

**2006-2007 CURRICULUM FOR  
BACHELOR'S DEGREE IN POLYMER SCIENCE**

**Freshman Year**

___ Introduction of Polymers (PSC 191)	1	___ General Chemistry II (CHE 107)	3
___ General Chemistry I (CHE 106)	3	___ General Chemistry II Lab (CHE 107L)	1
___ General Chemistry I Lab (CHE 106L)	1	___ Calculus II (MAT 168)	3
___ Calculus I (MAT 167)	3	___ Physics w/Calculus I (PHY 201)	4
___ Composition I (ENG 101)	3	___ Physics w/Calculus I Lab (PHY 201L)	1
___ Global History/Culture Elective	3	___ Composition II (ENG 102)	3
___ Safety Principles (PSC 410)	<u>1</u>	___ Introduction of Polymers (PSC 192)	<u>1</u>
	15		16

**Sophomore Year**

___ Physical Aspects of Polymers (PSC 291)	1	___ Aesthetic Values Elective	3
___ Organic Chemistry I (CHE 255)	3	___ Physical Aspects of Polymers (PSC 292)	1
___ Organic Chemistry I Lab (CHE 255L)	1	___ Organic Chemistry II (CHE 256)	3
___ Calculus III (MAT 169)	3	___ Organic Chemistry II Lab (CHE 256L)	2
___ Physics w/Calculus II (PHY 202)	4	___ Decision-Making/Responsibility Elective	3
___ Physics w/Calculus II Lab (PHY 202L)	1	___ Global History/Culture Elective	<u>3</u>
___ English Literature (ENG 203)	<u>3</u>		15
	16		

**Junior Year**

___ Organic Polymer Chemistry I (PSC 301)	3	___ Organic Polymer Chemistry II (PSC 302)	3
___ Problem Solving (PSC 285) (1 <sup>st</sup> 8 weeks)	3	___ Polymer Characterization (PSC 450)	3
___ Polymer Rheology (PSC 360) (2 <sup>nd</sup> 8 wks)	3	___ Polymer Characterization Lab (PSC 450L)	2
___ Polymer Techniques (PSC 341L)	3	___ Polymer Processing (PSC 361)	3
___ *Technical Elective	<u>3</u>	___ Polymer Processing Lab (PSC 361L)	2
	15	___ Global History/Culture Elective	<u>3</u>
			16

**Senior Year**

___ Polymer Physical Chemistry I (PSC 401)	3	___ Polymer Physical Chemistry II (PSC 402)	4
___ Surface Coatings (PSC 470)	4	___ Polymer Kinetics (PSC 480)	3
___ Surface Coatings Lab (PSC 470L)	1	___ *Technical Elective	3
___ **Polymer Research I (PSC 490)	1	___ **Polymer Research II Lab (PSC 491L)	3
___ **Polymer Research I Lab (PSC 490L)	3	___ **Polymer Research (PSC 491)	1
___ *Technical Elective	<u>3</u>	___ Biomaterials	<u>2</u>
	15		16

**TOTAL CREDIT HOURS: 124**

\*Technical Electives (see reverse side for the listing of all electives)

\*\* Designates Senior Capstone

## POLYMER SCIENCE UNDERGRADUATE ELECTIVES

### Aesthetic Values Electives, Three (3) Hours

ART 130 or DAN 130 or MUS 365 or THE 100

### Global History/Culture Electives, Nine (9) Hours

HIS 101 or HIS 102; ANT 101 or GHY 101 or SOC 101; and HIS 101 or HIS 102 or PHI 151 or REL 131

### Decision-Making/Responsibility Electives, Three (3) Hours

ECO 101 or PHI 171 or PSY 110 or PS 101 or HHS 100 or HHS 101

### Technical Electives, Minimum of 8 Hours Required

BSC 110/L Principles of Biological Science I  
BSC 111/L Principles of Biological Science II

CHE 311/L Analytical Chemistry  
CHE 331 Descriptive Inorganic Chemistry  
CHE 420/L Principles of Biochemistry  
CHE 421/L Biochemistry I  
CHE 422/L Biochemistry II  
CHE 423 Analytical Biochemistry  
CHE 424 Information Pathways (Biochemistry III)  
CHE 431/L Inorganic Chemistry

CSS 334 Problem Solving Using C, II  
CSS 343 C Programming  
CSS 350 Data Structures  
CSS 415 Methods of Mathematical Statistics I  
CSS 416 Methods of Mathematical Statistics II  
CSS 417 Experimental Design

FSC 310/L Introduction to Forensic Science  
FSC 340/L Fingerprint Analysis/Techniques  
FSC 440 Drug Identification  
FSC 442/L Arson/Explosives  
FSC 445/L Crime Scene Documentation

MAT 280 Multi-Variable Calculus  
MAT 326 Linear Algebra I  
MAT 415 Differential Equations II  
MAT 417 Partial Differential Equations  
MAT 430 Advanced Engineering Mathematics I  
MAT 431 Advanced Engineering Mathematics II  
MAT 441 Advanced Calculus I  
MAT 442 Advanced Calculus II  
MAT 460 Numerical Analysis I  
MAT 461 Numerical Analysis II

PHY 332 Thermodynamics and Statistical Mechanics  
PHY 350 Mechanics I  
PHY 351 Mechanics II  
PHY 361/L Elementary Modern Physics I  
PHY 421 Electricity and Magnetism  
PHY 455 Fluid Dynamics  
PHY 461 Quantum Mechanics

PSC 260 Vector Statics  
PSC 340 Strength of Materials  
PSC 471/L Electronics for Scientists

**Note: Each class is 3 CH and each lab is 1 CH**