

**University of Illinois at Urbana-Champaign
Professional MCS-DS Degree Program Requirements
Student Planning Worksheet**

Name:

| | |
|--|--|
| Must maintain an overall 3.0 GPA | |
| Degree must be completed within 5 years | |
| Complete 32 Credit Hours | |
| Breadth Requirement (12-16 hrs) - Total Credit Hours Completed | |
| Advanced Coursework (12 hrs) - Total Credit Hours Completed | |
| Additional Coursework (4-8 hrs) - Total Credit Hours Completed | |
| Total Credit Hours Completed | |

| BREADTH REQUIREMENTS: 12-16 credit hours (Must complete at least one course from each area with a grade of B- or higher) | | | |
|---|--------|-------|-------------------|
| AREA | CREDIT | GRADE | COURSE / SEMESTER |
| Artificial Intelligence | | | |
| CS 441, 445, 447, 598 Deep Learning for Healthcare* | 4 | | |
| Database and Information Systems: Data Mining | | | |
| CS 410, 411, 412 | 4 | | |
| Interactive Computing (HCI/Graphics) | | | |
| CS 416, CS 519* | 4 | | |
| Systems & Networking: Cloud Computing | | | |
| CS 425, 435, 437, 498 Cloud Computing Applications | 4 | | |
| Total Credit Hours from Breadth Coursework - 12-16 credit hours | | | |

| ADVANCED COURSEWORK: 12 credit hours (Any <i>three</i> courses from the list below; Grades must be C or higher) | | | |
|---|--------|-------|-------------------|
| 500-LEVEL Courses (500-590 or 598) | CREDIT | GRADE | COURSE / SEMESTER |
| CS 519 Scientific Visualization [Recommended prereq: CS 416 or CS 418]* | 4 | | |
| CS 598 Advanced Bayesian Modeling | 4 | | |
| CS 598 Practical Statistical Learning [Required prereq: CS 410, CS 412, an Artificial Intelligence breadth course, or STAT 420] | 4 | | |
| CS 598 Deep Learning for Healthcare [Recommended prereq: CS 441]* | 4 | | |
| CS 513 Theory & Practice of Data Cleaning | 4 | | |
| CS 598 Foundations of Data Curation | 4 | | |
| Capstone Courses (Capstone Courses are not required; students who choose to take a capstone must meet BOTH prerequisites) | | | |
| CS 598 Data Mining Capstone [Required prereqs: CS 410 and CS 412] | 4 | | |
| CS 598 Cloud Computing Capstone [Required prereqs: CS 498 Cloud Computing Applications and one other Cloud Computing breadth course] | 4 | | |
| Total Credit Hours from Advanced Coursework - 12 credit hours | | | |

| ADDITIONAL COURSEWORK: 4-8 hours (Any course from the list below; Grade must be C or higher) | | | |
|---|--------|-------|-------------------|
| Additional Courses | CREDIT | GRADE | COURSE / SEMESTER |
| CS 418, 421, 427, 450, 463, 475, 484 | 4 | | |
| STAT 420 Methods of Applied Statistics- Statistical Modeling in R | 4 | | |
| OR any extra course from "Breadth " or "Advanced" listed above. | | | |
| | 4 | | |
| Total Credit Hours from Additional Coursework- 4-8 credit hours | | | |

* If CS 519 or CS 598 DLH is applied toward both the breadth and advanced coursework requirements, then 8 hours of "Additional Coursework" is required.