



CHICAGO STATE
UNIVERSITY

College of Arts and Science

Bachelor of Science

Catalog year 2021-2022

PHYS

Physics

**refer to the catalog at csu.edu for updates to program requirements*

Credit Hours	120 credit hours. Students starting a 120-credit hour program in the Fall must complete a minimum of 15 credit hours per semester or 30 credit hours per academic year to earn a Bachelor's degree on time in 4 years.	
Grade Point Average	2.0 GPA (only 1 D in physics courses allowed)	
Residency Rule	Complete last 30 hours at Chicago State University. No more than 66 credit hours may be transferred in from a 2-year school	
Examinations	All students without an AA or AS degree must complete the Reading and Mathematics examinations with passing scores before graduation. All students without a prior bachelor's degree must pass the English Qualifying Examination	
General Education Core	Chicago State University requires a minimum of 39 credit hours in the following General Education competencies:	
	English Composition (6 credits); Oral Communication (3 credits); Mathematics (3 credits); Foreign language (3 credits);	Social Science (9 credits); Humanities (6 credits); Fine Arts (3 credits); Biological Sciences (3 credits); Physical Sciences (3 credits)
	Students must also complete 1 embedded diversity course and 1 embedded critical thinking course. Some courses may fulfill more than one requirement. Only approved courses will satisfy Gen Ed Requirements. Transfer students with an AA or AS degree have met all General Education Requirements. General Education requirements for Mathematics (3 hr) and Natural Sciences (6 hr) are embedded in the supportive courses for the Major (see below*).	

	Subject Code/ Course Number	Term Offered	Credit Hours	Gen Ed	Also Allowed	Pre-requisite Courses	Co-requis ite Courses
SEMESTER 1							
Calculus I	MATH 1410	F, S	4	Yes	Math 1415	MATH 1210 or MATH 1250	
Composition I	ENG 1270		3	Yes	ENG 1240	Placement test	
General Chemistry I	CHEM 1400		3	Yes		One-year HS Chemistry or CHEM 1300	MATH 1200 and CHEM 1410
General Chemistry I Lab	CHEM 1410		1	Yes		CHEM 1400	CHEM 1400
Physics Skills	PHYS/CHEM 1010		1		FYSE		
Foreign Language	SPAN/FREN/CHI N/AFL 1010		3	Yes		Other languages allowed; must have a sequence in one language	
SEMESTER 2							
Calculus II	MATH 1420	F, S	4			MATH 1410	
Composition II	ENG 1280		3	Yes	ENG 1240	ENG 1270	
General Chemistry II	CHEM 1450		3			CHEM 1400	MATH 1210, CHEM 1460
General Chemistry II Lab	CHEM 1460		1			CHEM 1450	CHEM 1450
Humanities Elective			3				
Introduction to Physics & Engineering Professions	PHYS 1100		2				

SEMESTER 3							
Calculus III	MATH 2430		4				
Calculus based Physics I	PHYS 2110	F	4	Yes-CT			MATH 1410
Intro to C++	CPTR 1100		3			MATH 0990	
Oral Communication	CMAT 2030		3	Yes	ENG 2011		
Introduction to Biology	BIOL 1070	F, S	3		BIOL 1080 or BIOL 1701		

SEMESTER 4							
Differential Equations	MATH 2550		4				
Calculus based Physics II	PHYS 2220	S	4			PHYS 2110	MATH 1420
Social Science Elective 1			3			Fine Arts	
Humanities Elective		F, S	3				
Practical Earth Space Science	PH S 1140 or PH S 1150	F, S	3				

SEMESTER 5							
Calculus based Physics III	PHYS 2330		4				
Electronics I	PHYS 2700		3				
Fine Arts Elective			3				
Social Science Elective 2			3				
Thesis Research I	PHYS 2100		1				

SEMESTER 6							
Mathematical Methods of Physics I	PHYS 3450		3				
Classical Mechanics I	PHYS 3110 or PHYS 3115		3				
Thesis Research II	PHYS 4900		1				
Thermodynamics	PHYS 3210		3				
Social Science Elective 3			3				

SEMESTER 7							
Mathematical Methods of Physics II	PHYS 3460		3				
Quantum Mechanics I	PHYS 3250 or 3255		3				
Electricity and Magnetism I	PHYS 3150 or 3155		3				
Electronics II	PHYS 2710		3				
Signals & Systems	PHYS 3610		3				

SEMESTER 8							
Adv. Undergrad Lab I	PHYS 4850		4				
Quantum Mechanics II	PHYS 4260		3				
Senior Thesis	PHYS 4905		3				
Electricity and Magnetism II	PHYS 4160		3				
Classical Mechanics II	PHYS 4120		3				

Notes:

- Thesis committee approval and 120 hours of research must be completed **before** taking PHYS 4905.
- MATH 1200 and MATH 1210 serve only as prerequisites for MATH 1410, they don't count towards degree