2025– 26 Alternative Delivery Assessment Plan

Department: Mathematics & Computer Science **Date: 11/4/2025** **Course: CS 131 - Comp Prog I**
Alternative Format(s) – select as many as are applicable: **Dual Credit** **Select** **Select**

Members (must include more than course instructor only) involved with the development of this Assessment Plan: Marcus Gubanyi, Kent Einspahr

Course Requirements: Course syllabi and credit hour calculators are collected by the Dual Credit Coordinator (Dual Credit Courses) and the respective Deans for other courses.

Student Outcome:

1. *What student outcome will be assessed? Write programs with strings, lists, and dictionaries.*
2. **State as follows: Students should be able to [action verb] [something]**. Students should be able to write programs in python or another high-level programming language that solve problems by manipulating data in strings, lists, arrays, and/or dictionaries.

Question: *What specific question(s) are you attempting to answer through assessing this student outcome? (What are you trying to find out? There may be more than one question, but no more than three.)* Can students write programs that solve problems with lists (or arrays, depending on the programming language)?

Methodology

1. **Student Outcome** - *OBJECT**
   a. *What student artifact from the traditional course will be used to assess the outcome*? Programs written for an exam prompt.
      i. *How will the artifact be collected?* Student submissions will be collected by Marcus. Kent and Marcus will assess whether each program is satisfactory or not. Programs are satisfactory if they pass all the unit tests OR if deemed close enough to doing so. Note that the traditional course uses computer-based programming exams.
   b. *What student artifact from the alternative course(s) will be used to assess the outcome?* Programs written for an exam prompt.
      i. *How will the artifact be collected?* Student submissions will be emailed by the dual credit instructor to the liaison. Kent and Marcus will assess whether each program is satisfactory or not in a similar manner. However, programs written on exams for dual credit classes may be written on paper or on a computer. Kent and Marcus will factor in the format of the exam when assessing whether student submissions are satisfactory.

Analysis of Artifacts:

1) **Student Outcome:** *PERFORMANCE CRITERIA**
   a. *How will the artifacts be analyzed (attach rubrics/scoring tools if used):*
      i. Traditional course: Calculate a proportion of students who completed the problem in a satisfactory manner.
      ii. Alternative course(s) (note SAME if the same as the traditional course): Same

2) ***COMPARABILITY*** - ***How you will determine if the outcomes of the two are comparable?***
   (For example – there will not be a statistically significant difference among the mean final exam scores).
   Compare the proportions of satisfactory programs with z-test.

Submitted by: Marcus Gubanyi **Date: 11/4/2025** **Assessment Committee Reviewed (Date): 11/5/25**
Submitter notified of approval/ or additional action needed: Approved