

COMPUTER SCIENCE (CIS TRACK) ROADMAPS

MILESTONES:

1. CMPS 221, 222, and 223 SHOULD be completed by the first quarter of the SECOND year, if possible.
2. MATH 140 and MATH 190/191 (or higher-level equivalents) SHOULD be completed well before the end of the second year, if possible. The reason for this is that most mathematics courses fall into the 9:30am-12:20pm timeblock and they will conflict with some upper-division computer science courses.
3. CMPS 295 and 360 are offered every OTHER quarter.

FRESHMAN ENTERING in ODD YEAR (e.g. 2011/12)

Odd			
Year 1	Fall (17)	Winter (16)	Spring (15)
	A2 - ENGL 110 A3 CMPS 211 CSUB 101 (2)	A1 - COMM 108 B4 - MATH 140 CMPS 221 CMPS 150 (1)	C1 MATH 190/191 CMPS 222
Even			
Year 2	Fall (20)	Winter (15)	Spring (15)
	CMPS 223 B1,B3 C2 Elective	CMPS 295 CMPS 350 Prog. Lang. C3	CMPS 335 Soft. Eng. CMPS 394 Java D1
Odd			
Year 3	Fall (15)	Winter (15)	Spring (15)
	CENG 312 Algorithms CMPS 371 Graphics B2 - BIOL 100/201	CMPS 360 Oper. Sys. CMPS 376 Comp. Network D2 - ECON 202	Elective D3 - PLSI 101 Adv. Elective
Even			
Year 4	Fall (15)	Winter (15)	Spring (15)
	CMPS 342 Database Theme II - Phil 316 US History Reqt.	CMPS 356 AI Theme III Elective	Elective GRE CS 490

FRESHMAN ENTERING in EVEN YEAR (e.g. 2012/13)

Even			
Year 1	Fall (17)	Winter (16)	Spring (15)
	A2 - ENGL 110 A3 CMPS 211 CSUB 101 (2)	A1 - COMM 108 B4 - MATH 140 CMPS 221 CMPS 150 (1)	C1 MATH 190/191 CMPS 222
Odd			
Year 2	Fall (20)	Winter (15)	Spring (15)
	CMPS 223 B1,B3 C2 CMPS 295	Elective CMPS 350 Prog. Lang. C3	CMPS 335 Soft. Eng. CMPS 394 Java D1
Even			
Year 3	Fall (15)	Winter (15)	Spring (15)
	CENG 312 Algorithms CMPS 371 Graphics B2 - BIOL 100/201	Elective CMPS 356 AI D2 - ECON 202	CMPS 360 Oper. Sys. D3 - PLSI 101 Adv. Elective
Odd			
Year 4	Fall (15)	Winter (15)	Spring (15)
	CMPS 342 Database Theme II - Phil 316 US History Reqt.	CMPS 376 Comp. Network Theme III Elective	Elective GRE CS 490

BAKERSFIELD COLLEGE EQUIVALENT REQUIRED COURSES

BAKERSFIELD COLLEGE	CSU BAKERSFIELD CS CMPS
COMS B74b or COMS B74c	CMPS 211
COMS B25 or ENGR B19C/C++	CMPS 221
COMS B35	CMPS 222 and CMPS 223
N/A	CMPS 295
MATH B22 or MATH B1b	MATH 140 or MATH 192 - B4
MATH B1a	MATH 190/191
COMS B27	CMPS 224 (CIS Elective)
COMS B32 - V.B.	CIS Elective Credit
COMS B34 - Business DBase	CIS Elective Credit
COMS B36 - Sys. Analysis	CIS Elective Credit
COMS B41 - Linux Sys. Admin	CIS Elective Credit
COMS B75b or COMS B75c	CIS Elective Credit for CMPS 311
COMM B1	A1
ENGL B1a	A2
PHIL B7,B9 or ENGL B2	A3
BIOL B3a or BIOL B11	B2
ECON B1 or ECON B2	D2
HIST B17a and POLS B1	US Hist and D3 State Gov't

COMPUTER SCIENCE (CIS TRACK) 2011/13 DEGREE REQUIREMENT CHECKLIST

Lower Division (26-30)

- \_\_\_\_\_ CMPS 150 (1) or CMPS 215
- \_\_\_\_\_ CMPS 211 Internet Programming and Web Design
- \_\_\_\_\_ CMPS 221 Programming Fundamentals
- \_\_\_\_\_ CMPS 222 Object-Oriented Programming
- \_\_\_\_\_ CMPS 223 Data Structures and Algorithms
- \_\_\_\_\_ CMPS 295 Discrete Structures

Upper Division required (50)

- \_\_\_\_\_ CMPS 312 Algorithm Analysis and Design
- \_\_\_\_\_ CMPS 335 Software Engineering
- \_\_\_\_\_ CMPS 342 Database Systems
- \_\_\_\_\_ CMPS 350 Programming Languages
- \_\_\_\_\_ CMPS 356 Artificial Intelligence
- \_\_\_\_\_ CMPS 360 Operating Systems
- \_\_\_\_\_ CMPS 371 Computer Graphics
- \_\_\_\_\_ CMPS 376 Computer Networks
- \_\_\_\_\_ CMPS 394 Java: Client, Server, and Internet Programming
- \_\_\_\_\_ CENG 490 Senior Project in Computer Science

Advanced Elective (select 1 course from: CMPS 435, 442, or 456) (5)

\_\_\_\_\_

Other Electives (select 20 units of approved courses) (20)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Cognate Requirements (10)

- \_\_\_\_\_ MATH 140 Elementary Statistics or MATH 192 or a higher-level  
(e.g. MATH 20x) math course (satisfies B4)
- \_\_\_\_\_ MATH 190/191 Pre-Calculus I

Lower Division General Education (60)

- \_\_\_\_\_ A1 - COMM 108
- \_\_\_\_\_ A2 - ENGL 110
- \_\_\_\_\_ A3
- \_\_\_\_\_ B1, B3
- \_\_\_\_\_ B2 - BIOL 100
- \_\_\_\_\_ C1, \_\_\_\_\_ C2, \_\_\_\_\_ C3
- \_\_\_\_\_ US History Requirement
- \_\_\_\_\_ D1
- \_\_\_\_\_ D2 ECON 202 (Macroeconomics)
- \_\_\_\_\_ D3 PLSI 101 (also satisfies State Government Requirement)

Upper Division General Education (15)

- \_\_\_\_\_ Theme I - waived for CMPS and CENG majors
- \_\_\_\_\_ Theme II - PHIL 316 (Ethics)
- \_\_\_\_\_ Theme III
- \_\_\_\_\_ Gender, Race, or Ethnicity (GRE)