Kentucky CTE

Computer Science: Computational Thinking

Demonstrate an understanding of elementary logic, truth tables, Boolean algebra CT1	**1 Demonstrate an understanding of elementary logic, truth tables, Boolean algebra** CT1
Demonstrate programming style best practices. CT2	**2 Demonstrate programming style best practices.** CT2
Illustrate the flow of a program. CT3	**3 Illustrate the flow of a program.** CT3
Illustrate concepts using one or more programming languages. CT4	**4 Illustrate concepts using one or more programming languages.** CT4
Explain the implications of file processing. CT5	**5 Explain the implications of file processing.** CT5
Describe the steps addressed in the design of a program to solve the state problem. CT6	**6 Describe the steps addressed in the design of a program to solve the state problem.** CT6
Explain how algorithms are used to produce artificial intelligences (AI) CT7	**7 Explain how algorithms are used to produce artificial intelligences (AI)** CT7
Describe the principles of object-oriented programming. CT8	**8 Describe the principles of object-oriented programming.** CT8

Develop algorithms with increasing degree of complexity using structured programming techniques such as: sequence, selection, and repetition CT9	**9** **Develop algorithms with increasing degree of complexity using structured programming techniques such as: sequence, selection, and repetition** CT9
Use fundamental data types and data structures such as: integers, reals, characters, strings, Booleans, and one- and two-dimensional arrays CT10	**10** **Use fundamental data types and data structures such as: integers, reals, characters, strings, Booleans, and one- and two- dimensional arrays** CT10
Analyze the binary representation of data. CT11	**11** **Analyze the binary representation of data.** CT11
Use modular programming. CT12	**12** **Use modular programming.** CT12