Stanford University ♦ School of Engineering

Computer Science

Information Track

2014-2015 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: _____ SU ID #: _____

Phone: _____ Email: _____

Today's Date: _____ Month/Yr B.S. expected: _____

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

Dept	Course	Title	Transfer/AP Approval by SoE			Unit	Grade
			✓ if Transfer	SoE Initials	Date		
Mathematics (26 units minimum)							
MATH	41	Calculus (see note 1)				5	
MATH	42	Calculus				5	
CS	103	Mathematical Foundations of Computing				5	
CS	109	Introduction to Probability for Computer Scientists				5	
Plus two electives (see note 2)							
					Mathematics Unit Total (26 units minimum)		
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 3)					
					Science Unit Total (11 units minimum)		
					(37 units min. Math/Sci combined)		
Technology in Society Requirement *(1 course required; see UGHB Figure 3-3 for approved list; see note 9)*							
Engineering Fundamentals *(13 units minimum)*							
CS	106	Programming Abstractions (B or X)				5	
ENGR	40	Introductory Electronics (40A and 40M also allowed; see note 4)				5	
		Elective (see note 5; CS 106A, B, and X not allowed)					
					Engineering Fundamentals Total (13 units minimum)		

NOTES

* **All courses listed on this form must be taken for a letter grade (if offered), and can be included under only one category.**

* The printed form must be signed by the departmental representative. Changes must be petitioned (see UGHB pg 27-29) and initialed in ink.

* 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 SoE Dean's Office. Transfer credits in Computer Science Core, Depth and Senior Project must be approved by the Computer Science undergraduate program office.

* Courses must be taken for the number of units on the Program Sheet. CS103, 106B/X, 107, 109, 110, and 161 must be taken for 5 units.

(1) Math 19, 20 and 21 may be taken instead of Math 41 and 42 as long as at least 26 math units are taken.

(2) Math electives: Math 51, 104, 108, 109, 110, 113; CS 157, 205A; PHIL 151; CME 100, 102, 104. Completion of Math 52 & 53 will (together) count as one Math elective. Restrictions: CS 157+ Phil 151 may not be used in combination to satisfy the Math electives req't. Students who have taken both Math 51 & 52 may not count CME 100 as an elective.

(3) 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.

(4) Students who take ENGR 40A or 40M for fewer than 5 units are required to take 1-2 additional units of ENGR Fundamentals (13 units minimum), or 1-2 additional units of Depth (27 units minimum for track and elective courses).

(5) One course required; may not be CS 106A, B or X. See Engineering Fundamentals Chap 3, Fig. 3-4 in the UGHB for approved list.

CS Information Track Core, Depth and Senior Project *(43 units minimum)*

Be advised, no course may be listed twice on the sheet; no double-counting.

Dept	Course	Title	Transfer/Deviation Approval by Dept			Unit	Grade
			✓ if Transfer	Dept Initials	Date		
Core (15 units minimum)							
CS	107	Computer Organization and Systems				5	
CS	110	Principles of Computer Systems				5	
CS	161	Design and Analysis of Algorithms				5	
Depth; Track and Electives (25 units and seven courses minimum)							
CS	124	From Languages to Information (Track Requirement A)				4	
CS	145	Introduction to Databases (Track Requirement A)				4	
CS		Track Requirement B (see note 6)					
CS		Track Requirement B (see note 6)					
		Elective (see note 7)					
		Elective (see note 7)					
		Elective (see note 7)					
		Optional Elective					
Senior Project (1 course required)							
CS		At least 3 units of 191, 191W, 194, 194W, 294 or 294W *(see note 9)*				3	
		Computer Science Core, Depth and Senior Project Total (43 units minimum)					

Program Approvals

Departmental

Printed Name: _____ Date: _____

Signature: _____

School of Engineering (No action required-office use only)

Printed Name: _____ Date: _____

Signature: _____

NOTES (continued from page 1)

(6) Track Requirement B: Two courses, each from a different area: Area I) Information-based AI applications [CS 224N, 224S, 229, 229A]; Area II) Database and Information Systems [CS 140, 142, 245, 246, 341, 345, 346, 347]; Area III) Information Systems in Biology [CS 262, 270, 274]; Area IV) Information Systems on the Web [CS 224W, 276, 364B]

(7) Track Electives: At least three additional courses selected from the Track Requirement B list, or the General CS Electives list (see note 8).

(8) General CS Electives: CS 108, 121 or 221*, 131, 140, 142, 143, 144, 147, 148, 149, 154, 155, 156, 157 (or PHIL 151), 164, 166, 167, 168, 190, 205A, 205B, 210A, 222, 223A, 224M, 224N, 224S, 224U, 224W, 225A, 225B, 227B, 228, 228T, 229, 229A, 229T, 231A, 231B, 231M, 232, 235, 240, 240H, 241, 242, 243, 244, 244B, 245, 246, 247, 248, 249A, 249B, 254, 255, 258, 261, 262, 263, 264, 265, 266, 267, 270, 271, 272, 173 or 273A, 274, 276, 277, 279, 295, 348B; CME 108; EE 180, 282, 364A

*(Students may not count both CS 121 and 221 toward their major requirements.)

(9) The WIM requirement may be met by taking CS 181W as a Technology in Society course or through the Senior Project course (191W, 194W, 210B, or 294W only).