DEPARTMENT OF COMPUTER SCIENCE
MSCS Program Sheet (2001-2002)
Theoretical Computer Science Specialization

Name: ___________________________ Adviser: ___________________________ Date: ________
Student ID#: ____________________ Email: ___________________________ Proposed date for
degree conferral: __________ HCP? ______ Coterm? ______

GENERAL INSTRUCTIONS
Before the end of your first quarter, you should complete the following steps (detailed instructions are included in the Guide to the MSCS Program Sheet in your orientation packet):

• Complete this program sheet by filling in the number, name and units of each course you intend to use for your degree.
• Attach a course schedule showing the year and quarter in which you intend to take each course in your program sheet.
• Meet with your adviser and secure the necessary signatures on the program sheet.
• Make copies of the completed program sheet and course schedule and return the originals to Claire Stager in Gates 182.

BREADTH REQUIREMENT
You must satisfy the requirements listed in each of the following areas; all courses taken elsewhere must be approved by your adviser. 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.

Area A: Mathematical and theoretical foundations
Required: Equivalent elsewhere (course number/title/institution) Approval Grade Units
Statistics (Stat 116 or Man Sci & Eng 220) ___________________________ ___________________________ __________________
Automata and Complexity (CS154) ___________________________ ___________________________ __________________
Algorithmic Analysis (CS161) ___________________________ ___________________________ __________________
Choose one of:
Numerical analysis (CS137 or CS237A)
_logic (CS157, CS257, CS258, or Phil 160A) ___________________________ ___________________________ __________________

Area B: Computer systems
Required: Equivalent elsewhere (course number/title/institution) Approval Grade Units
Computer Architecture (EE182 or EE282) ___________________________ ___________________________ __________________
Choose two of:
Operating Systems (CS140) ___________________________ ___________________________ __________________
Compilers (CS143) ___________________________ ___________________________ __________________
Computer Networks (CS244A or EE284) ___________________________ ___________________________ __________________

Area C: AI and applications
Choose two, including one at 200 level Equivalent elsewhere (course number/title/institution) Approval Grade Units
AI (CS121 or CS221) ___________________________ ___________________________ __________________
Databases (CS145 or CS245) ___________________________ ___________________________ __________________
Graphics (CS148 or CS248) ___________________________ ___________________________ __________________

TOTAL UNITS USED TO SATISFY BREADTH REQUIREMENT (AREAS A, B, AND C) ___________________________

SEMINARS
You must take at least one 500-level seminar. No more than three units of seminars or 1-2 unit courses may be counted towards the MS degree:
Course number Title Grade Units

TOTAL SEMINAR UNITS APPLIED TO MSCS ___________________________
DEPTH UNITS FOR THE THEORETICAL COMPUTER SCIENCE SPECIALIZATION

The courses you submit for your specialization must meet the following requirements:

(a) Each of the following courses:

- CS256
- CS258
- CS261 (CS361A, CS361B or CS365 may be used as substitutes for CS261)

(b) At least twelve more units selected from the following. Courses with * notation require permission of Prof. John Mitchell:

- CS228
- CS353
- CS359*
- CS367B
- CS255
- CS355
- CS361A
- CS368
- CS345
- CS356
- CS361B
- CS369*
- CS351
- CS357
- CS365
- Man Sci 310
- CS352
- CS358
- CS367A

Any deviations from the stated requirements must be noted and approved by your adviser in the box provided. All specialization courses must be taken for a letter grade.

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TOTAL SPECIALIZATION UNITS APPLIED TO MSCS

ELECTIVES
List here any additional courses used to complete the 45-unit requirement for the MSCS degree.

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TOTAL ELECTIVE UNITS APPLIED TO MSCS

TOTAL UNITS APPLIED TO MSCS

ADDITIONAL REQUIREMENTS
- All courses submitted for the MSCS degree must be numbered 100 or greater.
- At most 21 units of introductory courses (CS100-109) or breadth requirements courses may be counted toward your 45 units.
- At least 36 units submitted for the MSCS degree, including all courses taken for your specialization, must be taken for a 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: ____________