

Course Syllabus Part I DSC 680 Applied Data Science

3 Credit Hours

Course Description

In the final course of the Data Science program, students will conduct several data science projects from origin to presentation. Students will gather data, then prepare, clean, analyze, and present their analysis to an audience.

Course Prerequisites

Completion of all other required DSC courses

Course Objectives

Students who successful complete this course should be able to:

1. Organize existing portfolio of project work to demonstrate application of full data science process.
 2. Create or add to portfolio of project work to fill in gaps that demonstrate application of full data science process.
 3. Critique peers' portfolios and resumes and provide suggestions to improve.
 4. Explore and recommend data sets to use for analysis and further processing.
 5. Solve hypothetical interview questions by applying data wrangling techniques.
 6. Generate reports of findings from exploratory data analysis.
 7. Design visualizations and presentations with findings from analysis.
 8. Role-Play summarizing information discovered during analysis to a client or audience.
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Grading Scale

<u>Letter Grade</u>	<u>Percentage Grade</u>	<u>Letter Grade</u>	<u>Percentage Grade</u>
A	$\geq 92.5\%$	C	$< 76.5\% \text{ and } \geq 72.5\%$
A-	$< 92.5\% \text{ and } \geq 89.5\%$	C-	$< 72.5\% \text{ and } \geq 69.5\%$
B+	$< 89.5\% \text{ and } \geq 86.5\%$	D+	$< 69.5\% \text{ and } \geq 66.5\%$
B	$< 86.5\% \text{ and } \geq 82.5\%$	D	$< 66.5\% \text{ and } \geq 62.5\%$
B-	$< 82.5\% \text{ and } \geq 79.5\%$	D-	$< 62.5\% \text{ and } \geq 59.5\%$
C+	$< 79.5\% \text{ and } \geq 76.5\%$	F	$< 59.5\%$

Topic Outline

- I. Building, Establishing, and Maintaining a Project Portfolio
- II. Preparing for Interviews
- III. Meeting Technologies
- IV. Finding Datasets
- V. Exploratory Data Analysis
- VI. Data Wrangling and Transformation
- VII. Data Visualization and Presentation

This syllabi update reflects grading scale policy updates effective 4/1/2024.