Recommended Major Course Sequence -5-year Computer Science BS/MS Prog

Math 1054   CPS 1231**   Lab Science I

Math 2110   CPS 2231**   Lab Science II

Math 2415   CPS 2232**   CPS 2390**   Sci/Math Elective

ENG 3091   Math 2416 or Math 2995   CPS 3250**   Tech 2920

Math 2526   CPS Elective   CPS 3440 or Elective

CPS 3962   CPS 4200 or Elective   CPS 4501 or CPS Elective

* GELAP Capstone
** CPS core courses
→ Pre-requisite

Math Elective   CPS Elective   CPS 4150 or Elective

CPS Elective   CPS 4222   CPS 4951* or CPS 4961*

1st Year: *Fall Semester*

CPS 1231 Fund Comp Science	4 Cr.
Math 1054 Precalculus	3 Cr.
Lab Science I	4 Cr.

Spring Semester

CPS 2231 Comp. Org. & Prog.	4 Cr.
Math 2110 Discrete Structures	3 Cr.
Lab Science II	4 Cr.

2nd Year: *Fall Semester*

CPS 2232 Data Structures	4 Cr.
CPS 2390 Org & Architecture	3 Cr.
Math 2415 Calculus I	4 Cr.
Science/Math elective	4/3 Cr.

Spring Semester

CPS 3250 Operating Systems	3 Cr.
Tech 2920 Computer Systems	3 Cr.
Math 2416 Calculus II *or* Math 2995 Matrix & Linear Alg	4/3 Cr.
Eng 3091 Technical Writing	3 Cr.

3rd Year: *Fall Semester*

CPS Elective$^{\pm}$	3 Cr.
Math 2526 Applied Statistics	3 Cr.
CPS 3440^{++} Analysis of Algorithms *or* CPS Elective	3 Cr.

Spring Semester

CPS 3962 Obj. Oriented Analysis	3 Cr.
CPS 4200^{++} Sys. Prog *or* CPS Elect$^{\pm}$	3 Cr.
CPS 4501^{++} Formal Languages *or* CPS Elective	3 Cr.

4th Year: *Fall Semester*   S7

CPS 4150^{++} Architecture *or* CPS Elect	3 Cr.
CPS 3498 Computer Security*	3 Cr.
Math Elective	3 Cr.
CPS Graduate Course as a Free Elective	

Spring Semester   S8

CPS 4951/61 Senior Proj. *or* Rsrch	3 Cr
CPS 4222 Principles of Networking	3 Cr.
CPS Elective$^{\pm}$	3 Cr.
CPS Graduate Course as a Free Elective	

Graduate School – *Fall Semester*

CPS 5440 Adv. Analysis Algs.	3 Cr.
CPS 5920 Database Systems	3 Cr.
CPS 5950 Software Engineering	3 Cr.
CPS 5xxx Graduate Elective	3 Cr.

Graduate School – *Spring Semester*

CPS 5100 Computer Info Systems	3 Cr.
CPS 5981 Software Assurance	3 Cr.
CPS 5995 CIS Capstone	3 Cr.
CPS 5xxx Graduate Elective	3 Cr.

++ *only one of CPS (3440, 4501) is required; only one of CPS(4200 ,4150) is require; the other course may*
$^{\pm}$ The 5-year program includes 4 computer science electives, as CPS 3498 must be taken as before CPS 5981.
B.S. degree completion in 8 semesters requires 15 to 16 credits each semester.   *78305 04/14*