CAP - COMPUTER APPLICATIONS

CAP 3783 Database Systems with Big Data
Credit Hours: 3
Prerequisites: COP 3703 and COP 3530 - both courses with a grade of "C" or higher
This is an introductory course in the theory and application of storing, retrieving, and analyzing big data using the Hadoop framework. Topics include an overview of historical and future trends in big data, an overview of the Hadoop ecosystem, planning a Hadoop cluster, installing and configuring Hadoop, the Hadoop Distributed File System, MapReduce, managing and scheduling jobs, and cluster administration and management.

CAP 3940 Data Science Internship
Credit Hours: 3
Prerequisites: Course must be taken during the last semester of the student's program
This course consists of a supervised work experience in an approved training environment. The internship provides an opportunity for students to develop the appropriate attitudes and skills necessary for success in data management science.

CAP 4770 Data Mining
Credit Hours: 3
Prerequisites: COP 3530 with a grade of "C" or higher or departmental approval and admission to Bachelor's program
Lab Fee: Yes
This is an introductory course in the theory and application of automatic knowledge exploration and discovery from data. Topics include data transformations, classification, regression, rule induction, clustering, and graphical models.

CAP 4773 Capstone Project - Data Management Science
Credit Hours: 3
Prerequisites: CAP 4770 with a grade of "C" or higher
This course integrates the knowledge, skills, and abilities learned in the Data Management Science Program through the completion of a comprehensive capstone project. This capstone course must be taken in the last semester of the program.