Spring 2020

CS 115-012: Introduction to Computer Science I in C++

Jonathan Kapleau

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CS 115: Introduction To Computer Science I in C++

Syllabus

Instructor Info

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Course Description

Fundamentals of computer science are introduced, with emphasis on programming methodology and problem solving. Topics include basic concepts of computer systems, software engineering, algorithm design, programming languages and data abstraction, with applications. A high level language is fully discussed and serves as the vehicle to illustrate many of the concepts. C++ is used in this course.

Textbooks

Absolute C++
Walter Savitch
ISBN: 0136083811

Grading Scheme

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm</td>
<td>20%</td>
</tr>
<tr>
<td>Final</td>
<td>30%</td>
</tr>
<tr>
<td>Projects</td>
<td>20%</td>
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<tr>
<td>Homeworks</td>
<td>20%</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>10%</td>
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</tbody>
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Topics

- Introduction to C++
- Flow of Control
- Function Basics
- Parameters and Overloading
- Arrays
- Structures and Classes
- Constructors
- Operator Overloading and Friend Functions
- Recursion
- Inheritance
- Polymorphism
- Exception Handling

**Attendance Policy**

Attendance in every lecture is mandatory. If a student is absent from lecture five times (the first day counts), the student's name will be recommended for withdrawal to the Dean of Freshman Studies. Two lates is equivalent to one absence. Make sure that you fully understand this attendance policy.

**Cheating Policy**

Cheating on a programming assignment results in zero credit for all students involved. Programming assignments may **NOT** be solved in collaboration, unless specifically stated in the assignment. Cheating on an exam will result in an "F" in the course.

You may discuss problems with each other. Where does discussion end and cheating start? You may **NOT** copy lines of code from anybody or anywhere. You may **NOT** use code in your assignments that you did not write. As a general rule: If you don't understand the code and can't explain the code, you can't use the code.

Please familiarize yourself with the NJIT Honor Code. Violations of the honor code will be dealt with seriously and reported immediately to the Dean of Students.

**Late Policy**

To receive full credit all programming assignments must be handed in on time. Assignments that are not submitted on time will be penalized for each day that they are late. The type and severity of the penalty will be determined by the assignment. In general, a deduction of 10 points (out of 100) for the first day, 20 additional points for the second day, 30 additional points for the third day, and 40 additional points for the fourth day late will be subtracted from the final grade of the assignment.

**Prerequisites**

None