

Computer Programming Grading Rubric

| | Excellent (5) | Proficient (4) | Satisfactory (3.5) | Novice (2) | Unsatisfactory (0) | Score/Level |
|--|--|---|--|---|--|----------------------------------|
| | Student met learning objective. Demonstrated 100% mastery of the concept. | Student met learning objective. Demonstrated 90% mastery of the concept. | Student is approaching learning objective. Demonstrated 80% mastery of the concept. | Student has not met learning objective. Demonstrated under 70% mastery of the concept. | Student has not met learning objective. Provides little to no evident understanding of concept. | /100 |
| Program Design (pseudocode, Flowchart, documentation) | <i>Ex. Pseudocode clear, brief and well organized</i> | <i>Ex. Clear, understandable but steps too detailed</i> | <i>Ex. Somewhat understandable but does not complete</i> | <i>Ex. Difficult to understand and/or unorganized</i> | <i>Ex.no pseudocode or/and chart</i> | /20(pseudocod 10 , flowchart 10) |
| Overall functionality of code | <i>Ex. Code organized and delivers accurate results</i> | <i>Ex. Code is good, delivers results</i> | <i>Ex. Code is adequate, but did not meet all requirements.</i> | <i>Ex. Code is inadequate, generates logical errors</i> | <i>Ex. Code is missing 80% of requirements or cannot run</i> | /20 |
| <ul style="list-style-type: none"> • Branching (decision structure) • Variable use and naming • User input/ Output | <i>Ex. Efficient use of skills (all possible cases handled)</i> | <i>Ex. Proficient use of skills (mostly complete)</i> | <i>Ex. Adequate use of skills</i> | <i>Ex. Some of the skills not utilized properly</i> | <i>Ex. Few or none of the skills utilized</i> | /25 |
| Proper use of loops <ul style="list-style-type: none"> • For loops | <i>Ex. Efficient use of skills</i> | <i>Ex. Proficient use of skills</i> | <i>Ex. Adequate use of skills</i> | <i>Ex. Some of the skills not utilized properly (for example use of</i> | <i>Ex. Few or none of the skills utilized</i> | /25 |

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| • While loops | | | | <i>while True and Break and continue)</i> | | |
| Functions and Modular programming | Ex. Exceptional Proper use of modularization, required functions created with well-defined Docstrings | Ex. Proficient. Code modularized, Functions created, some essential info missing from Docstring | Ex. Code exhibits 70% of requirements (Ex no Docstring, long code not modularized...) | Ex. Code not modularized if needed, or/and some functions missing | Ex. Few or none of the skills utilized | |
| Object Oriented Programming | Ex. Classes /Inheritance perfectly implemented, with private attributes, docstrings and necessary methods | Ex. Classes implemented, necessary methods created, attributes private. Inheritance partially implemented | Ex. Classes/inheritance partially implemented, demonstrating limited understanding | Ex. Poor implementation of skills (Ex. Inheritance not implemented, methods missing...) | Ex. Few or none of the skills utilized | |
| File I/O, String, Exception Handling | Ex. Efficient use of skills (all requirements met and best practices applied) | Ex. Proficient (requirements met, efficient use of skills could be better demonstrated) | Ex. 70% of requirements met. Limited understanding (Ex use of learned skills not applied) | Ex. Code not addressing all requirements | Ex. Few or none of the skills utilized | |
| Collections/ Data Structures | Ex. Efficient and correct use of Data Structures | Ex. Proficient (Requirements met but some skills not applied) | Ex. 70% of requirements met. Limited understanding (Ex use of learned skills not applied) | Ex. Code does not meet all requirements, inaccurate choice of structures | Ex. Few or none of the skills utilized | |
| User Interface | Ex. Efficient, clear, well formatted, data validation applied | Ex. Proficient (some aspects of the interface can be enhanced) | Ex. 70% of requirements met | Ex. Interface minimally meet specifications, unpresentable and not easy to navigate | Ex. Interface incomplete, does not meet specifications | |
| Other Coding Standards | Ex. Code adheres to best standards and uses concepts | Ex. Code utilizes concepts referenced in the course, some | Concepts/standards learned in class not fully applied | Limited demonstration of concepts/standards | No utilizations of concepts and best practices used | /10 |

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| | <i>referenced in course</i> | <i>best practices not applied.</i> | | <i>learned in class</i> | | |
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