Stanford University ⬥ School of Engineering
Computer Science
Individually Designed Track
2016-2017 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	19	Calculus (see note 1)				3	
MATH	20	Calculus				3	
MATH	21	Calculus				4	
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)				3 to 5	
			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 7)*

Engineering Fundamentals (13 units minimum)

Dept	Course	Title				Unit	Grade
CS	106	Programming Abstractions (B or X)				5	
ENGR	40	Introductory Electronics (ENGR 40A and 40M also allowed; see note 4)				5	
		Elective (see Fig. 3-4 in the UGHB for appr'd list; neither CS 106A, B, or X, or 2nd E40 class allowed)				3 to 5	
			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.**

*   This 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 41, 42 may be taken instead of Math 19, 20, 21 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 requirement. Students who have taken both Math 51 and 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).

CS Individually Designed Track Program Sheet (continued)

CS Individually Designed 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	✓ if Transfer	Dept Initials	Date	Unit	Grade
			Transfer/Deviation Approval by Dept			Unit	Grade
Core (15 units minimum)							
CS	107or107E	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) *see note 5*							
Senior Project (1 course required)							
CS		At least 3 units of 191, 191W, 194, 194H, 194W, 210B, 294 or 294W *(see note 6)*				3	
		Computer Science Core, Depth and Senior Project Total (43 units minimum)					

Program Approvals

Undergraduate Advisor
Printed Name: _____   Date: _____

Signature: _____

Department
Printed Name: _____

Signature: _____   Date: _____

School of Engineering (No action required-office use only)
Printed Name: _____   Date: _____

Signature: _____

NOTES (continued from page 1)

(5) Students may propose an Individually Designed Track. Proposals should include a minimum of seven courses, at least four of which must be CS courses numbered 100 or above. Proposals must be submitted & approved at least two quarters before graduation. To create an individually designed program, students should complete an *Individually Designed Track* program sheet and seek approval from their undergrad advisor and from the Associate Chair for Education, Prof. Mehran Sahami. Proposals will be evaluated for coherence and rigor. Approved program sheets should be given to the staff in the CS undergraduate program office. Any subsequent changes must go through the same proposal and approval process.

(6) 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).