

**CURRICULUM FOR  
BACHELOR'S DEGREE IN POLYMER SCIENCE  
2009-10**

**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 (PHY201L)	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**

____ Organic Chemistry I (CHE 255)	3	____ Aesthetic Values Elective	3
____ Organic Chemistry I Lab (CHE 255)	1	____ Physical Aspects of Polymers (PSC 292)	2
____ Calculus III (MAT 169)	3	____ Organic Chemistry II (CHE 256)	3
____ Physics w/Calculus II (PHY 202)	4	____ Organic Chemistry II Lab (CHE 256L)	2
____ Physics w/Calculus II Lab (PHY 202L)	1	____ Decision-Making/Responsibility Elective	3
____ English Literature (ENG 203)	<u>3</u>	____ Global History/Culture Elective	<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 Character Lab(PSC450L)	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 and Culture Elective	<u>3</u>
			16

**Senior Year**

____ Polymer Physical Chemistry I (PSC 401)	3	____ Polymer Phys 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 (PSC 475)	<u>2</u>
	15		16

**TOTAL HOURS: 124**

\* Designates Senior Capstone

\*\*See reverse side for Undergraduate Technical Electives

**Aesthetic Values Elective:** Three (3) hours: ART 130 or DAN 130 or MUS 365 or THE 100

**Global History/Culture Elective:** 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 Elective:** Three (3) hours: ECO 101 or PHI 171 or PSY 110 or PS 101 or HHS 100 or HHS 101

**UNDERGRADUATE TECHNICAL ELECTIVES**  
**(Minimum 9 hours required)**

BSC 110, L	Principles of Biological Science I and Lab
BSC 111, L	Principles of Biological Science II and Lab
CHE 311, L	Analytical Chemistry and Lab
CHE 331	Descriptive Inorganic Chemistry
CHE 420, L	Principles of Biochemistry
CHE 421, L	Biochemistry I and Lab
CHE 422, L	Biochemistry II and Lab
CHE 423	Analytical Biochemistry
CHE 424	Information Pathways (Biochemistry III)
CHE 431, L	Inorganic Chemistry and Lab
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 and Lab
FSC 340, L	Fingerprint Analysis/Techniques and Lab
FSC 440	Drug Identification
FSC 442, L	Arson/Explosives and Lab
FSC 445, L	Crime Scene Documentation and Lab
MAT 280	Multi-Variable Calculus
MAT 285	Differential Equations
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 and Lab
PHY 421	Electricity and Magnetism
PHY 455	Fluid Dynamics
PHY 461	Quantum Mechanics
AEC 340	Strength of Materials