Cooperative 3-2 Program for students majoring in **PHYSICS** at Fredonia and an appropriate curriculum at an affiliated **engineering** institution.

Eng Physics 2016-2018

REQUIREMENTS LISTED IN CATALOG MUST BE FULFILLED FOR GRADUATION

FIRST YEAR (FREDONIA)

First Semester				Second Semester			
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
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PHYS	199	Freshman Seminar	1				16
			15				

SECOND YEAR (FREDONIA)

First Semester				Second Semester			
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				
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			18				14 -15

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

THIRD YEAR (FREDONIA)

First Semester				Second Semester			
PHYS	431	Intro. to Quantum Mech.	3	PHYS	426	Mathematical Physics II	3
PHYS	323	Circuit Analysis ***	4	PHYS	400	Seminar	1
PHYS	425	Mathematical Physics I	3	-------	-----	Requirements/Electives	9-10
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			16-17				

(See Director for transfer interview)

(See Physics Chair for transfer letter)

FOURTH AND FIFTH YEARS (AFFILIATED INSTITUTION)

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.

** Required for non-electrical engineering areas: for other areas, see ++.

*** Required for electrical and computer engineering: for other areas, see ++.

\+ Required for electrical and computer engineering: recommended for mechanical engineering. For others, see ++.

++ Requirements/Electives: These should be planned, under advisement, as a complete package to fulfill remaining Physics/Engineering requirements according to the current Fredonia and Engineering school catalogs. Consideration should be given to the following: the Cooperative Engineering/Physics major requires PHYS 330 (Thermodynamics), and one course from PHYS 331 (Theoretical Mechanics), and PHYS 333 (Electricity & Magnetism) and also one electrical requirement from PHYS 323 (Circuit Analysis), PHYS 325-327 (Electronics & Lab), or PHYS 326-328. PHYS 333 is recommended for Electrical Engineering. Probability and Statistics (STAT 350) is required at some affiliated institutions for students interested in Electrical or Industrial Engineering. Linear Algebra (MATH 231) is strongly recommended. Note that the Physics/Coop required courses plus MATH 231 will qualify for a minor in Applied Mathematics (must be declared).

This list is not intended to be exhaustive.