

**Major in Chemistry (BS)**  
**Pre-Health Professional – Biochemistry Option**

120 hours

**University Requirement – 2 hours**

GSTD            1002            Freshman Seminar

**General Education – 24 hours** (Mathematics, natural science and physical science courses are included in the major.)

**Chemistry – 42 hours**

CHEM            1501            Background and Strategies in Chemistry (BASIC)  
CHEM            1023/1021        University Chemistry I/Lab  
CHEM            1123/1121        University Chemistry II/Lab  
CHEM            2012/2001        Analytical Chemistry I/Lab  
CHEM            3003/3001        Organic Chemistry I/Lab  
CHEM            3103/3101        Organic Chemistry II/Lab  
CHEM            3073/3071        Biochemistry I/Lab  
CHEM            4073            Biochemistry II  
CHEM            4403            Physical Chemistry: Thermodynamics  
CHEM            4051            Senior Seminar – Chemistry

3 hours chemistry elective\*\*

4 hours upper level chemistry elective\*\*

Select 4 hours from the following:

CHEM            3313/3311        Instrumentation I/Lab  
CHEM            4313/4111        Instrumentation II/Lab

**Biology – 24 hours**

BIOL            1203/1201        Principles of Biology I/Lab  
BIOL            1213/1211        Principles of Biology II/Lab  
BIOL            3032/3022        General Microbiology/Lab

8 hours biology electives\*\*

4 hours upper level biology electives\*\*

**Mathematics – 10 hours**

MATH            1045            Pre-Calculus Mathematics\*  
MATH            1525            Calculus I

(\*Taking both MATH 1023 College Algebra and MATH 1033 Plane Trigonometry is equivalent to MATH 1045 Pre-Calculus Mathematics.)

\*\* Pre-professional Students such as Pre-Pharmacy and Pre-Medicine should consult with their advisor and review the admission requirements of their desired program.

**Physics – 8 hours**

PHYS            2003/2001        College Physics I/Lab  
PHYS            2103/2101        College Physics II/Lab

**or**

PHYS            2203/2201        University Physics I/Lab  
PHYS            2213/2211        University Physics II/Lab

**Science – 1 hour**

SCI              3101            Pre-Health Colloquium

**Other Requirements – 6 hours**

ENGL            3003            Advanced Professional Writing  
SPCH            1113            Introduction to Public Speaking

**Electives – 3 hours**

College of Science and Engineering electives three hours

## Chemistry Major – Pre-Health Professional Biochemistry Option (BS)

### Suggested Plan of Study

2018-2019 Catalog

Fall - Semester 1		Spring - Semester 2	
ENGL 1113 Composition I	3	ENGL 1123 Composition II	3
MATH 1045 Pre-Calculus Mathematics	5	MATH 1525 Calculus I	5
CHEM 1501 Background and Strategies in Chemistry (BASIC)	1	*HIST 1003 or 1013 World History I or II OR HIST 2013 or 2023 U.S. History I or II or PSCI 2003 American Government: National)	3
CHEM 1023/1021 University Chemistry I/Lab	4	CHEM 1123/1121 University Chemistry II/Lab	4
GSTD 1002 Freshman Seminar	2		
<b>Total Semester Hours</b>	<b>15</b>	<b>Total Semester Hours</b>	<b>15</b>
Fall - Semester 3		Spring - Semester 4	
World Literature I/II (ENGL 2213 or ENGL 2223)	3	CHEM 2012/2001 Analytical Chemistry/Lab	3
CHEM 3003/3001 Organic Chemistry I/Lab	4	CHEM 3103/3101 Organic Chemistry II/Lab	4
BIOL 1203/1201 Principles of Biology I/Lab	4	BIOL 1213/1211 Principles of Biology II/Lab	4
*HIST 1003 or 1013 World History I or II OR HIST 2013 or 2023 U.S. History I or II or PSCI 2003 American Government: National	3		3
SPCH 1113 Introduction to Public Speaking	3	ENGL 3003 Advanced Professional Writing	3
<b>Total Semester Hours</b>	<b>17</b>	<b>Total Semester Hours</b>	<b>17</b>
Fall - Semester 5		Spring - Semester 6	
Social Science choice (ECON 2103, FIN 2003, GEOG 2003, PSCI 2003, PSYC 2003, SOC 1003 or SOC 2003)	3	CHEM 3073/3071 Biochemistry I/Lab	4
**BIOL Elective	4	BIOL 3032/3022 General Microbiology/Lab	4
PHYS 2003/2001 College Physics I/Lab or PHYS 2203/2201 University Physics I/Lab	4	PHYS 2103/2101 College Physics II/Lab or PHYS 2213/2211 University Physics II/Lab	4
CHEM 3313/3311 Instrumentation I/Lab or CHEM 4313/4311 Instrumentation II/Lab	4	SCI 3101 Pre-Health Colloquium	1
<b>Total Semester Hours</b>	<b>15</b>		<b>13</b>
Fall - Semester 7		Spring - Semester 8	
**CHEM Elective (Jr/Sr)	4	**CHEM Elective	3
**BIOL Elective (Jr/Sr)	4	**BIOL Elective	4
CHEM 4403 Physical Chemistry: Thermodynamics	3	Science & Engineering Elective	3
CHEM 4073 Biochemistry II	3	Fine Arts/Humanities (ART 2013, HUM 2003, ENGL 2213, ENGL 2223, MUS 2003 or MUS 2013, PHIL 2403, THEA 2003 or Foreign Language)	3
CHEM 4051 Senior Seminar – Chemistry	1		
<b>Total Semester Hours</b>	<b>15</b>	<b>Total Semester Hours</b>	<b>13</b>

Total hours required for major – 120

\*Note: Must have six hours of history/government. Three hours must be World History I or II. Three hours must be U.S. History I, U.S. History II or American Government: National.

\*\*Pre-Professional Students such as Pre-Pharmacy and Pre-Medicine should consult with their advisor and review the admission requirements of their desired program.