DATA ANALYTICS (DIGITAL AGRICULTURE) - MASTER OF DATA ANALYTICS (ONLINE)

The admission requirements for the degree program requires incoming students to have a bachelor degree and a minimum mathematical preparation at the level of Linear Algebra (MATH 2415 Introduction to Linear Algebra or equivalent course, such as E E 200 Linear Algebra, Probability and Statistics Applications).

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

Prefix	Title	Credits
Foundation		
C S 453	Python Programming I	3
or C S 454	Python Programming II	
A ST 511	Statistical Methods for Data Analytics	3
Select one of the following courses		3
C S 458	R Programming I	
A ST 515	Statistical Analysis with R	
Methodologies		
C S 508	Introduction to Data Mining	3
C S 519	Applied Machine Learning I	3
or E E 565	Machine Learning I	
Select one of the following courses		3
C S 502	Database Management Systems I	
BCIS 575	Database Management Systems	
ICT 458	Web Development and Database Applications	
Advanced Topics and Applications		
Choose nine credits from the following:		9
A ST 555	Applied Multivariate Analysis	
A ST 616	Computational Statistics	
ASTR 630	Advanced Methods in Astrophysics	
BCIS 566	Business Analytics II	
BIOL 566	Advanced Bioinformatics and NCBI Database	
C S 506	Computer Graphics I	
or ICT 460	Advanced Software Development Concepts	
C S 509	Bioinformatics Programming	
C S 516	Bioinformatics	
C S 582	Database Management Systems II	
E E 596	Digital Image Processing	
I E 545	Characterizing Time-Dependent Engineering Data	
or BCIS 561	Business Analytics I	
I E 515	Stochastic Processes Modeling	
or I E 522	Queuing Systems	
I E 567	Design and Implementation of Discrete-Event Simulation	
ENGL 543	Multimedia Theory and Production	
or COMM 550	Seminar in Communication Technologies	
MATH 5220	Fourier Series and Boundary Value Problems	
or STAT 5230	Elementary Stochastic Processes	
SOCI 5150	Seminar in Social Networks	
SOCI 5155	Seminar in Text Analysis for the Social Sciences	
SOCI 5160	Seminar in Data Visualization	
AGRO 620	Instrumentation in Agronomy	
AXED 5130	Advanced Agricultural Mechanization	
SOIL 652	Advanced Soil Physics	
Capstone Experience		
Select one of the following courses		3
C S 598	Master's Project	
MATH 5999	Master's Thesis	
A ST 598	Special Research Problems	
E E 598	Master's Technical Report	
I E 599	Master's Thesis	
Internship		
Specific Requirement for Digital Agriculture Concentration		
C S 508	Introduction to Data Mining	
SOIL 652	Advanced Soil Physics	
AXED 5130	Advanced Agricultural Mechanization	
AGRO 620	Instrumentation in Agronomy	
Total Credits		**30**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

First Year		
Fall		**Credits**
A ST 511	Statistical Methods for Data Analytics	3
C S 453	Python Programming I	3
C S 508	Introduction to Data Mining	3
	Credits	**9**
Spring		
C S 519	Applied Machine Learning I	3
C S 458	R Programming I	3
Take one of the following		3
AXED 5130	Advanced Agricultural Mechanization	
SOIL 652	Advanced Soil Physics	
AGRO 620	Instrumentation in Agronomy	
	Credits	**9**
Second Year		
Fall		
Two remaining Digital Agriculture Courses		6
C S 502 or ICT 458	Database Management Systems I or Web Development and Database Applications	3
	Credits	**9**
Spring		
Choose onf from the following		3
C S 598	Master's Project	
MATH 5999	Master's Thesis	
A ST 598	Special Research Problems	
E E 598	Master's Technical Report	
I E 599	Master's Thesis	
Internship		
	Credits	**3**
	Total Credits	**30**