Introductory CS Courses in Claremont in Academic Year 2015-16

**Overview**

CMC and Pomona’s introductory CS sequence comprises CS 51, CS 52, and CS 62 while Mudd’s is CS 5, CS 60, CS 70. Students are not allowed to mix-and-match between the two introductory sequences. So, a student starting, for example in CS 51 at CMC or Pomona cannot then take CS 60 at Mudd and a student starting in CS 5 at Mudd cannot then take CS 52 or CS 62 at CMC or Pomona.

While all three schools are making efforts to accommodate students in these courses, they are typically oversubscribed. This document is intended to provide students and advisers with more information about these courses and their capacities.

Students from CMC, Pitzer, and Scripps who plan to major in computer science can do so through either Pomona or Harvey Mudd. Prospective majors are encouraged to speak with the department chairs at either Pomona (Prof. Tzu-Yi Chen, tzuyi.chen@pomona.edu) or Harvey Mudd (Prof. Ran Libeskind-Hadas, hadas@cs.hmc.edu) to help plan their paths through the major.

**Claremont McKenna**

The introductory sequence is CS 51, CS 52, and CS 62. CS 52 and CS 62 can be taken in either order; both have only CS 51 as the prerequisite. CS 51 and CS 62 are offered at CMC; CS 52 must be taken at Pomona.

**Fall 2015**

We will offer one section of **CS 40** (Computing for the Web) that will meet TR 9:35-10:50am. The enrollment cap is currently set at 18, but may go up to about 35. CS 40 assumes no prior programming experience.

We will offer two sections of **CS 51** (Intro to CS): one meeting TR 9:35-10:50am, the other TR 1:15-2:30pm. The enrollment cap in each section is currently set at 18, but may go up to about 35 each. CS 51 assumes no prior programming experience.

We will offer one section of **CS 62** (Data Structures and Advanced Programming), a followup to CS 51. This will meet TR 2:45-4:00pm. The enrollment cap is currently set at 18, but may go up to about 35.
Between CS 40 and CS 51, we recommend that you start with CS 51 if you intend to major or minor (sequence) in CS. If you are unsure but want to take a semester of CS before you decide, CS 40 may be a better choice. If you want to discuss your options, contact Prof. Art Lee (alee@cmc.edu).

Spring 2016

We will offer one section of CS 40, 1 section of CS 51, and 1 section of CS 62 with enrollment caps similar to Fall 2015.

Harvey Mudd

Fall 2015

The introductory sequence is CS 5, CS 60, and CS 70.

There are four sections of our introductory course, CS 5, offered in Fall 2015. There will be no offering of CS 5 in Spring 2016.

- CS 5 Gold, CS CI005 HM-01, TTh 8:10-9:35 AM, 100 seats for non-Mudders (30 seats set aside specifically for sophomores)
- CS 5 Gold, CS CI005 HM-03, TTh 6:45-8 PM, 100 seats for non-Mudders
- CS 5 Green, CS CI005GRHM-01, TTh 9:35-10:50 AM, 40 seats for non-Mudd life science majors
- CS 5 Black, CS CI005 HM-02, TTh 9:35-10:50 AM, by PERMission of instructor

Labs

CS 5 Gold and Black share weekly labs and students should plan on attending a lab session on either Tuesdays 2:45-4:45 or 6-8 PM or Wednesdays at 2:45-4:45 or 6-8 PM. CS 5 Green has a lab on Fridays 3-5 PM. The lab sessions are intended to provide help getting started with the weekly homework assignments.

What’s the difference between these sections?

CS 5 Gold and Green assume no prior background in CS. Both sections cover the same foundational computer science content and both courses prepare students equally well to continue on in the Mudd CS curriculum. CS 5 Green is biologically-themed and each week the instructors (one biologist and one computer scientist) pose a real biological problem that is solved using computational methods. In contrast, CS 5 Gold uses a variety of applications, some of which are in the sciences but many of which are not. Life sciences students (e.g., biology, neuroscience, and other biological sciences) are strongly encouraged to take CS 5
Green because it develops skills and techniques that are likely to be particularly useful in their future work. CS 5 Black is for students with substantial prior programming experience (e.g., AP CS). Students interested in Black should submit PERMs and describe their prior background.

**Spring 2016**

In Spring 2016 we will not offer CS 5. Instead, we’ll offer two follow-on courses to CS 5: CS 41 (new) and CS 60. CS 41 continues to use the Python language taught in CS 5 and provides students with experience and tools to write more complex programs including analyzing big data (e.g., social networks, economic data, images, etc.) among others. CS 41 is not part of the CS major sequence and is not prerequisite for any course. CS 60 is the second course in the CS major sequence and it introduces students to four different programming languages. CS 60 is the prerequisite for CS 70, the C++ programming and data structures course and the third course in the CS major.

More information for students from the 5C’s is available at [www.cs.hmc.edu/off-campus-students](http://www.cs.hmc.edu/off-campus-students).

**Pomona**

The introductory sequence is CS 51, CS 52, and CS 62. CS 52 and CS 62 can be taken in either order; both have only CS 51 as the prerequisite. CS 51 assumes no prior programming experience.

**Fall 2015**

We will offer two lecture sections of **CS 51**. One will meet MWF 10-10:50am. The other will meet MWF 11-11:50am. There is a required lab, with sections offered Thursday and Friday afternoons from 1:15-4pm. This class is taught in Java and assumes no prior programming experience. The enrollment cap in each lecture section is 35, broken down as follows: 5 seniors, 5 juniors, 12 sophomores, 13 first-year students.

We will offer one lecture section of **CS 51G**, meeting MWF 9-9:50am with a required lab that can be taken either Monday or Tuesday afternoon from 1:15-4pm. This class covers the same material as CS 51 and serves the same role in the major/minor, however it uses the experimental programming language Grace. The last few weeks introduce students to Java so that students can then transition to more advanced classes. The enrollment cap is 40, restricted to at most 30 non-first-year students.
We will offer one section of **CS 52**, a followup to CS 51. This is being taught TR 9:35-10:50. The enrollment cap is 32, broken down as follows: 4 seniors, 4 juniors, 12 sophomores, 12 first-year students.

We will offer one section of **CS 62**, also a followup to CS 51. This is being taught MWF 10-10:50am with a required lab Wednesday afternoons either 1:15-2:30 or 2:45-4pm. The enrollment cap is 40, broken down as follows: 5 seniors, 5 juniors, 15 sophomores, 15 first-year students.

**Spring 2016**

We expect to offer 2 lecture sections of CS 51, 1 section of CS 52, and 1 section of CS 62, with enrollment caps similar to Fall 2015.

We also expect to offer CS 30, an introductory class for non-majors titled “Computation & Cognition”. This course uses Python and assumes no prior programming experience. It does not serve as a prerequisite for CS 62.