

MAJOR COURSE GUIDE
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Student: _____ ID: _____ Catalog of Record (Year) **2006-07**
Update year if change in major– see catalog

Major **COMPUTER SCIENCE** **NO MINOR REQUIRED**

ENGL 111 & 112 and Mathematics Core course (MATH 111 or higher) must be completed within the first four major terms.

Liberal Arts Studies (CORE)

COURSE	Hrs	Grade
English Proficiency Examination		
ENGL 095 (if ENGL 111 transferred to CSU)	0	
English 111	3	
English 112	3	
English 201 or 202 (any one)	3	
Foreign Language or Language Literature (any one) French 201 or Spanish 201 or Fren Lit 213, Span Lit 213, World Lit 213	3	
Communication 110 or 212 (any one)	3	
Art 201 or 202 or Music 171 (any one)	3	
Religion 111 or 112 (any one)	3	
History 101 or 102 or 103 (any one)	3	
Another History or Political Science	3	
COINS 235:C++ Programming & Lab	4	
Mathematics 221:Calculus I (grade of C or +)	4	
Social Science		
Economics 211 or 212		
Psychology 200		
Sociology 201		
Education 201		
Kinesiology 201	3	
Natural Science – requires 2 lab sciences (4 credit each)		
Limit one science per department		
One of: Biology ____ & lab	4	
Chemistry ____ & lab		
Geology ____ & lab		
Physics ____ & lab		
One of : Biol 141 & lab ____ or Chem 121/123lab ____		
Phys 201 &lab ____ or Phys 203 &lab ____		
	4	

Computer Science/Mathematics = 70-76 hrs

COURSE	Hrs	Grade
213: Probability & Stats (3) OR 346: Probability (2) and 347: Statistics (2)		3/4
222: Calculus II with grade of C or higher	4	
231 Discrete Structures	3	
321 Calculus or 326: Linear Algebra	4	
330: Discrete Mathematics	3	
An additional 4 hours beyond the LAC must complete A sequence in Biol, Chem, or Physics		
COINS 315: C++ Data Structure Anal & lab	4	
325: Java I w/ Elem Data Structures	4	
330: Computer Architecture & lab	4	
332: Applied Networking	4	
333: Applied Systems	4	
(415: Algorithms &Thry/Computation or 417:Compiler Construction)	4	
431: Advanced Operating Systems	4	
495: Sys Analysis & Soft Design *	3	
496: Senior Project Review	0	
497: Senior Project Design & lab	1	
498: Senior Project Construction & lab	1	
499: Sen Proj Implemt/Defense & lab	1	

5 ADDITIONAL COINS COURSES AT 300/400 LEVEL:

	3/4
	3/4
	3/4
	3/4
	3/4

Portfolio: Prior to entry into the senior project series, students must submit a portfolio for review (COIN 496). The portfolio is also reviewed at the senior defense (COIN 499). See catalog for more information on required content for the Portfolio. * **Coin 480 Applied Systems Engineering may substitute for this course**

GENERAL ELECTIVES (all other courses earned that are not required for CORE, MAJOR or MINOR)

COURSE	Hrs	Grade	COURSE	Hrs	Grade	COURSE	Hrs	Grade	COURSE	Hrs	Grade
Prerequisites for COIN217:			Prerequisites for COIN235:								
Math 111 with C	3		COINS 217 w/ C	4							
			Math 130 with C	4							
											(also prerequisite for Math 221)

SUMMARY

minimum 125 hours & minimum 2.00 GPA required for graduation			Major Residency		
CORE	MAJOR	GEN ELECT	300/400 CSU hrs required	12 hr	
Hrs reqd 45	hrs reqd 70-76	hrs reqd ____	-300/400 CSU hrs earned	____	
Hrs ernd ____	hrs ernd ____	hrs ernd ____	=300/400 CSU hrs lacking	____	
Hrs lack ____	hrs lack ____	hrs lack ____			
EPE lack ____	lack residency ____				
Overall GPA ____	GPA ____				

Notes about the Computer Science major:

- This major does not require a minor.
- Graduates must meet residency requirements. Refer to undergraduate catalog for residency requirements.
- In cases of conflict between this checklist and the catalog, the catalog takes precedence.
- Cognate courses are not taught every semester. See footnotes for expected offerings.

Suggested Course Sequence of Study

- For a night sequence, COIN 235 should be taken in the Fall. Most courses required of the major may be taken in the evening. However, mathematics courses, some science courses, COIN 330, COIN 415, and COIN 431 are usually not available in the evening.
- For a day sequence, COIN 235 should be taken in Spring.
- Math and computer courses should generally be taken in the order listed above due to prerequisites (see catalog for a complete list of prerequisites).
- Students must begin cognate requirements in the freshmen year to complete within 4 years.

Fall I	Spring I
MATH 221:Calculus I minimum grade of C required (4 hrs) ENGL 111:Composition & Rhetoric I (3 hrs) Suggested general elective: COINS 217: Visual Basic (4 hrs) Prerequisite: Math 111 COMM 110, 201,212: Public Speaking, Interpretative Reading or Phonetics (any one) (3 hrs) Suggested general elective: GNED 101: Freshmen Seminar (1 hr)	MATH 222 (4 hrs) Calculus II Prerequisite: Math 221 ENGL 112:Composition & Rhetoric II (3 hrs) Prerequisite: ENGL 111 COINS 235 (4 hrs) Introduction to Computer Science Prerequisite: COIN217 or high school programming Social Science LAC course – choose 3 hrs from ECON 211 or 212: Principles of Micro or Macro Economics PSYC 200:General Psychology SOCI 201: Principles of Sociology EDUC: Introduction to Education KINE 201: Personal & Community Health
15 hours	14 hours
Fall II	Spring II
ENGL 201 or 202:Survey Engl or Amer Lit (3 hrs) Prerequisites: ENGL 111 and 112 COINS 315: Data Structures & Lab (4 hrs) Prerequisite: COINS 235 or MATH 130 (or 121) COINS 331: Applied Networks and Operating Systems (4 hrs) Lab Science sequence I: (4 hrs) BIOL 141 CHEM 121 PHY 201 PHY 203	β MATH 330: Discrete Mathematics (3 hrs) Prerequisite: MATH 221 with a minimum grade of C COINS 325: JAVA (4 hrs) Prerequisite: COINS 315 Lab Science sequence II: (4hrs) BIOL {any 4 hr BIOL course with BIOL 141 as a prerequisite} CHEM122 PHY 202 PHY 203 RELI 111 or 112:Survey of Old or New Testament (3 hrs) HIST 101,102,103: Western or World Civilization (any one) (3 hrs)
15 hours	17 hours
Fall III	Spring III
α COINS 330 Computer Architecture and Lab (4 hrs) Prerequisite: MATH 330 and COINS 315 COINS 495: Systems Analysis & Software Design (3 hrs) Prerequisite: COINS 315 or 419 COINS elective: (4 hrs) Language Literature 213:Fren,Span,World Lit in Trans (3 hrs) (If you chose to take French or Spanish Language, you must earn the 201intermediate level for LAC –prereqs 101 & 102 level) ART 201,202 or MUSI 171 (any one) (3 hrs)	β MATH 326: Linear Algebra (4 hrs) Prerequisite: MATH 222 with a minimum grade of C β COIN 431: Adv. Operating Systems and Lab (4 hrs) Prerequisite: COINS 331 COINS 497: Senior Project Design (1 hr) Prerequisite: COINS 495 & completion of Portfolio of Preliminary Requirements containing pre-course work in project planning, or permission of instructor COINS elective: (4 hr) History or Political Science (3 hrs)
17 hours	16 hours
Fall IV	Spring IV
α COINS 415: Algorithms & Thry/Computation (4 hrs) COINS 498: Senior Project Construction (1 hr) Prerequisite: COINS 497 or permission of instructor COINS elective: (4 hrs) 2 nd Lab Science (4 hrs) *choose a different department from your 1 st lab science – two departments must be represented General Elective (3 hrs) General Elective (3 hrs) General Elective (3 hrs)	β MATH 213: Probability and Statistics (3 hrs) COINS 499: Senior Project Implementation/Defense (1 hr) COINS elective: (4 hrs) General Elective (3 hrs) General Elective (3 hrs)
17 hours	14 hours

‘α’ only taught in the Fall semester

‘β’ only taught in the Spring semester