University of Illinois at Urbana-Champaign
Professional Online MCS Degree Program Requirements (Coursera Platform)
Student Planning Worksheet

Name: **COMMENTS**

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

BREADTH REQUIREMENTS: 16 credit hours

*Must complete at least one course from **four different areas** with a grade of **B- or higher**. (Accompanying MOOC courses are listed within parenthesis after the High-Engagement course title.)*

	CREDIT HRS	GRADE	COMMENTS
Artificial Intelligence *			
CS 498 Applied Machine Learning (Applied Machine Learning) *	4		
Database and Information Systems *			
CS 410 Text Information Systems (Text Retrieval & Search Engines + Text Mining & Analytics)	4		
CS 411 DatabaseSystems	4		
CS 412 Intro to Data Mining (Pattern Discovery + Cluster Analysis)	4		
HCI / Graphics *			
CS 498 Data Visualization (Data Visualization)	4		
Parallel Computing			
CS 484 Parallel Computing	4		
Programming Languages & Software Engineering			
CS 421 Programming Languages and Compilers	4		
CS 427 Software Engineering I	4		
Scientific Computing			
CS 450 Numerical Analysis	4		
Systems & Networking *			
CS 425 Distributed Systems (Cloud Computing Concepts: Parts I & II)	4		
CS 498 Cloud Computing Applications (Cloud Computing Applications: Parts 1 & 2)	4		
CS 498 Cloud Networking	4		
Total Credit Hours from Breadth Coursework - 16 credit hours			

ADVANCED COURSEWORK: 12 credit hours *(Any **three courses** from the list below; Grades must be **C or higher**)*

500-LEVEL Courses (500-590 or 598)	CREDIT HRS	GRADE	COMMENTS
CS 513/ IS 532 Theory & Practice of Data Cleaning	4		
CS 598 / STAT 578 Advanced Bayesian Modelling	4		
CS 598 / STAT 542 Practical Statistical Learning (Prereq: CS 498 Applied Machine Learning)	4		
CS 598 / LIS 531 Foundations of Data Curation	4		
CS 598 Data Mining Capstone (Prereqs: CS 410 and CS 412)	4		
CS 598 Cloud Computing Capstone (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 hours *(Any course from the list below; Grade must be **C or higher**.)*

	CREDIT HRS	GRADE	COMMENTS
STAT 420 Methods of Applied Statistics (Methods of Applied Statistics)	4		
Or any other course from "Breadth Requirements" or "Advanced Coursework"			
	4		
Total Credit Hours from Additional Coursework **(4 credit hrs)**			

* Breadth area coursework required for the MCS-Data Science track