

B.S. Computer Science Math/Science Option

Four-Year Degree Plan

within the CSU Chico Department of Computer Science
2005 - 2007 University Catalog

Total Units
128

CIS Major	Units	GE & Electives	Units
Major Lower Division (LD)	25	General Education	54
Major Upper Division (UD)	31	Electives	0
Math/Sci Option (MO)	33	Double Counted	-15
Major Total Units	89	Other Total Units	39

First Semester				Units	Notes ¹	Second Semester				Units	Notes ¹
CSCI 111	CSCI 015A	Programming and Algorithms I	3	LD	CSCI 112	CSCI 015B	Programming and Algorithms II	3	LD		
MATH 120	MATH 007A	Analytic Geometry and Calculus	4	LD & GE A4	MATH 121	MATH 007B	Analytic Geometry and Calculus	4	LD		
ENGL 130	ENGL 001	Academic Writing	3	GE A2	CHEM 111	CHEM 037	General Chemistry	4	MO		
GE A		Oral Communications or Critical Thinking	3	GE A1 or A3	GE A		Oral Communications or Critical Thinking	3	GE A1 or A3		
GE E		Lifelong Learning	3	GE E	GE C		Arts and Humanities	3	GE C1/C2/C3		
Semester Total			16		Semester Total			17			
Third Semester				Units	Notes ¹	Fourth Semester				Units	Notes ¹
CSCI 221	CSCI 051A	Assembly Language Programming	3	LD	CSCI 305	CSCI 180	Proj Requiremts/Design/Test	3	UD		
MATH 220	MATH 007C	Analytic Geometry and Calculus	4	MO	MATH 260	MATH 007D	Elem Differential Equations	4	MO		
PHYS 204A	PHYS 004A	Mechanics	4	LD & GE B1	PHYS 204B	PHYS 004B	Electricity and Magnetism	4	LD		
POLS 155	POLS 055	American Government	3	GE2 D1/D2/D3	HIST 130	HIST 050	United States History	3	GE2 C1/C2/C3		
GE C		Arts and Humanities	3	GE ² C1/C2/C3	GE B2		Life Forms	3	GE ² B2		
Semester Total			17		Semester Total			17			
Fifth Semester				Units	Notes ¹	Sixth Semester				Units	Notes ¹
CSCI 311	CSCI 151	Algorithms and Data Structures	3	UD	CSCI 315	CSCI 150	Programming Languages	3	UD		
CSCI 320	CSCI 171	Computer Architecture	3	UD	CSCI 330	CSCI 112	Software Engineering	3	UD		
MATH 335	MATH 135	Elementary Linear Algebra	3	MO	CSCI 340	CSCI 152	Operating Systems Programming	3	UD		
PHYS 204C	PHYS 004C	Heat/Wave Motion/Sound/Light	4	MO	MATH 317	MATH 120	Discrete Math Structures	3	UD		
Theme 1		Upper Division Theme	3	GE UD Theme	Theme 2		Upper Division Theme	3	GE UD Theme		
Semester Total			16		(Apply for graduation 1 year in advance) Semester Total			15			
Seventh Semester				Units	Notes ¹	Eighth Semester				Units	Notes ¹
CSCI 301	CSCI 110	Computer's Impact on Society	3	UD	CSCI Core Sel		CSCI 470/547/566/567/580/583 (273/278)	3	UD		
CSCI 550	CSCI 256	Theory of Computing	3	UD	CSCI 3/4/5XX		CSCI UD Selections (3XX, 4XX or 5XX)	2	MO		
CSCI 3/4/5XX		CSCI UD Selections (3XX, 4XX or 5XX)	3	MO	CSCI 3/4/5XX		CSCI UD Selections (3XX, 4XX or 5XX)	3	MO		
MATH 350	MATH 105A	Intro to Probability/Stat	3	MO	Numerical		CSCI 351, MATH 460 or MATH 461	3	MO		
GE D		Behavioral and Social Sciences	3	GE D1/D2/D3	CSCI 490	CSCI 190	Directed Programming Exp	1	UD		
Semester Total			15		GE D		Behavioral and Social Sciences	3	GE D1/D2/D3		
Semester Total			15		Semester Total			15			

¹For General Education (GE) refer to GE planning sheet; consider taking a Course Link in your first semester; consider meeting Ethnic and Non-Western requirements with GE.

²POLS 155 and HIST 130 - special GE modifications for this degree.

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Computer Science Core

Course	Description	Units
Lower Division Core (7 courses)		
CSCI 111	CSCI 015A Programming and Algorithms I	3
CSCI 112	CSCI 015B Programming and Algorithms II	3
CSCI 221	CSCI 051A Assembly Language Programming	3
MATH 120	MATH 007A Analytic Geometry and Calculus	4
MATH 121	MATH 007B Analytic Geometry and Calculus	4
PHYS 204A	PHYS 004A Mechanics	4
PHYS 204B	PHYS 004B Electricity and Magnetism	4
	Total Lower Division Core	25
Upper Division Core (10 courses)		
CSCI 301	CSCI 110 Computer's Impact on Society	3
CSCI 305	CSCI 180 Proj Requiremts/Design/Test	3
CSCI 311	CSCI 151 Algorithms and Data Structures	3
CSCI 315	CSCI 150 Programming Languages	3
CSCI 320	CSCI 171 Computer Architecture	3
CSCI 330	CSCI 112 Software Engineering	3
CSCI 340	CSCI 152 Operating Systems Programming	3
CSCI 490	CSCI 190 Directed Programming Exp	1
CSCI 550	CSCI 256 Theory of Computing	3
MATH 317	MATH 120 Discrete Math Structures	3
1 course selected from:		
CSCI 470	CSCI 273 Database Management	3
CSCI 547	CSCI 278 Computer Networks	3
CSCI 566	CSCI 231 Computer Graphics Programming	3
CSCI 567	CSCI 233 Graphical User Interface Impl	3
CSCI 580	CSCI 223 Artificial Intelligence	3
CSCI 583	CSCI 222 Expert Systems & Applications	3
	Total Upper Division Core	31
	Total Computer Science Core	56

Math/Science Option

Course	Description	Units
Required Courses (6 Courses)		
CHEM 111	CHEM 037 General Chemistry	4
MATH 220	MATH 007C Analytic Geometry and Calculus	4
MATH 260	MATH 007D Elem Differential Equations	4
MATH 335	MATH 135 Elementary Linear Algebra	3
MATH 350	MATH 105A Intro to Probability/Stat	3
PHYS 204C	PHYS 004C Heat/Wave Motion/Sound/Light	4
1 course selected from:		
CSCI 351	CSCI 160 Numerical Methods Programming	3
MATH 460	MATH 241A Numerical Analysis	
MATH 461	MATH 241B Numerical Analysis	
8 Units selected from:		
	Any upper-division Computer Science (CSCI) course except CSCI 399 and CSCI 490.	8
CSCI 3/4/5XX	CSCI UD Selections (3XX, 4XX or 5XX)	
CSCI 3/4/5XX	CSCI UD Selections (3XX, 4XX or 5XX)	
CSCI 3/4/5XX	CSCI UD Selections (3XX, 4XX or 5XX)	
	Total Math/Science Option Units	33

Double Counted Units

MATH 120	A4	3
PHYS 204A	B1	3
POLS 155	D1/D2/D3	3
HIST 130	C1/C2/C3	3
Numerical	Theme	Natural Science component of UD Theme. See the catalog and your adviser for details.
	Total Double Counted	15

Unit Summary

Computer Science Core Requirements	56
Math/Science Option	33
Lower Division General Education	39
Upper Division General Education	9
American Institutions	6
Double Counted	-15
Electives	0
Total Degree	128