

CSUN COMPUTER SCIENCE B.S. DEGREE
2005-2006 Catalog Year (123 Unit Major)

Pre-Major Requirements				Additional Requirements to Complete Major				
Year 1		Year 2		Year 3		Year 4		
Major Courses	Comp 108 Orientation (optional) prereq: ready to take Math 104, 105 or 150A	Comp 110/L* Algorithms prereq: ready to take Math 150A	Comp 182/L* Data Structures prereq: "C" or better in Comp 110/L, Math 150A and LDW ¹	Comp 282 Adv. Data Structures prereq: "C" or better in Comp 182/L and Math 150B	Comp 380/L Software Engr prereq: "C-" or better in Comp 282 and (222 or 232)	Concentrated Studies elective 1 prereq: "C-" or better in course specific prereqs	Concentrated Studies elective 2 prereq: "C-" or better in course specific prereqs	Concentrated Studies elective 4 prereq: "C-" or better in course specific prereqs
			Comp 122/L* Comp Arch and Assembly prereq: "C" or better in Comp 110/L, Math 150A and LDW ¹	Comp 222 Computer Organization prereq: "C" or better in Comp 122/L and 182/L	Comp 322/L Operating Systems prereq: "C-" or better in Comp 222 and 282		Concentrated Studies elective 3 prereq: "C-" or better in course specific prereqs	Concentrated Studies elective 5 prereq: "C-" or better in course specific prereqs
	Freshman Composition* (LDW ¹) G.E. Sec A check with advisor regarding writing placement	Oral Comm* G.E. Sec A		Comp 232 Languages prereq: "C" or better in Comp 122/L and 182/L		Comp 310 Abstract Languages prereq: "C-" or better in Math 326; Phil 230		Comp 450 Comp & Society prereq: "C-" or better in Comp 380/L; attempted UDW ³
	Math 104 or 105 (if needed) check with advisor regarding math placement	Math 150A* Calculus I prereq: "C" or better in Math 093, 104 or 105, or appropriate score on SAT or MPT ²	Math 150B* Calculus II prereq: "C" or better in Math 150A	Math 262 Linear Algebra prereq: "C" or better in Math 150B	Math 326 Discrete Math prereq: "C" or better in Math 150B; Phil 230	Math 340 or 341 Prob or Stat I prereq: "C" or better in Math 262	Math 482 Comb Algorithms prereq: "C" or better in Math 262	
		Phil 230* Symbolic Logic prereq: "C" or better in Math 104, 105 or 150A		Phys 220A/L, 220B/L, or Chem 101/L, 102/L or Biol 106/L, 107/L prereq: check specific course; normally Math 150A for first course and Math 150B for second course		Third Lab Science course (details on reverse side) prereq: check specific course		
G.E.	6 additional units of G.E.	3 additional units of G.E.	6 units of G.E.		3 units of G.E.	3 units of upper division G.E.	6 units of G.E. (3 upper division)	6 units of G.E. (3 upper division)
Sem Units	15-17 units (9 units count towards major requirements)	18 units	17 units	16-17 units	17-18 units	16 units	15 units	15 units

* These eight courses are required in the pre-major: Comp 110/L, 122/L, 182/L, Freshman Comp, Oral Comm, Math 150A, 150B, Phil 230; "C" or better is required in each pre-major course to advance to the full major plus a CSUN GPA of "C" or better

¹"C-" is the default minimum grade requirement for all major courses with some courses requiring higher minimum grades; overall GPAs of "C" or better in CSUN course work and upper division major course work are required to graduate

¹LDW - lower division writing course
²MPT - math placement test
³UDW - upper division writing exam

Total units towards degree: 123

visit us at: <http://www.csun.edu/compsci/>

See reverse side for additional information

Computer Science B.S. degree (123-125 units)

The required units are divided into:

Computer Science Core	
Lower Division	19 units
Upper Division	13 units
Mathematics	22 units
Symbolic Logic	3 units
Lab Science	12-14 units
Concentrated Studies Package	15 units
General Education/U.S. History/Government.	39 units

Lab Science Requirements (12-14 units)

Select one of the following **two semester lab science course sequences** 8-10 units

- Physics 220A, 220AL, 220B, 220BL
- Chemistry 101, 101L, 102, 102L
- Biology 106, 106L, 107, 107L

Select an additional **third lab science course** from a field of study different from the one selected above 4-5 units

- | | |
|--------------------------|------------------------|
| Biology 106, 106L | Geology 101, 102 (lab) |
| Chemistry 101, 101L | Geology 110, 112 (lab) |
| Geography 101, 102 (lab) | |
| Geography 103, 105 (lab) | |

Concentrated Studies Packages (15 units)

Areas of emphasis:

Artificial Intelligence	Human/Computer Interface
Computer Graphics/Multimedia	Language Foundations
Computer Networks	Object Oriented Programming/Design
Computer Security	Operating Systems
E-Commerce	Parallel and Distributed Computing
Embedded Applications	Software Engineering

Prior approval by an advisor is strongly encouraged before starting the courses within a package. All 400 and 500 level COMP courses (with the exception of 450, 494 and 499) and MATH 481A are pre-approved for inclusion in a Concentrated Studies Package. Requests for inclusion of an upper division course within a Concentrated Studies Package that does not meet the requirements stated above must be approved by the student's advisor and the department chair prior to enrollment in the course.

See reverse side for additional information

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A First Year Sequence for Freshmen Needing Developmental Courses (Prior to starting the four year plan appearing on the other side.)

Semester 1:	Semester 2:
Developmental Math	Developmental Math or Math 102 (check with advisor)
Developmental English	Developmental English or Freshman Comp. (G.E.)
G.E. course	G.E. course
G.E. course	G.E. course

Grade Requirements for Undergraduate Courses in the Major (Current catalog year course prerequisite requirements apply to all major course work not yet completed; major degree requirements are determined by the catalog year of the major; always apply the higher of the two standards.)

- A. **Transfer courses**
 - "C" or better for all transfer courses
- B. **Courses taken at CSUN** - rules depend on the academic year of the University Catalog of your major [1989-1996 means from August 1989 through July 1996]; consult with the Dept Office if your catalog year is not listed; although every attempt has been made to accurately represent the following information, your responsibility is to follow the rules that appear in the appropriate University Catalog for the year for your major and in your DARS report.
 - 1989-1996 Catalog years:** "C-" or better in all prerequisite courses required by the major ("C" or better in MATH 150A) and "D-" or better in all non-prerequisite courses required by the major except for Concentrated Studies Package courses where "C-" or better is required
 - 1996-2000 Catalog years:** "C-" or better in all prerequisite courses required by the major ("C" or better in prerequisite math courses) and "D-" or better in all non-prerequisite courses required by the major except for Concentrated Studies Package courses where "C-" or better is required
 - 2000-2002 Catalog years:** "C-" or better in all courses required by the major ("C" or better in prerequisite math courses)
 - 2002-2003 Catalog year:** "C-" or better in all courses required by the major ("C" or better in prerequisite math courses); 2.0 overall GPA in for the eight courses required by the pre-major (the G.E. A.1 and A.4 courses are part of the pre-major but not part of the major)
 - 2003-2006 Catalog years:** "C" or better in each of the eight courses required by the pre-major (this includes the G.E. A.1 and A.4 courses) and "C-" or better in all remaining courses required by the major ("C" or better in prerequisite math courses)
- C. **Overall GPA requirements** (both to stay in good academic standing and to graduate)
 - 2.0 or higher overall GPA for all courses taken at CSUN
 - 2.0 or higher overall GPA for all courses taken (combination of both CSUN and transfer work)
 - 2.0 or higher overall GPA for all upper division courses required by the major