



F-Code

| AI Crew

# AI 1 Kickstart

2025

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## Syllabus & Materials

Python

Math

## Capstone project

Reimplement

Data

## TODO

Setup environment



# Syllabus



## Duration

Jun 7 - Jul 22

7.5 weeks

2 days / week

## Python

Python syntax

Function

Data structures

Loop & expressions

Test & debug

File I/O

OOP

Python project

Project structure

Git

Streamlit

## Math

Linear algebra

Matrix operations

Vector space

Calculus

Differentials

Prob & Stats

Distribution

Estimation

Hyp. testing

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## Training

Training repo: <https://github.com/F-Code-AI-Crew/Training>

- Discussion, issues, etc.

Training docs: <https://f-code-ai-crew-training.readthedocs.io/en/latest/>

- Code snippets
- Implementation

Supplements:

- Python:
  - Goldwasser 2013, Data Structures and Algorithms in Python (available at FPT library)
- Math:
  - [Deisenroth 2020, Mathematics for Machine Learning](#)



## Problem sets

Python: GitHub Classroom

Math: Drills exercises



## Output

- 1 Familiar with Python syntaxes and operations
- 2 Comprehend basic math for AI
- 3 Ready for data processing, algorithm implementation

## Reimplement

Reimplement your train C project in Python

## Data

Create an interactive streamlit app based on a given dataset





## Setup environment

Link: [https://f-code-ai-crew-training.readthedocs.io/en/latest/misc/env\\_setup.html](https://f-code-ai-crew-training.readthedocs.io/en/latest/misc/env_setup.html)

## Contacts

Link: <https://forms.gle/6fvBjqzfw9QnJQJc8>