DEPARTMENT OF COMPUTER SCIENCE
MSCS Program Sheet (2010-11)
Theoretical Computer Science Specialization: Dual Depth

Name: _____   Adviser: _____   Date: _____

Student ID#: _____   Email: _____   Proposed date for degree conferral: _____ HCP? _____ Coterm? _____

GENERAL INSTRUCTIONS

Before the end of your first quarter, complete this program sheet by filling in the number, name and units of each course you intend to use for your degree. Meet with your advisor to secure the necessary signatures on the program sheet and any foundation course waiver forms. Submit the originals to the MS Program Administrator, Claire Stager, in Gates 182. Detailed instructions are available at http://cs.stanford.edu/Degrees/mscs/programsheets/.

FOUNDATIONS REQUIREMENT

You must satisfy the requirements listed in each of the following areas; all courses taken elsewhere must be approved by your adviser on a foundation course waiver form. Do not enter anything in the "Units" column for courses taken elsewhere.
Note: If you are amending an old program sheet, enter **"on file"** in the approval column for courses that have already been approved.

Required:	Equivalent elsewhere (course numbers/titles/institution)	Approval	Grade	Units
Logic, Automata & Complexity (CS103)				
Probability (CS109, Stat116, CME106, or MS&E220)				
Algorithmic Analysis (CS161)				
Computer Organization & Systems (CS107)				
Principles of Computer Systems (CS110)				

TOTAL UNITS USED TO SATISFY FOUNDATIONS REQUIREMENT (May not exceed **10** units.) [____]

SIGNIFICANT IMPLEMENTATION REQUIREMENT

At least one course in your MS program should be designated as satisfying the "Significant Implementation Requirement". Note that this course may also be used to satisfy some other some other requirement (i.e., Depth, or Elective). This requirement ensures that you have taken part in some form of substantial software development as part of the MSCS program.

Course Number:	Title:	Grade

Courses that may be used to satisfy the significant implementation requirement include: CS 140, 143, 144, 145, 148, 210B, 221, 243, 248, and 346 (any deviations from this list must be approved by the Associate Chair for Education). Courses meeting the Significant Implementation Requirement must be taken at Stanford. Students who previously took at least two of these courses at Stanford as undergraduates may request a waiver of this requirement.

UNITS FOR THE THEORETICAL COMPUTER SCIENCE DUAL DEPTH SPECIALIZATION

The dual depth specialization in Theoretical Computer Science (TCS) requires that you fulfill the requirements for a TCS primary depth (21 units), **and** a secondary depth in an area other than TCS (5 courses). The courses you submit for your primary depth must meet the following requirements. Any deviations from the stated requirements must be noted and approved by your adviser in the Adviser Notes box provided (maximum of one advisor-approved deviation allowed). Circle your primary depth course selections and enter them in the lined table on the next page:

a) CS 241 or 258 or 259, 261 (361A or 361B may be used as substitutes for 261)

b) A total of at least 21 units from category (a) and the following: CS 228, 241, 246, 254, 255, 258, 259, 262, 268, 341, 345, 355, 356, 357, 358, 359*, 361A, 361B, 364A, 364B, 365, 369*, 374, 393*, 395*, 399*, 468; Man. Sci. 310 (courses with * notation require approval of MS adviser)

Note: Multiple CS359, CS369, and/or CS468 courses may be taken as long as they are each on different topics (denoted by different letter suffixes for the courses).

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THEORETICAL COMPUTER SCIENCE PRIMARY DEPTH (21 UNITS MINIMUM)

Course number	Title	Grade	Units
TOTAL PRIMARY DEPTH UNITS APPLIED TO MSCS (must total at least 21 units) *Letter grades only.*			

SECONDARY DEPTH COURSES (5 COURSES MINIMUM)   SELECT ONE OF THE FOLLOWING SECONDARY DEPTH AREAS (CIRCLE ONE):

ARTIFICIAL INTELLIGENCE   BIOCOMPUTATION   COMPUTER/NETWORK SECURITY   DATABASE SYSTEMS
          HUMAN-COMPUTER INTERACTION   REAL-WORLD COMPUTING   SOFTWARE THEORY   SYSTEMS

Go to http://cs.stanford.edu/degrees/mscs/programsheets/ and click on the 'Secondary Depth Requirements' link. Enter the numbers, titles and units for your Secondary Depth courses in the table below. **Five courses minimum**; no deviations or double-counting of units allowed:

Course number	Title	Grade	Units
TOTAL SECONDARY DEPTH UNITS APPLIED TO MSCS (must total at least 15 units) *Letter grades only.*			

ELECTIVES

List here any additional courses used to complete the 45-unit requirement for the MSCS degree. You may count up to a maximum of **three units** of 500-level CS seminars, CS300, EE380, EE385A, or other 1-2 unit seminars offered in the School of Engineering, as Electives toward the MS degree. Electives must be technical courses numbered above 100, related to the degree program, and approved by the advisor and MS program administrator. CS courses numbered above 110, excluding CS196 or CS198, are pre-approved as MS electives.

Course number	Title	Grade	Units
	TOTAL ELECTIVE UNITS APPLIED TO MSCS		

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TOTAL UNITS APPLIED TO MSCS [ ]

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ADDITIONAL REQUIREMENTS

- All courses submitted for the MSCS degree must be numbered 100 or greater.
- At most 10 units of Foundations requirement courses may be counted toward your 45 units.
- At most 3 units of CS/EE/Engineering seminars may be counted toward your 45 units.
- At least 36 units submitted for the MSCS degree, including all courses taken for primary and secondary depth, must be taken letter grade.
- The average grade in the courses submitted for the MSCS must be at least a B (3.0 in Stanford's GPA scale).
- Units previously applied toward BS requirements may not also be counted toward the MSCS.
- You must complete at least 45 graduate units at Stanford before receiving the MSCS degree.

Adviser's signature: _____   Date: _____

Department approval (Claire Stager): _____   Date: _____

FOR DEPARTMENT USE: UNITS_____   CR/NC_____   GPA_____