

Computer Science: Introduction to Programming

Demonstrate knowledge of the program development life cycle. [IP1](#)

1 Demonstrate knowledge of the program development life cycle. [IP1](#)

Design, develop, compile, debug, test, run, and document programs in the language studied. [IP2](#)

2 Design, develop, compile, debug, test, run, and document programs in the language studied. [IP2](#)

Design and develop programs using operators and assignments. [IP3](#)

3 Design and develop programs using operators and assignments. [IP3](#)

Design and develop programs that properly use variables, constants, data types, objects [IP4](#)

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Design and develop programs that use sequence, selection, and repetition structures. [IP5](#)

5 Design and develop programs that use sequence, selection, and repetition structures. [IP5](#)

Design and develop programs that use simple data structures. [IP6](#)

6 Design and develop programs that use simple data structures. [IP6](#)

Design and develop programs that use effective error and exception handling. [IP7](#)

7 Design and develop programs that use effective error and exception handling. [IP7](#)

Design and develop programs that implement user-defined methods and modular programming. IP8

8 Design and develop programs that implement user-defined methods and modular programming. IP8

Design and develop programs that implement file processing. IP9

9 Design and develop programs that implement file processing. IP9

Design and develop programs that implement fundamental features that are unique to the language studied. IP10

10 Design and develop programs that implement fundamental features that are unique to the language studied. IP10

Design and develop programs using object-oriented programming features, if applicable to the language studied. IP11

11 Design and develop programs using object-oriented programming features, if applicable to the language studied. IP11

Explain how algorithms are used to produce artificial intelligences (AI). IP12

12 Explain how algorithms are used to produce artificial intelligences (AI). IP12

Evaluate and critique effectiveness and efficiency of code written. IP13

13 Evaluate and critique effectiveness and efficiency of code written. IP13