DATA ANALYTICS MINOR

This interdisciplinary minor prepares students to use data analysis within their careers. Students will develop their skills to evaluate and interpret data in order to make better-informed decisions. In addition, students will develop their visualization and communication skills. The minor's selective elective courses provide an opportunity to apply the data analytic skills in a specific area of related interest.

Code	Title	Credits	Completed
Minor Requirements (22 credits)			
Foundational Statistics Course			
Select **one** of the following:		4	
MATH-141	Introductory Statistics		
MGT-140	Quantitative Decision-Making		
PSYC-251	Psychological Statistics		
Data Analytics Core Course			
IIPHYS-342	Data Analysis for Scientists (a C or higher is required)	4	
ISMGT-383	Applied Data Analysis & Vis (a C or higher is required)	4	
Select one from each cluster: (please note some courses have prerequisites)			
Methods and Tools Cluster:		*4*	
These courses develop a deeper understanding of techniques and methodologies used in various disciplines for computational background, data acquisition and preliminary analysis.			
BIO-313	Population & Community Ecology		
COMM-472	Quant & Qualitative Methods		
ECON-370	Financial Economics		
ISCS-210	Python Programming		
HLSC-305	Epidemiology		
PSYC-252	Research Meth Psyc		
SOC-301	Sociological Research Meth		
Active Experimentation Cluster:		*4*	
These courses use data analysis techniques to focus on problem solving, interpretation, and implementation of scientific decision making.			
CS-480	Machine Learning		
ECON-420	Econometrics		
HP-460	Research Methods in Human Movt		
MATH-341	Applied Statistics		
MATH-381	Math Modeling		
MGT-335	Strategic Digital Marketing		
MGT-434	Marketing Research		
SOC-303	Soc Quant Analysis		
SPDI-410	Mechatronics and Automation		
Portfolio & Career Course			
MGT-384	Data Analytics Portfolio Plus	2	
Total Credits		**22**	

Upon completion of the Data Analytics Minor, students will:

- Gain introductory data analytics skills, including a basic understanding of statistical testing, computer programming and the ability to explore and analyze concepts. The elective courses provide an opportunity to apply the skills in a specific area of interest.
- Analyze data, test claims and draw valid conclusions using appropriate statistical methodology.
- Recognize relationships between data and specific areas of practice such as biology, business, economics, criminal justice, etc.
- Retrieve, organize and visualize data using a variety of analytical tools.
- Recognize patterns, ask intelligent questions and generate insights from different data sets.
- Tell the story with the data - visually, orally, and in writing.
- Develop students' data analytic identity by creating their data analytics portfolio and experiences using present day tools.