical or Theological Mode Lv II (PLII or THII)	3		
Core: Historical or Literary Mode Lv II (HSII or LTII)	3		
Core: Artistic Mode (ARI)	3		
TOTAL HOURS	15-16		

##### Credit Hours

- Core: (57)
- Major: (62 hours, 30 upper division)
- Electives (12 hours)

TOTAL Credit Hours: 127-130

Note: Additional hours might be required to fulfill the 128 credits required to fulfill the B.S. degree requirements.