USC Marshall School of Business

DATA SCIENCES AND OPERATIONS

SPRING 2025

DSO 528 – Blended Data Business Analytics for Efficient Decisions

Section – 16211

Professor

Arif Ansari

Email

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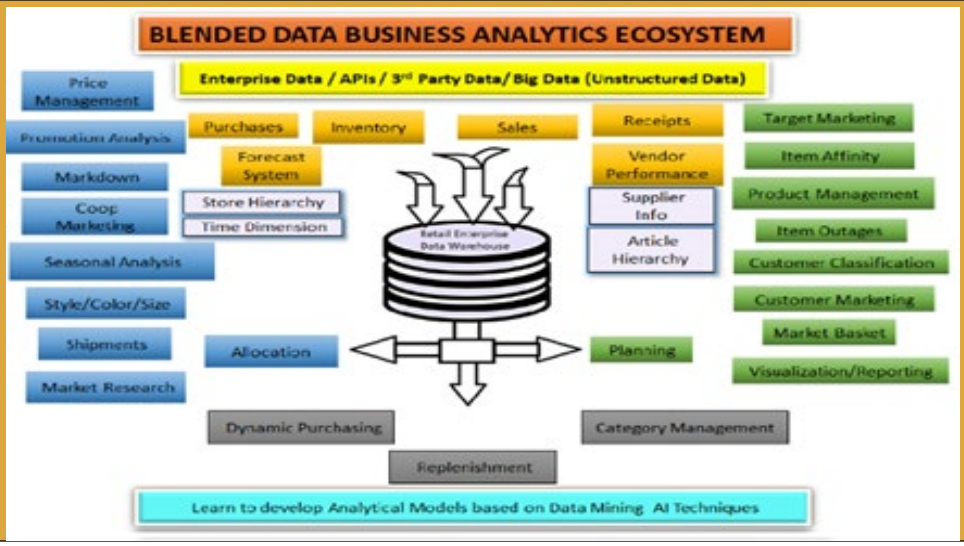
When

Mon/Wed, 5:00 PM – 6:20 PM

Office	**Units**
BRI 401 R	*3.0*



WHY TAKE THIS COURSE?

All Students who want to **Get Ahead & Fast Forward** their Career in the AI and data rich world and those who are in **Business Analytics** should take this class. Students. Today AI/Analytics is in every field, interpreting the Data, Dash Board and Model Report is critical for every employee. Learning how to solve business problems using Business Analytics & domain expertise is key to successful career. Learn to build strategy driven models with Enterprise & third party data for efficient decisions.

COURSE OBJECTIVES

- To provide students with concepts, frameworks, analytical thinking, critical thinking and creative thinking skills for converting Enterprise Data and Big Data into analytical models for monetizing data.
- To provide practical knowledge (**six in-depth cases**), skills, methods, tools, KPIs and resources for conceiving, building and solving business problems using Analytical Models.
- 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.