

Required Curriculum

Chemistry Major with the Coatings and Polymeric Materials Option

This program is for students who wish to prepare for a career as a chemist in coatings and polymeric materials industries, or for graduate school in polymer chemistry. This is the only program in the U.S. that combines an ACS-certified B.S. degree in Chemistry with a coatings and polymeric materials curriculum. Students have numerous opportunities to participate in the summer research and cooperative programs sponsored by industry. For students who elect the Polymers and Coatings Option to the B.S. Degree in Chemistry, substantial scholarship support is available.

ACS Certified B.S. in Chemistry, P&C Option		Credits	
First Year		F	S
Chem 150, 151	Principles of Chemistry I, II	3	3
Chem 160, 161	Principles of Chemistry I, II Labs	1	1
Biol 150	General Biology	3	
Comm 110	Fundamentals of Public Speaking		3
Engl. 120	College Composition	3	
Gen. Ed. Electives*	General Education Elective, Wellness		5
Math 165, 166	Calculus I, II	4	4
		14	16
Second Year			
Chem 341, 342	Organic Chemistry I, II	3	3
Chem 353, 354	Organic Chemistry I, II Majors Labs	1	2
Gen. Ed. Electives*	General Education Electives	3	3
Math 128	Introduction to Linear Algebra	1	
Math 259**, 266	Calculus III, Intro. to Differential Eq.	3	3
Phys 251, 252	University Physics I, II	4	4
Phys 251L, 252L	University Physics Laboratory I, II	1	1
		16	16
Third Year			
Chem 431, 431L	Analytical Chemistry I and Lab	5	
Chem 364, 365	Physical Chemistry I, II	3	3
Chem 380	Chemistry Junior Seminar		1
Chem 471	Physical Chemistry Laboratory		2
Gen. Ed. Electives*	General Education Electives		3
Engl. 324	Writing in the Sciences	3	
P&C 474/84, 475/85	Coatings I and II, and Labs	5	5
		16	14
Fourth Year			
Bioc 460, 460L	Found. of Biochem I & Lab	4	
Chem 425, 429	Inorganic Chemistry and Laboratory	5	
Chem 432, 432L	Analytical Chemistry II and Lab		4
Chem 491	Chemistry Senior Seminar		2
Gen. Ed., Electives*	General Education and other electives	3	9
P&C 473	Polymer Synthesis	3	
		15	15
SAMPLE CURRICULUM TOTAL			122

*Electives must include 18 credits in humanities and social sciences; six of these must be in humanities/fine arts, and six in social sciences. In addition, three credits must have a global perspective and three must be in the cultural diversity category.

**MATH 265 may be substituted for MATH 259.