

# DATA SCIENCE AND APPLIED ANALYTICS (DSAA)

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**DSAA 200. Introduction to Data Science and Analysis. (3 Credits)**

This course introduces students to the field of data science and analysis and equips them with basic principles and tools. Students will learn key concepts, techniques, and tools to address various facets of the data science practice, including data collection and integration, data analysis, and predictive and descriptive modeling.

**DSAA 300. Data Mining and Predictive Analysis. (3 Credits)**

This course allows students to study algorithms and computational paradigms to identify patterns in the data and perform predictions. The students will use data mining software.

Prerequisite: DSAA 200.

**DSAA 310. Visual Analytics. (3 Credits)**

This course provides an overview of the foundational concepts and widely-used techniques in visual analytics. Students will learn about methods and tools that foster analytic reasoning by pairing visual capabilities with computational devices and algorithms.

Prerequisite: DSAA 200.

**DSAA 400. Senior Research Seminar. (3 Credits)**

This course provides students with the opportunity to present a capstone research project. Students will survey the research methods of the field and apply tools of the field in order to interpret, analyze, and integrate data. Must be senior standing or have consent of instructor.

**DSAA 499. Internship. (3 Credits)**

This course offers an opportunity for students to apply theories, ideas, principles, methods, and tools learned in the classroom to an off-site organization. Students will spend a minimum of 120 hours on site, furthering the development of their skills within the context of a workplace environment. Students will also write a paper that draws connections between the coursework and the on-site learning. Recommended pre-requisite of junior standing (60 previous credits).