



FOOTHILL COLLEGE

Computation Rubric

Assignments that develop computational skills require students to have complex problem-solving skills, technology skills, computer proficiency, decision analysis (synthesis and evaluation), be able to apply mathematical concepts and reasoning, and analyze and use numerical data in the context of the discipline. Computational assignments can be assessed using the following rubric. Circle each criterion that is evinced in the assignment. If there is a computational criterion that you believe is missing, please add it at the end of each section.

Processing

- P1. Creates tables, pictures, diagrams, graphs, schematics, or a plan to show the structure, pattern, process, or organization of numerical information
- P2. Develops a logical solution pathway, course of action, statement, strategy, mathematical expression, set of instructions, operations, functions, or procedures
- P3. Creates an abstract representation of related unknown quantities, such as a symbol, metaphor, equation, or expression
- P4. Uses appropriate units, dimensions, terms, or discipline-specific symbols
- P5. Interprets discipline-specific information, such as terminology, abbreviations, formulas, notations, statistical methods, constants, rules, processes, or relationships
- P6. Analyzes expressions, equations, productive patterns, arrangements, or key words within provided information
- P7. Selects, removes, adds, organizes, or changes information in order to find the desired result
- P8. _____
- P9. _____

Calculating

- C1. Applies rules, formulas, laws, theories, or models common to the discipline
- C2. Uses appropriate tools and technologies, such as rulers, scales, visual aids, computer or drafting programs, sensory tools, tables, spreadsheets, or the body and senses
- C3. Measures or calculates distance, weight, volume, area, scale, pattern, time, space, or other discipline-specific quantities
- C4. Uses proportional reasoning by exact calculation or estimations using scale, proportions, fractions, and relationships
- C5. Verifies the reasonableness of the results in the context of the discipline and/or validates the results by using them in another problem
- C6. Uses estimating, predicting, or trial and error
- C7. Constructs intermediate steps and/or contributes additional information when not stipulated as parts in the problem
- C8. Articulates assumptions or simplifications
- C9. _____
- C10. _____