

SAMPLE 4-YEAR PLAN: DATA SCIENCE B.S.

Northern Kentucky University

This is an example of one way a student can complete this program in four years starting from **odd** year if the student requires no remedial courses.

MAJOR: Data Science

FIRST YEAR	Fall Semester		Spring Semester	
	<p><i>Get to know your fellow students by attending departmental social events and student research talks. Make sure you allow time in your programming courses for experimentation and fun; that is the best way to learn.</i></p> <p><i>*INF 120 is recommended but not required to fulfill this Gen Ed. Students who test out of this course can take a different science course.</i></p>	Gen Ed: Scientific and Quantitative Inquiry; Mathematics and Statistics; MAT 128 Calculus A	3	MAT 227 Calculus B
Gen Ed: Scientific and Quantitative Inquiry; Natural Sciences without lab; INF 120 Elementary Programming*		3	CSC 260 Object-Oriented Programming I	3
Gen Ed: Individual and Society; INF 128 Principles of Informatics		3	CSC 260L Object-Oriented Programming Lab (<i>recommended</i>)	0-1
INF 282 Introduction to Databases		3	STA 250 Probability and Statistics I	3
Gen Ed: Communication; Oral		3	INF286 Introduction to Web Development	3
DSC 101 Introduction to Data Science		1	Gen Ed: Communication; Written I	3
TOTAL		16	TOTAL	15-16
SECOND YEAR		Fall Semester		Spring Semester
<p><i>Speak with your advisor and 120-121 professors about possible co-op and research opportunities. Think carefully as you choose a minor. Try out for the programming team.</i></p>	MAT 228 Calculus C	3	DSC 311 Data Analytics	3
	CSC 360 Object Oriented Programming II	3	CSC 364 Data Structures and Algorithms	3
	DSC 200 Data Wrangling	3	BIS 300 Management Information Systems	3
	BIS 275 Business Process Analysis	3	STA 341 Statistics II	3
	Gen Ed: Communication; Written II	3	Gen Ed: Culture and Creativity I	3
	TOTAL	15	TOTAL	15
	THIRD YEAR	Fall Semester		Spring Semester
<p><i>Make a point to read professional publications like the Communications of the ACM, to stay abreast of new developments in the field. Consider becoming a mentor to newer students.</i></p>	DSC 321 Data Visualization	3	DSC 411 Data Mining	3
	BIS 384 Business Analytics	3	Guided Elective (CSC301)	3
	CSC 450 Database Management Systems	3	BIS 330 IT Project Management	3
	MAT 234 Linear Algebra	3	Gen Ed: Scientific and Quantitative Inquiry; Natural Sciences with lab	4
	Gen Ed: Global Viewpoints	3	Gen Ed: Culture and Creativity II	3
	TOTAL	15	TOTAL	16
FOURTH YEAR	Fall Semester		Spring Semester	
<p><i>Attend programs run by Career Services to get your resume in shape and polish your interviewing skills.</i></p>	DSC 421 Big Data	3	DSC 496 Data Science Capstone	3
	BIS 420 Business Intelligence and Enterprise Applications	3	Guided Elective: (STA3XX *)	3
	Guided Elective (STA316)	3	Free Elective*	3-4
	Gen Ed: Individual and Society; ECO 201 Principles of Microeconomics	3	Gen Ed: Self and Society; Cultural Pluralism	3
	Free Elective (BIS310)	3		
	TOTAL	15	TOTAL	13
			GRAND TOTAL OF CREDITS	120
<p>Notes:</p> <p>This program provides a plan for a student can to earn the minors if the courses in parenthesis are taken. The minors are in Computer Science, Statistics, and Information Systems. You are only required to earn one minor. This plan is for students who enter NKU with a mathematics ACT score of 25 or higher.</p> <p>Guided electives can be chosen from a list of BIS, CSC, MAT, and STA classes found in the course catalog.</p> <p>* In order to reach 120 hours, if you do not take CSC 260L, you will need 4 hours of elective.</p>				

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Gen Ed: Scientific and Quantitative Inquiry; Natural Sciences without lab; INF 120 Elementary Programming		3	CSC 260 Object-Oriented Programming I	3
Gen Ed: Individual and Society; INF 128 Principles of Informatics		3	CSC 260L Object-Oriented Programming Lab (recommended)	0-1
INF 282 Introduction to Databases		3	STA 250 Probability and Statistics I	3
Gen Ed: Communication; Oral		3	INF286 Introduction to Web Development	3
DSC 101 Introduction to Data Science		1	Gen Ed: Communication; Written I	3
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	DSC200 Data Wrangling	3	BIS 300 Management Information Systems	3
	BIS 275 Business Process Analysis	3	STA 341 Statistics II	3
	Gen Ed: Communication; Written II	3	Gen Ed: Culture and Creativity I	3
	TOTAL	15	TOTAL	15
THIRD YEAR	Fall Semester		Spring Semester	
<i>Make a point to read professional publications like the Communications of the ACM, to stay abreast of new developments in the field. Consider becoming a mentor to newer students.</i>	DSC 321 Data Visualization	3	DSC 411 Data Mining	3
	BIS 384 Business Analytics	3	Guided Elective (CSC301)	3
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	CSC 450 Database Management Systems	3	Guided Elective: (STA3XX)	3
	Guided Elective (STA316)	3	Free Elective*	3-4
	Gen Ed: Individual and Society; ECO 201 Principles of Microeconomics	3	Gen Ed: Self and Society; Cultural Pluralism	3
	Free Elective (BIS310)	3		
TOTAL	15	TOTAL	13	
			GRAND TOTAL OF CREDITS	120

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This program provides a plan for a student can to earn ~~the minors~~ if the courses in parenthesis are taken. The minors are in Computer Science, Statistics, and Information Systems. You are only required to earn one minor. This plan is for students who enter NKU with a mathematics ACT score of 25 or higher.

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