

# CHEMISTRY, B.S. - POLYMER CHEMISTRY OPTION

## Major in Chemistry, BS

Code	Title	Hours
Credits Required for Major		
	true	
Minimum GPA 2.0 for Major		
	true	
Minimum credits for 50% residency		
	true	
CHEM 188 WAIVED FOR TRANSFER STUDENTS		
100 AND 200 LEVEL CHEMISTRY REQUIRED COURSES 3		
A grade of C or better is required in the 100/200 level courses before proceeding to the courses for which they are pre-requisites.		
CHEM 111	Introductory Chemistry 1 (C minimum)	
CHEM 112	Introductory Chemistry 2 (C minimum)	
CHEM 231	Organic Chemistry 1 (C minimum)	
CHEM 232	Organic Chemistry 2 (C minimum)	
CHEM 251	Inorganic Chemistry 1 (C minimum)	
CHEM 265	Quantitative Analysis (C minimum)	
300 AND 400 LEVEL CHEMISTRY REQUIRED COURSES 2		
CHEM 341	Physical Chemistry 1	
CHEM 342	Physical Chemistry 2	
CHEM 487	Seminar in Chemistry 1	
CHEM 488	Seminar in Chemistry 2	
CHEM 498	Independent Study	
CHEMISTRY OPTIONS		
Option in Polymer Chemistry - See separate block		
American Chemical Society Certification - Optional - See separate block		
<b>Total Hours</b>		<b>5</b>

## Option in Polymer, Chemistry, BS

Code	Title	Hours
CHEM 381	Polymer Chemistry 1	0
CHEM 452	Inorganic Chemistry	3
CHEM 465	Analytical Chemistry	0
CHEM 482	Polymer Chemistry 2	3
Electives - Choose 11 hours from:		11
CHEM 300	Co-Op Ed Experience in Chem	
CHEM 312	Chemistry in Nanotechnology	
CHEM 324	Plant Biochemistry	
CHEM 326	Biochemistry 1	
CHEM 327	Biochemistry 2	
CHEM 328	Analytical Biochemistry Lab	

CHEM 375	Environmental Chemistry
CHEM 391	Advanced Laboratory 1
CHEM 392	Advanced Laboratory 2
CHEM 400	Co-Op Ed Experience in Chem
CHEM 435	Advanced Organic Chemistry
CHEM 476	Environmental Chemistry 2
CHEM 486	Topics in Chemistry
CHEM 489	Honors Course
CHEM 498	Independent Study
CHEM 499	Departmental Honors
AENG 271	Processing Nonmetallic Materials
AENG 375	Polymer and Ceramic Technology

**Total Hours** 17

## American Chemical Society Certification - Optional

Code	Title	Hours
THIS BLOCK IS NOT REQUIRED FOR DEGREE COMPLETION. The following block contains courses which are required/recommended to students opting for ACS Certification. While not required, an introductory Economics course, elementary German or Russian (GERM/RUSS 101 and 102) are recommended for inclusion in the core Liberal Arts core requirements for general education. Students must take a minimum of two hours of CHEM 489, 498, or 499 (Research) under Chemistry Electives. This means you will need a total of 3 credits in CHEM 489, 498 or 499.		

### REQUIRED COURSES FOR ACS CERTIFICATION

CHEM 326	Biochemistry 1	0
CHEM 392	Advanced Laboratory 2	1
Required Independent Research - Choose 3 hours from:		3
CHEM 489	Honors Course	
CHEM 498	Independent Study	
CHEM 499	Departmental Honors	

### RECOMMENDED COURSES FOR ACS CERTIFICATION

Introductory Economics - Optional Recommended		0
Elementary Language German or Russian - Optional Recommended		0

**Total Hours** 4

## Req Related for Chemistry, BS

Code	Title	Hours
<b>MATHEMATICS</b>		
Calculus I or Honors Calculus - Choose 1 of the following:		4-5
MATH 161	Calculus 1	
MATH 163H	Honors Calculus 1	
MATH 211	Calculus 2	4
MATH 311	Calculus 3	4
<b>PHYSICS</b>		
PHYS 231	Physics 1 with Calculus	0
PHYS 232	Physics 2 with Calculus	0
<b>Total Hours</b>		<b>12-13</b>