

PHYSICS SECOND MAJOR FOR ISP STUDENTS

Students must also complete the Undergraduate Registration Requirement (<https://catalogs.northwestern.edu/undergraduate/requirements-policies/undergraduate-registration-requirement/>) and the degree requirements of their home school.

NOTE: This Catalog describes Weinberg College BA requirements that pertain to students who matriculated at Northwestern after spring quarter 2023. Refer to the Archives (<https://catalogs.northwestern.edu/archives/>) if you are following BA requirements described in the 2018-2019 through 2022-2023 editions.

The Integrated Science Program is a highly selective BA program in Weinberg College that includes the following as part of its curriculum:

Course	Title
PHYSICS 125-1 & PHYSICS 125-2 & PHYSICS 125-3 & PHYSICS 126-1 & PHYSICS 126-2 & PHYSICS 126-3	General Physics ISP and General Physics for ISP and General Physics for ISP and Physics Laboratory for ISP and Physics Laboratory for ISP and Physics Laboratory for ISP
PHYSICS 339-1 & PHYSICS 339-2	Quantum Mechanics and Quantum Mechanics
PHYSICS 339-3 or PHYSICS 337-0	Particle and Nuclear Physics Physics of Condensed Matter
ASTRON 331-0	Astrophysics for ISP

Application to this program is made directly to ISP.

It is possible to complete a double major in physics and ISP by completing the following 6 additional upper-level courses:

Course	Title
PHYSICS 330-1 & PHYSICS 330-2 or PHYSICS 333-1 & PHYSICS 333-2	Classical Mech and Classical Mechanics Advanced Electricity & Magnetism and Advanced Electricity & Magnetism
1 lab course from:	
ASTRON 321-0	Observational Astrophysics
PHYSICS 357-0	Optics Laboratory
PHYSICS 359-0	Electronics
PHYSICS 360-0	Advanced Physics Laboratory
Plus 3 courses chosen from 300-level physics or astronomy courses other than:	
PHYSICS 311-1 & PHYSICS 311-2	Mathematical Tools for the Physical Sciences and Mathematical Tools for the Physical Sciences
PHYSICS 312-0	Scalar and Vector Field Methods in Physics
PHYSICS 398-0	Independent Thesis Research
PHYSICS 399-0	Independent Study
ASTRON 398-0	Honors Independent Study
ASTRON 399-0	Independent Study
And other than those required by ISP.	
PHYSICS 339-1 & PHYSICS 339-2	Quantum Mechanics and Quantum Mechanics
PHYSICS 339-3 or PHYSICS 337-0	Particle and Nuclear Physics Physics of Condensed Matter
ASTRON 331-0	Astrophysics for ISP

- Students pursuing an ISP/physics double major may not substitute INTG_SCI 398-0 for any physics or math course in the ISP curriculum. They do not have to choose a physics course concentration.

Honors in Physics and Astronomy

Majors with strong records in their physics, astronomy, and mathematic courses and an interest in pursuing honors should notify the director of undergraduate studies in October of senior year. Eligible students must enroll for 2 units of PHYSICS 398-0 Independent Thesis Research or PHYSICS 399-0 Independent Study by the time of graduation. They participate in research culminating in a written report.

Students whose research reports and grades meet department criteria are recommended to the college for graduation with honors. For more information consult the director of undergraduate studies and see Honors in the Major (<https://catalogs.northwestern.edu/undergraduate/arts-sciences/#academicoptionstext>).