

Agenda, Python Advanced Course

Day	Topics
DAY1	1. Problems with copying mutable data structures 2. Recursive Functions and runtime problems 3. Memoization 4. * and ** in parameter passing 5. Decorators 6. Context Managers 7. Modular Programming and Modules 8. Using Regular Expressions and their usage in Python
DAY2	9. Lambda Operator, Filter, Reduce and Map 10. List Comprehension 11. sort and sorted with custom made sort criteria 12. Iterators and Generators 13. Exception Handling 14. Optional: Extending Python with C and C++ modules 15. Object Oriented Programming 15.1. Introduction 15.2. Class and Instance Attributes 15.3. Data Abstraction using getters and setters 15.4. Properties 15.5. Inheritance
DAY3	16. Object Oriented Programming (continuation) 16.1. Multiple Inheritance

16.2. Magic Methods and Operator Overloading

16.3. Multiple Inheritance

16.4. Metaclasses

17. NumPy and SciPy

18. Matplotlib

19. Pandas