

CITY COLLEGES OF CHICAGO 2019–20 ACADEMIC CATALOG

NATURAL SCIENCES



DEGREE CODE:
AES 0100

PATHWAY: Engineering and Physics

Visit your College Advisor, ccc.edu, or your college's Transfer Center for more information.

This is an **example course sequence** for students interested in Engineering or Physics. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Engineering Science (AES) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

Choose your courses with your College Advisor.

Communications and mathematics pre-credit requirements. Placements based on current placement instrument, ACT or department chair recommendation.			College-level courses that can be taken while in pre-credit courses.	
ENGLISH PLACEMENT	READING PLACEMENT	MATHEMATICS PLACEMENT	GENERAL EDUCATION COURSES	ELECTIVE COURSES
<input type="checkbox"/> ESL/FS Writing	<input type="checkbox"/> ESL/FS Reading	<input type="checkbox"/> FS Mathematics I	<input type="checkbox"/> Humanities: Africana Studies 101	<input type="checkbox"/> College Success
<input type="checkbox"/> ESL/English 98	<input type="checkbox"/> ESL/Reading 99	<input type="checkbox"/> FS Mathematics II		
<input type="checkbox"/> ESL 99	<input type="checkbox"/> ESL Reading 100	<input type="checkbox"/> Mathematics 98		
<input type="checkbox"/> ESL/English 100	<input type="checkbox"/> Reading 125	<input type="checkbox"/> Mathematics 99		

SEMESTER-BY-SEMESTER PROGRAM PLAN FOR FULL-TIME STUDENTS

All plans can be modified to fit the needs of part-time students by adding more semesters.

D	SEMESTER 1	CATEGORY	ACHIEVEMENTS & NEXT ACTIONS
●	English 101–Composition I (3)	<i>Communications</i>	DO THIS –Meet with advisor to confirm plans DO THIS –Begin research on four-year schools
●	Chemistry 201–General Chemistry I (5)	<i>Physical & Life Sciences</i>	
●	Mathematics 207–Calculus and Analytic Geometry I (5)	<i>Mathematics</i>	
●	Fine Arts & Humanities course (HD) (3)	<i>Fine Arts & Humanities (HD)</i>	
16 CREDIT HOURS			
D	SEMESTER 2	CATEGORY	ACHIEVEMENTS & NEXT ACTIONS
●	Mathematics 208–Calculus II (5)	<i>Mathematics</i>	DO THIS –Mid-term check-in with advisor DO THIS –Visit your campus Transfer Center to discuss options and create a short list of four-year schools for potential transfer
●	Physics 235–Engineering Physics I (5)	<i>Physical & Life Sciences</i>	
●	English 102–Composition II (3)	<i>Communications</i>	
●	Engineering 190–Computer Applications in Engineering (3)	<i>Required Program Core</i>	
16 CREDIT HOURS			
D	SEMESTER 3	CATEGORY	ACHIEVEMENTS & NEXT ACTIONS
●	Economics 202–Principles of Economics II (3)	<i>Social & Behavioral Sciences</i>	DO THIS –Mid-term check-in with advisor DO THIS –Begin seeking additional four-year funding outlets such as scholarships and aid DO THIS –Begin prepping documentation for college application
●	Mathematics 209–Calculus III (5)	<i>Required Program Core</i>	
●	Physics 236–Engineering Physics II (5)	<i>Required Program Core</i>	
●	Program Elective (3–5)	<i>Elective</i>	
16–18 CREDIT HOURS			
D	SEMESTER 4	CATEGORY	ACHIEVEMENTS & NEXT ACTIONS
●	Mathematics 210–Differential Equations (3)	<i>Required Program Core</i>	COMPLETION of Associate in Engineering Science degree in Engineering and Physics DO THIS –Apply to four-year schools of your choice
●	Physics 237–Engineering Physics III (5)	<i>Required Program Core</i>	
●	Program Elective (5)	<i>Elective</i>	
●	Program Elective (3–5)	<i>Elective</i>	
16–18 CREDIT HOURS			
DEGREE MINIMUM: 64 CREDIT HOURS // PATHWAY TOTAL: 64–66 CREDIT HOURS			

PROGRAM ELECTIVES

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|---|--|---|
| <input type="checkbox"/> Physics 215–Statics (3) | <input type="checkbox"/> Engineering 111–Introduction to the Engineering Profession (2) | <input type="checkbox"/> Engineering 250–Engineering Projects (1–2) |
| <input type="checkbox"/> Physics 216–Dynamics (3) | <input type="checkbox"/> Engineering 131–Engineering Graphics and Introduction to Design (3) | <input type="checkbox"/> Chemistry 203–General Chemistry II (5) |
| <input type="checkbox"/> Physics 217–Mechanics of Materials (3) | <input type="checkbox"/> Engineering 215–Electrical Circuit Analysis (5) | <input type="checkbox"/> Electronics 206–Digital Circuits and Systems (4) |

D = DEGREE // AC = ADVANCED CERTIFICATE // BC = BASIC CERTIFICATE

Programs offered at: