

## B.S. in Mathematics and Data Science 2018-2019: Option 1- CWILT

<b>First Year</b>					
<b>Fall</b>	<b>Credits</b>	<b>Interim</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
COS 100 Introduction to Programming	3	GES 160 Inquiry Seminar	3	COS 105 Computer Science 1	4
MAT 124M*1 Calculus 1	4			BIB 101 Introduction to the Bible	3
GES 140 Introduction to Wellbeing	3			GES 130 Christianity Western Culture	4
GES 125 Introduction to the Creative Arts	4			MAT 125 Calculus 2	4
	<b>14</b>		<b>3</b>		<b>15</b>
<b>Second Year</b>					
<b>Fall</b>	<b>Credits</b>	<b>Interim</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
MAT 223 Multivariable Calculus	3	Contemporary Western Life and Thought (L) course	3	MAT 211 Linear Algebra	3
MAT 241 Discrete Mathematics	3			MAT 222 Differential Equations	3
COS 212 Computer Science 2	4			COS 216 Data Structures and Algorithms	3
Laboratory Science (D) course	4			THE 201 Christian Theology	3
				Second Language (S) course*2	4
	<b>14</b>		<b>3</b>		<b>16</b>
<b>Third Year</b>					
<b>Fall</b>	<b>Credits</b>	<b>Interim</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
MAT 330 Probability and Statistics	3	Interim Off		MAT 310 Algebraic Structures	4
COS 313 Database Systems	3			MAT 344 Numerical Methods	3
Science, Technology, and Society (K) course	3			BUS 317 Business Analytics	4
World Cultures (U) course	3			Artistic Experience (A) course	0-3
Cross-Cultural Experience (Z) course	0-3			Elective	3
	<b>12-15</b>		<b>0</b>		<b>14-17</b>
<b>Fourth Year</b>					
<b>Fall</b>	<b>Credits</b>	<b>Interim</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
MAT 422 Real Analysis	3	MAT 499 Foundations of Mathematics	3	MAT 331 Applied Statistics	3
Interpreting Biblical Themes (J) course	3			Electives	6
Comparative Systems (G) course	3			COS 334 Data Mining and Machine Learning	3
MAT 376 Operations Research	4			Contemporary Christian Issues (P) course	3
				Leisure and Lifetime Sport (Q) course	1
	<b>13</b>		<b>3</b>		<b>16</b>
<b>Total Credits 123-129</b>					

1. This program assumes students will use MAT 124M to meet the general education Mathematics requirement.

2. Students must complete through the second semester of a first year language course or equivalent (check the catalog for details).

Most financial aid packages stipulate 12 credits/semester; Minnesota state grants are reduced when credit load falls below 15 credits/semester. (Interim credits may be split between fall and spring for state grant purposes only.)

## B.S. in Mathematics and Data Science 2018-2019: Option 2- Humanities

<b>First Year</b>					
Fall	Credits	Interim	Credits	Spring	Credits
COS 100 Introduction to Programming	3	GES 147 Humanities II: Renaissance and Reformation	4	BIB 101 Introduction to the Bible	3
MAT 124M*1 Calculus 1	4			COS 105 Computer Science 1	4
GES 140 Introduction to Wellbeing	3			MAT 125 Calculus 2	4
GES 145 Humanities I: Greco-Roman through Middle Ages	4			GES 244 Humanities III: European Enlightenment and American Culture to 1877	4
	<b>14</b>		<b>4</b>		<b>15</b>
<b>Second Year</b>					
Fall	Credits	Interim	Credits	Spring	Credits
MAT 223 Multivariable Calculus	3	Laboratory Science (D) course	4	MAT 211 Linear Algebra	3
MAT 241 Discrete Mathematics	3			MAT 222 Differential Equations	3
COS 212 Computer Science 2	4			COS 216 Data Structures and Algorithms	3
GES 246 Humanities IV: Modern and Contemporary Western Culture	4			Second Language (S) course*2	4
	<b>14</b>		<b>4</b>		<b>13</b>
<b>Third Year</b>					
Fall	Credits	Interim	Credits	Spring	Credits
MAT 330 Probability and Statistics	3	Interim Off		MAT 310 Algebraic Structures	4
COS 313 Database Systems	3			MAT 344 Numerical Methods	3
Science, Technology, and Society (K) course	3			Elective	3
World Cultures (U) course	3			BUS 317 Business Analytics	4
Cross-Cultural Experience (Z) course	0-3			Artistic Experience (A) course	0-3
	<b>12-15</b>		<b>0</b>		<b>14-17</b>
<b>Fourth Year</b>					
Fall	Credits	Interim	Credits	Spring	Credits
MAT 376 Operations Research	4	MAT 499 Foundations of Mathematics	3	MAT 331 Applied Statistics	3
MAT 422 Real Analysis	3			Electives	6
Interpreting Biblical Themes (J) course	3			COS 334 Data Mining and Machine Learning	3
Comparative Systems (G) course	3			Contemporary Christian Issues (P) course	3
				Leisure and Lifetime Sports (Q) course	1
	<b>13</b>		<b>3</b>		<b>16</b>
<b>Total Credits 122-128</b>					

1. This program assumes students will use MAT 124M to meet the general education Mathematics requirement.

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