Kentucky CTE

Computer Science: Object-Oriented Programming I 110220 (2026–2027)

Design, develop, compile, debug, test, run and document programs. 1	**1 Design, develop, compile, debug, test, run and document programs.** 1
Demonstrate knowledge of the program development life cycle. 2	**2 Demonstrate knowledge of the program development life cycle.** 2
Design and develop programs using operators and assignments. 3	**3 Design and develop programs using operators and assignments.** 3
Design and develop programs using primitive data types. 4	**4 Design and develop programs using primitive data types.** 4
Design and develop programs using a variety of data types. 5	**5 Design and develop programs using a variety of data types.** 5
Design and develop programs using sequences, selection, and repetition structures. 6	**6 Design and develop programs using sequences, selection, and repetition structures.** 6
Design and develop programs using single and multi-dimensional ari	**7 Design and develop programs using single and multi-dimensional arrays.** 7

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Design and develop programs using arrays, lists and tuples. 8	**8 Design and develop programs using arrays, lists and tuples.** 8
Utilize arrays 9	**9 Utilize arrays** 9
Design and develop programs using effective error and exception handling. 10	**10 Design and develop programs using effective error and exception handling.** 10
Design and develop programs using object-oriented programming features, including defining classes, instantiating objects, and using arrays of objects. 11	**11 Design and develop programs using object-oriented programming features, including defining classes, instantiating objects, and using arrays of objects.** 11
Design and develop programs implementing user-defined methods and modular programming. 12	**12 Design and develop programs implementing user-defined methods and modular programming.** 12
Explain how algorithms are used to produce artificial intelligence (AI). 13	**13 Explain how algorithms are used to produce artificial intelligence (AI).** 13
Design and develop programs using method overloading. 14	**14 Design and develop programs using method overloading.** 14
Design and develop programs using inheritance, encapsulation, and polymorphism. 15	**15 Design and develop programs using inheritance, encapsulation, and polymorphism.** 15
Design and develop programs using simple GUI components. 16	**16 Design and develop programs using simple GUI components.** 16
Ev Skip to main content **th**	**Evaluate and critique the effectiveness and efficiency of code.** 17

efficiency of code. 17