

Bachelor of Science with a Major in Physics in Medicine

Students following the physics in medicine major program will gain a basic broad understanding of the concepts of physics, as well as a foundation for medical school. The program requires completion of 77 science credits total.

Students following the **Physics in Medicine** major are *not* allowed to add concentrations; the major program is already designed to accommodate the special interests of those students intending careers in medicine.

Requirements for the Core Physics in Medicine Major (32.5 Credits)

Course Title	Course Number	Credits	Semester Offered	Check (Year)
Physics A Lab: Mechanics	10411/11411 (10310/11310)	4	Fall	FY
Physics B Lab: Electricity & Mag	10422/11422 (10320/11320)	4	Spring	FY
Physics C: Thermo & Relativity	20433	3	Fall	Soph
Intro Circuitry and Electronics	20430	1.5	Fall	Soph
Math Methods in Phys I/Tutorial	20451/22451	3.5	Fall	Soph
Sophomore Seminar	23411	1	Fall	Soph
Math Methods in Phys II/Tutorial	20452/22452	3.5	Spring	Soph
Intermediate Mechanics	20454	3	Spring	Soph
Physics D: Modern	20444	3	Spring	Soph
Electricity & Magnetism	30471	3	Fall	Jr
Quantum Mechanics I	40453 (30465, 50602, 50501 or 50701)	3	Fall	Sr

*Intro Circuitry and Electronics is considered a co-requisite of General Physics C-M. General Physics C-M and Modern Physics I are a continuous 1-year sequence and have to be started fall of sophomore year.

Non-Physics Courses (35.5 Credits)

Course Title	Course Number	Credits	Semester Offered	Check (Year)
Biology I: Big Questions/Lab	BIOS 10171/11173	4	Fall	FY
Intro Chemical Principles/Lab	CHEM 10171/11171 (CHEM 10117 or 10181)	4	Fall	FY
Calculus I/Tutorial	MATH 10550/12550 (MATH 10850)	4	Both	FY
Biology II: Molec to Ecos/Lab	BIOS 10172/11174	4	Spring	FY
Organic Struct & Mechanisms	CHEM 10172/11172 (CHEM 10118 or 10182)	4	Spring	FY
Calculus II/Tutorial	MATH 10560/12560 (MATH 10860)	4	Both	FY
Organic Reactions & Apps	CHEM 20273/21273 (CHEM 20223 or 20283)	4	Fall	Soph
Calculus III/Tutorial	MATH 20550/22550 (MATH 20850 & 20860)	3.5	Fall	Soph
Advanced General Chemistry	CHEM 20274/21274 (CHEM 20224 or 20284)	4	Both	Soph

*Courses in parentheses may substitute as indicated, though students are encouraged not to mix and match (for example, if you start with the math sequence you should stay with it if possible).

In addition, PHIM majors must complete 9 credits of Science Electives to be chosen from the following list:

Course Title	Course Number	Credits	Semester Offered	Check (Year)
Medical Physics	PHYS 40371	3	Fall	FY
Physics of Cells	PHYS 50401	3	Fall	FY
Fundamentals of Genetics	BIOS 20303	3	Spring	FY
Vertebrate Physiology	BIOS 30344	3	Both	FY
Cellular Biology	BIOS 30341	3	Both	FY
Principles of Biochemistry	CHEM 40420	3	Both	FY

Other college and university requirements to be completed, one of which must be a University Seminar:

Requirement	Check
Foreign Language (Intermediate level)	
First-Year Composition	
Philosophy Requirement	
Theology Requirement	
History Requirement	
Social Sciences Requirement	
Literature/Fine Arts Requirement	

Science Requirements

Not all science courses will count toward degree credit or science elective credit for science majors. The survey science courses offered as options for non-science majors for their University science requirement will not count as a science elective or toward the minimum science credit hour requirement.

All College of Science courses offered by a major program must be taken at the University of Notre Dame. If a student wants to take a course outside Notre Dame for credit toward the Notre Dame degree, prior approval of the dean's office must be obtained. This does not apply to the courses taken by a transfer student prior to attending Notre Dame.

Language Requirements

The College of Science requires language proficiency through intermediate level in one of the following languages: Arabic, Chinese, French, German, Greek, Irish, Italian, Japanese, Korean, Latin, Portuguese, Russian and Spanish. Students may complete the language requirement by either completing a course taught at intermediate level or by demonstrating proficiency through placement examination.

Study Abroad

The spring semester of the Junior year is the preferred time for a semester abroad or for taking Literature and Fine Arts electives.

***Ask about the Physics honors track!**