

# Data Science with Graphic and Experience Design (Certificate)

The Undergraduate Certificate of Data Science with Graphic and Experience Design is a 12 credit interdisciplinary credential that offers a path towards developing essential skills in data science with depth in Graphic & Experience Design (GXD) content. Students who pursue this certificate will have the opportunity to learn from data science instructors & practitioners and Graphic Design faculty in industry and academia, alongside their peers from various colleges. Students will pursue courses in data management, communication, applications, ethics, data visualization & representation, and more, in addition to choosing from electives of interest.

## Plan Requirements

### Required Courses

Code	Title	Hours	Counts towards
<b>Required DSC Courses: At least one course from each category</b>			<b>6</b>
<b>Data Communication</b>			
DSC 202	Introduction to Data Visualization		
DSC 205	Data Communication		
<b>Ethics, Policy, &amp; Privacy</b>			
DSC 225	Data Science for Social Good		
DSC 235	Introduction to Data Science for Cybersecurity		
<b>Data Management &amp; Analysis</b>			
DSC 201	Introduction to R/Python for Data Science		
DSC 406	Exploratory Data Analysis for Big Data		
<b>Machine Learning and AI</b>			
DSC 412	Exploring Machine Learning		
<b>Electives or Internships &amp; Capstones</b>			
DSC 405	Data Wrangling and Web Scraping		
DSC 410	Data Internship Preparation for Social Impact		
<b>Required Depth Courses</b>			<b>6</b>
One three-credit course			

GD 575	Accessible Design
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One three-credit course from the following list

ST 311	Introduction to Statistics
CSC 110	Computer Science Principles - The Beauty and Joy of Computing (Restrictions: Cannot have taken CSC 111 or CSC 112 or CSC 113 or CSC 116)

COM 289	Science Communication and Public Engagement
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STS 302	Contemporary Science, Technology and Human Values (Prerequisite: Sophomore standing)
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NOTE 1: Students pursuing multiple Data Science Academy credentials must have at least 2 distinct 1-credit DSC courses and 2 distinct 3-credit depth courses between any two credentials (8 distinct credits total).

NOTE 2: Per university requirements courses already used to satisfy two or more credit requirements cannot also be used to satisfy the data science certificate (or any third requirement).

<b>Total Hours</b>	<b>12</b>
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