Semester: Fall, 2018
Course Number: CISC 5300
Course Title: Programming in C++
Faculty: Dr. A. G. Werschulz
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E-mail: agw@dsm.fordham.edu
WWW http://www.dsm.fordham.edu/~agw/programming-c++
Class meetings: Wednesday: 5:30 p.m.–7:45 p.m., LL602
Office Hours: Wednesday: 4:00 p.m.–5:25 p.m.
Thursday: 4:00 p.m.–5:25 p.m.
(or by appointment)


Class email list: programming-c++@dsm.fordham.edu

Course Outline (Topical):
Programming and "Hello, World!"
Objects, Types, and Values
Computation
Errors
Writing a program
Completing a program
Technicalities: Functions, etc.
Technicalities: Classes, etc.
Input/Output Streams
Customizing I/O
A Display Model
Graphics Classes
Graphics Class Design
Graphing Functions and Data
Graphical User Interfaces
Vectors and Free Store
Vectors and Arrays
Vectors, Templates, and Exceptions
Containers and Iterators
Algorithms and Maps

Protocol:
Examinations: The midterm examination will be on Wednesday, October 10, and will take up roughly one half of the regular class time period. The final exam will be on Wednesday, December 19, taking up the entire class time period.

Homeworks: Programming assignments (as announced in class). I hope to assign one program for each chapter (or two) we cover in class. The earlier programs (being simple) will be due at the next class session; the due dates for the later ones will depend on their complexity.

Attendance: Attendance for this course is mandatory. You will be granted up to two absences from the class. You must inform me by email in advance for a non-emergency absence.
Electronica: You may not use laptop computers, tablets, or mobile phones, neither during the lecture nor during the lab.

Grading: Your grade will be determined as follows:
- one midterm exam 25%
- one final exam 25%
- programming assignments 50%

The grading standards for programming assignments are as follows:
- Documentation (pseudocode and comments) 20%
- Correctness of algorithm 20%
- Correctness of program 20%
- Overall style of the program 20%
- Quality of input/output 20%

Other Requirements: None.

Readings: I hope to cover the first 21 chapters of the text. Some will be covered at greater depth than others.

Academic Integrity: To begin with, you should familiarize yourself with the University’s policy on Academic Integrity, which may be found at [http://www.fordham.edu/info/25380/undergraduate_academic_integrity_policy](http://www.fordham.edu/info/25380/undergraduate_academic_integrity_policy)

Pay special attention to the Standards of Academic Integrity. As a corollary to same, you are not to pass off someone else’s solution to any homework exercise (including programming problems) as your own, regardless of whether you obtained it from a fellow student, an acquaintance, or from the Web. Analogously, you should take all reasonable necessary steps to prevent other people from stealing your work; in particular, when you write a program on the Departmental Linux systems at Lincoln Center, it should be located in (an appropriate subdirectory of) your private directory.

You will sometimes find yourself stumped by some phase of an assignment. When this happens, you have several options, such as asking a question in class, sending me email, or discussing the problem with me in my office. It would be unrealistic of me to not expect a certain amount of discussion of programming assignments. However, the program you turn in is to be your own work. You are not allowed to share source code with each other (and this includes looking at another student’s screen in the lab). If you are in doubt as to the legitimacy of your actions, ask me beforehand. (Programming is *not* a spectator sport!!)

Additional Remarks: This is a course for first-year graduate students in the Department of Computer and Information Sciences, who do not already have a strong background in Computer or Information Science. Its goal is to quickly get you “up to speed”, giving you background in computer programming that is roughly equivalent to our undergraduate CS1/CS2 sequence. Hence, the learning curve will be somewhat steep; in one semester, we’re trying to cover what Fordham undergraduates see in two semesters. The good news is that you’ll be learning a lot quickly.

There will be no make-up exams given after the exam date. If you know in advance that you will have to miss an exam, you must check with me (in advance) to avoid getting a zero for that exam. In case of illness on an exam date, please contact me as soon as possible, so that appropriate arrangements can be made.

As noted above, this course has a website, which you should visit for announcements, assignments, and links to useful resources.

If you believe that you have a disabling condition that may interfere with your ability to participate in the activities, coursework, or assessment of the object of this course, you may be entitled to accommodations. If so, please schedule an appointment to speak with me immediately or you may go to the Office of Disability Services (x6282). Under the Americans with Disabilities Act and Section 504 of the Vocational Rehabilitation Act of 1973, all students, with or without disabilities, are entitled to equal access to the programs and activities of Fordham University.