NJCU
NEW JERSEY CITY UNIVERSITY

Department of Physics Bachelor of Science-Applied Physics

Freshman Year			
Semester 1	**Credits**	**Semester 2**	**Credits**
ENGL 101 English Composition I	4cr	ENGL 102 English Composition II	4cr
PHYS 140/1140 Physics for Engineering I Lecture and Lab	4cr	PHYS 141/1141 Physics for Engineering II Lecture and Lab	4cr
MATH 192 Calculus I	4cr	MATH 193 Calculus II	4cr
CHEM 105/1105 General Chemistry I Lecture and Lab	5cr	CHEM 106/1106 General Chemistry I Lecture and Lab	5cr
Total	17 credits	Total	17 credits
Optional (Summer 1 and/or Summer 2)			
Sophomore Year			
Semester 1	**Credits**	**Semester 2**	**Credits**
PHYS 230 Physics III Lecture and Lab	4cr	PHYS 321 Theory and Applications of Electricity and Magnetism	3cr
MATH 292 Calculus III	4cr	INTD 180 Computer as a Tool for Science and Math Majors	3cr
PHYS 240 Digital Techniques and Applications	3cr	MATH 311 Differential Equations for Engineers	4cr
General Education Tier I	3cr	General Education Tier I	3cr
General Education Tier II	3cr	General Education Tier II	3cr
Total	17 credits	Total	16 credits
Optional (Summer 1 and/or Summer 2)			
Junior Year			
Semester 1	**Credits**	**Semester 2**	**Credits**
PHYS 401/1401 Theory and Application of Modern Optics Lecture and Lab	4cr	PHYS 404 Nuclear Radiation: Theory and Applications	3cr
PHYS 113 Introduction to Astronomy	3cr	PHYS 410 Classical Mechanics	4cr
General Education Tier I	3cr	MATH 330 Mathematical Statistics I	3cr
General Education Tier II	3cr	General Education Tier I	3cr
General Education Tier II	3cr	General Education Tier II	3cr
Total	16 credits	Total	16 credits
Optional (Summer 1 and /or Summer 2)			
Senior Year			
Semester 1	**Credits**	**Semester 2**	**Credits**
PHYS 405 Quantum Mechanics	3cr	PHYS 490 Independent Study	3cr
General Education Tier II	3cr	GEOG 111 Physical Geography	3cr
Elective	3cr	General Education Tier III	3cr
Elective	3cr	Elective	3cr
Elective	3cr	Elective	3cr
Total	15 credits	Total	15 credits