

**Website : www.citcchandigarh.com****Course Syllabus: Professional Certificate in Data Science****Batch Name: PCDS****Eligibility: 12th****Course Start: 1st of Every Month****Course Duration: 180 Hours****Courses / Modules Paper****Module 1**

Paper 1	Paper 2	Paper 3	Paper 4	Paper 5
Python	R Programming	Statistics	Data Science	Machine Literacy

Paper 1: Python

- 1.1 Basics of Python and its scope
- 1.2 Terrain setup
- 1.3 Jupyter Overview
- 1.4 Python Numpy
- 1.5 Python Pandas
- 1.6 Python Matplotlib

Paper 2: R Programming

- 2.1 Preface to R
- 2.2 Data structures in R
- 2.3 Data visualisation with R
- 2.4 Data analysis with R

Paper 3: Statistics

- 3.1 Important statistical generalities used in data wisdom
- 3.2 Difference between population and sample
- 3.3 Types of variables
- 3.4 Measures of Central Tendency
- 3.5 Measures of Variability
- 3.6 Measures of Friction
- 3.7 Skewness and Kurtosis

Deducible Statistics

- 3.1 Normal Distribution
- 3.2 Test suppositions
- 3.3 Central limit theorem
- 3.4 Confidence interval
- 3.5 T-test
- 3.6 Type I and II errors
- 3.7 Student's T distribution

Regression and ANOVA

- 3.1 Regression
- 3.2 ANOVA
- 3.3 R- square
- 3.4 Correlation and Ocassion

Paper 4: Data Science

- 4.1 Data visualisation
- 4.2 Missing value analysis
- 4.3 The correction matrix
- 4.4 Outline discovery analysis

Paper 5: Machine Literacy

- 5.1 Python Scikit tool
- 5.2 Neutral networks
- 5.3 Support vector machine
- 5.4 Logistic and direct regression
- 5.5 Decision tree classifier

Tableau

- 5.1 Working with Tableau
- 5.2 Deep diving with data and connection
- 5.3 Creating maps
- 5.4 Mapping data in Tableau
- 5.5 Dashboards and stories

Machine literacy on Pall

- 5.1 ML on pall platform
- 5.2 ML on AWS
- 5.3 Creating maps
- 5.4 ML on Microsoft Azure

