Contenido del curso

Samsung Innovation Campus – Programación, Algoritmos y estructuras de datos en Python (88 horas)

▶ **Lecture and Exercise**

Course Contents	Time
Chapter 1. Python Basics	**19H**
Unit 1. Sequential programming	2H
Unit 2. Planning for programming	2H
Unit 3. Basic of Numeric Data Types and Arithmetic Operation	2H
Unit 4. Variables and Inputs	2H
Unit 5. Logic and Comparison Operators	2H
Unit 6. Conditional Statement-1: Conditions and Decision Making	2H
Unit 7. Conditional Statement -2: Making decisions in two directions and applying conditional statement	2H
Unit 8. Loop-1	2H
Unit 9. Loop-2	2H
Quiz	1H
Chapter 2. Key of Python Basic	**15H**
Unit 10. Lists and Tuple Data Types	2H
Unit 11. Dictionary Data Type	2H
Unit 12. Addressing Sequence Types	2H
Unit 13. Two-Dimensional List	2H
Unit 14. Dictionary Method 1	2H
Unit 15. Dictionary Method 2	2H
Unit 16. Set Data Types	2H

Quiz	1H
Chapter 3. Python Intensive	**11H**
Unit 17. Function	2H
Unit 18. Recursion Function Call	2H
Unit 19. Lambda	2H
Unit 20. Closure	2H
Unit 21. Class	2H
Quiz	1H
Chapter 4. Algorithm 1– Data Structures	**11H**
Unit 22. Stack and Queue	2H
Unit 23. Queue	2H
Unit 24. Linear Search	2H
Unit 25. Binary Search	2H
Unit 26. Harsh Table	2H
Quiz	1H
Chapter 5. Algorithm 2 - Sorting Algorithms	**7H**
Unit 27. Bubble, Selection, and Insertion Sort	2H
Unit 28. Merge Sort	2H
Unit 29. Quick Sort	2H
Quiz	1H
Chapter 6. Algorithm 3– Problem Solving with Algorithms	**9H**
Unit 30. Greedy Approach	2H
Unit 31. divide-and-conquer	2H
Unit 32. Dynamic Programming	2H
Unit 33. Backtracking	2H
Quiz	1H

Chapter 7. Data Processing and Descriptive Statistics, Data Visualization	11H
Unit 34. Using Python Modules	2H
Unit 35. Pandas Series for Data Processing	2H
Unit 36. Pandas DataFrame for Data Processing	2H
Unit 37. Data Tidyng	2H
Unit 38. Time Series Data	2H
Quiz	1H
Chapter 8. Data Analysis and Data Visualization - Mini Project	**5H**
Unit 39. Financial Data Analysis Mini Project	2H
Unit 40. Global Corona Pandemic Analysis Mini Project	2H
Quiz	1H