PHYSICS – (PHYS_BS_01) BS DEGREE – 32 COURSE UNITS

MAJOR COURSE REQUIREMENTS

Fulfill via completion of course requirements in three categories

Core Courses (7)	Major Options or Specialization Courses (10 Course Units)	Correlate Courses (2)
PHY 099 – Orientation Seminar (0 cred)	5 Physics option courses*	MAT 127 – Calculus A
PHY 203 – Physics I for Physicists	5 Specialization options**	MAT 128 – Calculus B
PHY 204 – Physics II for Physicists	1 Capstone course***	
PHY 306 – Mathematical Physics		
PHY 321 – Modern Physics		
PHY 401 – Classical Mechanics		
PHY 356 – Thermal Physics		
PHY 421 – Electromagnetic Theory I		
PHY 299 – Research Fundamentals Seminar (0.25 credits, required only for students matriculating Fall 2015 or later)	 * All 5 options must be 200+ level PHY courses. 2 courses must include a lab chosen from PHY 311, 345, 411, 451. 1 course may be Independent Research. 	
	3 courses may be any course from the school of science or engineering, 2 courses may be from any pre-set physics specialization list OR any 200+ level school of Sci./Eng. *PHY 493, PHY451, or SED 498 (may double count within Physics options or Specialization options)	

seven-course prescribed major specializations may be chosen from within major option and specialization courses. Prescribed specializations are available in Pre-graduate Physics, Biomedical Physics, Computational Physics, Condensed Matter, Geophysics, Astrophysics, and Physical science-Secondary Education. These are outlined on the department website, <u>http://physics.tcnj.edu/academics/programs/</u>.

LIBERAL LEARNING REQUIREMENTS

Fulfill via completing course requirements in one of four options:

Option 1 – Breadth Distribution from Approved List

Arts & Humanities	Social Science & History	Natural Sciences & Quantitative
(2 or 3 courses)	(2 or 3 courses)	Reasoning
		(Requirements fulfilled by major
		course)
Literary, Visual, or Performing Arts	Behavioral, Social, or Cultural Perspectives	Natural Science course (with lab)
course	course	
World Views/Ways of Knowing course	Social Changes in Historical Perspective course	Quantitative Reasoning course
FSP or Literary, Visual, or Performing	FSP or Behavioral, Social, or Cultural	Natural Science course
Arts course	Perspectives course	or
or	or	Quantitative Reasoning course
World Views/Ways of Knowing course	Social Changes in Historical Perspective course	

World Views/Ways of Knowing course | Social Changes in Historical Perspective course |

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

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

information/interdisciplinary-concentrat

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	IDS 102 – Information Literacy online tutorial	Elective course
(zero-credit requirement)	(zero-credit requirement)	
	(WRI 101 or 102 may be required freshmen year)	
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)	