Fall 2017 New CS Student Course Selection Guide

Dear M.S. Computer Science Student,

We hope the following information will better assist you with choosing your Computer Science courses for the Fall 2017 semester. Make sure to read the document titled “Important Information for Newly Admitted Students” and view the following link, which will direct you to your required program curriculum:
http://www.cs.usc.edu/academics/masters/

The following information includes a list of the recommended courses that you should consider choosing for your first semester, based on your program. Eight (8) units, typically two courses, is considered full-time status for an M.S. student.

Please be aware that not every course is offered every semester. Some courses are offered only in the Fall or only in the Spring. Please view the CSCI course catalogue page to determine when a course will typically be offered. The course description will indicate a (Fa) for Fall or a (Sp) for Spring or (FaSp) for both. Again, these term indications are only a general guideline as to when courses are typically offered.

A maximum of 4 units may be taken from approved 400-level courses in either Electrical Engineering or Computer Science; the remaining units must be approved courses at the 500 or 600 level. (8 units are approved for Game Development students.)

Students are strongly encouraged to take CSCI 570 their 1st semester unless otherwise noted below.

Master of Science in Computer Science (General Program)
The general program has one specifically required course (CSCI 570). 570 – Analysis of Algorithms is a rigorous theoretical course and is offered every semester. The rest of the program is comprised of elective courses, with two core elective courses that must be chosen from:

1) CSCI 570 – Analysis of Algorithms  
2) CSCI 561 - Foundations of Artificial Intelligence OR CSCI 571 - Web Technologies OR CSCI 585 - Database Systems OR Other CS elective courses.

Computer Networks
1) CSCI 570 - Analysis of Algorithms  
2) CSCI 561, CSCI 571, EE 450* (a placement exam is required if you wish to test out of this course)

Computer Security
1) CSCI 570, CSCI 561, CSCI 571  
2) CSCI 530 – Security Systems

High Performance Computing & Simulation
1) CSCI 561, CSCI 571, CSCI 585, CSCI 570 – Analysis of Algorithms  
2) CSCI 596 – Scientific Computing and Visualization

Data Science
1) CSCI 570  
2) CSCI 561 or CSCI 585

Software Engineering
1) CSCI 510 - Software Management and Economics  
2) CSCI 577A - Software Engineering
Intelligent Robotics
1) CSCI 570
2) CSCI 561, CSCI 571, CSCI 585

Multimedia and Creative Technologies
1) CSCI 576 - Multimedia Systems Design ***(highly recommended)***
2) CSCI 570, CSCI 561, CSCI 571, CSCI 585

Game Development
1) CSCI 522 - Game Engine Development
2) CSCI 580 - 3D Graphics and Rendering

Scientists & Engineers
1) CSCI 455X – Introduction to Programming Systems Design *(must be taken 1st semester)*
2) Choose 1 - EE 450 Intro to Computer Networks OR EE 457 Computer Systems Organization
3) Choose 1 – CSCI 570, CSCI 571, CSCI 585
**CSCI 402 and CSCI 561 cannot be taken in the 1st semester**

ENGR 595A and Internships
All international students who wish to do an internship are required to enroll in ENGR 595A. ENGR 595A will cover topics such as resume writing, cover letters, business etiquette in the United States and much more! Students must complete this course BEFORE beginning their internship. It is *highly recommended* that you enroll in this course during your 1st semester. This course does not require d-clearance. You may register for it directly once you have completed your PPV.

*To enroll in courses offered by other departments such as CTIN, EE, MATH, and ISE, you must contact that department for d-clearance.*

CSCI Course descriptions are available online at: [http://catalogue.usc.edu/content.php?catoid=7&navoid=1734](http://catalogue.usc.edu/content.php?catoid=7&navoid=1734)

The Fall 2017 Computer Science Schedule of Classes is available online at: [http://classes.usc.edu/](http://classes.usc.edu/)

Once you have chosen the courses you would like to take, make sure to submit your top course preferences online as soon as possible. If a Computer Science course is required during your first semester, we will guarantee you D-Clearance. Make sure to include such course(s) on your course preferences, where number one is your first choice and number three is your last choice.

We will be available for further advising during the week of Orientation.

Sincerely,

The Student Affairs Staff
Computer Science Department
USC Viterbi School of Engineering