

Yuan Ze University
Department of Industrial Engineering and Management (ICDF only)**
Introduction to Python

Instructor (the one who wants to teach xD)	Lab
Carlos Solorzano	R2428
E-mail	Phone number
Carlospoor91@gmail.com	Please do not try to contact me...

Syllabus

1. Course description	Study and practice programming fundamentals in Python, with the emphasis of statistical analysis and data visualization.
2. Pre-requisite	ICDF scholars, 1 st year only.
3. Teaching approach	Lecture on theory and applications, with practice on CoLab.
4. Materials and Handouts	Class notes and materials will be available on GitHub every Friday noon. https://github.com/sololzano/ICDF-Python2021

Outline

No.	Content
1	Introduction to Python and CoLab.
2	Introduction to Data Structures: <ul style="list-style-type: none">- Lists and Tuples- Arrays and Dictionaries- Conditioning and Loops.
3	Introduction to Datasets: <ul style="list-style-type: none">- CSV files.- Pandas DataFrames.
4	Data handling: <ul style="list-style-type: none">- Missing values.- Data formatting.- Normalization.
5	Data analysis: <ul style="list-style-type: none">- Descriptive statistics.- Exploratory Data Analysis (EDA).
6	Introduction to Data Visualization: <ul style="list-style-type: none">- PyPlot and Seaborn.
7	Visualization tools: <ul style="list-style-type: none">- Histograms.- Bar charts.- Pie charts.- Box plots.
8	Introduction to ML for Structured Data: <ul style="list-style-type: none">- Linear regression.- Logistic regression for classification.- Forecasting techniques.