



MOUNT ST. JOSEPH
UNIVERSITY

Chemistry Major - Research & Industry Concentration – Bachelor of Science

FIRST YEAR-SEMESTER #1		FIRST YEAR- SEMESTER #2		UNIVERSITY CORE	
BIO 111 Principles of Biology I	4	CHE 112 General Chemistry II	3	COMMON GOOD	
BIO 111A Prin. of Biology I Lab	0	CHE 112A Gen. Chem II Lab	1	CORE 115 Common Ground	Code COR
BIO 111R Prin. of Bio I Recitation	0	CHE 112R Gen. Chem. I Rec	0	Justice & the Common Good	Code JCG
CHE 111 General Chemistry I	3	MTH 194 Calculus II	4	Ethics	Code CE
CHE 111A Gen. Chem. I Lab	1	COM 100/ ENG 101	3	Experiential Learning	Code EXP
CHE 111R Gen. Chem. I Rec	0	SOC 103 Our Social World	3	Core Capstone	Code CCP
MTH 193 Calculus I	4	Core requirement	3	HUMANITIES	
CORE 115 Common Ground	3			Speech (COM 100)	Code C
SECOND YEAR-SEMESTER #1		SECOND YEAR-SEMESTER #2		Writing (ENG 101)	Code C
CHE 211 Organic Chemistry I	3	CHE 212 Organic Chemistry II	3	Literature (ENG)	Code CL
CHE 211A Organic Chem I Lab	1	CHE 212A Organic Chem II Lab	1	Art or Music	Code CAM
PHY 201 General Physics I	3	CHE 200 Chem. Soph. Seminar	1	History	Code CH
PHY 201A Gen. Physics I Lab	1	PHY 202 General Physics II	3	Religious Studies	Code CR
CED 220 Foundations of Professionalism	1	PHY 202A Gen. Physics II Lab	1	Philosophy	Code CP
COM 100/ENG 101	3	Core requirement	3	SCIENCES	
Core requirement	3	Core requirement	3	Biology/Chemistry/Physics + Lab	Code CN
THIRD YEAR-SEMESTER #1		THIRD YEAR-SEMESTER #2		Mathematics	Code CMA
CHE 314 Inter. Analytical Chem	3	CHE 315 Instrumental Analysis	3	SOC 103 Our Social World	Code CS
CHE 314A Inter. Analytical Chem Lab	1	CHE 315A Instrum. Analysis Lab	1	Choose one discipline:	
CHE 325 Biochemistry I	3	CHE 360 Intermed. Inorg. Chem	3	ECO 212 Microeconomics	Code CEP
CHE 325A Biochem. I Lab	1	CHE 360A Int Inorganic Lab	1	PSY 103 Psychology	Code CEP
Core requirement	3	CHE 300 Chem. Junior Seminar	1	<u>NOTES</u>	
Core requirement	3	Core requirement	3	Prerequisites:	
Core requirement	3	Core requirement	3	Chemistry- College preparatory high school chemistry or the successful completion of a placement test.	
FOURTH YEAR-SEMESTER #1		FOURTH YEAR-SEMESTER #2		Math- Three years of college preparatory high school mathematics including functions.	
CHE 350 Physical Chemistry I	3	CHE 355 Physical Chem. II	3	120 credit hours minimum needed to graduate	
CHE 350A Phys. Chem I Lab	1	CHE 355A Phys. Chem II Lab	1	*Students must have an appropriate math placement before enrolling in MTH 193 and CHE 111.	
CHE 390 Research Problems in Chemistry	1	CHE 400 Chem. Seminar & Capstone	1	**Curriculum Guide does not replace advising by a faculty member within the Chemistry program**	
Elective	3	Core Capstone	3		
Elective	3	Elective	3		
Elective	3	Elective	3		
The Research and Industry Concentration will prepare students to work in many different laboratory settings (eg. private, academic, and government labs). This concentration is also excellent preparation for PhD programs in multiple fields (eg. chemistry, biochemistry, chemical engineering, and biomedical engineering).					