

# Introduction to Programming in C

Columbia University in the City of New York  
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June 29 2015 - July 17 2015

## **1 Monday June 29**

Introduction to the Course, History of Computers/Computer Science, Welcome to New York.

## **2 Tuesday June 30**

Basic Concepts, Learning the Programming Environment, Compiling and Running, Form of a C program, types, variables, operators.

## **3 Wednesday July 1**

More on Variables, Control Flow, Logical Expressions, True/False, For, While, Switch, and Select.

## **4 Thursday July 2**

Functions in C. Code Cleanliness and Good Practices going Forward. Recursion

## **5 Friday July 3**

No Class Today! University Holiday. Happy Fourth of July.

## **6 Monday July 6**

Arrays, Strings, Data Structures, Iterating through Data Structures.

## **7 Tuesday July 7**

C Libraries and additional built-in functions.

## **8 Wednesday July 8**

File I/O: FILE types and Reading/Writing to a file.

## **9 Thursday July 9**

The C Preprocessor, Header Files

## **10 Friday July 10**

Pointers

## **11 Monday July 13**

Pointers Continued

## **12 Tuesday July 14**

Memory Management

## **13 Wednesday July 15**

Big O Notation and Sorting

## **14 Thursday July 16**

Data Structures Revisited, Software Engineering. Hackathon!

## **15 Friday July 17**

Last Day of Classes. Wrap Up any remaining work. Hackathon Presentations.