BNFO 135 - Programming for Bioinformatics Instructor: Dr. Jun Wu Email: jw65@njit.edu Office: GITC 4321A Office Hours: Thursdays 3:55 PM – 4:55 PM

Course Description:

The ability to use existing programs and to write small programs to access bioinformatics information or to combine and manipulate various existing bioinformatics programs has become a valuable part of the skill set of anyone working with biomolecular or genetic data. This course provide an introduction to programming and problem solving skills using Python. Topics include basic strategies for problem solving, constructs that control the flow of execution of a program and the use of high-level data types such as lists, strings and dictionaries in problem representation.

Online Textbook: zyBooks

Instruction to subscribe:

1. Sign in or create an account at learn.zybooks.com

- 2. Enter code NJITBNFO135WuSpring2024
- 3. Subscribe

Reference Book:

Think Python by Allen B. Downey, 2nd edition. This is an open source book. It is available without charge in HTML and PDF formats at http://greenteapress.com/wp/think-python-2e/.

Brief List of Topics to be Covered:

- 1. Introduction to Python
- 2. Variables and Expressions
- 3. Types
- 4. Branching
- 5. Loops
- 6. Function
- 7. Classes

Grading:

8	
Attendance	10%
Participation Activities	5%
Challenge Activities	10%
Lab Activities	15%
Midterm	25%
Final	35%
TOTAL	100%

The final grade will be curved.

Academic Integrity Policy

Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at: <u>NJIT Academic Integrity</u> <u>Code</u>.

Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. Any student found in violation of the code by cheating, plagiarizing, or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university. If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at dos@njit.edu