INFORMATION SYSTEMS, PH.D.

The Ph.D. in Information Systems requires 71 credit hours and is an innovative research degree program designed to prepare professionals and research scholars of the highest quality for careers in academic information systems units and other organizations. The program enhances the traditional Ph.D. program with four distinctive elements: commitment to practical relevance, emphasis on producing quality teachers, research apprenticeship, and interdisciplinary research.

The program is primarily for full-time students and is available to students with master's degrees in appropriate areas such as business, computer science, public administration, engineering, or the social sciences.

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 one-page personal statement and a resume. Applicants should consult the Ph.D. Program Director for specific admission requirements.

Students without a master's degree in business will need to take additional courses to establish an understanding of business processes.

Degree Program Requirements

Required: 71 credit hours

Leveling Courses/Prerequisites

Code	Title	Credit Hours
To be taken as needed to remedy deficiencies: [*]		
ISM 647	Artificial Intelligence and Machine Learning Applications for Business	
ISM 671	Organizing Data for Analytics	
ISM 672	App Design and Programming	
ISM 673	Designing Secure Computer and IoT Networks for Business	
ISM 677	Information Systems Management	
Students with no business background must take at least three of these four courses: [*]		
MBA 702	Financial and Managerial Accounting	
MBA 706	Marketing Management	
MBA 708	Operations for Competitive Advantage	
MBA 709 (COURSE INACTIVE)		

[*] *In consultation with the Ph.D. Program Director.*

Major

Code	Title	Credit Hours
Core Courses (21 credits)		
ISM 760	Contemporary Research Methods in Information Systems	3
ISM 785	Behavioral Theories of Information Systems Research	3
ISM 786	Principles of Scientific Inquiry in Information Systems Research	3
ISM 788	Seminar in IS Research Methods	3
Select three courses (9 credits) from the following:		9
ISM 753	Information Systems Research Seminar I	
ISM 754	Information Systems Research Seminar II	
ISM 755	Information Systems Research Seminar III	
ISM 756	Information Systems Research Seminar IV	
IS Teaching Education (4-7 credits)		
Select 4-7 credits [*]		4-7
IS Research Seminars (7-8 credits)		
Select a minimum of 7 credits [**]		7-8
Knowledge Area (9 credits)		
Select 9 credits, possible courses include: [*]		9
ISM 701	Predictive Analytics in Information Systems Research	
ISM 702	Data Visualization for Information Systems Research	
ISM 704	Cyber Security Principles in Information Systems Research	
ISM 706	Global Cyber Threats and Risk Management	
ISM 707	Information Technology Driven Disruptive Innovations	
ISM 703	Cognitive Computing and Artificial Intelligence in Information Systems Research	
ISM 705	Blockchains and Cryptography in Information Systems Research	
Research Methodology (12 credits)		
Select 12 credits, possible courses include: [*]		12
ELC 664	Introduction to Qualitative Inquiry: A Social Justice Approach	
ERM 682	Multivariate Analysis	
ERM 731	Structural Equation Modeling in Education	
STA 661	Advanced Statistics in the Behavioral and Biological Sciences I	
STA 662	Advanced Statistics in the Behavioral and Biological Sciences II	
STA 671	Multivariate Analysis	
Dissertation (18-24 credits)		
ISM 799	Dissertation	18-24
Total Credit Hours		**71**

[*]   *Chosen in consultation with the Ph.D. Program Director. Courses in other departments may be taken with the approval of the advisor.*

[**] *Taken throughout the program.*

Organizational Research Internship

Required of students lacking relevant work experience, as determined by the Ph.D. Program Director.

Research Apprenticeship

Two papers must be submitted for publication in conference proceedings or journals prior to taking written comprehensive examinations.

Comprehensive Written Examination

Upon completion of the required course work and research apprenticeship, the student will be eligible to sit for written comprehensive examinations. The major examination will have two parts:

- The first part will be composed of IS content from various courses and existing literature.
- The second part will be designed to evaluate the research readiness of the student.

Typically, the major examination is given in the Fall semester. If the student fails at the first attempt, a second attempt may be allowed by the Ph.D. Program Director.

Oral Examination

Following the successful completion of the written comprehensive examination, the student will be given an oral examination by the doctoral Advisory/Dissertation Committee. Upon successful completion of the oral examination, the student may apply for doctoral candidacy.

Proposal Defense

Following the oral examination, the student will prepare a dissertation proposal that will be defended before the doctoral Advisory/Dissertation Committee. The defense may be attended by others outside the committee.

Dissertation

A minimum of 18 credits will be devoted to research that culminates in the preparation of the required doctoral dissertation.