

Stanford University ♦ School of Engineering
Computer Science
Artificial Intelligence Track
2009-2010 Program Sheet

Final version of program sheet due to the department no later than one month prior to the last quarter of senior year.

Follow all requirements as stated for the year of the program sheet used.

Name: _____
 Email: _____
 Date: _____

SU ID: _____
 Local Phone: _____
 Date B.S. expected: _____

Mathematics and Science Requirement (*Delete courses and units not taken*)

Dept	Course	Title	Transfer/AP Approval			Unit	Grade
			✓ if Transfer	Initials	Date		
Mathematics (26 units minimum)							
MATH	41	Calculus (see note 1)				5	
MATH	42	Calculus				5	
CS	103	Mathematical Foundations of Computing (see note 2)				5	
CS	109	Introduction to Probability for Computer Scientists (see note 3)				5	
<i>Plus two electives (see note 4)</i>							
<i>Mathematics Unit Total (26 units minimum)</i>							
Science 11 units minimum							
PHYS	41	Mechanics (or PHYS 21 or 61)				4	
PHYS	43	Electricity and Magnetism (or PHYS 23 or 63)				4	
		Elective (see note 5)				3 to 5	
<i>Science Unit Total (11 units minimum)</i>							
<i>(37 units min. Math/Sci combined)</i>							
Technology in Society Requirement (<i>1 course required; see UGHB Figure 3-3 for approved list; see note 14</i>)							
Engineering Fundamentals (13 units minimum)							
CS	106	Programming Abstractions (B or X)				5	
ENGR	40	Introductory Electronics				5	
		Elective (see note 6)				3 to 5	
<i>Engineering Fundamentals Total (13 units minimum)</i>							

NOTES

- * This printed form must be signed by the departmental representative. Changes must be petitioned (see UGHB pg 27-29) and initialed in ink.
 - * All courses listed on this form must be taken for a letter grade (if offered) and can be included under only one category.
 - * Minimum Grade Point Average (GPA) for all courses in ENGR Fundamentals and CS Core, Depth, and Senior Project (combined) is 2.0
 - * Transfer and AP credits in Math, Science, Fundamentals, & TIS must be approved by the School of Engineering Dean's Office. Transfer credits in Computer Science Core and Depth must be approved by the Computer Science undergraduate program office.
- (1) Math 19, 20, 21 may be taken instead of Math 41 and 42 as long as at least 26 math units are taken. AP Calculus must be approved by the School of Engineering.
 - (2) Students who have taken either CS103X or CS 103A and B are considered to have satisfied the CS103 requirement. Students who took CS 103X are required to complete one additional unit in their track or elective courses (i.e., 26 units minimum for track and elective courses).
 - (3) Students who complete STATS 116, MS&E 120, or CME 106 in Winter 2008-09 or earlier may count that course as satisfying the CS 109 requirement. These same courses taken in Spring 2008-09 or later cannot be used to satisfy the CS 109 requirement.
 - (4) Math electives: Math 51, 103, 104, 108, 109, 110, 113; CS 156, 157, 205A; PHIL 151; CME 100, 102, 104. Completion of Math 52 & 53 will (together) count as one Math elective. Restrictions: Math 51 and Math 103, Math 103 and Math 113, or CS 157 and Phil 151 may not be used in combination to satisfy the Math electives requirement. Students who have taken both Math 51 and 52 may not count CME 100 as an elective.
 - (5) Any course of 3 or more units from the SoE Science List (Fig. 3-2 in the UGHB), PSYCH 30 or 55, or AP Chemistry may be used.
 - (6) One course required; may not be CS 106A, B or X. See Engineering Fundamentals Fig. 3-4 in the UGHB for approved list.

CS Artificial Intelligence Program Sheet (continued)

AI Track Core, Depth & Senior Project (43 units min) No course may be listed twice; no double counting.

Dept	Course	Title	Transfer/AP Approval		Unit	Grade
			Initials	Date		
Core (15 units minimum)			✓ if Transfer			
CS	107	Computer Organization and Systems (see note 7)			5	
CS	110	Principles of Computer Systems (see note 8)			5	
CS	161	Design and Analysis of Algorithms (see note 9)			5	
Depth; Track and Electives (25 units and seven courses minimum)						
CS	221	AI: Principles and Techniques (Track Requirement A)			4	
CS		Track Requirement B (see note 10)			3 or 4	
CS		Track Requirement B (see note 10)			3 or 4	
		Track Requirement C (see note 11)			3 or 4	
		Elective (see note 12)			3 to 5	
		Elective (see note 12)			3 to 5	
		Elective (see note 12)			3 to 5	
		Optional Elective				
Senior Project (1 course required)						
CS		At least 3 units of 191, 191W, 194, 210B, 294 or 294W (see note 14)			3	
<i>Computer Science Core, Depth and Senior Project Total (43 units minimum)</i>						

Program Approvals

Departmental

Printed Name: _____

Date: _____

Signature: _____

School of Engineering (signature not required prior to graduation)

Printed Name: _____

Date: _____

Signature: _____

NOTES (continued from page 1)

- (7) The name of CS 107 has changed. The previous CS 107 course titled *Programming Paradigms* also fulfills this requirement.
- (8) Students who complete CS108 and either CS 140 or CS 143 by Winter Quarter 2008-09 or earlier may choose to count CS 108 as satisfying the CS 110 requirement. In this case CS 108 may not count as an elective and one additional unit of depth must be taken (i.e., 26 units minimum for track and elective courses).
- (9) Students who took CS161 for 4 units are required to complete one additional unit in their depth courses (i.e., 26 units minimum for track and elective courses).
- (10) Track Requirement B: Any two of CS 223A, 223B, 224M, 224N, 226, 227, 228, 229
- (11) Track Requirement C: One additional course from the Track Requirement B list, or the following: CS 124, 205A, 222, 224S, 224U, 225A, 225B, 227B, 262, 276, 277, 279, 321, 326A, 327A, 329 (with advisor approval), 374, 379 (with advisor approval); EE 263, 376A; ENGR 205, 209A; MS&E 251, 339, 351; STATS 315A, 315B
- (12) Track Electives: At least three additional courses selected from the Track Requirement B list, C list, the General CS Electives list (see Note 13) or the following: CS 275, 278; EE 364A, 364B; ECON 286; MS&E 252, 352, 355; PHIL 152; PSYCH 202, 204A, 204B; STATS 200, 202, 205
- (13) General CS Electives: CS 108, 124, 140, 142, 143, 144, 145, 147, 148, 149, 154, 155, 156, 157 (or PHIL 151), 164, 205A, 205B, 210A, 222, 223A, 223B, 224M, 224N, 224S, 224U, 225A, 225B, 226, 227, 228, 228T, 229, 240, 241, 242, 243, 244, 244B, 245, 247, 248, 249A, 249B, 255, 256, 257, 258, 261, 262, 270, 271, 272, 273A, 274, 276, 277, 295; CME 108; EE 108B, 282
- (14) The WIM requirement for Freshmen and Transfer students entering Fall Quarter 96-97 or later may be met by taking CS 181 as a Technology in Society course or through the Senior Project course (CS 191W, 194, 210B, or 294W only).