

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

Ceramic  
Eng/Alfred  
Physics  
2011-2012

**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>	CSIT	121	Computer Science I *	<u>3</u>
			14				16

**SECOND YEAR (FREDONIA)**

<u>First Semester</u>				<u>Second Semester</u>			
MATH	223	Univ. Calculus III	4	MATH	224	Differential Equations	3
PHYS	231-233	Univ. Physics II w/Lab	5	PHYS	234	Modern Physics	4
PHYS	321	Engineering Statics	3	PHYS	322	Mechanics of Solids **	4
PHYS	329	Engineering Dynamics	3	PHYS	330	Thermodynamics	<u>3</u>
GEO	340	Mineralogy ***	<u>4</u>				14
			19				

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

**THIRD YEAR (FREDONIA)**

<u>First Semester</u>				<u>Second Semester</u>			
PHYS	400	Seminar	1	PHYS	426	Mathematical Physics II	3
PHYS	425	Mathematical Physics I	3	PHYS	-----	Physics Elective +	3
PHYS	431	Intro. to Quantum Mech.	3	CHEM	316	Physical Chemistry II	4
PHYS	-----	Phys. Electrical Req.**	3-4	-----	-----	CCC 's ▪	<u>6</u>
CHEM	315	Physical Chemistry I	4				16
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			17-18				

(See Director for transfer interview)

(See Chemistry Chair for transfer letter)

**FOURTH AND FIFTH YEARS (ALFRED)**

CCC ▪      3

▪ 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.

\*\* One electrical requirement from PHYS 323, PHYS 325 & PHYS 327, PHYS 326 – PHYS 328.

\*\*\* Fall semester of ALTERNATE YEARS only. Take in third year if necessary.

+ One course from PHYS 331, or PHYS 333.