INFORMATICS AND ANALYTICS, M.S.

The Master of Science in Informatics and Analytics develops leaders and problem-solvers who possess the knowledge and skill to thrive in the data science industry.

The program includes six interdisciplinary courses that establish a strong foundation in data science principles. In addition to the core program, students specialize in a concentration of interest.

The hallmark of the UNC Greensboro program is a unique capstone experience that links knowledge-with-practice and equips graduate students with key skills for professional success.

For information regarding deadlines and requirements for admission, please see the Guide to Graduate Admissions (https://grs.uncg.edu/prospective/guide/).

In addition to the application materials required by The Graduate School, applicants must submit a statement of purpose that outlines their career goals, how the M.S. in Informatics and Analytics will advance their career goals, and how their background has prepared them to enter the program.

Degree Program Requirements

Required: 30 credit hours

Code	Title	Credit Hours
Interdisciplinary Foundational Core (18 credits)		
IAF 601	Introduction to Data Analytics-Methods and Approaches	3
IAF 602	Statistical Methods for Data Analytics	3
IAF 603	Preparing Data for Analytics	3
IAF 604	Machine Learning and Predictive Analytics	3
IAF 605	Data Visualization	3
IAF 606	Solving Problems with Data Analytics	3
Disciplinary Concentration (12 credits)		
Select 12 credits in one of the concentrations		12
Total Credit Hours		30

Advanced Data Analytics Concentration

Code	Title	Credit Hours
Required Courses (6 credits)		
IAA 621	Statistical Computing	3
IAA 622	Complex Data Analysis	3
Elective Course (3 credits)		
Select one course (3 credits) from the following:		3
IAA 623	Categorical Data Analysis	
IAA 624	Multivariate Analysis	
IAA 625	Survey Sampling	
Required Capstone (3 credits)		
IAA 689	Capstone Project in Advanced Data Analysis	3
Total Credit Hours		12

Bioinformatics Concentration

Code	Title	Credit Hours
Required Courses (12 credits)		
IAB 620	Introduction to Bioinformatics	3
IAB 621	Bioinformatics	3
IAB 622	Advanced Bioinformatics	3
IAB 689	Capstone Project in Bioinformatics	3
Total Credit Hours		12

Computational Analytics Concentration

Code	Title	Credit Hours
Required Courses (9 credits)		
IAC 620	Algorithm Analysis and Design	3
IAC 621	Data Science	3
IAC 622	Big Data and Machine Learning	3
Required Capstone (3 credits)		
IAC 689	Capstone Project in Computational Analytics	3
Total Credit Hours		12

Cultural Analytics Concentration

Code	Title	Credit Hours
Required Courses (12 credits)		
IAL 620	Text Mining and Natural Language Processing	3
IAL 621	Content Analysis for Social Network Data	3
IAL 622	The Internet of Things and Wearable Analytics	3
IAL 689	Capstone Project in Cultural Analytics	3
Total Credit Hours		12

Geospatial Analytics Concentration

Code	Title	Credit Hours
Required Course (3 credits)		
IAG 620	Understanding Geographic Information Systems	3
Elective Courses (6 credits)		
Select two courses (6 credits) from the following:		6
IAG 621	Advanced Cartography	
IAG 622	GIS Applications in Urban Planning	
IAG 623	Advanced Geographic Information Systems	
IAG 624	Advanced Remote Sensing-Imaging	
IAG 625	Spatial Analysis	
IAG 626	GIS Programming and Design Application	
Required Capstone (3 credits)		
IAG 689	Capstone Project in Geospatial Analytics	3
Total Credit Hours		12

Health Informatics Concentration (courses pending approval)

Code	Title	Credit Hours
Required Courses (12 credits)		
IAH 620	Fundamentals of Health Informatics	3
IAH 621	Survey of the U.S. Healthcare System	3
IAH 622	Legal, Ethical, and Regulatory Issues in Health Informatics	3
IAH 689	Capstone Project in Applied Health Informatics	3
Total Credit Hours		12

Sports Analytics Concentration (courses pending approval)

Code	Title	Credit Hours
Required Courses (12 credits)		
IAS 620	Fundamentals of Sports Analytics	3
IAS 621	Sports Performance Analytics	3
IAS 622	Sports Management Analytics	3
IAS 689	Capstone Project in Applied Sports Analytics	3
Total Credit Hours		12