Stanford University ⬥ School of Engineering
Computer Science
Biocomputation Track
2014-2015 Program Sheet
Final version of program sheet due to the department 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/YrB.S. expected: _____

Mathematics and Science Requirement

Dept	Course	Title	Transfer/AP Approval by SoE			Unit	Grade
			✓ if Transfer	SoE Initials	Date		
Mathematics (23 units minimum)			✓ if Transfer				
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	
STAT		One of: Stat 141, 203, 205, 215					
					Mathematics Unit Total (23 units minimum)		

Science (22 units minimum)							
PHYS	41	Mechanics				4	
CHEM	31A/B or X	Chemical Principles				4 or 8	
CHEM	33	Structure and Reactivity				4	
BIO *or*	41, 42 *or*	Principles of Biology *or*				10	
HUMBIO	2A,3A,4A	Genetics, Evolution & Ecology/Cell & Dev Biology/The Human Organism				or 15	
					Science Unit Total (22 units minimum)		
					(45 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 *(8 units minimum)*

CS	106	Programming Methodology (B or X)				5	
		Elective (see note 2; CS 106A, B or X not allowed)					
					Engineering Fundamentals Total (8 units minimum)		

NOTES

* **All courses listed on this form must be taken for a letter grade (if offered) and can be included in 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 Engineering Fundamentals and Computer Science Depth (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 Depth 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 23 math units are taken.
(2) One course required; may not be CS 106A, B or X. See Engineering Fundamentals Fig. 3-4 in the UGHB for approved list.

CS Biocomputation Program Sheet cont.

CS Biocomputation Track Core and Depth *(39 units minimum)*.

Dept	Course	Title	Transfer/Deviation Approval by Dept			Unit	Grade
			✓ if Transfer	Dept Initials	Date		
Core (15 units minimum)			✓ if Transfer				
CS	107	Computer Organization and Systems				5	
CS	110	Principles of Computer Systems				5	
CS	161	Design and Analysis of Algorithms				5	
Depth (21 Units minimum)							
CS		One of: CS 121 or 221, 228, 229, 231A					
CS		One of: CS 262, 270, 173 or 273A, 274, 275, 278, 279					
CS		One of (if not selected above) CS 121 or 221, 228, 229, 231A 262, 270, 273A, 274, 275, 278, 279, 124, 145, 147, 148, 248					
		Restricted Elective (see note 3)					
		Restricted Elective (see note 4)					
		Restricted Elective (see note 5)					
		Restricted Elective (see note 6)					
Seior Project (1 course required)							
CS		At least 3 units of 191, 191W, 194, 194W, 210B, 294 or 294W *(see note 7)*				3	
		Computer Science Core and Depth Total 39 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)

(3)   One course selected from either the Biomedical Computation (BMC) 'Informatics' electives list (go to http://bmc.stanford.edu and select Informatics from the elective options), BioE 101, or from the general CS electives list: 108, 121 or 221*, 124, 131, 140, 142, 143, 144, 145, 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; EE180, 282, 364A *(Students may not count both CS 121 and 221 toward their major requirements.)

(4)   One course selected from the BMC 'Informatics' electives list (go to http://bmc.stanford.edu).
(5)   One course selected from either the BMC 'Informatics', 'Cellular/Molecular', or 'Organs/Organisms' electives lists.
(6)   One course selected from either the BMC 'Cellular/Molecular' or 'Organs/Organisms' electives lists.
(7)   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).