

MAJOR SEQUENCE AND DEGREE REQUIREMENTS

Major: **BS CHEMISTRY**
 Option: **Engineering Instrumentation Automation**
 Major Field Requirements: **54.0 credits**
 Other Requirements: **22.0 credits**

When applicable, up to six of the **REQUIRED RELATED** courses may be credited toward the Liberal Arts Core subject to normal distribution rules.

Course No.	Short Title	C.H.	Grade	Course No.	Short Title	C.H.	Grade
CORE CHEMISTRY COURSES (54.0 credits)				REQUIRED MATH ELECTIVES (12.0 credits)			
CHEM 111	Introductory Chemistry I	3.0	_____	MATH 161	Calculus I	4.0	_____
CHEM 112	Introductory Chemistry II	3.0	_____	MATH 211	Calculus II	4.0	_____
CHEM 188	Freshman Seminar	3.0	_____	MATH 311	Calculus III	4.0	_____
CHEM 231	Organic Chemistry I	3.0	_____	REQUIRED PHYSICS ELECTIVES (10.0 credits)			
CHEM 232	Organic Chemistry II	3.0	_____	PHYS 231	Physics I with Calculus	5.0	_____
CHEM 251	Inorganic Chemistry I	3.0	_____	PHYS 232	Physics II with Calculus	5.0	_____
CHEM 265	Quant Analysis	3.0	_____	REQUIRED CONTROL SYSTEMS ELECTIVES (12.0 credits)			
CHEM 341	Physical Chemistry I	3.0	_____	ITEC 261	Electronic Systems	3.0	_____
CHEM 342	Physical Chemistry II	3.0	_____	ITEC 325	Power Conversion and Control	3.0	_____
CHEM 391	Advanced Lab I	3.0	_____	ITEC 425	Industrial Robotic Systems	3.0	_____
CHEM 465	Analytical Chemistry	3.0	_____	ITEC 427	Programmable Logic Controllers	3.0	_____
CHEM 487	Seminar in Chemistry I	3.0	_____				
CHEM 488	Seminar in Chemistry II	3.0	_____				
CHEM 498	Research	3.0	_____				
ELECTIVES (3.0 credits)							
CHEM 300	Co-op in Chemistry	3.0	_____				
CHEM 312	Chemistry in Nanotechnology	3.0	_____				
CHEM 326	Biochemistry I	4.0	_____				
CHEM 327	Biochemistry II	4.0	_____				
CHEM 328	Analytical Biochemistry	1.0	_____				
CHEM 375	Environmental Chemistry	4.0	_____				
CHEM 381	Polymer Chemistry I	4.0	_____				
CHEM 392	Advanced Lab II	1.0	_____				
CHEM 400	Co-op in Chem	3.0	_____				
CHEM 435	Advanced Organic Chemistry	3.0	_____				
CHEM 452	Inorganic Chemistry II	3.0	_____				
CHEM 476	Environmental Chemistry III	4.0	_____				
CHEM 482	Polymer Chemistry II	3.0	_____				
CHEM 486	Topics in Chemistry	1.0-4.0	_____				
CHEM 489	Department Honors	1.0-3.0	_____				
CHEM 498	Independent Study	1.0-3.0	_____				
CHEM 499	Department Honors	1.0-3.0	_____				