

Date Submitted: 02/25/26 1:47 pm

Viewing: **BS-PHYS-3 : Bachelor of Science in Physics**

Last approved: 10/07/24 10:37 am

Last edit: 02/25/26 1:47 pm

Changes proposed by: segre

Catalog Pages

Using this Program

[Bachelor of Science in Physics](#)

Program Status	Active		
Requestor	Name	Carlo Segre	E-mail segre@iit.edu
Origination Date	2026-2-25 2024-4-23		
Is this an interdisciplinary program?	No		
Is this stem-eligible?	Yes		
Available for direct application?	Yes		
Academic Unit	Physics	College	
	Lewis College of Science and Letters		
Program Title	Bachelor of Science in Physics		
Effective Academic Year	2026 2024 - 2027	Effective Term	Fall 2026
	2025		
Academic Level	Undergraduate		

If all courses in a subject in your department are required, please enter each subject followed by the number ranges in the "Quick Add" field in the pop up box when you click the green plus button below. For example: ARCH 100-499.

What courses will factor the major GPA?

Program Type	Degree
Degree Type	Bachelor of Science (BS)
CIP Code	40.0801 - Physics, General.
Is there more than one Academic Unit proposer?	No

Program Code BS-PHYS-3

Program Attribute

Total Program Credit Hours 120

Please provide a summary and rationale for the [02/16/2026 -- These changes make the Physics degree more flexible and add an additional 3 credit hours of Free Electives. The specific changes are as follows:](#)

[1. Drop the CS 105 requirement \(since PHYS 240 satisfies the Computer Science General](#)

In Workflow

1. **PHYS Chair**
2. Academic Affairs
3. Undergraduate Academic Affairs
4. LS Dean
5. Undergraduate Studies Committee Chair
6. Faculty Council Chair
7. Academic Affairs

History

1. Oct 25, 2017 by clmig-jwehrheim
2. Nov 8, 2017 by Sarah Pariseau (sparisea)
3. Feb 13, 2018 by Sally Laurent-Muehleisen (slaurent)
4. Apr 27, 2018 by Sarah Pariseau (sparisea)
5. Dec 24, 2019 by Sally Laurent-Muehleisen (slaurent)
6. Oct 23, 2020 by Holli Pryor-Harris (pryor)
7. Oct 7, 2024 by Carlo Segre (segre)

Program Resources

Which program resources are necessary to offer this program?

Proposed Catalog Entry

Admission Requirements

Course Requirements

Required Courses

Physics Requirements		(50)
PHYS 100	Intro to the Profession	2
PHYS 123	General Physics I: Mechanics	4
PHYS 221	General Physics II: Electricity and Magnetism	4
PHYS 223	General Physics III	4
PHYS 240	Computational Science	3
PHYS 300	Instrumentation Laboratory	4
PHYS 301	Mathematical Methods of Physics	3
PHYS 304	Thermodynamics and Statistical Physics	3
PHYS 308	Classical Mechanics I	3
PHYS 309	Classical Mechanics II	3
PHYS 405	Fundamentals of Quantum Theory I	3
PHYS 406	Fundamentals of Quantum Theory II	3
PHYS 413	Electromagnetism I	3
PHYS 414	Electromagnetism II	3
PHYS 427	Advanced Physics Laboratory I	3
PHYS 440	Computational Physics	3
PHYS 485	Physics Colloquium	1
PHYS 485	Physics Colloquium	1
Physics Electives		(6)
CS 105	Introduction to Computer Programming	2
or CS 115	Object-Oriented Programming I	
<u>Select 6 credit hours of PHYS 300+</u>		<u>6</u>
Mathematics Requirements		(18)
MATH 151	Calculus I	5
MATH 152	Calculus II	5
MATH 251	Multivariate and Vector Calculus	4
MATH 252	Introduction to Differential Equations	4
Chemistry Requirements		(4)
CHEM 124	Principles of Chemistry I with Laboratory	4
CHEM 125	Principles of Chemistry II with Laboratory	4
Humanities and Social Science Requirements		(21)

See Illinois Tech Core Curriculum, sections B and C	21
Interprofessional Projects (IPRO)	(6)
See Illinois Tech Core Curriculum, section E	6
Free Electives	(15)
Select 12 credit hours	12
Select 15 credit hours	<u>15</u>
Total Credit Hours	120

Sample Curriculum/Program Requirements

Bachelor of Science in Physics Curriculum

Semester 1	Credit Hours	Semester 2	Credit Hours	Year 1	Credit Hours
PHYS 100	2	PHYS 221	4		4
PHYS 123	4	CHEM 125	4		4
CHEM 124	4	MATH 152	5		5
MATH 151	5	Humanities 200-level Course	3		3
		Social Sciences Elective	<u>3</u>		<u>3</u>
	15		15		15
				Year 2	Credit Hours
Semester 1	Credit Hours	Semester 2	Credit Hours		
PHYS 223	4	PHYS 240	3		3
MATH 251	4	PHYS 304	3		3
CS 105 or 115	2	MATH 252	4		4
Social Sciences Elective	3	Social Sciences Elective (300+)	3		3
Humanities Elective (300+)	3	Humanities Elective	<u>3</u>		<u>3</u>
	14		16		16
				Year 3	Credit Hours
Semester 1	Credit Hours	Semester 2	Credit Hours		
PHYS 300	4	PHYS 309	3		3
PHYS 301	3	PHYS 406	3		3
PHYS 308	3	IPRO Elective I	3		3
PHYS 405	3	Humanities Elective (300+)	3		3
Free Elective	3	Free Elective	3		3
	16		15		15
				Year 4	Credit Hours
Semester 1	Credit Hours	Semester 2	Credit Hours		
PHYS 413	3	PHYS 414	3		3
PHYS 427	3	PHYS 440	3		3
PHYS 485	1	PHYS 485	1		1
Physics Elective	3	Physics Elective	3		3
IPRO Elective II	3	Free Elective	<u>3</u>		<u>3</u>
Free Elective	3	Free Elective	3		3
	16		13		13

Total Credit Hours: 120

Specialization Requirements

Program Outcomes and Assessment Process

What are your learning objectives in this program? Please list each learning objective in the boxes below:

Note: These should be the same as described in your assessment plan at the bottom of this form.

Upload your assessment plan here:

Undergraduate Program Requirements

What courses will factor the major GPA?

Undergraduate Degree Requirements

Minimum credit hours 120

Specialization required? No

Minor required? No

Proposed General Curriculum

List Major Course Requirements

List Mathematics Requirements

List Science Requirements

List Computer Science Requirements

List Humanities and Social Sciences Requirements

List Interprofessional Project (IPRO) Requirements

List Technical Elective Course Options

List Free Elective Credit Hours (if applicable) 12

Semester-by-semester plan of

study for the
degree program

Reviewer
Comments

