

Cooperative 3-2 Program for students majoring in **CHEMISTRY**  
at Fredonia and **Ceramic Engineering**  
at NYS College of Ceramics at **Alfred**

Eng  
Chem  
Alfred  
2016-2018

**REQUIREMENTS LISTED IN CATALOG MUST BE FULFILLED FOR GRADUATION**

**FIRST YEAR (FREDONIA)**

<u>First Semester</u>				<u>Second Semester</u>			
CHEM	115-125	Gen. Chemistry I w/Lab	4	CHEM	116-126	Gen Chemistry II w/Lab	4
MATH	122	Univ. Calculus I	4	MATH	123	Univ. Calculus II	4
ENGL	100	English Composition	3	PHYS	230-232	Univ. Physics I w/Lab	5
-----	-----	CCC ▪	<u>3</u>	-----	-----	CCC ▪	<u>3</u>
			14				16

**SECOND YEAR (FREDONIA)**

<u>First Semester</u>				<u>Second Semester</u>			
CHEM	215-225	Organic Chem. I w/Lab	4	CHEM	216-226	Organic Chem. II w/Lab	4
MATH	223	Univ. Calculus III	4	CHEM	317-327	Analytical Chem. I w/Lab	4
PHYS	231-233	Univ. Physics II w/Lab	5	CSIT	121	Computer Science I *	3
GEO	340	Mineralogy +	<u>4</u>	-----	-----	CCC ▪	<u>3</u>
			17				14

(If transcript does not list Chemistry as major, see Director to declare Chemistry)

**THIRD YEAR (FREDONIA)**

<u>First Semester</u>				<u>Second Semester</u>			
CHEM	315-325	Physical Chem. I w/Lab	4	CHEM	316-326	Physical Chem. II w/Lab	4
CHEM	318-328	Analytical Chem. II w/Lab	5	CHEM	496	Seminar II ***	0
CHEM	495	Seminar I ***	1	CHEM	295	Intro. to Research	1
PHYS	321	Engineering Statics	3	MATH	224	Differential Equations	3
PHYS	329	Engineering Dynamics	3	PHYS	322	Mechanics of Solids	3
CHEM	462	Inorganic Chemistry	<u>3</u>	-----	-----	CCC ▪	3
			19	-----	-----	CCC ▪	3
							17

(See Director for transfer interview)

(See Chemistry Chair for transfer letter)

**FOURTH AND FIFTH YEARS (ALFRED)**

Equivalent to six hours of 400 or 500 level Chemistry courses

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- Must complete the College Core Curriculum (CCC) either at Fredonia or engineering institution. Upper level is not required for 3-2 students. Also not required for 3-2: second social science course, second speaking intensive course, foreign language if earn 70 or better on Regent's Checkpoint B, and American History category if earn 85 or better on Regent's exam. See the current undergraduate Catalog for details regarding the CCC.
  - \* For students transferring to Syracuse, additional CSIT courses are required.
  - \*\* Recommended electives include PHYS 234 (Modern Physics), courses in Mathematics, Computer Science, Chemistry, Business, Electronics, or other areas consistent with student's goals.
  - \*\*\* It is recommended that students complete the Seminar attendance requirement and certain assignments at Fredonia: actual presentation of the seminar may be delayed until the fourth or fifth year.
  - + Fall semester of ALTERNATE YEARS only. Take in third year if necessary.

**NOTE:** Students wishing to complete an ACS approved degree program should consult with the Chairperson of Chemistry.