

# B.S. Cheminformatics Degree

## A Four Year Outline

FALL			SPRING		
<b>FIRST YEAR</b>					
CH1150 University Chemistry I	AND	3	CH1160 University Chemistry II	AND	3
CH1151 University Chemistry Lab I	AND	1	CH1161 University Chemistry Lab II	AND	1
CH1153 University Chemistry I Recitation		1	CH1163 University Chemistry II Recitation		1
	OR			OR	
CH1112 University Chem-Studio Lab I		5	CH1122 University Chem-Studio Lab II		5
CH1130 Orientation		1	MA2160 Calculus with Technology II		4
PH1100 Physics by Inquiry I		1	PH2100 University Physics I-Mechanics		3
MA1160 Calculus with Technology I		4	UN1025 Global Issues (OR UN1015 Composition)		3
CS1121 Intro to Programming I		3			
UN1015 Composition (OR UN1025 Global Issues)		3			
<b>TOTAL</b>		<b>17</b>	<b>TOTAL</b>		<b>15</b>
<b>SECOND YEAR</b>					
CH2410 Organic Chemistry I		3	CH2420 Organic Chemistry II		3
CH2411 Organic Chemistry Lab I		1	CH2212 Quantitative Analysis		5
CS1122 Intro Programming II		3	CS2321 Data Structures		3
MA2321 Elementary Linear Algebra		2	General Education Core SBS (or HUFA)		3
MA3521 Elementary Differential Equations		2	General Education HASS Distribution		3
PH1200 Physics by Inquiry II		1			
PH2200 University Physics II – E&M		3			
General Education Core HUFA (or SBS)		3			
<b>TOTAL</b>		<b>18</b>	<b>TOTAL</b>		<b>17</b>
<b>THIRD YEAR</b>					
CH3510 Physical Chemistry I		3	CH3520 Physical Chemistry II		3
CH4710 Biomolecular Chemistry I			MA3160 Multivariable Calculus with Technology		4
or CH4310 Inorganic Chemistry I		3	*Required Elective		3
BL1040 Principles of Biology		4	General Education HASS Distribution		6
CS2311 Discrete Structures		3			
CS1141 C for Java Programmers		2			
<b>TOTAL</b>		<b>15</b>	<b>TOTAL</b>		<b>16</b>
<b>FOURTH YEAR</b>					
CS4321 Introduction to Algorithms		3	CH4910 Chemistry Seminar		1
*Required Elective		3	CS4421 Database Systems		3
Free Electives**		8	*Required Elective		3
			Free Electives**		6
			General Education HASS Distribution		3
<b>TOTAL</b>		<b>14</b>	<b>TOTAL</b>		<b>16</b>
<b>GRAND TOTAL = 128 Credits</b>					

\* Required Electives must be chosen from the two specified Major Approved Electives lists. If CH4990 (undergraduate research) is chosen, it must be taken for two semesters for a minimum of 6 credits.

\*\*Free Electives – CH4412 Spectroscopy of Organic Chemistry is recommended for 3 of these credits.

**NOTE: 3 Units of co-curricular activities are required (P.E. courses are taught in 0.5 unit classes. Thus, 6 of these are needed for 3 units). It is highly recommended that students take at least one P.E. class during each semester of their first year, if possible.**