

Justification for Python Programming I

In today's data-driven world, foundational programming skills have become an indispensable asset. "Python Programming I" is an essential cornerstone for the proposed **BS in Data Science** program at Florida International University (FIU). Python is usually the primary language for data analysis, and its inclusion as a core course ensures that students acquire not just theoretical knowledge, but also the practical skills needed to be successful in the rapidly evolving field of Data Science. This course offers a comprehensive introduction to Python programming, while emphasizing key concepts like systematic design techniques, effective utilization of data structures, and object-oriented principles. Each of the articulated course outcomes, from understanding core Python syntax to breaking down multifaceted problems into actionable solutions, aligns with the broader objectives of the BS in Data Science program. As FIU aims to produce top-tier data scientists capable of innovating and leading in the global data landscape, it is imperative that the curriculum is anchored with robust programming courses like "Python Programming I" to provide students with a strong foundation for their subsequent advanced studies and professional pursuits.