

INTRODUCTION TO HEALTHCARE VALUE AND DATA ANALYTICS

COURSE DESCRIPTION

As the amount of data grows exponentially in healthcare, there is an urgent need for professionals who can manipulate and make sense of healthcare data efficiently and effectively. Progress in increasing healthcare value through higher quality and reduced cost is limited by the lack of human capital to turn data into improvements in efficiency and downstream outcomes.

This course serves as the first step into the world of healthcare data and analytics and it will build a solid theoretical and technical foundation. While the course requires hands-on practice with detailed data, the importance of understanding an organization's broader strategic objectives and vision will be emphasized. It is designed to develop healthcare leaders who can understand the details as well as think critically beyond the data.

The contents will focus on five themes related to managing a healthcare provider organization: finance, quality, market, operations, and utilization. While each theme is unique and important, they are closely linked to each other. Each session is based on two parts:

Lecture: We will review technical concepts such as data formats, database structures, and analysis methods along with how data is collected, prepared, and used. We will also cover the history, current topics, and future needs for each session's business domain.

Practice: Real world problem sets will be provided for each session.

Upon completing the course, you will be able to:

1. Become proficient in data analysis, visualization, preparation, and database management/querying
2. Utilize financial, market, quality, operational, and utilization data in decision making
3. Define the data needs for a problem then deploy appropriate analytical tools and methods
4. Communicate effectively with technical (IT and Data) and non-technical teams (Clinical and Business)
5. Increase the chance of getting and succeeding in a data analytics role at a healthcare organization

Intended Audience

Any healthcare provider, data analyst, management professional, or student looking to jump start their skills in applying data analytics while understanding the business, clinical, or research objectives. This is an introductory course and will cover the fundamentals of healthcare data analytics and healthcare management focused on improving value (i.e., no prior data experience required). The course provides hands-on training with real data and software tools that will transform you into a data superhero who understands healthcare organizations' imperatives.

Required Reading

[Data to Value: How to Unleash the Power of Data for Better Quality and Lower Cost Healthcare](#)

by K.H. Ken Lee

COURSE PLAN

As you progress through the course materials, reach out to us at any time if you have questions.

ACTIVITIES

Review the Course Syllabus

Lectures

Course Introduction

Session 1 Lecture: Basics of Data Analytics

Session 2 Lecture: Financial Data in Healthcare

Session 3 Lecture: Utilization and Operations Data

Session 4 Lecture: Quality Data in Healthcare

Session 5 Lecture: Project Management and Data Visualization

Session 6 Lecture: Market Data in Healthcare

Session 7 Lecture: Integration and Course Summary

Course Data and Problem Sets

Problem Sets and Solutions

Course Master Database

Data Dictionary

Tutorials

Getting Started with the Software Program