

DATA SCIENCE & ENGINEERING (DATA_ENG)

DATA_ENG 200-0 Foundations of Data Science (1 Unit) Foundations of Data Science will cover the fundamentals of data science and the context within which this field operates. This course will introduce the steps of the data science lifecycle and the associated data tools and techniques, through implementation in languages such as Python.

DATA_ENG 300-0 Data Engineering Studio (1 Unit) Data Engineering Studio teaches how to build a sustainable data science lifecycle. Students will analyze data in multiple contexts (e.g., SQL, building machine learning models), share the findings with peers, and practice iteratively refining the analysis based on feedback. They will become acquainted with the common pitfalls in applying data analytics to real-world datasets. Several modern data engineering tools, such as docker containers, Spark, Airflow, and MLFlow, will be covered. Prerequisite: DATA_ENG 200-0 and 1 unit from each of the following core areas; Statistics Foundations, Intermediate Programming/Algorithmic Skills, and Applied Machine Learning. Prereq for DATA_ENG 300.