

# Programming with C++

## Boston University

**MET CS231-A1**

Spring 2024

Day: Mondays, 6:00-8:45 PM

Location: Charles River Campus, Boston

Instructor: Mike Hadavi

E-mail: hadavi@bu.edu

Office Hours: After class

Website: <http://onlinecampus.bu.edu>

### COURSE DESCRIPTION

Covers the elements of object-oriented programming and the C++ language. Data types, control structures, functions, library functions, classes, inheritance, and multiple inheritance. Use of constructors, destructors, function and operator overloading, reference parameters and default values, friend functions, input and output streams, templates, and exceptions. Laboratory course.

### PREREQUISITE

MET CS 201; or instructor's consent

### TEXT

Required: C++ HOW TO PROGRAM, 10th Edition, by Deitel and Deitel, published by PEARSON, 2017, with ISBN-13: 978-0134448237 (ISBN-10: 0134448235)

### GRADING

Programming assignments	35%
Homework assignments	05%
Attendance	05%
Project	10%
Exam	45%

### PROGRAM EVALUATION CRITERIA

Program correctness	50%
Documentation	20%
Readability	20%
Etc.	10%

*"To write a good program takes intelligence, taste, and patience. You are not going to get it right the first time; experiment!"*

**Bjarne Stroustrup, The C++ Programming Language, 2nd edition**

*continued...*

**SCHEDULE (very tentative)**

DATE	TOPIC	READING (TEXT CHAPTER)
01/22	Introduction	1, 2, App. D
01/29	Classes, Objects, Strings	3
02/05	Control Statements	4, 5
02/12	Functions	6
02/19	No Class – Presidents' Day	
02/21	( <b>Wednesday</b> ) Preprocessor	App. E
02/26	Templates	7, 18
03/04	Pointers	8
03/11	No Class – Spring Recess	
03/18	Exceptions, Operator Overloading	9, 10, 17
03/25	Inheritance	11
04/01	Polymorphism	12
04/08	STL, More on Exceptions / Templates	15, 16, 17, 18
04/15	No Class – Patriots' Day	
04/22	Stream I/O, File Processing, String	13, 14, 21
04/29	Review	
05/06	Exam	

**IMPORTANT NOTES**

- Reading the relevant material in the textbook is essential for gaining a thorough understanding of the topics covered in the course.
- Not all of the material in each chapter will be covered during lecture/discussion, but the material should be read in any case.
- Your programs must be done in C++. One point will be deducted from the grade for each week a programming assignment is late after a one-week grace period.
- Be sure to see the school's website: <http://www.bu.edu/met/> It contains lots of useful information, important dates, etc.
- **Attendance:** Students are expected to attend all class meetings in person. Please inform the instructor by email if you need to be absent from a class.

**ACADEMIC HONESTY**

The course is governed by the Academic Conduct Committee policies regarding plagiarism (any attempt to represent the work of another person as one's own). This includes copying (even with modifications) of a program or a segment of code. You can discuss general ideas with other people, but the work you submit must be your own. Collaboration is not permitted.

**ELECTRONIC MAIL**

To be sure you *can* communicate with the instructor electronically and to add your name to the class distribution list, please send a test message with the subject line *CS231 TEST* to the instructor's email address.