



RUTGERS

School of Arts and Sciences
DEPARTMENT OF CHEMISTRY
AND CHEMICAL BIOLOGY

M.S. Students: Basic Rules and Requirements

All Master's students must have an advisor who is a member of the Department of Chemistry & Chemical Biology, chosen by mutual consent of advisor and student. Upon matriculation into the program, students should submit at least 3 choices of advisor, in their academic area(s) of interest, in order of preference.

Master's Degree without Thesis (Coursework-based)

1. 30 credits of graduate courses

Courses must be in the department or approved courses outside of the department. Please contact the department before registering for research credits as a coursework Master's student (up to 6 credits of research may be accepted). Students will need a minimum 3.0 GPA to graduate. Please note: 160:603 is *not* open to non-thesis/coursework Master's students.

2. Writing sample

A final, concise paper is required (approximately 4-8 pages). It should review a subject of current, active research that is of interest to the candidate. Alternatively, it can cover other chemistry-related subjects of interest to the candidate with the permission of the candidate's faculty advisor. The paper will be graded Pass/Fail by the student's advisor.

3. Comprehensive exit exam

	No. Questions
i. Summary Stats	
ii. GenChem	6
iii. Inorg	12
iv. Pchem	13
v. Org	14

Subjects: Electron configurations and atomic orbitals; Basic MO theory; Lewis structures and molecular properties; Thermodynamic state variables; Kinetic theory of gases; Colligative properties; Important organic reaction mechanisms; Important organic syntheses; Ligand field theory; Unit cells and crystal structure; Reaction kinetics

These instructions are intended to be consistent with, and to supplement, the instructions given at:

<https://gsnb.rutgers.edu/academics/master%E2%80%99s-degree-without-thesis>



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Master's Degree with Thesis

1. 24 credits of graduate courses

Courses must be in the department or approved courses outside of the department. A minimum 3.0 GPA is needed to graduate.

2. 6 research credits

3. Thesis and formal thesis defense

These instructions are intended to be consistent with and to supplement the checklist given at:

<https://gsnb.rutgers.edu/academics/master%E2%80%99s-degree-thesis-checklist>