**BP14 Introduction to Python 1**

**Syllabus**

**Instructor: Mary Lee Tosky**

Hickory Career & Arts Magnet HS

Room #108 / 828.328.6738

toskyma@hickoryschools.net

***Introduction to Python*** is a beginning computer programming course in which students can learn and practice coding in an online environment that requires only a modern web browser and Internet connection. No special software is required to complete this course, and all content can be accessed online after school hours. The course includes video content, practice labs, and coding projects. Students will be graded on a combination of lesson activities, projects, quizzes and tests. Final assessment will be a Teacher-made final exam, which is waived upon the successful completion of the Microsoft Python Certification Exam. Required materials include earbuds or a headset, as well as internet access at home.

Please feel free to contact me at any time – be sure to type “Python” in the subject line of your emails. I will do my best to get back to you with as soon as possible.

Objectives:

* Learn basic programming concepts
* Perform online exercises in the Jupyter Notebook development environment
* Develop and run programs in Jupyter Notebooks
* Utilize concepts such as data types, variables, and user input
* Build functions, use operators, use conditional statements
* Build while loops, increment variables
* Troubleshoot errors

|  |  |
| --- | --- |
| **A** | **PYTHON COMPUTER PROGRAMMING I** |
| **1.00** | **Understand Python Language Basics  (42%)** |
|  | 1.01 Python and Jupyter Basics (10%)  1.02 Functions (10%)  1.03 Conditionals (10%)  1.04 nesting and Loops (12%) |
| **2.00** | **Understand Python Data Structures  (29%)** |
|  | 2.01 Sequence Indexes (7%)  2.02 Sequence Manipulation (7%)  2.03 Sequence Iteration  (7%)  2.04 Working with Files  (8%) |
| **3.00** | **Understand variables and naming conventions.  (29%)** |
|  | 3.01 Python Modules (7%)  3.02 More-Powerful Statements (7%)  3.03 Methods and Structures for Robust Code  (7%)  3.04 Proper Functions  (8%) |