**HOSP 890**

**Hospitality Business Analytics**

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***Course Brief***

Provides an understanding of the developing field of hospitality business analytics. The course covers foundational areas such as the emergence of big data and data management, while also reviewing techniques for leveraging data to solve business problems and develop innovative solutions.

***Course Description***

This course provides the building blocks for hospitality analytics from a data science perspective. It covers the importance of data in today’s service economy and the challenges big data may present. The course also covers how to leverage data to make operational decisions specific to the hospitality industry with the goal of improving operations. Specifically, the course will tackle current issues facing hospitality executives and discuss analytically driven solutions that have been researched or identified.

***Course Objectives***:

At the end of this course, students will be able to

1. Discuss current research efforts in hospitality analytics with a working knowledge of current trends in publication.
2. Identify the fundamental aspects of a business problem and creatively develop a unique solution.
3. Understand the importance of data to develop an analytical solution, limitations, and expectations.
4. Apply/identify a wide variety of modeling techniques to solve problems analytically.
5. Critique analytical solutions and identify areas for improvement or potential research gaps.
6. Discuss analytical solutions to a wide variety of hospitality problems.

# Topics to be covered

1. Big Data Analytics: Current research in data management, including topics such as standardization, types of data, privacy.
2. Modeling Big Data: Traditional techniques vs machine learning, model estimations, choice of models for different types of problems, p-value importance, sample size importance etc.
3. Labor Analytics in Hospitality: Explore current research efforts in the areas of schedule optimization and hiring analytics.
4. Marketing Analytics in Hospitality: Explore current research efforts in the areas of customer loyalty programs, targeted marketing and customer lifetime value.
5. Efficiency Analytics in Hospitality: Explore current research efforts in the areas of performance indices, key performance indicators and data envelopment analysis.
6. Satisfaction Analytics in Hospitality: Explore current research efforts in text analytics, customer reviews, website analytics.
7. Forecasting: Explore current research efforts in hospitality and tourism forecasting, use cases and techniques
8. Pricing and Revenue Management: Explore current research in the application of big data analytics to improve pricing and revenue management decisions.