

B.S. Data Science (Core)

8-Semester *Suggested* Plan of Study + NWACC 2+2

Year 1 – Fall		Year 1 -- Spring	
ENGL 1013	Composition I	MAT 2204	Calculus I (MATH 2554) (NWACC)
DASC 1003 DASC 1003	Intro to Data Science (incl. CoE, WCOB, ARSC Persp.) Intro Data Science (NWACC)	ENGL 1033	Gen Ed, Technical Composition II
DASC 1104 PROG 1003 AND PROG 1001	Programming Languages for Data Science (Python, R) Intro to Programming Logic (NWACC)  R for Data Science (NWACC)	GNE NNN3	Gen Ed, History or Government
GNE NNN3	Gen Ed Social Science	DASC 1223 DASC 1223	Role of Data Science in Today's World Role of Data Science in Today's World (NWACC)
GNE NNN3	Gen Ed Arts and Humanities	DASC 1204 PROG 1403	<i>Intro to Object-Oriented Programming</i> <i>Programming Logic II (NWACC)</i>
<b>16 hours</b>	<b>Total</b>	<b>16 hours</b>	<b>Total</b>

Year 2 – Fall		Year 2 -- Spring	
MAT 2304	<i>Calculus II (MATH 2564) (NWACC)</i>		
DASC 2213 DASC 2213	<i>Data Visualization &amp; Communication</i> <i>Data Visualization &amp; Communication</i> (NWACC)	GNE NNN4	Gen Ed, LAB Science Elective
DASC 2113 DASC 2113	<i>Principles &amp; Techniques of Data Science</i> <i>Principles &amp; Techniques of Data Science</i> (NWACC)	ECON 2143	<i>Economics for non-Business majors.</i>
GNE NNN3	Gen Ed, Social Science Elective	DASC 2203 CISM 1433	<i>Data Management &amp; Data Base</i> <i>Database &amp; SQL Concepts (NWACC)</i>
GNE NNN4	Gen Ed, LAB Science Elective	GNE NNN3	Gen Ed, Arts & Humanities
<b>17 hours</b>	<b>Total</b>	<b>13 hours</b>	<b>Total</b>

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Year 3 – Fall		Year 3 -- Spring	
<a href="#">DASC 2594</a>	Multivariable Math for Data Scientists	<a href="#">SEVI 2053</a>	Business Foundations (DASC-only section)
<a href="#">INEG 2313</a>	Applied Probability and Statistics for Engineers I	<a href="#">INEG 2333</a>	Applied Probability and Statistics for Engineers II
<a href="#">DASC 2133</a>	Data Ethics & Privacy (replaces PHIL 3103)	<a href="#">DASC 3203</a>	Optimization Methods in Data Science
<a href="#">DASC 3103</a>	Cloud Computing & Big Data	<a href="#">DASC 3213</a>	Statistical Learning
<a href="#">RRRR NNN3</a>	[Required Concentration Course]	<a href="#">RRRR NNN3</a>	[Required Concentration Course]
<b>16 hours</b>	<b>Total</b>	<b>15 hours</b>	<b>Total</b>

Year 4 – Fall		Year 4 -- Spring	
<a href="#">DASC 4892/H</a>	<i>Data Science Practicum I</i>	<a href="#">DASC 4993/H</a>	<i>Data Science Practicum II</i>
<a href="#">DASC 4113/H</a>	<i>Machine Learning</i>		(ECON slot satisfied in Year 1 spring)
<a href="#">DASC 4123</a>	<i>Social Problems (Issues) in DASC &amp; Analytics</i>	<a href="#">CCCC NNN3</a>	Concentration Elective
<a href="#">RRRR NNN3</a>	[Required Concentration Course]	<a href="#">CCCC NNN3</a>	Concentration Elective
<a href="#">CCCC NNN3</a>	[Concentration Elective]	<a href="#">CCCC NNN3</a>	[Concentration Elective]
<b>14 hours</b>	<b>Total</b>	<b>16 hours</b>	<b>Total</b>

Total Hours by Course Category	
<b>121 hours</b>	Total
<a href="#">65 hours</a>	<a href="#">Data Science Core - Required (New + Existing Courses)</a>
<a href="#">21 hours</a>	<a href="#">Data Science – Concentration Required + Elective</a>
<a href="#">36 hours</a>	<a href="#">Gen Ed</a>
0 hours	General Elective

120 Total Credit Hours of which 21 Credit Hours are Concentration-specific Hours  
 Concentration-specific hours are notational for hours and when in this *suggested* Plan of Study

- Note 1: Students at [NWACC](#) may require MATH 1285 Accelerated Pre-Calculus for this program.  
 Note 2: DASC 1104 Programming Languages for Data Science ([Python](#), [R](#)) are taught in PROG 1003 ([NWACC](#)) and PROG 1001 ([NWACC](#)).  
 Note 3: [PROG 1403 Programming Logic II \(NWACC\)](#) = [DASC 1204 Intro to Object-Oriented Programming](#)  
 Note 4: First two years ([NWACC](#)) [DASC 2594](#) and [Probability & Statistics sequence](#) will be taken in Year 3 [DASC \(UAF\)](#) and [DSCV \(NWACC\)](#) are paired with their equivalents in the proper sequence  
[CIS 1433 Database & SQL Concepts \(NWACC\)](#) = [DASC 2203 Data Management & Data Base](#)  
 Note 5: ([STAT 3013 Intro. to Probability](#) + [STAT 3003 Statistical Methods](#)) can be substituted for ([INEG 2323](#) + [INEG 2314](#)).

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Note 6: [STAT 3013](#) or [STAT 3003](#) or [INEG 2323](#) or [INEG 2314](#) satisfy WCOB/BUSI 1033 Data Analysis & Interpretation.

Note 7: Students doing an Honors Thesis use [DASC 400VH Honors Thesis in Data Science](#) (at least 1 credit hour) in Year 4 and usually Year 4 – Spring.