

Chemistry

Major Courses

2022 - 2026 Catalog Requirements

To be used only for students completing quarter requirements in the 2026-27 year.

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Do you need to fulfill a quarter course?
Check the semester equivalency!

MAJOR COURSES

QUARTER COURSE		SEMESTER COURSE	NOTES
CHEM 124 Gen Chem/Phys Sci & Engr I	➡	CHEM 1120 Fundamentals of Chemical Structure & Properties	
CHEM 125 Gen Chem/Phys Sci & Engr II	➡	CHEM 1122 Fundamentals of Chemical Reactivity	
CHEM 126 Gen Chem/Phys Sci & Engr III	✗	DISCONTINUED	Term last offered: Summer 2026
CHEM 203 Undergraduate Seminar I	➡	CHEM 2202 Undergraduate Seminar I	
CHEM 216 Organic Chemistry I	➡	CHEM 2242 Organic Chemistry I	
CHEM 217 Organic Chemistry II	➡	CHEM 2244 Organic Chemistry II	
CHEM 218 Organic Chemistry III	✗	DISCONTINUED	
CHEM 221 Organic Chemistry Lab II	✗	DISCONTINUED	
CHEM 303 Undergraduate Seminar II	➡	CHEM 3302 Undergraduate Seminar II	
CHEM 324 Organic Chemistry Lab III	✗	DISCONTINUED	
CHEM 331 Quantitative Analysis	➡	CHEM 3330 Foundations of Chemical Analysis	
CHEM 351 Physical Chemistry I	➡	CHEM 3394 Physical Chemistry II	
CHEM 352 Physical Chemistry II	✗	DISCONTINUED	Take CHEM 3394-Physical Chemistry II
CHEM 353 Physical Chemistry III	➡	CHEM 3392 Physical Chemistry I	
CHEM 356 Physical Chemistry Lab	➡	CHEM 3395 Physical Chemistry Lab II	
CHEM 357 Physical Chemistry III Lab	➡	CHEM 3393 Physical Chemistry Lab I	



Visit the BCSM semester conversion website for more information at csmadvising.calpoly.edu/semester-conversion



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Make sure to check your Degree Progress Report and Degree Planner to see if you have enough units to graduate

Chemistry

Major Courses & Support Courses

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QUARTER REQUIREMENT		SEMESTER COURSE	NOTES
MAJOR COURSES	CHEM 369 Biochem. Principles	→ CHEM 3352 Biochemistry	
	CHEM 403 Undergrad Sem III: Sr. Project	→ CHEM 4462 Senior Project II	
	CHEM 439 Instrumental Analysis	→ CHEM 4430 Instrumental Analysis	
	CHEM 481 Inorganic Chemistry	✗ DISCONTINUED	Take CHEM 2220
	CHEM 484 Inorganic Chemistry Lab	✗ DISCONTINUED	Take CHEM 2221
QUARTER COURSE		SEMESTER COURSE	NOTES
SUPPORT COURSES	BIO 161 Intro to Cell/Molecular Bio	→ BIO 1151 Life: Molecules and Cells	
	MATH 141 Calculus I	→ MATH 1261 Calculus I	
	MATH 142 Calculus II	DISCONTINUED	
	MATH 143 Calculus III	→ MATH 1262 Calculus II	
	MATH 241 Calculus IV	→ MATH 2263 Calculus III	
	Select from the following: CSC 232 Computer Prgm for Scientists & Engineers CSC 234 C and Unix MATH 206 Linear Algebra I MATH 244 Linear Analysis I STAT 218 Applied STATS for Life Science STAT 312 Statistical Methods for Engineers	Select from the following: CSC 1032 Programming for Scientists & Engineers CSC 234- DISCONTINUED MATH 1151 Linear Algebra MATH 2341 Linear Analysis STAT 1110: Applied Statistical Concepts & Methods STAT 3210 Engineering Statistics	
	PHYS 141 General Physics I	→ PHYS 1141 General Physics I	
	PHYS 142 General Physics II	DISCONTINUED	Students need to take cap course
	PHYS 143 General Physics III	→ PHYS 1143 General Physics II	
	PHYS Elective (200 level and above)	→ PHYS Elective (2000 and above)	



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Advanced Chemistry Electives

Non Polymers & Coatings

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CONCENTRATION	QUARTER COURSE	SEMESTER COURSE	NOTES
	BIO/CHEM 308 Genetic Engineering Technology OR CHEM 349 Chemical and Biological Warfare OR ENVE 324 Introduction to Air Pollution OR SCM 360 Select Env. Issues of Calif's Central Coast	BIO/CHEM 3318 Genetic Engineering Technology OR CHEM 3374 Chemical and Biological Warfare OR ENVE 3324 Introduction to Air Pollution OR SCM 3360 Select Env. Issues of Calif's Central Coast	
	BIO/CHEM 441 Bioinformatics Applications	➡ BIO/CHEM 4451 Bioinformatics Applications	
	BIO/CHEM 475 Molecular Biology Laboratory	➡ BIO/CHEM 4457 Molecular Biology Laboratory	
	CHEM 302 Marine Chemistry	➡ CHEM 3370 Marine Chemistry	
	CHEM 341 Environmental Chemistry: Water Pollution	➡ CHEM 3372 Environmental Chemistry	
	CHEM 372 Metabolism	➡ CHEM 3354 Metabolism	
	CHEM 373 Molecular Biology	➡ CHEM 3356 Genetic Information Processing	
	CHEM 377 Chemistry of Drugs & Poisons	➡ CHEM 4457 Chemistry of Drugs & Poisons	
	CHEM 401 Advanced Undergraduate Research	➡ CHEM 4401 Advanced Undergraduate Research	
	CHEM 405 Advanced Physical Chemistry	✗ DISCONTINUED	



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CONCENTRATION	QUARTER COURSE	SEMESTER COURSE	NOTES
	CHEM 414 Advanced Organic Chemistry	➡ CHEM 4440 Advanced Organic Chemistry-Mechanisms	
	CHEM 420 Advanced Organic Chemistry-Synthesis	➡ CHEM 4442 Advanced Organic Chemistry-Synthesis	
	CHEM 428 Nutritional Biochemistry	➡ CHEM 4450 Nutritional Biochemistry	
	CHEM 432 Physical Biochemistry	➡ CHEM 4452 Physical Biochemistry Methods & Applications	
	CHEM 444 Polymers & Coatings I	➡ CHEM 4480 Polymer Synthesis and Characterization	
	CHEM 445 Polymers & Coatings II	➡ CHEM 4482 Coatings & Formulations	
	CHEM/MATE 446 Surface Chemistry of Materials	➡ CHEM 4486 Surface Chemistry of Materials	
	CHEM 447 Polymers & Coatings Laboratory I	➡ CHEM 4481 Polymers & Coatings Laboratory	
	CHEM 448 Polymers & Coatings Laboratory II	➡ CHEM 4483 Coatings & Formulations Laboratory	
	CHEM 449 Polymers & Coatings Internship	➡ CHEM 4487 Polymers & Coatings Internship	
	CHEM 450 Polymers & Coatings III	✖ DISCONTINUED	
	CHEM 451 Polymers & Coatings Laboratory III	✖ DISCONTINUED	
	CHEM 454 Functional Polymeric Materials	➡ CHEM 4484 Functional Polymeric Materials	
	CHEM 458 Adv. Organic Chemistry - Spectroscopy	➡ CHEM 4444 Advanced Organic Chemistry Laboratory	
	CHEM 463 Honors Research	✖ DISCONTINUED	



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CONCENTRATION	QUARTER COURSE		SEMESTER COURSE	NOTES
	CHEM 465 College Teaching Practicum	➔	CHEM 4415 College Teaching Practicum	
	CHEM 466 Learning Assistant Seminar	➔	CHEM 4404 Learning Assistant Seminar	
	CHEM 470 Selected Advanced Topics	➔	CHEM 4470 Special Advanced Topics	
	CHEM 474 Protein Techniques Laboratory	➔	CHEM 4454 Protein Techniques	
	CHEM 477 Biochemical Pharmacology	✗	DISCONTINUED	
	CHEM 485 Cooperative Education Experience	➔	CHEM 4485 Cooperative Education Experience- Part Time	
	CHEM 495 Cooperative Education Experience	➔	CHEM 4495 Cooperative Education Experience- Full Time	
	SCM 302/ENGR 322 Learn by Doing Lab Teaching Practicum	➔	SCM 302/ENGR 3302 The Learn by Doing Lab Teaching Practicum	



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