

# DATA ANALYTICS - MASTER OF DATA ANALYTICS

## Curriculum

The curriculum for the degree program is composed of 30 graduate credits.

Prefix	Title	Credits
<b>Foundation</b>		
C S 453 or C S 454	Python Programming I Python Programming II	3
A ST 511	Statistical Methods for Data Analytics	3
Select one of the following courses		3
C S 458 A ST 515	R Programming I Statistical Analysis with R	
<b>Methodologies</b>		
C S 508	Introduction to Data Mining	3
C S 519 or E E 565	Applied Machine Learning I Machine Learning I	3
Select one of the following courses		3
C S 502 BCIS 575 ICT 458	Database Management Systems I Database Management Systems Web Development and Database Applications	
<b>Advanced Topics and Applications</b>		
Choose nine credits from the following:		9
A ST 555 A ST 616 ASTR 630 BIOL 566 BCIS 566 C S 509 C S 516 C S 506 or ICT 460 C S 582 E E 596 ENGL 543 or COMM 550 I E 545 or BCIS 561 I E 515 or I E 522 I E 567 MATH 5220 or STAT 5230 SOCI 5150 SOCI 5155 SOCI 5160	Applied Multivariate Analysis Computational Statistics Advanced Methods in Astrophysics Advanced Bioinformatics and NCBI Database Business Analytics II Bioinformatics Programming Bioinformatics Computer Graphics I Advanced Software Development Concepts Database Management Systems II Digital Image Processing Multimedia Theory and Production Seminar in Communication Technologies Characterizing Time-Dependent Engineering Data Business Analytics I Stochastic Processes Modeling Queuing Systems Design and Implementation of Discrete-Event Simulation Fourier Series and Boundary Value Problems Elementary Stochastic Processes Seminar in Social Networks Seminar in Text Analysis for the Social Sciences Seminar in Data Visualization	
<b>Capstone Experience</b>		
Select one of the following courses		3
C S 598 MATH 5999	Master's Project Master's Thesis	

A ST 598	Special Research Problems
E E 598	Master's Technical Report
I E 599	Master's Thesis
Internship	
<b>Total Credits</b>	<b>30</b>