APAN: APPLIED ANALYTICS (GRADUATE)

APAN 6010 Computer Aided Multivariate Analysis (3 Credits)
The course was designed to continue statistical application for big data analysis. The analysis of big data provides a challenge for how to best analyze large amounts of data that will aid in decision making. This course will look at how to use regression analysis to test hypothesis and how to select the best type of regression analysis for the decision maker.

APAN 6015 Data Models and Structured Analysis (3 Credits)
This course will look at how to best manage data and will cover topics relating to project management such as: Representation of a real-world situation about which data is to be collected and stored in a database. A data model depicts the dataflow and logical interrelationships among different data elements. The course is designed to provide the business or IT professional with a practical working knowledge of data modeling and structured analysis concepts and best practices, and how to apply these principles in using CA ERwin Data Modeler. Students will build CA ERwin data models, mastering features of CA ERwin Data Modeler. In addition, students will learn to create validation rules and standards. Course Materials: There is free software required for this course: erwin DM for students. The link can be found at: https://www.erwin.com/register/129709/. Please note, this software is designed to run on Microsoft operating systems.

APAN 6020 Data Mining & Machine Learning for AI (3 Credits)
Data mining is the practice of automatically searching large stores of data to discover patterns and trends that go beyond simple analysis. Data mining uses sophisticated mathematical algorithms to segment the data and evaluate the probability of future events. The fundamental algorithms in data mining and analysis are the basis for business intelligence and analytics as well as automated methods to analyze patterns and models for all kinds of data. Data mining is also known as Knowledge Discovery in Data (KDD). The course is designed to provide the business or IT professional with a practical working knowledge of data mining algorithms, concepts, and best practices. Students will use technology to work on real-life data mining tasks, mastering features of technology.

APAN 6025 Applied Management Analytics (3 Credits)
This course was designed to provide an overview of the tools used to make strategic management decisions about the best way to leverage an organization's core competencies for its long-term growth potential. Graduate students with a background in basic research methods will find this course helpful for identifying ways to analyze data in order to make strategic management and resource allocation decisions. The course does not substitute for a basic course in leadership but focuses more on quantitative data analysis and its impact on the viability of the organization. Students apply advanced statistics such as regression analysis and data mining using big, using R software. Case study method and discussions will be used to evaluate an organization's performance. This course is the capstone course in the general management concentration for the MS in Applied Analytics degree.

APAN 7010 Applied Analytics Capstone (3 Credits)
The course was designed as an experiential component centered around at least one capstone project, potentially developed with an employer, supervised collaboratively by faculty, and evaluated by faculty. This capstone practicum integrates the practical application of data analytics and professional knowledge to lead to sound management decisions based on big data analysis. The experiential component may include a structured internship either at the student's current place of employment or a self-directed project based on the selected track of the degree. The final project will include both an oral and written report on the findings and recommendations from a collection of data, analyzed using any contemporary analytics tools & methods.