Computer Science Courses for Entering Students (2015)

The Department of Computer Science has two courses designed for students who wish to begin the study of computer science as an academic discipline. These courses, CMSC 105 and CMSC 107, can also serve as an entrance into the Concentration in Scientific Computing.

**CMSC 105** is our standard first-semester Introduction to Computer Science, which is open to all students. It provides foundational skills in computer programming, and introduces techniques for thinking and communicating about computation. This course serves as a prerequisite for our spring-semester CMSC 106 (Introduction to Data Structures), which then leads into the Computer Science Major or Minor, or various concentrations such as the Concentration in Scientific Computing.

**CMSC 107** is designed for students who have programming experience comparable to (or exceeding) the programming skills covered in CMSC 105 and 106, but who are not familiar with the other material of these courses. This material, which is sometimes taught in specialized courses on software engineering, includes methodical approaches to software testing, mathematical methods for understanding computation, group processes such as "code review sessions".

Students who wish to begin at a course above CMSC 105 should take the Computer Science Placement Test, after which they will receive placement or a request to meet with a faculty member to determine placement. A link to this test can be found under "prerequisites" on the CMSC 107 web page. The placement test is not required to enroll in CMSC 105.

**Students considering a Computer Science major** are strongly advised to begin in the fall of their first year, with CMSC 105 or another course as indicated by the placement test or CS faculty advising. It is possible to schedule a major in computer science that begins in the fall of sophomore year, but this involves several semesters with numerous advanced CS courses, creating an unpleasant or unworkable academic load and ruling out some options, e.g. many study abroad sites. Students who may want to major in Computer Science should complete a course in discrete mathematics (e.g., Math/CMSC 231 at Haverford or Bryn Mawr) by the end of their sophomore year (freshman year is recommended).

Due to strong demand for upper-level computer science courses, we are unable to offer our survey courses **CMSC 100** and **CMSC 101**, or **CMSC/Bio 187** (Scientific Computing: Discrete Systems). Students interested in Scientific Computing should register for CMSC 105 or 107.

Note that CMSC 105 and 107 both have enrollment limits, so if you may want to take one of these courses, you should register for, and attend, it.

**AP Credit and Advanced Placement**

As discussed above, placement in computer science is made by CS faculty, based on the placement test.