Top Tips: Academic Planning for Computer Sciences Majors

Major Requirements
Be sure to carefully review the CS major requirements page.

DARS
Be sure to review your DARS report for each major / certificate in your plan each semester. It is a good idea to check DARS after you enroll each semester to ensure the classes you have selected apply as you expect they will. This means reviewing each section of your entire DARS report to ensure you are meeting degree requirements.

L&S Degree Requirements
For students in the College of Letters & Science, the BA/BS Degree Requirements sheet is a useful supplement to DARS.

Students who are in other schools / colleges (e.g. Engineering, Business, CALS, etc), and are declaring CS as an additional major will complete the degree requirements in their home college (they will not complete the L&S degree requirements).

Course Combinations
The CS major is comprised of 11 CS classes and 4 math classes (beginning with Math 221). Typically, students take about two classes in the major each semester (fall/spring), starting in the first semester, to remain on a 4-year graduation timeline.

A sample 4-year plan for major requirements is posted on the CS website, which will help you visualize a typical sequence.

Students are generally discouraged from taking much more than two math/CS courses each semester. Therefore, students who have not begun the major early in their academic career may need more than four years to graduate, depending on how their previous courses apply. In other words, taking 3-4 CS classes in a semester to “catch up” can have detrimental effects on GPA.

It is generally not recommended to take more than one heavy programming course each semester. Heavy programming courses include CS 301, 310, 302, 367, 354, as well as courses listed in the Software/Hardware requirement in the major.

Pre-requisites and Course Sequencing
Generally, completing the “Basic CS” requirements along with Math 221 and 222 within the first two years allows access to a fair number of advanced math and CS courses that students complete over their last two years. However, other pre-requisites may be needed, so it is recommended that students develop their course plan as early as possible to ensure timely completion of prerequisites.

Updated 08.05.16 NML
For example, a student interested in CS 640 would need to complete the below sequence:

Additionally, CS 367 and CS 354 are both heavy programming classes and it is not advisable to take both simultaneously. In this case, the sequence would take a minimum of five semesters to complete.

**CS Major Flow Chart**
This CS Major Flow Chart is a useful supplement to understanding course pre-requisite structure. However, it is not a complete representation. Students are encouraged to consult Course Guide to review pre-requisites for CS courses (select “Computer Sciences” under “Subject” and “no selected term” for a complete catalog listing).

**Degree Planner**
The Course Guide has a useful “degree plans” function tab. First, add courses to your plan by clicking the below icon. Then, head over to the “degree plans” tab to sort your classes into future terms. You can also run a DARS report to ensure your requirements will be met with the classes you have planned.
Cross-listed Courses
Certain courses are cross-listed with more than one department. For example, CS/Math 475 is both a CS class and a Math class. You can view cross-listings by clicking the title of the course in Course Guide.

Overlapping Requirements
The CS major does not have any restrictions preventing students from using courses that also count as requirements in other majors or certificates. For example, a student who has completed Math 234 for her statistics major may also use that course towards the CS major.

However, there can be no overlapping within the CS major itself. Each CS major requirement must be fulfilled by a separate course. For example, CS 506 may be counted as a course in the software/hardware requirement in the major OR as a CS elective in the major if you have already completed the software/hardware requirement with other coursework.