GROSSMONT-CUYAMACA
COMMUNITY COLLEGE DISTRICT

Grossmont-Cuyamaca Community College District
Articulation Agreement

Course to be Articulated:	Credits	College Course	Units
AP Computer Science	10.0	CSIS 293 Introduction to Java Programming	4.0
School Name: Helix Charter High School		**College:** Grossmont College	

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1. **Course Prerequisites**
   None

2. **Recommended Preparation**
   A "B" grade or higher or "Pass" in CSIS 110 and 119 or equivalent

3. **College Course Description**

   An introductory course in Java programming focusing on object-oriented methodology. The course will include using objects from the standard Java Class Library, writing and using new objects, developing inheritance hierarchies of classes, using polymorphism to build extendible systems, and the development of windowed, GUI, event driven applications.

4. **Required Content for Articulation**

   a. Java language.
      1) What is Java?
      2) History of Java.
      3) How Java works with the World Wide Web and the Write-Once-Run-Anywhere (WORA) model.

   b. Programming environments and Oracle compliance.

   c. Object-oriented programming.
      1) What are objects, classes and methods?
      2) Object-oriented data hiding, encapsulation, inheritance, and polymorphism.
      3) Relational operators and Boolean expressions.
      4) Mathematics, operators and built-in data types.
      5) Selection statements – making decisions in Java.
      6) Repetition as a basic control structure.

   d. Data hiding and encapsulation.

   e. Basic dialog input and output.

   f. Methods and argument passage.

   g. Multithreaded programs.

   h. Introduction to swing classes and Java event modeling.

   i. Development of simple GUI applications to include:
      1) Design and development of the GUI
      2) Event handling and event handler code

5. **Required Competencies (SLOs) for Articulation**

The student will:

   a. Demonstrate knowledge of basic object-oriented design principles.
   b. Design and develop Java applications to run in a Console Pane or GUI window.

c Demonstrate the ability to integrate Java with a graphical user interface
d Use Java objects from the standard Java libraries and write programs that will call upon the services of these preexisting objects
e Utilize a modern Integrated Development Environment (IDE) to develop and debug Java applications

7 **RUBRIC** Attached (if applicable)

8 **Texts and other supporting materials (software, etc.)**

9 **Criteria for Course Articulation**

a School instructors and college teachers attend articulation meetings to determine curriculum alignment and articulation competency rubric.

b Student must pass high school course with a grade of "B" or better and have mastered course competencies as identified in the articulation competency rubric

Articulation meeting held December 1, 2020

Effective date Fall 2020 Expiration date December 1, 2023

School or Institution/CTE/Signatures

Teacher Date

Teacher (print name)

Principal 01/04/21 Date

Helix Charter High School

School/Institution

Additional Instructors

Teacher 01/06/21 Date

Matt Guarnotta

Teacher (print name)

Teacher Date

Teacher (print name)

College Signatures

12/7/20

Department Lead, Grossmont College Date

Clifton K. Quinn

Department Lead (print name)

Dr. Jane Ogle

Dean of CTE, Grossmont College Date

Dean of CTE (print name)