

Python in 24 Hours – From Zero to Confident

A practical crash course designed for absolute beginners.

Hour 1–2: What is Python?

Python is a high-level, easy-to-read programming language used for web development, data science, automation, AI, and more. You write Python code in plain English-like syntax, which makes it beginner-friendly.

Hour 3–4: Installing & Running Python

Download Python from python.org. Install it and ensure 'Add Python to PATH' is checked. Use IDLE, VS Code, or the terminal. Run code using: `python file.py`

Hour 5–6: Variables & Data Types

Variables store data. Example: `x = 5`. Common types: `int (5)`, `float (3.14)`, `str ('hello')`, `bool (True/False)`.

Hour 7–8: Input & Output

Print output using `print()`. Get user input using `input()`. Example: `name = input('Enter name: ')`

Hour 9–10: Conditions (if/else)

Used for decision-making. Example:
`if age >= 18: print('Adult') else: print('Minor')`

Hour 11–12: Loops

Loops repeat actions. `for` loop for known ranges, `while` loop for conditions. Example: `for i in range(5): print(i)`

Hour 13–14: Functions

Functions organize code. Example:
`def add(a, b): return a + b`

Hour 15–16: Lists & Dictionaries

Lists store ordered data: `[1,2,3]`. Dictionaries store key-value pairs: `{'name': 'John'}`

Hour 17–18: Strings & Files

Strings can be sliced and modified. Files are read using `open()`.

Hour 19–20: Errors & Debugging

Common errors: `SyntaxError`, `TypeError`, `ValueError`. Use `print()` to debug.

Hour 21–22: Real Mini Projects

Calculator, number guessing game, to-do list, file reader.

Hour 23: Python Mindset

Think in steps. Break problems into small pieces. Practice daily.

Hour 24: What Next?

Move to web (Flask/Django), automation, data analysis, or APIs.

Final Advice

You now understand Python fundamentals. Mastery comes from practice. Write code every day, break things, fix them, and build real projects.