

# Plan of Study and Graduation Checklist: MSCS

Name: \_\_\_\_\_

ID#: \_\_\_\_\_

Program Start Date: \_\_\_\_\_

Date: \_\_\_\_\_

Projected Grad Date: \_\_\_\_\_

Please enter the term the course was taken or will be taken (e.g., Fall '12) and email the completed form to the Graduate Program Coordinator.

| Course                                                                                                                                  | Course (prerequisite)                      | 3<br>Mandatory<br>Core<br>Courses | 3 Flex-Core<br>Courses | 3 Breadth<br>Courses<br>(each<br>course<br>from<br>a different<br>area) | 2 Depth<br>Courses<br>(600 and<br>up) | Thesis (6<br>Credits) or<br>Non-Thesis<br>Option (2<br>additional<br>CS<br>electives<br>600 and<br>up) | 2 Electives<br>(600 and<br>up; for<br>courses<br>outside CS,<br>please<br>review the<br>CS web site<br>for<br>approved<br>courses) | Notes/<br>Grade |
|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-----------------------------------|------------------------|-------------------------------------------------------------------------|---------------------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <b>Pre-core: Approval of the Graduate Advisor is required to take these courses, otherwise they will NOT count towards your degree.</b> |                                            |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 520                                                                                                                                  | Computer Science Foundations               |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 571                                                                                                                                  | Programming Tools & Environments           |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| <b>Core Courses</b>                                                                                                                     |                                            |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 521                                                                                                                                  | Data Structures/Algorithms I               |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 525                                                                                                                                  | Theory of Computation (PR CS 521)          |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 550                                                                                                                                  | Programming Languages                      |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| <b>Artificial Intelligence and Robotics</b>                                                                                             |                                            |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 510                                                                                                                                  | Artificial Intelligence                    |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 511                                                                                                                                  | Robot Lab (PR CS 510 OR CS 583)            |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 610                                                                                                                                  | Adv. Artificial Intelligence (PR CS 510)   |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 612                                                                                                                                  | Knowledge Based Agents (PR CS 510)         |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 613                                                                                                                                  | Machine Learning (PR CS 510)               |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 770                                                                                                                                  | Topics Artificial Intelligence (PR CS 610) |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| <b>Algorithms and Theory</b>                                                                                                            |                                            |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 522                                                                                                                                  | Data Structures/Algorithms II (PR CS 521)  |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 620                                                                                                                                  | Advanced Algorithms (PR CS 522)            |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 621                                                                                                                                  | Approximation Algorithms (PR CS 522)       |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 623                                                                                                                                  | Computational Geometry (PR CS 521)         |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 676                                                                                                                                  | Parallel Programming (PR CS 521 & CS 543)  |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| <b>Computer Graphics and Vision</b>                                                                                                     |                                            |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 536                                                                                                                                  | Computer Graphics I                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 583                                                                                                                                  | Introduction to Computer Vision            |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 637                                                                                                                                  | Interactive Computer Graphics (PR CS 536)  |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 634                                                                                                                                  | Advanced Computer Vision (PR CS 583)       |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 636                                                                                                                                  | Advanced Computer Graphics (PR CS 536)     |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| <b>Human Computer Interaction</b>                                                                                                       |                                            |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 530                                                                                                                                  | Developing User Interfaces                 |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 630                                                                                                                                  | Cognitive Systems (PR CS 510 OR CS 530)    |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 631                                                                                                                                  | HCI: Computing off the Desktop (PR CS 530) |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| <b>Systems</b>                                                                                                                          |                                            |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 544                                                                                                                                  | Computer Networks                          |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 500                                                                                                                                  | Database Theory                            |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 543                                                                                                                                  | Operating Systems I                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 643                                                                                                                                  | Advanced Operating Systems (PR 543)        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 645                                                                                                                                  | Network Security (PR CS 543 & CS 544)      |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 647                                                                                                                                  | Distributed Software Systems (PR CS 543)   |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 751                                                                                                                                  | Database Theory II (PR CS 500)             |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |
| CS 741                                                                                                                                  | Computer Networks II (PR CS 544)           |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |                 |

| Course                                                      | Course (prerequisite)                                  | 3<br>Mandatory<br>Core<br>Courses | 3 Flex-Core<br>Courses | 3 Breadth<br>Courses<br>(each<br>course<br>from<br>a different<br>area) | 2 Depth<br>Courses<br>(600 and<br>up) | Thesis (6<br>Credits) or<br>Non-Thesis<br>Option (2<br>additional<br>CS<br>electives<br>600 and<br>up) | 2 Electives<br>(600 and<br>up; for<br>courses<br>outside<br>CS, please<br>review the<br>CS web<br>site for<br>approved<br>courses) | Notes |
|-------------------------------------------------------------|--------------------------------------------------------|-----------------------------------|------------------------|-------------------------------------------------------------------------|---------------------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------|
| <b>Numerical and Scientific Computation</b>                 |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| CS 540                                                      | High Performance Computing                             |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| CS 567                                                      | Applied Symbolic Computation                           |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| CS 668                                                      | Computer Algebra I (PR CS 521)                         |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| CS 669                                                      | Computer Algebra II (PR CS 668)                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| <b>Programming Languages and Compilers</b>                  |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| CS 551                                                      | Compiler Construction I (PR CS 525)                    |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| CS 552                                                      | Compiler Construction II (PR CS 551)                   |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| CS 650                                                      | Program Generation & Optimization (PR CS 550 & CS 540) |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| CS 676                                                      | Parallel Programming (PR CS 521 & CS 543)              |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| CS 759                                                      | Complexity Theory (PR CS 525)                          |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| <b>Software Engineering</b>                                 |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| CS 575                                                      | Software Design                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| CS 576                                                      | Dependable Software Systems                            |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| CS 675                                                      | Reverse Engineering (PR CS 575)                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| CS 780                                                      | Advanced Topics in SE                                  |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| <b>Special Topics Courses</b>                               |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| CS 680                                                      |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| CS 680                                                      |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| CS 680                                                      |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| CS 680                                                      |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| <b>CS 898: Masters Thesis</b>                               |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| CS 898                                                      | Masters Thesis                                         |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
|                                                             |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| <b>CS 997: Research</b>                                     |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| CS 997                                                      | Research in Computer Science                           |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| <b>CS 690: Independent Study</b>                            |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| CS 690                                                      | Independent Study in Computer Science                  |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| <b>Miscellaneous</b>                                        |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
|                                                             |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
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|                                                             |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
|                                                             |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
|                                                             |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| All course requirements met?                                |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| 15 courses taken (not counting GCP) w/ a C or better?       |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| 45 credits taken (not counting GCP) w/ a C or better?       |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| If thesis option, thesis complete?                          |                                                        |                                   |                        |                                                                         |                                       | Date completed:                                                                                        |                                                                                                                                    |       |
| Additional notes:                                           |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |
| <div>Signature of Advisor _____</div> <div>Date _____</div> |                                                        |                                   |                        |                                                                         |                                       |                                                                                                        |                                                                                                                                    |       |