

**B. S. in Physics, Option in Engineering Physics**  
**Cooperative (Dual Degree) Option in Physics and Engineering**  
**(3 years at EIU, followed by 2 years at UIUC)**

FRESHMAN YEAR			
Fall Semester		Spring Semester	
PHY 1000, Engineering Seminar	0	PHY 1000, Engineering Seminar	0
ENG 1001G, Composition	3	ENG 1002G, Literature	3
MAT 1441G, Calculus 1	5	MAT 2442, Calculus 2	5
PHY 1351G, Mechanics	3	PHY 1361, Thermo/Electricity/Magnetism	3
PHY 1352G, Lab I	1	PHY 1362, Lab II	1
CHM 1310G, Chemistry 1	3	CHM 1410, Chemistry 2	3
CHM 1315G, Chemistry 1 Lab	1	CHM 1415, Chemistry 2 Lab	1
	<b>16</b>		<b>16</b>
SOPHOMORE YEAR			
Fall Semester		Spring Semester	
PHY 1000, Engineering Seminar	0	PHY 1000, Engineering Seminar	0
MAT 2443, Calculus 3	4	MAT 3501, Differential Equations	3
PHY 1371, Waves/Sound/Optics/Modern	3	Fine Arts (G)	3
PHY 1372, Lab III	1	Physics elective	3-4
CMN 1310G, Speech Communication	3	Fine Arts (G)	3
Social & Behavioral (G)	3	PHY 2400, Dynamics	3
PHY 2390, Statics	3		
	<b>17</b>		<b>15-16</b>
JUNIOR YEAR			
PHY 1000, Engineering Seminar	0	(PHY 1000, Engineering Seminar)	0
Physics elective	3-4	PHY 4710	1
Physics elective	3-4	MAT 2170, Java	4
Social & Behavioral (G)	3	Physics elective	3-4
PHY 4710	1	Social & Behavioral (G)	3
AET 2043, Engineering Graphics	3	Scientific Awareness, Biological Sciences (G)	3
Fine Arts or Humanities	3	Fine Arts or Humanities (G)	3
	<b>16-18</b>		<b>16-17</b>

**\*All transfer students to UIUC must have completed the equivalent of the intermediate level (or 3 high school years) of a single foreign language with a grade of C or better. \*\* The student must also submit 3 essays for the Electronic Writing Portfolio. \*\*\* One (G) course must have a focus on cultural diversity.**

**Required coursework:** PHY 1351G (1391G), PHY 1352G (1392G), PHY 1361, PHY 1362, PHY 1371, PHY 1372, PHY 2390, PHY 2400, PHY 4710 (twice), CHM 1310, CHM 1315, MAT 1441, MAT 2170, MAT 2442, MAT 2443, MAT 3501. Additionally, students must take 12 semester hours of Physics from the categories listed below. A limit of 3 hours of 4444, 4555, 4600, 4644, or 4800 may be counted toward the degree.

At least one course from Category A: PHY 3410 PHY 4850 (Pre-requisite: PHY 3080)	(3 SH; F even) E&M I (4 SH; F odd) Q.M. and Atomic Physics I
At least one course from Category B: PHY 3350 (Pre-requisite: PHY 3410) PHY 4470 PHY 4750	(3 SH; S odd) Solid State (4 SH; F odd) Optics (4 SH; F even) Thermodynamics & Statistical Mechanics
Category C: PHY 3080 PHY 3090 PHY 3150 PHY 3270 PHY 3300 PHY 3420 PHY 4444 PHY 4555 PHY 4600 PHY 4644 PHY 4800 PHY 4860 PHY 4870	(3 SH; S) Modern Physics I (3 SH; F odd) Modern Physics II (4 SH; F) Electronics (4 SH; S) Intro. Circuit Analysis (3 SH; S odd) Advanced Classical Mechanics (3 SH; S even) E&M II (3 SH) Honors Independent Study (3 SH) Honors Research (1-3 SH) Research (3 SH) Honors Thesis (1-3 SH) Independent Study (2 SH; S even) Quantum Mechanics and Atomic Physics II (3 SH; F odd) Mathematical Methods

## Graduation Requirements

\_\_\_\_\_ 120 Semester hours (SH)

\_\_\_\_\_ 2.00 Cumulative GPA

\_\_\_\_\_ 2.00 Major GPA

\_\_\_\_\_ 40 SH of upper division courses (3000-4000)

\_\_\_\_\_ Senior Seminar (after completion of 75 hours)

\_\_\_\_\_ Cultural Diversity (designated with an \* in catalog)

\_\_\_\_\_ Application for degree. (Apply for graduation after 60 SH)

\_\_\_\_\_ 42 SH in residence at EIU

\_\_\_\_\_ 32 SH Junior-Senior Residency

\_\_\_\_\_ 12 SH senior residency

\_\_\_\_\_ 56 SH at senior institution (Transfer students)

## Electronic Writing Portfolio

Information about the Electronic Writing Portfolio is available at <http://www.eiu.edu/~assess/ewpmain.php>.

**Foreign Language (0-8 SH)** Exempt? Yes / No  
Exemption? Two years in a single foreign language in high school with an average grade of C or better.

Course \_\_\_\_\_ Sem. Hrs \_\_\_\_\_ Grade \_\_\_\_\_ Sem Taken \_\_\_\_\_

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## **Senior Seminar (3 semester hours)**

Taken after student has completed 75 hours.

Course \_\_\_\_\_ Sem. Hrs \_\_\_\_\_ Grade \_\_\_\_\_ Sem Taken \_\_\_\_\_

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## General Ed. Requirements

A student transferring to Eastern Illinois University who has received an Associate in Art (AA), an Associate in Science (AS) or an Associate in Science and Arts (ASA) degree from an Illinois public community college, Lincoln College, or Springfield College in Illinois, is considered as having:

- Junior status
- A minimum of 60 semester hours of transfer credit accepted
- The cultural diversity, and the constitution requirements automatically waived
- Lower division general education requirements met

All students will still have to complete [Eastern's graduation requirements](#)

## **Humanities & Fine Arts (9 semester hours)**

Student must successfully complete at least one course from humanities and one from fine arts, from at least two different disciplines.

Course \_\_\_\_\_ Sem. Hrs \_\_\_\_\_ Grade \_\_\_\_\_ Sem Taken \_\_\_\_\_

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## **Language (9 semester hours) Grade of C or better**

Grade \_\_\_\_\_ Sem Taken \_\_\_\_\_

ENG 1001G (1091G) 3sh / \_\_\_\_\_/\_\_\_\_\_

ENG 1002G (1092G) 3 sh / \_\_\_\_\_/\_\_\_\_\_

CMN 1310G (1391G) 3 sh / \_\_\_\_\_/\_\_\_\_\_

## **Scientific Awareness (7 semester hours)**

Only need to take a Biological Science course the rest is fulfilled by the major.

Course \_\_\_\_\_ Sem. Hrs \_\_\_\_\_ Grade \_\_\_\_\_ Sem Taken \_\_\_\_\_

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## **Social & Behavioral Sciences (9 sem. hrs.)**

Courses must be selected from two different disciplines.

Course \_\_\_\_\_ Sem. Hrs \_\_\_\_\_ Grade \_\_\_\_\_ Sem Taken \_\_\_\_\_

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## **Mathematics (3 semester hours)**

This requirement is met with major requirements