

# Minor in Data Analytics Program Guide

The DA Minor consists of 25-26 credits apportioned as follows:

- 19-20 required credits;
- 6 elective credits.

Knowledge Area	Required Courses	Credits
<b>Programming</b>	CS 04.103 – Computer Science and Programming <b>or</b> CS 04.113 – Introduction to Object Oriented Programming	4
<b>Data Structures</b>	CS 04.225 – Principles of Data Structures (3 s.h.) <b>or</b> CS 04.222 – Data Structures and Algorithms (4 s.h.)	3-4
<b>Probability / Statistics</b>	STAT 02.284 – Statistics for Biomedical Science <b>or</b> STAT 02.320 – Concepts in Statistical Data Analysis <b>or</b> STAT 02.290 – Probability & Statistical Inference for Computing Systems <b>or</b> STAT 02.280 – Biometry <b>or</b> STAT 02.360 – Probability/Random Variables	3
<b>Databases</b>	CS 04.430 – Database Systems: Theory And Programming	3
<b>Data Mining</b>	CS 07.480 – Introduction to Data Mining <b>or</b> STAT 02.340- Elements of Statistical Learning	3
<b>Data Visualization</b>	CS 07.370 – Introduction to Information Visualization	3
	<b>TOTAL</b>	19-20

Two Elective Courses From This List	Credits
CS 07.455 – Machine Learning	3
CS 04.440 – Data Warehousing	3
CS 07.470 – Theory and Applications of Pattern Recognition	3
CS 07.485 – Web and Text Mining	3
STAT 02:371 Design of Experiments: ANOVA	3
STAT 02-361 Mathematical Statistics	3
MATH 03.411 Deterministic Models In Operations Research <b>or</b> MATH 03.412: Stochastic Models In Operations Research	3
	<b>TOTAL</b>
	6

## Note on Sequence of Coursework

This minor has no prescribed sequence other than course prerequisites. An example sequence representing the most accessible course combination will be shown below. This is assuming completion of Calculus I & II as well as Linear Algebra.

Sequence	Course	Prerequisites
1a	CS 04.103 – Computer Science and Programming	None
1b	STAT 02284 – Statistics for Biomedical Science	MATH 01.130 – Calculus I MATH 01.131 – Calculus II MATH 01.210 – Linear Algebra
2a	CS 04.225 – Principles of Data Structures	CS 04.103 – Computer Science and Programming
3a	CS 04.430 – Database Systems: Theory And Programming	CS 04.222 – Data Structures and Algorithms <i>(Students taking CS 04.225 – Principles of Data Structures would need a pre-requisite waiver.)</i>
3b	CS 07.480 – Introduction to Data Mining	CS 04.222 – Data Structures and Algorithms <b>and</b> STAT 02290 – Probability & Statistical Inference for Computing Systems <i>(Students taking CS 04.225 – Principles of Data Structures and/or a different Prob/Stat course would need a pre-requisite waiver.)</i>
4a	CS 07370 – Introduction to Information Visualization	CS 04.222 – Data Structures and Algorithms <b>or</b> CS 04.225 – Principles of Data Structures
4b, 4c	Any two program electives	<i>vary depending on the elective chosen</i>