

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](#)

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

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