

**Brookhaven National Laboratory**  
**SciComp 101 Syllabus**

Topics
Session 01 - Introducing Scientific Computing
Session 02 - Python Fundamentals
Session 03 - Making Line Graphs
Session 04 - Functions and Logic
Session 05 - Square Roots and Areas
Session 06 - Polar Coordinates
Session 07 - Probability and Statistics
Session 08 - Histograms and Code Breaking
Session 09 - Measuring Waves
Session 10 - Random Numbers and Algorithms
Session 11 - 3D Graphics
Session 12 - Monte Carlo Methods
Session 13 - Using Data Files
Session 14 - Coding for Physics
Session 15 - Coding for Biology and Chemistry
Session 16 - Linear Equations
Session 17 - Maze Searching
Session 18 - Dynamical Systems
Session 19 - Continued Fractions
Session 20 - Machine Learning
Session 21 - Jenga Blocks
Session 22 - Scramble Squares