

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

Name:

Must maintain an <b>overall 3.0 GPA</b>	
Degree must be completed within 5 years	
Complete <b>32 Credit Hours</b>	
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	
<b>Total Credit Hours Completed</b>	

<b>BREADTH REQUIREMENTS: 12-16 credit hours</b> (Must complete at least one course from each area with a grade of B- or higher)			
AREA	CREDIT	GRADE	COURSE / SEMESTER
<b>Artificial Intelligence</b>			
CS 441, 445, 446, 447, 598 Deep Learning for Healthcare*			
<b>Database and Information Systems: Data Mining</b>			
CS 410, 411, 412			
<b>Interactive Computing (HCI/Graphics)</b>			
CS 416, CS 519*			
<b>Systems &amp; Networking: Cloud Computing</b>			
CS 425, 435, 437, 498 Cloud Computing Applications			
<b>Total Credit Hours from Breadth Coursework - 12-16 credit hours</b>			

<b>ADVANCED COURSEWORK: 12 credit hours</b> (Any <b>three courses</b> from the list below; Grades must be <b>C or higher</b> )			
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		
<b>Capstone Courses</b> (Capstone Courses are not required; students who choose to take a capstone must meet <b>BOTH</b> 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		
<b>Total Credit Hours from Advanced Coursework - 12 credit hours</b>			

<b>ADDITIONAL COURSEWORK: 4-8 hours</b> (Any course from the list below; Grade must be <b>C or higher</b> )			
Additional Courses	CREDIT	GRADE	COURSE / SEMESTER
CS 418, 421, 427, 450, 461, 463, 475, 484			
STAT 420 Methods of Applied Statistics- Statistical Modeling in R	4		
CS 591 Advanced Seminar (repeatable for a maximum of 4 credit hours)	1		
<b>OR any extra course from "Breadth " or "Advanced" listed above</b>			
<b>Total Credit Hours from Additional Coursework- 4-8 credit hours</b>			

\* 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.