**40460\_Python Programming I**

**Syllabus and Course Outline**

Python Programming I is a beginning 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. The course includes video content, practice labs, and coding projects. Students will be graded on a combination of lesson activities, projects, quizzes and tests. Mathematics is reinforced. Final assessment will be the successful completion of the Microsoft Python Certification Exam (98-381).

**Objectives**: Learn basic programming concepts and syntax of the Python language, utilize files to perform online exercises and develop and run programs (Jupyter Notebook development environment), understand concepts such as data types, variables, functions, operators, conditional statements, loops, handling user input, troubleshoot errors, etc…

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| **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%) |

**Course Requirements/Materials:**  Headphones!!! Paper or pencil, notebook paper, a folder to keep it all organized. A home computer and Internet access is required. Optional: USB flash drive.

**Grading Standards:** Each quarter grade is based on a combination of “assessments” and “classwork.” Assessments (tests, quizzes, projects) make up 50% of your grade, and classwork (daily assignments, activities, worksheets, etc.) make up the other 50%. Final Exam is a state mandated test and CANNOT be exempted. The semester and final grades are illustrated in the following table:

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| **Final Grade** | = | 1st 6-weeks(25%) | + | 2nd 6-weeks(25%) | + | 3rd 6-weeks(25%) | + | Final Exam (25%) |

**Rules and Procedures:**

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| 1. | Respect the instructor’s right to teach students. |
| 2. | Respect the students’ right to learn. |
| 3.4.  5. | Respect equipment and classroom furnishings.The “3 BP’s”: Be prompt, be polite, and be productive.Don’t do anything foolish. |

**Pet Peeves**

|  |  |
| --- | --- |
| 1. | Honesty at all times. |
| 2. | Be prepared and on time. |
| 3.4.  5. | Sleeping means standing.No profanity. Disney-rules in school.Food or drink (other than water) is prohibited in the lab. |

**Communication:** Best form of communication for me is through email: jason.zak@ucps.k12.nc.us.

**Honor Code**: ANY PLAGIARISM (i.e. CUT AND PASTE) OR COPYING OFF A STUDENT WILL RESULT IN A “0” for BOTH parties and possible discipline referral and/or phone call home. You must do your OWN work. Respect the code.

**Cell Phone Use:** Cell Phones are not permitted during instruction unless otherwise authorized by Coach Zak and need to be placed in the classroom phone-holders or student’s book bag. If the student is found to have violated this policy, they risk having their phone taken until the end of day. Further discipline will be handed out for repeat offenders.

**Daily Agenda:** Will be posted on Canvas in the “Announcements” tab on the left-hand side. This will help us stay organized. This is where directions for the day’s activities will be located.

**Textbook:** “Begin to Code with Python – Rob Miles” eBook that is available for download on my Canvas page.

**Make-Up Work**: If a student misses a day due to sickness or a school-related activity, said student has two days in which to make up the work he or she missed, before it’s considered late and costs points.

**Students:** I have read and understand the rules and procedures, and will honor them while in school.

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Student signature Date

**Parents/Guardian:** My child has discussed the classroom discipline plan with me and I support it.

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Parent/Guardian signature Date