

DATA SCIENCES AND OPERATIONS

SPRING 2025

DSO 574 – *Using Big Data: Challenges and Opportunities*

Section(s) – 16286

Professor 16287

Milan Miric 16288

Email

Mmiric@marshall.usc.edu

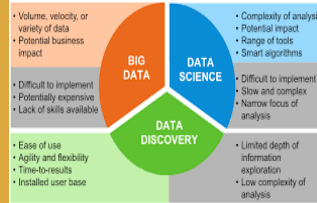
When

16286 - Mon/Wed, 11:00 AM - 12:20 PM

16287 – Mon/Wed, 12:30 PM - 1:50 PM

16288 – Mon/Wed, 5:00 PM - 6:20 PM

Office BRI 306 C Units 3.0



WHY TAKE THIS COURSE?

Students will learn to think critically about big-data in real world scenarios, to identify potential pitfalls to implementing big-data and how to overcome these challenges. This course will help students understand how companies have to “get ready for big data” but also how students can “get ready” to work in a data driven organization.

COURSE OBJECTIVES

Students who expect to be working in data driven organizations, that would like to understand how to companies can use big data and business analytics, preparing them for a career as a consultant, analyst, or analytics manager.

KEY CONCEPTS

- **Identify Tradeoffs:** When implementing big data initiatives
- **Differentiate:** Unique challenges across different industries (tech, sports, entertainment, etc.)
- **Analyze:** Perform Analysis on Large Datasets using Python
- **Critique:** Evaluate real world scenarios, live cases
- **Pitch:** Develop and present data driven insights

COURSE DESCRIPTION

How do companies go from making decisions based on experience or intuition, to making decisions based on data and analytics? What are the challenges? When does analytics provide new answers, and when does it create new problems? Students will confront these issues with applications for their future careers. This class will feature case studies and guest speakers along with several labs where students will learn to implement big data analysis in Python. The major project will feature a real analytics problem working together with a company.