

SEVEN-YEAR BS/MD (MEDICAL) PROGRAM IN PHYSICS - (PHYS_BS_07)

32 COURSE UNITS

MAJOR COURSE REQUIREMENTS

Fulfill via completion of course requirements in four categories

Core Courses (7.25 + Capstone)	Physics Option Courses (5)	Required Correlates** (8)	Recommended Specialization Courses (1)
PHY 099-Orientation Seminar (0-credit)	Must be 200-level or higher PHY courses.	MAT 127- Calculus A*	Biochemistry***
PHY 203 Physics I for Physicists*	One of these 5 must be a lab course. Recommended:	MAT 128-Calculus B*	Additional courses may be taken as electives. Recommended:
PHY 204 – Physics II for Physicists*	PHY 316-Biomedical Physics	CHE 201-Gen. Chem. I*	PHY 422-EM Theory II
PHY 306-Math Physics	PHY 311-Anal. & Dig. Elec.	CHE 202-Gen. Chem. II*	PHY 431-Quant. Mech.
PHY 321-Modern Physics	PHY 336- Intro to Biophysics	CHE 331-Org. Chem. I	PHY 436-Cond. Matter
PHY 356 – Thermal Physics	PHY 411-EM Waves & Opt.		
PHY 401-Classical Mechanics	PHY 422-EMag Theory II	CHE 332-Org. Chem. II	CHE 310-Anal. Chem.
PHY 421-EMag Theory I	PHY 426-Part. & Nuclear Phys.	BIO 185-Themes in Biol.	CHE 360-Foren. Chem.
PHY 299 – Research Fundamentals Seminar (.25 cr)	PHY 399-Physics Internship (counted once)	BIO 231-Genetics	BIO 211-Bio. Eukar. Cell
Capstone-must be 1 of these:	PHY393 or PHY493 may count once here, and PHY493 may double-count as a capstone		BIO 332- Biol. Vertebr. BIO 413 - Micros. Anat. Techniq.
PHY 451-Adv. Exp. Phys.			BIO 444-Immunology
PHY 493-Indep. Research II			BIO 451-Developm. Biol.
			BIO 480 –Neurobiology
			BME 311-Physiological Systems
			BME 251 - Intro Biomed. Engin.

* At least 2 of these must be satisfied via AP credit or otherwise taken before the freshman year.
 ** Medical school admissions typically require two semesters of general chemistry, two semesters of organic chemistry, and two semesters of biology with lab.
 *** Completed during the first year at NJMS; the course is equivalent to CHE 430 at TCNJ.

LIBERAL LEARNING REQUIREMENTS

Fulfill via completing course requirements in one of four options:

Option 1 – Breadth Distribution from Approved List (5 courses outside of Science)

Arts & Humanities (2 or 3 courses)	Social Science & History (2 or 3 courses)	Natural Sciences & Quantitative Reasoning (Requirements fulfilled by major course)
Literary, Visual, or Performing Arts course	Psychiatry (completed at NJ Medical School)	Natural Science (with lab)
World Views/Ways of Knowing course	Social Changes in Historical Perspective course	Quantitative Reasoning
If choosing a third course in Arts and Humanities, Literary, Visual, or Performing Arts course or World Views/Ways of Knowing course	If choosing a third course in Social Science and History: Behavioral, Social, or Cultural Perspectives course or Social Changes in Historical Perspective course	Natural Science or Quantitative Reasoning

Option 2 – Designated Interdisciplinary Concentration (see <http://liberallearning.tcnj.edu/courses-information/interdisciplinary>)

Option 3– Self-designed Interdisciplinary Concentration (see <http://liberallearning.tcnj.edu/courses-information/interdisciplinary>)

Option 4 – Second Major

CIVIC RESPONSIBILITIES, PROFICIENCIES & ELECTIVES

Fulfill via completion of course requirements in three categories

Civic Responsibilities	Intellectual & Scholarly Growth	Electives
IDS 103 – Community Engaged Learning (zero-credit requirement)	IDS 102 – Information Literacy online tutorial (zero-credit requirement)	Elective course
Concepts – (fulfilled through liberal learning, other courses, or sustained experience)	Writing Intensive Courses	Elective course
Gender	FSP First Seminar course (satisfies one liberal learning requirement)	
Global Perspective	Mid-level course (usually fulfilled by option or specialization course)	
Race & Ethnicity	Capstone course (usually fulfilled by option or specialization course)	
	Second Language (0-3 courses)	