DSO 568

HEALTHCARE ANALYTICS

Section(s): 16306

WEDNESDAY, 12:30 PM – 1:50 pm

INSTRUCTOR: COSIMO ARNESANO

✉ arnesano@marshall.usc.edu

Units: 1.5   Office: BRI 401 o

WHY TAKE THIS COURSE?

Students who plan to have a career in Business Analytics and interested in knowing more about how to apply analytics skillset and methodologies to solve challenging problems in the healthcare industry should take this course. Students who want to learn how to identify innovative uses of data to solve healthcare management problems, understand key industry metrics, and guide professional decision-making should take this course.

🌐 SCHEDULE OF CLASSES

COURSE OBJECTIVES

1. Introduce the basics of healthcare analysis related to clinical and health outcomes, research and development, value vs. cost, financial performance, risk analysis, and more.
2. Describe the basics of the healthcare ecosystem including key constituents and shareholders, and their goals from the perspective of various disciplines.
3. Empower students to research and analyze real healthcare data using a variety of software platforms and formulate business recommendations.

KEY CONCEPTS

Business Analytics, US Healthcare ecosystem, R programming, Phyton programming, JMP and Excel analytics tools, Machine Learning, Artificial Intelligence in Medicine, Financial Performance, Risk Management, Research and Development, Consumer Insights, Fee-for-service approach, Value-based care approach

Course Description

The healthcare industry is changing rapidly due to technological changes, regulatory changes, demographic shifts, and changes in consumer expectations. This course helps graduate students understand the basics of healthcare analytics, the challenges, the opportunities, and separate what is real and what is speculation and hype. This is a hands-on class where students will be analyzing real healthcare data and then presenting their actionable business strategy insights and recommendations. Students will be working on projects and other assignments both individually and in groups.