

2+2 Academic Plan
 Elgin Community College *Associate in Science* to EU *Bachelor of Science in Engineering Physics*

Elgin Community College		Elmhurst University	
	Credits		Credits
<u>General Education Core Curriculum Requirements:</u>	45	<u>Integrated Curriculum Equivalencies:</u>	
<u>Communication:</u> <i>Written:</i> ENG 101 and 102 (Grade of “C” or higher required for both courses.) <i>Oral:</i> CMS 101 (Grade of “C” or higher required.)	9	<u>Writing & Reasoning:</u> ENG 105 Composition I ENG 106 Composition II COM 213 Public Speaking	
<u>Mathematics:</u> <i>Mathematics:</i> MTH 190 Calculus with Analytic Geometry I (5) and MTH 210 Calculus with Analytic Geometry II (5) <i>*Both MTH 190 and 210 are prescribed major requirements for Engineering Physics and also meets IAI.</i>	10	<u>Mathematics:</u> <i>Mathematics:</i> MTH 151 Calculus I, MTH 152 Calculus II	

2+2 Academic Plan

Elgin Community College *Associate in Science to EU Bachelor of Science in Engineering Physics*

<p><u>Physical & Life Sciences:</u></p> <p>Select one course from Life Sciences and one course from Physical Sciences.</p> <p><u>Life Sciences:</u></p> <p><i>Biology:</i> 108 (4), 110 (4), 113 (4), 114 (4)</p> <p>**Elmhurst University recommends the above courses for fulfillment of the Life Science requirement. However, if other courses meet IAI and satisfy the Life Science category of the Associate of Science they may be transferred to Elmhurst for fulfillment of Integrated Curriculum requirements.</p> <p><u>Physical Sciences:</u></p> <p><i>Physics:</i> 211 (5), 212 (5)</p> <p><i>*Physics 211 and 212 are prescribed major requirements for Engineering Physics and also meets IAI. These courses must be used to meet the requirements of the Associate of Science.</i></p>	14	<p><u>Physical & Life Sciences Equivalencies:</u></p> <p>Elmhurst University requires both Physical and Life Science courses to have a lab component. This will also ensure that AS requirements are met at Elgin.</p> <p><u>Life Sciences:</u></p> <p><i>Biology:</i> BIO 100 Principles of Biology (both 108, 110), BIO 200 General Biology I (113), BIO 201 General Biology II (114), BIO 105 Environmental Biology (115)</p> <p><u>Physical Sciences:</u></p> <p>PHY 121 General Physics I, PHY 122 General Physics II</p>	
--	-----------	--	--

2+2 Academic Plan

Elgin Community College *Associate in Science to EU Bachelor of Science in Engineering Physics*

<p><u>Humanities & Fine Arts Requirements:</u> Please select one (1) course from <u>2 different disciplines</u>. Ensure that one course fulfills a Humanities and that one fulfills Fine Arts.</p> <p><u>Humanities:</u></p> <p><i>Literature:</i> 201, 202, 203, 205, 210, 211, 223, 230 <i>History:</i> 118 <i>Humanities:</i> 110, 112, 113, 203, 216</p> <p><u>Fine Arts:</u></p> <p><i>Art:</i> 115, 130, 151, 152, 231, 232 <i>Music:</i> 104, 105 <i>Theater:</i> 100 <i>Communications:</i> 106</p> <p>**Elmhurst University recommends the above courses for fulfillment of the Humanities & Fine Arts requirements. However, if other courses meet IAI and satisfy the Humanities & Fine Arts category of the Associate of Science they may be transferred to Elmhurst for fulfillment of Integrated Curriculum requirements.</p>	6	<p><u>Humanities & Fine Arts Equivalencies:</u></p> <p><u>Humanities:</u></p> <p>All Literature courses listed meet the Literature Area of Knowledge History 118, 160 meet the Historical Analysis Area of Knowledge Humanities 110, 216 meets the Inquiry into Ethics and Justice Area of Knowledge Humanities 112, 113 meet the Historical Analysis Area of Knowledge Humanities 203 meet the Religious Studies in Context Area of Knowledge</p> <p><u>Fine Arts:</u></p> <p>Art 115, 130, 231, 232 meets the Fine Arts Area of Knowledge Art 151, 152 meet the Historical Analysis Area of Knowledge Music 104, 105 meet the Fine Arts Area of knowledge Theater 100 meet the Fine Arts Area of Knowledge CMS 106 meet the Fine Arts Area of Knowledge</p>
---	---	--

2+2 Academic Plan

Elgin Community College *Associate in Science to EU Bachelor of Science in Engineering Physics*

<p><u>Social & Behavioral Sciences:</u> Select two courses from the courses below.</p> <p><i>Psychology:</i> 100</p> <p><i>Political Science:</i> 150, 151, 152, 250, 251</p> <p><i>Anthropology:</i> 120, 220</p> <p><i>History:</i> 101, 102, 115, 116, 130, 131, 140, 141, 151, 152, 189</p> <p><i>Geography:</i> 216</p> <p><i>Sociology:</i> 100, 201, 209, 220</p> <p>**Elmhurst University recommends the above courses for fulfillment of the Social & Behavioral Sciences requirements. However, if other courses meet IAI and satisfies the Social & Behavioral Sciences category of the Associate of Science they may be transferred to Elmhurst for fulfillment of Integrated Curriculum requirements.</p>	<p>6</p>	<p style="text-align: center;">Elmhurst University Equivalencies</p> <p>Completion of TWO courses in this category at Elgin Community College satisfies Elmhurst University Integrated Curriculum requirements.</p> <p>Psychology 100 and Sociology 100 will meet the Cognitive and Behavioral Sciences Area of Knowledge</p> <p>All Political Science, Anthropology, and Geography courses and Sociology 201, 209 and 220 will meet the Social and Political Analysis Area of Knowledge</p> <p>All History courses will meet the Historical Analysis Area of Knowledge</p>	
--	-----------------	---	--

2+2 Academic Plan
Elgin Community College Associate in Science to EU Bachelor of Science in Engineering Physics

<p><u>Prescribed Major Requirements:</u></p> <p>PHY 213 Engineering Physics III (5) and PHY 216 Quantum Physics (2)</p> <p>MTH 230 Calculus with Analytic Geometry III (5)</p> <p>MTH 250 Differential Equations (4)</p> <p>**Elgin students following the engineering Physics pathway will also need to take Elmhurst’s PHY 304 (4) online with Elmhurst University in the Fall term while enrolled at ECC (dual enrollment). Students will take the lab component of this course upon transferring to Elmhurst University. (Credit not included in ECC credit hours) Please note that PHY 304 carries the following ECC prerequisites: PHY 211, PHY 212 and MTH 190</p> <p>*PHY 211+ 212 are major requirements and can be found under the Physical Science requirement on page 2.</p> <p>*MTH 190 and 210 are major requirements and can be found under the Mathematics requirement on page 1.</p>	<p>16</p>	<p><u>Prescribed Major Requirement Equivalencies:</u></p> <p>PHY 305 Modern Physics</p> <p>MTH 251 Calculus III</p> <p>MTH 341 Differential Equations</p>	
--	------------------	--	--

2+2 Academic Plan

Elgin Community College *Associate in Science to EU Bachelor of Science in Engineering Physics*

General Electives: Fulfill remaining elective hours from other disciplines.	3-9		
Total Elgin Community College Credits *Elmhurst University will accept up to 70 credits in transfer	64-70*		

2+2 Academic Plan
 Elgin Community College *Associate in Science to EU Bachelor of Science in Engineering
 Physics*

		<p><u>Engineering Physics Major Requirements:</u></p> <p><i>*PHY 304 Waves and Oscillations (4) taken concurrently online with Elgin course work. Lab to be taken at Elmhurst upon matriculation.</i></p> <p>PHY 306 Mechatronics I (4) PHY 307 Mechatronics II (4) PHY 311 Analytical Mechanics (4) PHY 312 Electricity and Magnetism (4) PHY 313 Statistical Physics (4) PHY 315 Bend, Squish, and Flow (4) PHY 407 Data Science & Mathematical Methods for Physics (4) PHY 414 Modern Optics (4) PHY 421 Quantum Mechanics (4)</p> <p>PHY 492 Independent Study (4) -or- PHY 494 Independent Research (4) -or- PHY 495 Honors Independent Research (4)</p> <p>Highly Recommended: MTH 342 Applied Analysis (4)</p>	<p>44-48</p>
--	--	--	---------------------

2+2 Academic Plan

Elgin Community College *Associate in Science to EU Bachelor of Science in Engineering Physics*

		<u>Remaining Course Credits to be Completed at Elmhurst University:</u> <ol style="list-style-type: none">1. Minor in areas such as Business, Chemistry, Math, etc.2. Take general elective credits.	10-20
		Total Elmhurst University Credits	128