

NATIONAL INSTITUTE OF PHYSICS

College of Science
University of the Philippines

B.S. Applied Physics (Instrumentation Physics) Program

Effective: First Semester, A.Y. 2012 - 2013

First Year, First Semester		First Year, Second Semester	
Math 14 (Plane Trigonometry) ¹	3	Physics 101 (Fundamental Physics I)	4
Math 53 (Elementary Analysis I) ¹	5	Physics 101.1 (Fundamental Physics I Laboratory)	1
Geology 11 (Principles of Geology)	3	Math 54 (Elementary Analysis II) ¹	5
Geology 11.1 (Laboratory in Principles of Geology)	1	Chemistry 16 (General Chemistry I)	5
English 10 (College English)	3	Communication 3 (Practical Speech Fundamentals)	3
Physics 10 (Physics & Astronomy for Pedestrians)	3	PE	(2)
PE	(2)		
	18		18
Second Year, First Semester		Second Year, Second Semester	
Physics 102 (Fundamental Physics II)	4	Physics 103 (Fundamental Physics III)	4
Physics 102.1 (Fundamental Physics II Laboratory)	1	Physics 103.1 (Fundamental Physics III Laboratory)	1
Physics 111 (Mathematical Physics I)	3	Physics 112 (Mathematical Physics II)	3
Math 55 (Elementary Analysis III)	3	Math 121.1 (Elementary Differential Equations)	3
Chemistry 17 (General Chemistry II)	5	Biology 11 (Fundamentals of Biology I)	5
Philosophy 1 (Philosophical Analysis)	3	Kasaysayan 1 (Kasaysayan ng Pilipinas)	3
PE	(2)	PE	(2)
	19		19
Third Year, First Semester		Third Year, Second Semester	
Physics 104 (Modern Physics I)	4	Physics 132 (Electromagnetic Theory II)	3
Physics 104.1 (Modern Physics I Laboratory)	1	Physics 141 (Quantum Physics I)	3
Physics 113 (Mathematical Physics III)	3	App Physics 155 (Computer Methods in Physics I)	4
Physics 121 (Theoretical Mechanics I)	3	App Physics 181 (Physical Electronics I)	4
Physics 131 (Electromagnetic Theory I)	3	G.E. (Arts & Humanities - 2)	3
G.E. (Arts & Humanities - 1)	3	GE (Social Science & Philosophy - 1)	3
	17		20
Fourth Year, First Semester		Fourth Year, Second Semester	
Physics 165 (Optical Physics I)	3	Physics 151 (Statistical Physics I)	3
Physics 191 (Experimental Physics I)	5	Physics 166 (Optical Physics II)	3
App Physics 156 (Computer Methods in Physics II)	4	Physics 192 (Experimental Physics II)	3
App Physics 173 (Solid State Physics)	3	App Physics 183 (Control Systems Approach to Physics Modeling)	3
App Physics 182 (Physical Electronics II)	4	App Physics 185 (Instrumentation Physics I)	4
NSTP ²	(3)	NSTP ²	(3)
	19		16
Fifth Year, First Semester		Fifth Year, Second Semester	
Physics 161 (Introductory Laser Physics)	3	Physics 196 (Undergraduate Seminar)	1
App Physics 186 (Instrumentation Physics II)	4	App Physics 200 (Undergraduate Thesis)	3
App Physics 187 (Photonics)	4	Filipino 40 (Wika, Kultura at Lipunan)	3
App Physics 199 (Undergraduate Research)	3	GE (Social Science & Philosophy - 2)	3
STS (Science, Technology & Society)	3	GE (Social Science & Philosophy - 3)	3
		P.I. 100 (The Life and Works of Jose Rizal)	3
	17		16
Total Number of Units: 179			

¹ Math 14 and Math 53 are to be taken together provided the student passed the APE in Math 11. Otherwise, the student must take Math 17 in the 1st year/1st semester (in place of Math 14 and Math 53); Math 53 in the 1st year/2nd semester (in place of Math 54); and Math 54 in the immediately following summer session.

² As a requirement for graduation, all students are required to take (6) units in one of the National Service Training Program (NSTP) components. ROTC and Civic Welfare Training Service are offered by UPD.