University of Houston

HPE Data Science Institute

Syllabus:
Principles of Data Management(PDM)

Instructors: Ishita Sharma

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Office Hours: Online and by appointment

Location: Online

Website: https://www.uh.edu/data-science-institute/education/tutorials-courses/

Course description: Today, multiple resources such as Social Media/ Healthcare applications/Banking Applications so on generate a large volume of data.

The first question which comes to our mind is how to make the data useful to help society.

This course has designed to help you familiarize yourself with some of the essential steps to begin analyzing the data and discovering the patterns on the dataset.

It will include working on some real-world datasets covering skills such as:

Data scraping, data pre-processing (data importing & cleaning), data wrangling (exploratory data analysis & data structuring) and applying statistical techniques to get ready for the machine learning algorithms.

HPC Badge : This course will count towards individual badges and micro credential requirements for the HPC-Badges

Pre-requisites: Familiarity with Python Programming language

Recommended: Intro to Linux/Cluster computing course provided by HPE DSI

Textbook: None Required. Lecture notes would be provided through course website.

Evaluation (tentative): Attendance: 20%, In-class/HW assignments: 40%, final exam: 40% (last day of class)

Attendance Requirement:
Good standing on Attendance grade (>50%) would be required to see new course materials, homework assignments, and exams/projects as the course proceeds.
Also, for students interested in getting a badge or certificate for completing this course, an attendance grade of **at least 12 hours of the class meeting sessions is required, to be qualified for passing the course and getting the badge.**

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Tentative Course Schedule:

Topic	Week
PDM Introduction & Data Extraction	1
Data Treatment	2
Data Cleaning & Fundamental Statistics	3
ETL & Excel Functions	4
Pivot Tables	5

Copyright protection:
The course materials and online lecture videos posted on Moodle are only meant to be used within this course and should not be distributed.

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http://www.uh.edu/caps/outreach/lets_talk.html