

## Minor in Chemistry

Minor: Chemistry (CHEQ-M1)  
 Version: Fall 2017

GENERAL REQUIREMENTS				
Earn grades of "C" or higher in the minor course requirements (listed below).				
Complete <b>24 credits total</b> ; <b>15 credits must</b> from the list of upper-division chemistry courses below (CHEM 261 counts as upper-division) Upper-division courses must come from at least <b>two</b> areas.				
At least <b>two</b> upper-division courses must contain a <b>laboratory</b> .				
DEPARTMENT REQUIREMENTS				
Course	Title	Term	Crs	Prerequisites
<b>General Chemistry – 9 credits</b>		Completed: YES NO Needs:		
CHEM 111	General Chemistry I	F/S/SS	4	MATH118 or higher, CHEM105 or ChemPrep <sup>3</sup>
CHEM 112	General Chemistry I Laboratory	F/S/SS	1	CHEM111 or cc registration
CHEM 113	General Chemistry II	F/S/SS	3	CHEM107 or CHEM111; MATH124 or cc registration
CHEM 114	General Chemistry II Laboratory	F/S/SS	1	CHEM108 or CHEM112; CHEM113 or cc registration
<b>UPPER DIVISION REQUIREMENTS – 15 credits</b>		Completed: YES NO Needs:		
Analytical Chemistry				
CHEM 334	Quantitative Analysis Laboratory	F/S	1	CHEM114; cc registration in CHEM335
CHEM 335	Introduction to Analytical Chemistry	F/S	3	CHEM113 with min. grade of C; cc registration in CHEM334
CHEM 338	Environmental Chemistry	S	3	CHEM113 and CHEM245 or CHEM341 or CHEM345
CHEM 380A3	Forensic Chemistry	F	3	CHEM103 or CHEM107 or CHEM111
CHEM 431	Instrumental Analysis	F	4	CHEM334; CHEM474 or CBE310 or cc registration.
CHEM 433	Clinical Chemistry	S	3	CHEM334 and BC351 or BC401
Chemical Biology				
BC 351	Principles of Biochemistry <sup>2</sup>	F/S/SS	4	BZ110 or BZ120 or LIFE102; CHEM245, CHEM341 or CHEM345
or BC 401	Comprehensive Biochemistry I	F	3	MATH155 or 160; CHEM245 or CHEM343 or CHEM346 or cc reg.
CHEM 320	Chemistry of Addictions	S	3	CHEM103 or CHEM107 or CHEM111
Inorganic Chemistry				
CHEM 261	Fund. of Inorganic Chemistry	S	3	CHEM113 or concurrent registration
CHEM 461	Inorganic Chemistry	S	3	CHEM261; CHEM474 or CBE310
CHEM 462	Inorganic Chemistry Laboratory	S	2	CHEM461 or cc registration
Materials Chemistry				
CHEM 311	Intro. to Nanoscale Science	F	3	CHEM113 and CHEM346 or CHEM343

Modified May 4, 2017/CJO.

<sup>1</sup> Students can take up to 12 credits in any combination of these courses.

<sup>2</sup> This course is offered online.

<sup>3</sup> For more information and to sign up for ChemPrep, visit [www.chem.colostate.edu](http://www.chem.colostate.edu).

Course	Title	Term	Crs	Prerequisites
<b>Organic Chemistry (Credit not allowed for both CHEM 345 and 341 or CHEM 346 or 343)</b>				
CHEM 345	Organic Chemistry I	F	4	CHEM113; CHEM114
CHEM 346	Organic Chemistry II	S	4	CHEM345
CHEM 341	Modern Organic Chemistry I	F/S/SS	3	CHEM113
CHEM 343	Modern Organic Chemistry II	F/S/SS	3	CHEM245 or CHEM341 or CHEM345
CHEM 344	Modern Organic Chemistry Lab	F/S/SS	2	CHEM114; CHEM343 or cc registration
CHEM 440	Advanced Organic Chemistry Lab	F	2	CHEM344 or CHEM346
Physical Chemistry				
CHEM 473	Foundations of Physical Chemistry	F	4	CHEM113; MATH161 or MATH271; PH122 or PH142
CHEM 474	Physical Chemistry I	F	3	CHEM113; MATH261 or MATH272; PH142
CHEM 475	Physical Chemistry Laboratory I	F	1	CHEM334; CHEM473 or CHEM474 or CBE310 or cc reg.
CHEM 476	Physical Chemistry II	S	3	CHEM474
CHEM 477	Physical Chemistry Laboratory II	S	1	CHEM475
Seminars (Courses listed here do not satisfy the area requirement)				
CHEM 192	Intro. Seminar in Chemistry	F	1	None
CHEM 493	Senior Seminar	F/S	2	CHEM474
or CHEM 499	Senior Thesis	F/S	2	CHEM498
Other (Courses listed here do not satisfy the area requirement)				
CHEM 301	Advanced Scientific Writing	S	3	CO150 and CHEM334 or CHEM345
CHEM 487	Internship <sup>1</sup>	F/S/SS	1-3	CHEM476
CHEM 495	Independent Study <sup>1</sup>	F/S/SS	1-3	At least 9 credits in CHEM courses 100-499
CHEM 498	Research <sup>1</sup>	F/S/SS	1-3	At least 20 credits in CHEM courses 100-499

F = Fall, S = Spring, SS = Summer Session, cc = concurrent.

**\*\*\* IMPORTANT \*\*\***

Remember that **ONLY** your Degree Progress Audit (DARS) will be used as the basis for awarding your degree. Always check your Degree Progress Audit (DARS) in RAM Web to keep on track for your degree.

