

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 | ----- | ---- | Requirement/Elective | <u>3-4</u> |
| ----- | ---- | CCC ■ | <u>3</u> | | | | 14 -15 |
| | | | 18 | | | | |

(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 | 431 | Intro. to Quantum Mech. | 3 | PHYS | 324 | Circuit Analysis II + | 3 |
| PHYS | 323 | Circuit Analysis I *** | 3 | PHYS | 426 | Mathematical Physics II | 3 |
| PHYS | 425 | Mathematical Physics I | 3 | PHYS | 400 | Seminar | 1 |
| ----- | ---- | Requirement/Elective | 3-4 | ----- | ---- | Requirements/Electives | 6-7 |
| ----- | ---- | CCC ■ | <u>3</u> | ----- | ---- | CCC ■ | <u>3</u> |
| | | | 15 -16 | | | | 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 mechanical engineering: for other areas, see ++.
- + Required for electrical 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 I), 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 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.