# CSCI-UA.0201-001/3
# Computer Systems Organization Fall 2018

**Meeting time and place:**

- Section 1: Tu/Th 11:00am-12:15pm WWH 109
- Section 3: Tu/Th 3:30-4:45pm 60FA room 150

**Instructor:** Mohamed Zahran (mzahran@cs.nyu.edu)

**Office hours:** Tu/Th 2-3pm (WWH 320)

Check the web page and NYU classes for updated information about the course, announcements, as well as the lecture notes. Each lecture note will be posted before the actual lecture day.

**Goal:**
After this course, you should be able to understand what happens under the hood when your computer executes programs. You will be able to visualize the big picture that shows how software and hardware interact.

**Text:**

We will use the following book:

- Bryant, Randal, and O'Hallaron, David. **Computer Systems: A Programmer's Perspective**, 3rd Edition

The following book is not required but recommended to learn C programming:

- Kernighan, Brian W., and Ritchie, Dennis M. **The C programming language**, Second Edition

**Grading:**

The grades will be assigned in the following basis:

- Lab assignments 15%
- Homework assignments 5%
- Exam 1 40%
- Exam 2 40%

**Goal:**

The main goal of this class is to teach you how computers work *under-the-hood* to execute programs and manipulate data. The course will start with the C programming

language, down to assembly and machine-level code, to basic operating system and architectural concepts.

**Syllabus:**

The following topics will be covered in this course:

- C programming language
- Assembly language
- Memory hierarchy
- Virtual memory
- Processes & Concurrency

**Feedback:** I would like as much feedback/criticisms as possible from you, as early as possible, so that I can try to improve the way the course is taught. Please feel free to give me any suggestions (anonymously if you wish) that you think could improve the way the course is handled. Keep in mind that you are not alone. If you have a question, undoubtedly others do too; and we will all benefit from your input. Do not be shy to ask about anything you do not understand in the course.

**Good Luck and Have fun!**