

Name: \_\_\_\_\_  
Entered Program: \_\_\_\_\_

UNI: \_\_\_\_\_  
Expected Graduation: \_\_\_\_\_

**Part-time students** are expected to complete the program in 4-5 semesters of coursework. If you extend your time at Columbia, please contact QMSS program staff to discuss your academic plan. The QMSS Program builds in more flexibility than this worksheet indicates. Please contact the program coordinator if you have any questions. **Thirty (30) points minimum are required for the degree. Students must maintain a 3.0 or above average.**

**QMSS Core Requirements**

- A. Theory and Methodology (QMSS GR5010)
- B. Two Seminars (QMSS GR5021 and QMSS GR5022)
- C. Data Analysis Requirement to be fulfilled by Probability and Statistics (STAT W5701)
- D. General Data Science Elective
  - a. QMSS GR5052: Practicum in Data Analysis
  - b. QMSS GR5062: Social Network Analysis
  - c. QMSS GR5067: Natural Language Processing
  - d. QMSS GR5069: Applied Data Science for Social Science
  - e. QMSS GR5070: GIS and Spatial Analysis
  - f. QMSS GR5072: Modern Data Structures
- E. Master's Thesis (QMSS GR5999)
- F. Two Additional Electives

**Data Science Concentration Requirements:**

- G. Algorithms for Data Science (CSOR W4246)
- H. Exploratory Data Analysis & Visualization (STAT W5072 or QMSS GR5063)
- I. Machine Learning for Data Science (COMS W4721)

**Course Planner**

Note this worksheet assumes enrollment in ½ RU's (call #99992) which requires 2-3 classes/semester. If you wish to take less than 2 classes at any point, you will need to enroll in a ¼ RU (call #99993) during that semester which will extend your time in the program beyond the four semesters reflected below.

**Semester 1**

COURSE TITLE	COURSE NUMBER	CREDITS	FALL/SPRING	YEAR
Theory and Methodology	QMSS GR5010	4	Fall	
Probability and Statistics	STAT W5701	3	Fall	
Algorithms for Data Science	CSOR W4246	3	Fall	

**Semester 2**

Machine Learning for Data Science	COMS W4721	3	Spring	
Data Visualization	QMSS GR5063	4	Spring	
<i>Elective Course</i>			Spring	

**Semester 3**

QMSS Seminar	QMSS GR5021	2	Fall	
Algorithms for Data Science (if not completed)	CSOR W4246	3	Fall	
Exploratory Data Analysis & Visualization (if not completed)	STAT5702	3	Fall	
<i>Elective Course</i>			Fall	

**Semester 4**

QMSS Seminar	QMSS GR5022	2	Spring	
Master's Thesis	QMSS GR5999	3 or 4	Spring	
Data Visualization	QMSS GR5063	4	Spring	
<b>Total credits (30 min)</b>				

**Thesis Title:** \_\_\_\_\_

**Advisor (if applicable):** \_\_\_\_\_