

## **Justification for Introduction to Data Science**

In the age of information, the ability to comprehend, analyze, and draw insights from vast quantities of data has become a critical competency across numerous academic and professional fields. The proposed course, "Introduction to Data Science", is designed as a cornerstone for students pursuing a BS in Data Science at Florida International University (FIU). This course offers a thorough grounding in the data science lifecycle, beginning with data acquisition and culminating in the development of real-world projects. Students are introduced to key statistical and machine learning methodologies, ensuring they can provide data-driven insights effectively. Furthermore, its focus on ethics, governance, and privacy ensures students are also well-versed in the responsible management and utilization of data. The value of this course across the curriculum is evident, as data-driven decision-making pervades sectors from business to healthcare, from engineering to the arts. A comprehensive understanding of data science principles, as offered by this course, can significantly enhance academic and career trajectories.