

# DATA SCIENCES AND OPERATIONS

## FALL 2024

### DSO 528 — Blended Data Business

Analytics for Efficient Decisions

Section(s): 16221/16227

**Professor**

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**When**

16221 – Mon/Wed: 12:30 PM – 1:50 PM

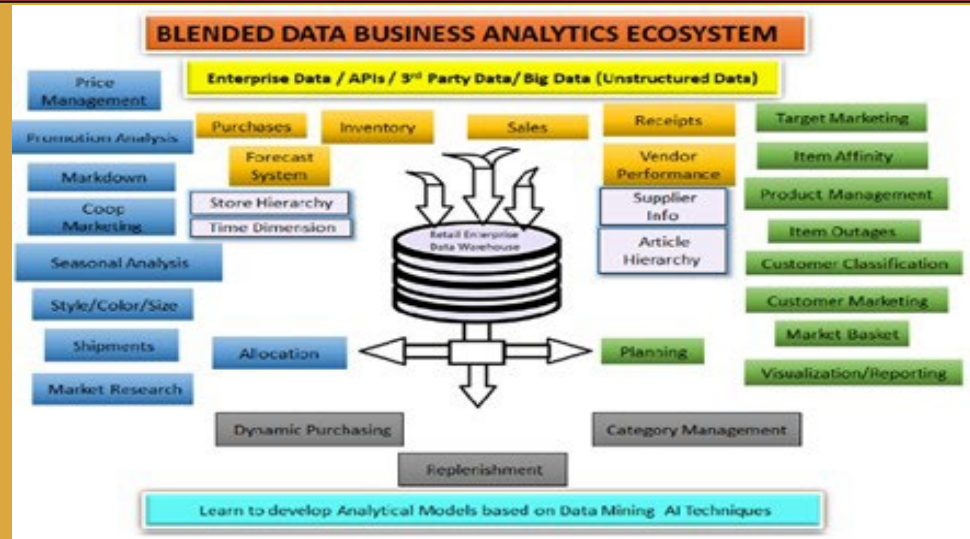
16227 – Mon/Wed – 2:00 PM – 3:20 PM

**Office**

BRI 400 G

**Units**

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## WHY TAKE THIS COURSE?

All Students who want to get ahead in the new AI and data rich world and those who plan to have a career in Business Analytics should take this class. Students. Today Analytics is in every field, knowing how interpret the Data, Dash Board and Model Report is critical for every employee. Learning how to solve business problems using Business Analytics is key to successful career. Learn how to build strategy driven models with Enterprise data & third party data for efficient decisions.

## COURSE OBJECTIVES

- To provide students with concepts, frameworks, analytical thinking, critical thinking and creative thinking skills for converting Company Data + Big Data into actionable form and building analytical models for monetizing data.
- To provide practical knowledge (cases), skills, methods, tools, KPIs and resources for conceiving, building and solving new paradigms in Big Data Analytics space.
- Provide End-to-End approach to solving Business Problems, Data Strategy -> Analytics -> Business Analytics -> Business Analysis

## KEY CONCEPTS

- Data Mining/Business Intelligence/AI
- Blended data/Data Warehousing/Enrichment
- JMP Software for rapid model building
- JMP/R-studio comparison for better reporting
- Descriptive/Diagnostic/Predictive/Prescriptive /Investigative Analytics
- Prediction, Classification, Clustering & Association
- Decision Tree, Logistic Regression, KNN, Neural Network and Ensemble Model.
- Introduction to CNN/RNN/Generative AI/Random forest/ Naïve Bayesian/SVM
- Partitional and Hierarchical Clustering
- Search Engine Marketing (SEM)
- Star Schema, Dash Boards, Optimizer.

## COURSE DESCRIPTION

The course focus is to give a Big Picture view of Business Analytics, its components and platforms. To build sophisticated strategy driven business analytical models from raw data using Desk top and Industry level tools for Classification, Clustering and Association Problems. To show how to leverage the readily available “Big Data” from third party sources for enriching and monetizing data. To develop data mining and business analysis skillset to gain inference from your analysis, from Executive, Business and Statistical point of view. To provide a systematic approach to build Analytical Models. To provide the missing link between Analytics and Business Analysis.