

# DEPARTMENT OF COMPUTER SCIENCE

## MSCS Program Sheet (2000-2001)

### 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):

- 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. 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)**

Note: This total may not exceed 21 units.

#### TRANSFER CREDITS

If you have taken courses as a graduate student, after the conferral of the bachelor's degree, you may ask to transfer up to nine units of coursework to the MSCS requirements. Adviser approval is required. Attach a transcript showing the courses and grades earned.

Course number	Title	Approval	Grade	Units

**TOTAL TRANSFER UNITS APPLIED TO MSCS**

#### SEMINARS

You must take at least one and no more than three units of 500-level seminar:

Course number	Title	Grade	Units

**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      \_\_\_ CS342      \_\_\_ CS343      \_\_\_ CS345  
 \_\_\_ CS245

(c) At least one of the following:

\_\_\_ CS255      \_\_\_ CS355      \_\_\_ CS361A      \_\_\_ CS365  
 \_\_\_ CS261      \_\_\_ CS356      \_\_\_ CS361B      \_\_\_ CS368  
 \_\_\_ CS351

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

<b>Adviser Notes</b>

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.

Course number	Title	Grade	Units
<b>TOTAL SPECIALIZATION UNITS APPLIED TO MSCS</b>			

**ELECTIVES**

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

Course number	Title	Grade	Units
<b>TOTAL ELECTIVE UNITS APPLIED TO MSCS</b>			

**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 the equivalent of three full-tuition quarters at Stanford before receiving the MSCS degree.

Adviser's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Department approval (Claire Stager): \_\_\_\_\_ Date: \_\_\_\_\_

FOR DEPARTMENT USE:      UNITS \_\_\_\_\_      CR/NC \_\_\_\_\_      GPA \_\_\_\_\_      RESIDENCY \_\_\_\_\_