MILLERSVILLE UNIVERSITY

Student Name: Student I.D. #:

DEGREE:	BS	**MAJOR REQUIREMENTS FOR A BS**
MAJOR:	CHEM	**DEGREE IN POLYMER CHEMISTRY**
OPTION:	POLY	Total credit hours required: 120 minimum

REQUIREMENTS AND POLICIES FOR THE BS CHEMISTRY MAJOR

A. Policies for Admission to the Major

1. New students (freshmen and transfers) must be admitted to the Chemistry major by the Office of Admissions upon admission to the University.
2. Admission into the Chemistry major from other departments is upon approval of the chairperson of the Chemistry Department.
3. Non-degree and continuing education students must be admitted to the Chemistry major by the Office of Admissions.

B. Policies for Retention in the Major

1. University requirements for retention.
2. The student is required to have a 2.00 grade point average in the major courses by the end of the of sophomore year. If not, it is recommended that courses be repeated to achieve a 2.00 average in the major or that there be a change of major.
3. Chemistry majors are required to have a 2.00 grade or better in Chemistry courses required for the major at the 100 and 200 level before proceeding to a new course for which it is a prerequisite. (Currently, these courses include: CHEM 111,112,231,232,251, and 265).

C. Policies for Completion of the Major

1. Completion of all University curricular requirements.

Note to the Student: *This form is provided as a guide. IT is your responsibility to consult regularly with your advisor to be aware of change and curriculum details which are not incorporated on this form.*

MAJOR SEQUENCE AND DEGREE REQUIREMENTS

Major: **BS CHEMISTRY**
Option: **POLYMER**
Major Field Requirements: **59.0 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.

REQUIRED CHEMISTRY COURSES (48.0 Credits)

Course	No.	Short Title	C.H.	Grade
CHEM	111	Intro Chemistry I	4.0	
CHEM	112	Intro Chemistry II	4.0	
CHEM	188	Freshman Seminar	1.0	
CHEM	231	Organic Chem I	4.0	
CHEM	232	Organic Chem II	4.0	
CHEM	251	Inorganic Chem I	3.0	
CHEM	265	Quant Analysis	4.0	
CHEM	341	Physical Chem I	4.0	
CHEM	342	Physical Chem II	4.0	
CHEM	381	Polymer Chem I	4.0	
CHEM	452	Inorganic Chem II	3.0	
CHEM	465	Analytical Chem	4.0	
CHEM	482	Polymer Chem II	4.0	
CHEM	487	Seminar in Chem I	0.5	
CHEM	488	Seminar in Chem II	0.5	
CHEM	498	Independent Study	1.0	

CHEMISTRY & RELATED ELECTIVES (min 11.0 Credits)

Course	No.	Short Title	C.H.	Grade
CHEM	300	Cooperative Educ	3.0-6.0	
CHEM	400	Cooperative Educ	3.0-6.0	
CHEM	312	Chem in Nanotech	3.0	
CHEM	324	Plant Biochemistry	4.0	
CHEM	326	Biochemistry I	4.0	
CHEM	327	Biochemistry II	4.0	
CHEM	328	Analyt. Biochem Lab	1.0	
CHEM	375	Environmental Chem	4.0	
CHEM	391	Advanced Lab I	1.0	
CHEM	392	Advanced Lab II	1.0	
CHEM	435	Advanced Organic Chem	3.0	
CHEM	476	Environmental Chem II	4.0	
CHEM	486	Topics in Chemistry	1.0-4.0	
CHEM	489	Dept. Honors	1.0-3.0	
CHEM	498	Independent Study	1.0-3.0	
CHEM	499	Dept. Honors	1.0-3.0	
ITEC	271	Proc. Non-Met. Mater.	3.0	
ITEC	375	Poly & Ceramic Tech	3.0	

REQUIRED RELATED (22.0 credits)

Mathematics (12.0 credits)

Course	No.	Short Title	C.H.	Grade
MATH	161	Calculus I	4.0	
MATH	211	Calculus II	4.0	
MATH	311	Calculus III	4.0	

Physics (10.0 credits)

Course	No.	Short Title	C.H.	Grade
PHYS	231	Physics I with Calc	5.0	
PHYS	232	Physics II with Calc	5.0	

Suggested general education courses:
BUAD 101, BUAD 161, ECON 101, ECON 102, and two foreign language courses (101 and 102).

General Electives (as necessary)

BACHELOR OF SCIENCE IN CHEMISTRY
POLYMER CHEMISTRY OPTION
RECOMMENDED PROGRAM

FIRST SEMESTER				SECOND SEMESTER			
CHEM	111	Intro Chem I	4.0	CHEM	112	Intro Chem II	4.0
CHEM	188	Freshman Seminar	1.0	MATH	211	Calculus II	4.0
MATH	161	Calculus I	4.0	COMM	100	Fund. Of Speech	3.0
ENGL	110	English Composiu1RG n-159RM F(a)25u.9		___		Soc. Science Course #1	3.0
			___	_____	___	Soc. Science Course #2	3.0
		Total S.H.	15.0			*Total S.H.*	17.0

THIRD SEMESTER				FOURTH SEMESTER			
CHEM	231	Organic I	4.0	CHEM	232	Organic II	4.0
PHYS	231	Physics I	5.0	PHYS	232	Physics II	5.0
MATH	311	Calculus III	4.0	CHEM	265	Quant. Analysis	4.0
WELL	175	Wellness	3.0	_____	___	Humanities Course #1	3.0
		Total S.H.	16.0			*Total S.H.*	16.0

FIFTH SEMESTER				SIXTH SEMESTER			
CHEM	341	Physical Chemistry I	4.0	CHEM	342	Physical Chemistry II	4.0
CHEM	381	Polymer Chemistry I	4.0	CHEM	482	Polymer Chemistry II	3.0
_____	___	Humanities Course #2	3.0	_____	___	Humanities Course #3	3.0
ENGL	3XX	Advanced Writing	3.0	_____	___	Soc. Sciences Course #3	3.0
		Total S.H.	14.0			Total S.H.	13.0

SEVENTH SEMESTER				EIGHTH SEMESTER			
CHEM	452	Inorganic II	3.0	CHEM	465	Analytical Chemistry	4.0
CHEM	487	Chemistry Seminar	0.5	CHEM	488	Chemistry Seminar	0.5
CHEM	498	Intro to Research (Req)	3.0	CHEM	___	Chemistry Elective*	4.0
CHEM	___	Chemistry Elective*	4.0	ITEC	271	Proc Non-Met Materials	3.0
_____	___	Perspectives Course	3.0	_____	___	C&E Course #4	3.0
_____	___	C&E Course #1	3.0			*Total S.H.*	14.5
		Total S.H.	14.5				

COMMENTS, NOTES OR RECOMMENDATIONS:

* Students opting for ACS Certification in Polymer Chemistry should take Biochemistry I (CHEM 326).

1. Connections and Exploration (C&E) courses #1 and #4 can be satisfied with any approved GenEd course.
2. Cultural Diversity & Community (D) course may be satisfied with approved courses from the GenEd requirements (including Perspectives), the major, the minor, the required related area, or general electives.

The American Chemical Society (ACS) and the Chemistry Department strongly recommend an Introductory Economics course (ECON 101 or 102, for example) and an Introductory Business Administration course (BUAD 101 or 161, for example) among the Social Science (G3) electives, and Elementary Foreign Language (FORL 101 and 102) among the Humanities (G1) electives. ENGL 312 (Technical Writing) is highly recommended.