**Master Rubric For Python Programming Assignments -** Target Skill Level = DoK-3

| **TECHNICAL**  **Traits** | **% of grade** | **EXPANDING**  **4** | **PROFICIENT**  **3** | **DEVELOPING**  **2** | **BEGINNING**  **1** |
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| **NH Technical Competency #4** | | ***The student will understand the basic common algorithms of computer science to show how they affect ways to solve mathematical or programming problems.*** | | | |
| **PRACTICE:**  **Technical Specification/ Accuracy:** | 50%  of tech  score | The program works and meets all specifications and it has added features or complexity that demonstrate further research beyond class lessons. The code is extremely efficient, uses the best approach throughout, without sacrificing readability and understanding. Output is clear and is usable and flexible. | The program works and produces the correct results. It demonstrates applied skills, meeting the basic specifications from lessons learned. The code is fairly efficient, and for the most part, uses a logical approach without sacrificing readability and understanding. Output is clear and usable. | The program works and produces a near-correct result but does not demonstrate proficient skill with refactoring for efficiency and/or redundancies. The code reads as a brute force attempt, where planning a systematic approach is not evident and the code is unnecessarily long, or the program output exhibits minor incorrect behaviors or it’s incomplete. | The program is producing incorrect results or is only intermittently correct. It shows a lack of understanding of programming concepts, planning, or distracted behaviors. In some cases, it just wasn’t submitted and therefore no evidence of skill is presented for assessment. |
| **21st Century Industry Technical Skills** | | **Critical Thinking and Problem Solving, Initiates and Self-Directs, Communicates Effectively, Creativity and Innovation within industry specifications for process and product output.** | | | |
| **PRACTICE:**  **Industry Conventions, Expectations,**  **& Code Readability**: | 50% of tech score | Very professional code. All variable, function, method, and/or class names are meaningful in relation to their purpose and all have comments. All control structures are also commented and the indentation is accurate. | Professionally coded with variables, functions, methods and/or class names that are appropriate, with comments included. The Control structure is logical and the indentation is accurate. | The code is readable only by someone who knows what it should be doing. There are few comments or they aren’t very helpful, and/or variable, function, method, and/or class names used are not always related to their purpose; and/or indentation needs attention in places. | The code is poorly organized and very difficult to read. There are next to none or no comments. Variable/method/function/class names are meaningless, and/or indentation has many errors. OR no evidence was submitted for assessment. |
| **PROFESSIONAL**  **Traits** | **% of grade** | **EXPANDING**  **4** | **PROFICIENT**  **3** | **DEVELOPING**  **2** | **BEGINNING**  **1** |
| **21st Century CRTC Professional Skills** | | **Initiates and Self-Directs, Collaborates and Communicates Effectively, Shows Creativity and Innovation** | | | |
| **Communication**: |  | Highly effective communication of industry-based ideas and tasks, articulated in written form, error free. | Accurately communicates industry-based ideas and tasks in written form with minimal errors. | Uses computer science specific vocabulary to describe industry-based ideas but writing contains unprofessional errors. | Lacks professional skill with written material and/or demonstrates a disregard for acceptable composition conventions. |
| **21st Century CRTC Professional Skills** | | **Initiates and Self-Directs, Collaborates and Communicates Effectively, Shows Creativity and Innovation** | | | |
| **Self Direction:** |  | Demonstrates an incredible work ethic in all areas and seeks opportunities to self-learn/research to improve. Followed all given processes and/or procedures for the assignment. Written response demonstrates obvious evidence of self-reflection. | Demonstrates a good work ethic - minimal distractions - and seeks some opportunities to self-learn. Followed processes/procedures for the assignment and written response shows some evidence of self-reflection. | Demonstrates a good work ethic - minimal distractions., but minimal effort to self-learn through research or peer communication. Written response is simplified with minimal evidence of self-reflection. | Work ethic needs improvement - way too distracted and/or wasted class time, and/or turned in way beyond deadline. OR Written response is incomplete or wasn’t turned in, so evidence for assessment is not available. |