

DEPARTMENT OF COMPUTER SCIENCE

MSCS Program Sheet (2005-06)

Software Theory 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 (an online version is available at cs.stanford.edu/Degrees/mscs/programsheets/):

- 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 and any waiver documents checklist forms.
- Submit the originals to the MS Program Administrator, 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 on a waiver documents checklist 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 waived.

Area A: Mathematical and theoretical foundations

| Required: | Equivalent elsewhere (course number/title/institution) | Approval | Grade | Units |
|--|--|----------|-------|-------|
| Statistics(Stat116 or MS&E220 or CME106) | | | | |
| Automata and Complexity (CS154) | | | | |
| Algorithmic Analysis (CS161) | | | | |

Choose one of:

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|--|--|--|--|--|
| Numerical Analysis (CME108 or CME302) | | | | |
| Logic (CS156, 157, CS258, or Phil 251) | | | | |
| Mathematical Methods (CS205) | | | | |

Area B: Computer systems

| Required: | Equivalent elsewhere (course number/title/institution) | Approval | Grade | Units |
|---|--|----------|-------|-------|
| Computer Architecture (EE108B 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)

Note: This total may not exceed 21 units.

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 M S degree:

| Course number | Title | Grade | Units |
|---------------|-------|-------|-------|
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TOTAL SEMINAR UNITS APPLIED TO MSCS

DEPTH UNITS FOR THE SOFTWARE THEORY SPECIALIZATION

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

(a) Each of the following courses:

___ CS242 ___ CS243 ___ CS256 ___ CS258

(b) At least one of the following:

___ CS244A ___ CS295 ___ CS343 ___ CS345
 ___ CS245

(c) At least one of the following:

___ CS255 ___ CS351 ___ CS361A ___ CS365
 ___ CS259 ___ CS355 ___ CS361B ___ CS368
 ___ CS261 ___ CS356

(d) At least one additional course from categories (b), (c), or CS346.

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| Adviser Notes |
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Any deviations from the stated requirements must be noted and approved by your adviser in the Adviser Notes box provided. Enter course information for the courses you've selected in the table below. All specialization courses must be taken for a letter grade.

| Course number | Title | Grade | Units |
|---|-------|-------|-------|
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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.

| Course number | Title | Grade | Units |
|---|-------|-------|-------|
| | | | |
| | | | |
| | | | |
| 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: _____

FOR DEPARTMENT USE: UNITS _____ CR/NC _____ GPA _____