



BS IN INFORMATION SCIENCE

FALL

COURSE ABBREVIATION CREDITS

SPRING

SPRING

INST 301 3 CR	INST 327 3 CR
Introduction to Information Science	Database Design & Modeling
MAJOR CORE REQUIREMENT	MAJOR CORE REQUIREMENT
INST 311 3 CR	INST 352 3 CR
Information Organization	Information User Needs & Assessment
MAJOR CORE REQUIREMENT	MAJOR CORE REQUIREMENT
INST 314 3 CR	INST 354 3 CR
Statistics for Information Science	Decision-Making for Information
MAJOR CORE REQUIREMENT	Science
INST 326 3 CR Object-Oriented Programming for Information Science MAJOR CORE REQUIREMENT	INST 3623 CRUser-Centered Design MAJOR CORE REQUIREMENT
INST 335 3 CR Teams and Organizations	INST 462 3 CR Intro to Data Visualization MAJOR ELECTIVE REQUIREMENT

60 PRIOR CREDITS + 15 FALL CREDITS + 15 SPRING CREDITS = 90 CREDITS

INST 377 Dynamic Web Applications MAJOR ELECTIVE REQUIREMENT	3 CR	INST 414 Advanced Data Science MAJOR ELECTIVE REQUIREMENT	3 CR
INST 346 Technologies, Infrastructures & Architecture	3 CR	INST 447 Data Sources & Manipulation MAJOR ELECTIVE REQUIREMENT	3 CR
MAJOR CORE REQUIREMENT		INST 490	3 CR
Free Elective ELECTIVE REQUIREMENT	3 CR	Integrative Capstone MAJOR CORE REQUIREMENT	
Free Elective ELECTIVE REQUIREMENT	3 CR	Free Elective ELECTIVE REQUIREMENT	3 CR
Professional Writing GENERAL EDUCATION REQUIREMENT	3 CR	Free Elective ELECTIVE REQUIREMENT	3 CR

90 PRIOR CREDITS + 15 FALL CREDITS + 15 SPRING CREDITS = 120 CREDITS

Major Core Courses – 30 credits		
INST301 Introduction to Information Science	Explores social and mobile media; literacy in the digital age and fake news; information needs, information seeking, and information behavior; memes, virality, and breaking the internet; privacy, security, and surveillance; big data, algorithms, and ethics	
INST311 Information Organization	Information resources and collections; metadata and metadata schemas, values and ethics in information work; information architecture, and information retrieval systems	
INST314 Statistics for Information Science	Basic concepts in statistics including measure constructions, data exploration, hypothesis development, hypothesis testing, pattern identification, and statistical analysis. Use of MS Excel and R for basic data manipulation and analysis.	
INST326 Object-Oriented Programming for Information Science	An introduction to programming, emphasizing understanding and implementation of applications using object-oriented techniques. Design, program, and debug Python applications to solve non-trivial problems.	
INST327 Database Design and Modeling	Create user-oriented database queries using the Structured Query Language (SQL); build a working relational database using a database management system (DBMS)	
INST335 Teams and Organizations	Learn to identify, select and apply appropriate perspective for analyzing organizations' needs and identify opportunities	
INST346 Technologies, Infrastructures and Architecture	Learn to apply methods for transferring, storing, compressing, replicating and retrieving data, as well as identify contemporary threats to information security and develop effective approached to addressing those threats	
INST352 Information User Needs and Assessment	Focuses on use of information by individuals, including the theories, concepts, and principles of information, information behavior and mental models. Methods for determining information behavior and user needs, including accessibility issues will be examined and strategies for using information technology to support individual users and their specific needs will be explored.	
INST362 User-Centered Design	Introduction to human-computer interaction (HCI), with a focus on how HCI connects psychology, information systems, computer science, and human factors.	
INST490 Integrative Capstone	The capstone provides a platform for Information Science students where they can apply a subset of the concepts, methods, and tools they learn as part of the Information Science program to addressing an information problem or fulfilling an information need.	
Major Elective Courses – 15 credits		
INST354 Decision-Making for Information Science	Examines the use of information in organizational and individual decision-making, including the roles of information professionals and information systems in informed decision-making.	
INST377 Dynamic Web Applications	An exploration of the basic methods and tools for developing dynamic, database-driven websites, including acquiring, installing, and running web servers, database servers, and connectability applications.	
INST414 Advanced Data Science	An exploration of how to extract insights from large-scale datasets. The course will cover the complete analytical funnel from data extraction and cleaning to data analysis and insights interpretation and visualization. The data analysis component will focus on techniques in both supervised and unsupervised learning to extract information from datasets.	
INST447 Data Sources and Manipulation	Examines approaches to locating, acquiring, manipulating, and disseminating data. Imperfection, biases, and other problems in data are examined, and methods for identifying and correcting such problems are introduced.	
INST462 Introduction to Data Visualization	Exploration of the theories, methods, and techniques of visualization of information, including the effects of human perception, the aesthetics of information design, the mechanics of visual display, and the semiotics of iconography.	