

Chemistry & Law, Technology and Culture - B.S.

(131 Credits)

First Year

1st Semester		Credits
CHEM 125 or CHEM 121	General Chemistry I or Fundamentals of Chemical Principles I	3
CHEM 125A	General Chemistry Lab I	1
MATH 111	Calculus I ¹	4
BNFO 135	Programming for Bioinformatics ²	3
ENGL 101	English Composition: Introduction to Academic Writing	3
FYS SEM	First-Year Student Seminar	0
Term Credits		14

2nd Semester

CHEM 126 or CHEM 122	General Chemistry II or Fundamentals of Chemical Principles II	3
CHEM 126A	Gen Chemistry Lab II	1
MATH 112	Calculus II	4
PHYS 111	Physics I	3
PHYS 111A	Physics I Lab	1
ENGL 102	English Composition: Introduction to Writing for Research	3
Term Credits		15

Second Year**1st Semester**

CHEM 222	Analytical Chemistry	3
CHEM 243	Organic Chemistry I	3
PHYS 121	Physics II	3
PHYS 121A	Physics II Lab	1
MATH 211	Calculus III A	3
History and Humanities GER 200 level (http://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/ger-300-level/)		3
Term Credits		16

2nd Semester

CHEM 221	Analytical Chemical Methods	2
CHEM 244	Organic Chemistry II	3
CHEM 244A	Organic Chemistry I Laboratory	2
CHEM 210	Frontiers in Chemistry	1
MATH 222	Differential Equations	4
STS 300	Legal Reasoning, Writing, and Technology ^{3,4}	3
Term Credits		15

Third Year**1st Semester**

CHEM 473	Biochemistry ⁵	3
CHEM 231	Physical Chemistry I	3
EPS 202	Society, Technology, and the Environment ⁶	3
HIST 369	Law and Society in History ^{3,4}	3
Technical Elective ³		3
Term Credits		15

2nd Semester

CHEM 235	Physical Chemistry II	3
CHEM 412	Inorganic Chemistry ⁵	3

CHEM 480	Instrumental Analysis ⁵	2
EVSC 335	Environmental Law ⁷	3
Technical Elective ⁵		3
Term Credits		14
Fourth Year		
1st Semester		
CHEM 336	Quantum Chemistry ⁵	3
CHEM 339	Physical Chemistry Laboratory	2
CHEM 340	Chemistry of Materials ⁵	3
CHEM 491	Research and Independent Study I	3
LTC Core Elective		3
MATH 225	Survey of Probability and Statistics	1
Term Credits		15
2nd Semester		
HSS 404	Humanities, History and Social Sciences Senior Seminar ⁸	3
R790 382	Environm Pol & Policy ^{5,7}	3
Technical Elective ⁵		3
Technical Elective ⁵		3
Technical Elective ⁵		3
Term Credits		15
Fifth Year		
1st Semester		
HIST 310 or HIST 490 or R510 490	Co-op in Law, Technology, Culture and History I ⁹ or Seminar - Research or Seminar:Research	3
MGMT 290	Business Law I ⁵	3
LTC Core Elective		3
Technical Elective ⁵		3
Term Credits		12
Total Credits		131

¹ Students who do not place initially into Math 111 must take the prerequisite(s) first and catch up to the math sequence as soon as possible.

² CS 113 is also acceptable, but it has a pre-requisite of CS 100, adding 3 more credits unless AP or transfer credit is obtained.

³ This courses satisfies 3 credits of the Legal Foundations Elective.

⁴ Course must satisfy the 300 History and Humanities GER (<https://catalog.njit.edu/undergraduate/academic-policies-procedures/general-education-requirements/ger-300-level/>).

⁵ 33 credits of these courses must be taken at NJIT, Rutgers-Newark, or Essex County College by all students.

⁶ This course satisfies the Social Science GER.

⁷ This course satisfies 3 credits of the LTC Core Electives.

⁸ Must be an approved law-related HSS 404 History Seminar.

⁹ Students may take a History Research Seminar (HIST 490 or R510 490) instead of HIST 310 with the approval of the LTC advisor. Student projects in the history research seminar must be law-related.

Code	Title	Credits
Legal Foundations Electives		
HIST 342	Civil Rights Revolution and Law	3
HIST 361	The Founding of the American Nation	3
HIST 362	Sex, Gender, and the Law in American History	3
HIST 364	American Law in the World	3
HIST 369	Law and Society in History	3
HIST 395	Research Methods in Law and Society	3
MGMT 290	Business Law I	3

STS 300	Legal Reasoning, Writing, and Technology	3
R790 304	Intro Law And Legal Res	3

Code	Title	Credits
LTC Core Electives		
EVSC 335	Environmental Law	3
HIST 320	Law and Evidence	3
HIST 338	Environmental Justice and Climate Change in America	3
HIST 370	Legal issues in the History of Media	3
HIST 375	Legal Issues in Environmental History	3
HIST 378	Medicine and Health Law in Modern America	3
HIST 384	Invention and Regulation	3
IE 447	Legal Aspects of Engineering	3
IT 331	Privacy and Information Technology	3
IT 332	Digital Crime	3
IT 400	Information Technology and the Law	3
R790 382	Environm Pol & Policy	3