Suggested Transfer Pathway

Montgomery College A.S. in Science, Chemistry & Biochemistry to Shepherd University B.S. in Chemistry w/Biochemical Chemistry Concentration

Total Credits: 64, Catalog Year: 2018-2019

0 – 32 Credits – Montgomery College

(Courses may be taken in any order, pending prerequisites)

	Cr
ENGL101 (if needed for ENGL102/103)	3
CHEM131 Principles of Chemistry I	4
MATH181 Calculus I	4
Humanities Distribution	3
Total Credits	**14**

	Cr
ENGL102 Critical Reading, Writing and Research	3
BIOL150 Principles of Biology I	4
CHEM132 Principles of Chemistry II	4
MATH182 Calculus II	4
ARTT127 or MUSC110, or THET100 (Arts Distribution)	3
Total Credits	**18**

33 – 64 Credits – Montgomery College

	Cr
CHEM203 Organic Chemistry I	5
MATH280 Multivariable Calculus	4
Behavioral and Social Science Distribution	3
PHYS161 General Physics I: Mechanics & Heat	3
Total Credits	**15**

	Cr
CHEM204 Organic Chemistry II	5
ENES206 MATLAB for Engineers or BIOL/CHEM/PHYS/MATH Elective	1
PHYS262 Physics II: Electricity & Magnetism	4
BIOL151 Principles of Biology II	4
Behavioral and Social Science Distribution	3
Total Credits	**17**

Apply to graduate from Montgomery College with an Associate of Science in Chemistry and Biochemistry

* BSSD courses must come from different disciplines

Year Three – Shepherd University

Fall Semester	Cr
CHEM321 Analytical Chemistry	3
CHEM 321L Analytical Chemistry Lab	1
Humanities – Core Curriculum	3
PHYS 221L General Physics I Lab	1
Social Science – Core Curriculum	3
Wellness – Core Curriculum	3
Total Credits	**14**

Spring Semester	Cr
CHEM322 Instrumental Analysis	3
CHEM 322L Instrumental Analysis Lab	1
BIOL305 Cell Biology	4
CHEM325 Computers in Science	3
Humanities – Core Curriculum	3
CHEM450 Research in Chemistry	1
Total Credits	**15**

Year Four – Shepherd University

Fall Semester	Cr
CHEM450 Research in Chemistry	2
Science Elective	4
BIOL344 Genetics	4
CHEM329 Biochemistry I	3
CHEM329L Biochemistry I Lab	1
Total Credits	**14**

Spring Semester	Cr
CHEM450 Research in Chemistry	1
Science Elective	4
CHEM340 Physical Chemistry I	3
CHEM340L Physical Chemistry I Lab	1
CHEM330 Biochemistry II	4
CHEM330L Biochemistry II Lab	1
Total Credits	**13**

MC A.S. in Science, Chemistry and Biochemistry to Shepherd B.S. in Chemistry

Total Credits: 64, Catalog Year 2018-2019

Name:	Date:	ID#	
Foundation Courses	**COURSE**	**HRS**	**GRADE**
English Foundation (ENGL102, Critical Reading, Writing and Research)	ENGL102	3	
Math Foundation (Calculus I)	MATH181	4	
Distribution Courses	**COURSE**	**HRS**	**GRADE**
Principles of Chemistry I	CHEM131	4	
Principles of Chemistry II	CHEM132	4	
Arts Distribution (ARTT127, MUSC110, or THET100)		3	
Behavioral and Social Sciences Distribution *		3	
Behavioral and Social Sciences Distribution *		3	
Humanities Distribution		3	
General Education Elective	**COURSE**	**HRS**	**GRADE**
Principles of Biology I	BIOL150	4	
Area of Concentration Requirements	**COURSE**	**HRS**	**GRADE**
Organic Chemistry I	CHEM203	5	
Organic Chemistry II	CHEM204	5	
ENES206 MATLAB for Engineers or BIOL/CHEM/PHYS/MATH Elective		1	
ENGL101 (if needed for ENGL102, elective if not)		3	
Calculus II	MATH182	4	
Multivariable Calculus	MATH280	4	
General Physics I: Mechanics and Heat	PHYS161	3	
General Physics II: Electricity and Magnetism	PHYS262	4	

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* Behavioral and Social Science Distribution (BSSD) courses must come from different disciplines

† Choose one distribution course that also fulfills the Global and Cultural Perspectives requirement.
www.shepherd.edu/chemistry

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