

Full-time students are expected to complete the program in 2 semesters. **Part-time students** are expected to complete the program in 4 to 5 semesters. If you want to spend additional time at Columbia (through an Extended Residence), please contact QMSS program staff to discuss your academic plan. In addition to the curricular requirements below, all QMSS students must also satisfy the following graduation requirements...

- ☐ Complete a minimum of 30 graduate course credits
- ☐ Maintain a 3.0 or above average GPA.
- ☐ Complete the equivalence of two full Residence Units (in increments of ¼, ½, and/or 1)
- ☐ [Apply to graduate](#) by the deadline for the appropriate semester.

First Semester: _____

Last Semester: _____

Course Title	Points	Semester
QMSS GR5010: Theory and Methodology	3	<u>Fall ONLY</u>
QMSS GR5021: Research Seminar	3	<u>Fall or Spring</u>
QMSS GR5022: Research Seminar II (<i>must be after GR5021</i>)	3	<u>Fall or Spring</u>
QMSS GR5015: Data Analysis for Social Science	3	<u>Fall or Spring</u>
Algorithmic Learning: take one of the following		
a. QMSS GR5058: Data mining for Social Science	3	<u>Fall</u>
b. QMSS GR5073: Machine Learning for Social Science	3	<u>Fall/Spring</u>
Two general data science courses (any two of the following):		
a. QMSS GR5052: Practicum in Data Analysis	3	<u>Fall/Spring</u>
b. QMSS GR5062: Social Network Analysis	3	<u>Spring</u>
c. QMSS GR5067: Natural Language Processing	3	<u>Fall/Spring</u>
d. QMSS GR5069: Applied Data Science for Social Science	3	<u>Spring</u>
e. QMSS GR5070: GIS and Spatial Analysis	3	<u>Fall</u>
f. QMSS GR5072: Modern Data Structures	3	<u>Fall/Spring</u>
g. QMSS GR5074: Advanced Machine Learning	3	<u>Spring Fall/Spring</u>
Elective course _____	1 to 4	_____
QMSS GR5999: Master's Thesis (<i>taken during last semester in program</i>)	3 or 4	_____

Total Points:

(*must equal 30+*)

Thesis Advisor Name : _____

NOTES:

Advisor Title: _____

Advisor Dept : _____

Semester 1 : Fall 2022 Residence Unit : _____ RU Credit/Class Cap : _____

Course Dept. & Number:	Course Name	Points:
QMSS GR5010	Theory and Methodology (Sec 005)	3
QMSS GR5015	Data Analysis for Social Science (with lab session)	3
QMSS GR5070	GIS and Spatial Analysis	3
QMSS GR5073	Machine Learning	3
QMSS GR5021	Research Seminar	3

RU Count: _____ Total Points: 15

Semester 2 : _____ Residence Unit : _____ RU Credit/Class Cap : _____

Course Dept. & Number:	Course Name	Points:
QMSS GR5074	Advanced Machine Learning	3
QMSS GR5063	Data Visualization	3
QMSS GR5072	Modern Data Structures	3
QMSS GR5022	Research Seminar II	3
QMSS GR5999	Master's Thesis	3-4

RU Count: _____ Total Points: 18-19

Semester 3 : _____ Residence Unit : _____ RU Credit/Class Cap : _____

Course Dept. & Number:	Course Name	Points:

RU Count: _____ Total Points: _____

Semester 4 : _____ Residence Unit : _____ RU Credit/Class Cap : _____

Course Dept. & Number:	Course Name	Points:

RU Count: _____ Total Points: _____

Semester 5 : _____ Residence Unit : _____ RU Credit/Class Cap : _____

Course Dept. & Number:	Course Name	Points:

RU Count: _____ Total Points: _____

Semester 6 : _____ Residence Unit : _____ RU Credit/Class Cap : _____

Course Dept. & Number:	Course Name	Points:

RU Count: _____ Total Points: _____

Semester 7 : _____ Residence Unit : _____ RU Credit/Class Cap : _____

Course Dept. & Number:	Course Name	Points:

RU Count: _____ Total Points: _____

Semester 8 : _____ Residence Unit : _____ RU Credit/Class Cap : _____

Course Dept. & Number:	Course Name	Points:

RU Count: _____ Total Points: _____