

Python Review

Learning Objectives

- **How to use Python**
- **Good programming practices**

Basic Python

- *What* is Python?
- *What* libraries should I use?
- *How* do I import data?
- *How* do I use a dict{ }?

What libraries should I use?

Library name	What does it do?
sys	Accesses interpreter variables
os	Command line processes
datetime	Date & time conversion
glob	Unix style pathname
math	math
numpy	Advanced math
scipy	Accesses scientific algorithms
csv	Handles CSV files
matplotlib	Numerical plotting
pdb	Python debugger
pygame/pyglet	Game development
pywin32	Windows interaction

Basic Debugging

- *Print() & sys.exit()*
- *Assertion*
- *Raising & handling Exceptions*
- *PDB library*

Good Programming

Practices

- Design by contract
- Naming conventions
- Save functions for later use
- Use Git!
- Re-use code!
- Plan for mistakes
- Comment comment comment!!!
- Use Sphinx!
- Collaborate
- Follow good data management practices
- Don't use global variables!!!