

Registering for Classes

General Information and Examples

Key Web Sites

Registration Portal
<http://my.harvard.edu>

CCB G1 Orientation Information
<https://chemistry.harvard.edu/orientation>

Online Check-in

You should have completed the online check-in for the fall term at my.harvard.edu by August 21 at 11:59 pm. You must do this at the beginning of each term to be considered an active student and to be allowed to register for courses. The Check-in option is located in the "To Do" section. This also gives you the opportunity to update personal information. If you haven't done so already, please make sure to update your residential address, as an out of state address may still be on file for you. Those who do not check-in by the deadline may be subject to late fees.

How to update your address in my.harvard
https://harvard.service-now.com/ithelp?id=kb_article&sys_id=235d6babdb2bb680d6d5ff851d96194f

If you see an advising hold, do not worry. This will be cleared when your courses are approved online by the Department. Please contact Joe Lavin (lavin@chemistry.harvard.edu), if there are any financial holds.

Curriculum Advising Committee (CAC)

During the first week, each of you will have meetings with a member of the Curriculum Advising Committee (CAC). The CAC advises students on their academic plans, approves required courses, and assists in decisions related to the PhD program. Meeting with a CAC member is the first step to determining your fall course load. At this meeting, your CAC member will sign your CCB Plan of Study.

CCB Plan of Study

Submit your CCB Plan of Study, signed by your CAC member, to the Department Office (Mallinckrodt 132) by August 30 at 5pm. This is required for the Department to approve your courses online.

Course Registration

The final step is to register for courses at my.harvard.edu. This must be done by August 31st at 11:59pm. Please keep in mind the following:

- Students are required to take a minimum of 16 credits per term.
- During their graduate career, Chemistry students will be required to take 4 advanced courses, while Chemical Physics students will be required take 5 advanced courses. An advanced course is 4 credits. Coursework is typically completed by the end of the G2 year.
- All G1s are required to take **Chemistry 301hfa/b. Scientific Teaching and Communications: Practicum** in the fall and spring terms. This course is 2 credits per term.

- All G1s must participate in three 4-week rotations in different laboratories (or one 8-week and one 4-week rotation) during the fall semester. The rotations are considered a course and listed as **Chemistry 300** for the fall term. This is usually a 4-credit course, but students may enroll in more than 4 credits to bring them up to the required 16 credits (e.g. when taking two courses)
- If taking more than 2 letter-graded courses, students may enroll in 18 credits. See example below.

Sample G1 Fall Course List

If taking 3 letter-graded courses:

Level: Graduate Year 1			
Catalog Number	Title	Professor	Credits
Chem 300	Research and Reading	Nocera	4
Chem 301hfa	Scientific Teaching and Comm	Tucci	2
Chem 105	Advanced Organic Chemistry	Jacobsen	4
Chem 110	Small Molecules and Biological Processes	Shair	4
Chem 156	Materials Chemistry	Mason	4

If taking 2 letter-graded courses:

Level: Graduate Year 1			
Catalog Number	Title	Professor	Credits
Chem 300	Research and Reading	Nocera	6
Chem 301hfa	Scientific Teaching and Comm	Tucci	2
Chem 105	Advanced Organic Chemistry	Jacobsen	4
Chem 110	Small Molecules and Biological Processes	Shair	4

Degree Requirements in Chemistry

All students must earn a B or better in **4** advanced courses in chemistry and/or related fields (e.g. biochemistry, physics, etc.). Grades of B- will count as a pass if balanced by a B+ or better on a one-for-one basis. Grades of C+ or below will not count. An advanced course is designated in the course book as 100+ level and above.

NOTE: Chemistry 100r, Chemistry 135, Chemistry 145, Chemistry 160, Chemistry 165, Chemistry 300 (rotations), Chemistry 301HFA & B, 300-level reading and research courses, Physics 143a, Physics 143b and Chemical Biology 2200 do not count toward the required 4 courses.

Degree in Requirements in Chemical Physics

All students must earn a B or better in **5** advanced courses in chemistry and/or related fields (e.g. biochemistry, physics, etc.). Grades of B- will count as a pass if balanced by a B+ or better on a one-for-one basis. Grades of C+ or below will not count. An advanced course is designated in the course book as 100+ level and above.

NOTE: Chemistry 100r, Chemistry 135, Chemistry 145, Chemistry 160, Chemistry 165, Chemistry 300 (rotations), Chemistry 301HFA & B, 300-level reading and research courses, Physics 143a, Physics 143b and Chemical Biology 2200 do not count toward the required 4 courses.

Equivalent courses may be substituted with the approval of the Curriculum Advising Committee (CAC).

Adding or Dropping Courses

The deadline for adding or dropping courses is September 25th. Students may add or drop courses; however, before doing so, they must get approval from a member of the CAC. The Plan of Study form should be picked up from Kathy Oakley or Josh Cox before the student meets with a CAC member for approval of a course change. **The signature of a CAC member is required on the Plan of Study form for any course changes made.**

Contact:

Josh Cox
Assistant Director of Graduate Studies
Mallinckrodt 132
jcox@g.harvard.edu

Kathy Oakley
Graduate Program Administrator
Administrative Office
oakley@chemistry.harvard.edu
617-496-3208

Fall 2023 Graduate Courses in Chemistry

Course	Instructor	Title	Day/Time
Chem 105	Jacobsen	Advanced Organic Chemistry	T, Th 1:30 pm – 2:45 pm
Chem 110	Shair	The Chemistry and Biology of Therapeutics	M, W 10:30 am – 11:45 am
Chem 156	Mason	Materials Chemistry	M, W 10:30 am – 11:45 am
Chem 177	Liu	The Chemistry, Biology, and Societal Implications of Genome Editing	F 3:00 pm – 5:45 pm
Chem 200	Capasso	Foundations of Quantum Mechanics	M, W 3:00 pm – 4:15 pm
Chem 242	Heller	Quantum Mechanics for Physical Chemistry	T, R 9:00 am – 10:15 am
Chem 246	Shakhnovich	Advanced Statistical Mechanics: Frontiers in Research	T, R 3:00 pm – 4:15 pm

Spring 2024 Graduate Courses in Chemistry

Course	Instructor	Title	Day/Time
Chem 154	Nocera	Advanced Inorganic Chemistry	M, W 9:00 am – 10:15 am
Chem 161	Zhuang	Statistical Thermodynamics	T, R 3:00 pm – 4:15 pm
Chem 166	Xu	Quantum Materials, where Physics and Chemistry meet	M, W 12:00 pm – 1:15 pm
Chem 170	Woo	Chemical Biology	T, Th 1:30 pm – 2:45 pm
Chem 171	Balskus	Biological Synthesis	T, R 9:00 am – 10:15 am
Chem 245	Lee	Quantum Chemistry: Theory and Practice	T, Th 1:30 pm – 2:45 pm
Chem 255	Zheng	Practical Crystallography in Chemistry and Materials Science	T, Th 1:30 pm – 2:45 pm

Previously Approved Courses from Other Harvard Departments

Below is a list of courses previously approved to meet our course requirements. However, you are not limited to just these courses. With the permission of both the Curriculum Advisor and the Director of Graduate Studies (DGS), you may take other courses.

Chemical Physics, Physical Chemistry

<i>Term</i>	<i>Course</i>	<i>Description</i>
<i>Fall</i>	APCOMP 209A	Introduction to Data Science
	APMTH 201	Physical Mathematics I
	APMTH 205	Advanced Scientific Computing: Numerical Methods
	APMTH 207	Advanced Scientific Computing: Stochastic Methods for Data Analysis
	APPHY/PHYS 195	Intro to Solid State Physics
	APPHY 235	Chemistry in Materials Science and Engineering
	APPHY 284	Statistical Mechanics (alternates with Physics 262)
	COMPSCI 109A	Data Science 1
	E-PSCI 200	Atmospheric Chemistry and Physics
	ENGSCI 157	Biological Signal Processing
	ENG-SCI 173	Introduction to Electronic and Photonic Devices
	E-PSCI 236	Environmental Modeling and Data Analysis
	PHYSICS 151	Mechanics
	PHYSICS 251A	Advanced Quantum Mechanics I
	PHYSICS 253A	Quantum Field Theory I
	PHYSICS 253CR	Quantum Field Theory III
	PHYSICS 262	Statistical Mechanics
	PHYSICS 295A	Introduction to Quantum Theory of Solids
	MIT 5.698	Quantum Chemical Simulation
	MIT 5.73	Introductory Quantum Mechanics
<i>Spring</i>	APCOMP 209B	Data Science 2: Advanced Topics in Data Science
	APMTH 115	Mathematical Modeling
	APPHY 291	Electron Microscopy Laboratory
	BE128	Biomedical Imaging and Systems
	COMPSCI 109B	Data Science 2
	COMPSCI 181	Machine Learning
	ENG-SCI 258	Introduction to Bioelectronics
	PHYSICS 153	Electrodynamics

	PHYSICS 181	Statistical Mechanics and Thermodynamics
	PHYSICS 232	Advanced Electromagnetism
	PHYSICS 251B	Advanced Quantum Mechanics II
	PHYSICS 253B	Quantum Field Theory II
	PHYSICS 295B	Quantum Theory of Solids

Chemical Biology

<i>Term</i>	<i>Course</i>	<i>Description</i>
<i>Fall</i>	BCMP 230	Principles and Practice of Drug Development
	SCRB 177	Demystifying the Immune System
	MCB 169	Molecular and Cellular Immunology
	MICROBI 202	Mechanisms of Bacterial Pathogens
	NEUROBIO 215A	The Discipline of Neuroscience
	MIT 5.54	Frontiers in Chemical Biology
<i>Spring</i>	MIT 5.64	Frontiers of Interdisciplinary Science in Human Health and Disease
	BCMP 234	Cellular Metabolism & Human Disease
	BCMP 236	Principles of Drug Action
	BCMP 250	Biophysical and Biochemical Mechanisms of Protein
	GENETIC 216	Advanced Topics in Gene Expression
	GENETIC 228	Genetics in Medicine - From Bench to Bedside
	HBTM 200	Pathology of Human Disease
	MICROBI 210	Microbial Sciences: Chemistry, Ecology, and Evolution
	OEB 290	Microbial Sciences: Chemistry, Ecology and Evolution
	MICROBI 210	Microbial Sciences

Organic Chemistry

<i>Term</i>	<i>Course</i>	<i>Description</i>
<i>Fall</i>	MIT 5.511	Synthetic Organic Chemistry
<i>Spring</i>	MIT 5.44	Organometallic Chemistry
	MIT 5.46	NMR Spectroscopy and Organic Structure Determination
	MIT 5.512	Synthetic Organic Chemistry II
	MIT 5.45	Heterocyclic Chemistry

Inorganic Chemistry

<i>Term</i>	<i>Course</i>	<i>Description</i>
<i>Fall</i>	MIT 5.05	Principles of Inorganic Chemistry III
	MIT 5.062	Principles of Bioinorganic Chemistry
	MIT 5.53	Molecular Struct & Reactivity
<i>Spring</i>	MIT 5.061	Principles of Organometallic Chemistry
	MIT 5.068	Physical Inorganic Chemistry