DATA SCIENCE (DSIT)

DSIT 103 - INTRODUCTION TO DATA ANALYTICS
The purpose of this course is to teach students to identify spreadsheet terminology and concepts; create formulas and functions, to use formatting features, and generate charts, graphs, and reports, all as a device to analyze data.
Credits: 3
Prerequisites: MATH 095 or MATH 096

DSIT 202 - STAT COMPUTING WITH SOFTWARE
This one semester course will expose students to a statistical programming language such as R. No previous programming experience is assumed. There will be an assumption that students have completed prior statistics courses to the level of multiple regression analysis.
Credits: 3
Prerequisites: MATH 217
Course Notes: One course in statistics and probability needed.

DSIT 336 - ADVANCED EXCEL METHODS
An advanced computer use course emphasizing the advanced use of Microsoft Excel to structure and solve real-world problems which can arise in any discipline. Students will learn to model problems, apply logic to their models, import and groom data from a variety of sources, organize and evaluate data using pivot tables and charts, performing what-if analysis using scenarios, create solver models for more complex problems, and automate tasks in Excel using Macros & VBA for Excel.
Credits: 3
Prerequisites: CST 100

DSIT 369 - PREDICTIVE ANALYTICS
In this class the assumption is that we have no relationship with nor specific knowledge of the data collection environment, no way to validate the data, no assurances that data is normalized, independent, complete, validated, sufficient, etc. We assume domain knowledge is essential and that analysis is being performed in an environment rife with economic and political pressures. Particular attention is paid to the risks, rewards, dangers, and gains from the use of data.
Credits: 3
Prerequisites: MATH 217

DSIT 389 - SPEC. TECH TOPICS IN DATA SCI
Special technical topics in Data Science.
Credits: 3

DSIT 390 - SPEC TOP IN DATA SCIENCE
Special topics in Data Science. Topics may vary.
Credits: 3

DSIT 394 - DATA SCIENCE INTERNSHIP
In-service learning under Data Science faculty supervision.
Credits: 3
Course Notes: Consent of the Director of Data Science required.

DSIT 395 - INDEPENDENT STUDY
Students must obtain a Data Science faculty sponsor; prepare a written proposal that includes course objectives, time tables, and measurable evaluation criteria; and receive approval from both the faculty sponsor and the Director of Data Science.
Credits: 1-3
Course Notes: Approval of Cyber faculty sponsor and the Director of Data Science.

DSIT 399 - SENIOR PROJECT
Project to be undertaken at the end of the program of study. Students must obtain a cyber faculty sponsor; prepare a written proposal that includes course objectives, time tables, and measurable evaluation criteria; and receive approval from both the Data Science faculty sponsor and director of the Cyber Security Center.
Credits: 3
Course Notes: Approval of Data Science faculty sponsor and the Director of Data Science.