

# DSA - DATA SCIENCE AND ANALYTICS

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## **DSA 6000 Data Science and Analytics Cr. 3**

Basic data science and analytics concepts covered through case studies, success stories, and a semester project that cuts across all course modules. Offered Yearly.

**Restriction(s):** Enrollment is limited to students with a major in Advanced Analytics, Data Computing, Data-Driven Business or Statistics.

## **DSA 6100 Statistical Learning for Data Science and Analytics Cr. 3**

A fundamental course covering statistical learning techniques required for data science and analytics applications through methods, case studies, and a semester project that cuts across all course modules. This course focuses on both statistical learning methods and the life-cycle of a statistics-driven data science and analytics project. Students will be exposed to a variety of tools and technologies. Offered Yearly.

**Restriction(s):** Enrollment is limited to students with a major in Advanced Analytics, Data Computing, Data-Driven Business or Statistics.

**Fees:** \$50

## **DSA 6200 Operations Research Cr. 3**

Mathematical optimization models that come into play in data science and analytics applications covered through case studies and a semester project. Heuristic solution approaches will also be addressed along with sensitivity analysis techniques. Offered Yearly.

**Restriction(s):** Enrollment is limited to students with a major in Advanced Analytics, Data Computing, Data-Driven Business or Statistics.

## **DSA 6300 Decision Analysis and Simulation Cr. 3**

Coherent approach to decision making, developing rules of thought to transform complex decisions into simpler decision situations covered through case studies, success stories, and a semester project that cuts across all course modules. Discusses role of discrete-event simulation for improving decision support. Offered Yearly.

**Restriction(s):** Enrollment is limited to students with a major in Advanced Analytics, Data Computing, Data-Driven Business or Statistics.

## **DSA 7500 Data Science and Analytics Practicum Cr. 6**

Apply theoretical knowledge and skills acquired throughout the Data Science and Business Analytics MS program to a challenging project involving real-world business problems/opportunities and data analytics in a reliable, scalable, distributed computing environment for optimal outcomes. Offered Yearly.

**Restriction(s):** Enrollment is limited to students with a major in Advanced Analytics, Data Computing, Data-Driven Business or Statistics; enrollment is limited to Graduate level students.

**Fees:** \$50

**Equivalent:** DSB 7500, DSE 7500, STA 7800