

**Mathematics Curriculum with Concentration on Data Science (120 Credit Hours)**

<b>Freshman Year (28)</b>							
<b>First Semester</b>	<b>Class</b>	<b>Hrs.</b>		<b>Second Semester</b>	<b>Class</b>		<b>Hrs.</b>
EN 111	Composition I	3		EN 112	Composition II		3
AR 214	Art Appreciation	3		PY 111	Physical Science I		3
MA 181	Calculus I w/Ana. Geom.	4		MA 182	Calculus II w/Ana. Geom.		4
SS 111	Social Institutions	3		CS 202	Programming in C++ I		3
CS 100	Info. Tech. Proficiency	1					
UL 101	University Life	1					
	<b>TOTAL</b>	<b>15</b>		<b>TOTAL</b>	<b>TOTAL</b>		<b>13</b>
<b>Sophomore Year (32)</b>							
CS 203	Programming in C++ II	3		MA 220	Number Theory		3
EN 213	Introduction to Literature	3		CS 251	Object Oriented Programming		3
MA 203	Foundations of Math	3		EC 201	Principles of Economics		3
MA 283	Calculus III	3		HI 111	World Civilization		3
PY 217	General Physics (Calculus)	3		SA 223	Oral Communication		3
PY 217L	General Physics Lab	1		ND 101	Health and Wellness		1
	<b>TOTAL</b>	<b>16</b>		<b>TOTAL</b>	<b>TOTAL</b>		<b>16</b>
<b>Junior Year (30)</b>							
MA 336	Math Modeling	3		MA 304	Discrete Math		3
MA 348	Differential Equations	3		MA 346	Linear Algebra		3
MA 369	Probability & Statistics	3		MA 378	Statistics II		3
CS 420	Database Systems	3		CS 454	Web Applications & Ecommerce		3
CS 321	Data Structure and Algorithms	3		_____	Elective (CS 380 Python Programing)		3
	<b>TOTAL</b>	<b>15</b>		<b>TOTAL</b>	<b>TOTAL</b>		<b>15</b>
<b>Senior Year (30)</b>							
CS 465	Databases for Data Analysis	3		MA 408	Advanced Calculus		3
MA 486	Data Mining and Machine Learning	3		MA 444	Numerical Analysis		3
MA 443	Modern Algebra	3		MA 470	Research Project I		3
_____	Elective (MA 412 Complex Variables)	3		_____	Elective (MA 370 Operations Research)		3
_____	Elective (MA 472 Data Analysis I)	3		_____	Elective (MA473 Data Analysis II)		3
	<b>TOTAL</b>	<b>15</b>		<b>TOTAL</b>	<b>TOTAL</b>		<b>15</b>