

B.S. in APPLIED PHYSICS CHECK SHEET

	Date Taken	Grade Rec'd		Date Taken	Grade Rec'd
Learning Skills (11 cr)			Required Courses (37 cr)		
ENGL 101 College Writing (4)	_____	_____	PHYS 131 Physics I-Calc Lect (3)	_____	_____
ENGL 202 Research Writing (Soph)	_____	_____	PHYS 141 Physics I-Calc Lab (1)	_____	_____
MATH 125 Calculus I –Physics (3)	_____	_____	PHYS 132 Physics II-Calc Lect (3)	_____	_____
Humanities (9 cr)			PHYS 142 Physics II-Calc Lab (1)	_____	_____
HIST 195 Hist: The Modern Era (3)	_____	_____	PHYS 441 Classical Mechanics (3)	_____	_____
ENGL 121 or FNLG 121 Intro to Lit (3)	_____	_____	PHYS 231 Electronics (4)	_____	_____
Philosophy or Religious Studies (3)	_____	_____	PHYS 451 Electricity & Magnetism (3)	_____	_____
_____	_____	_____	PHYS 331 Modern Physics (3)	_____	_____
Fine Arts (3)			PHYS 345 Optics (3)	_____	_____
ARHI 101 Intro to Art or	_____	_____	PHYS 352 Applied Physics Lab (3)	_____	_____
MUHI 101 Intro to Music or	_____	_____	PHYS 355 Computer Int'facing (3)	_____	_____
THTR 101 Intro to Theater or	_____	_____	COSC 110 Structured Prog (3)	_____	_____
THTR 102 Intro to Dance	_____	_____	COSC 250 Intro Num Methods (3)	_____	_____
Natural Science (8 cr)			MATH 241 Diff Equations (3)	_____	_____
**CHEM 111 General Chemistry I (4)	_____	_____	Free Electives (0-10 cr)		
** CHEM 112 General Chemistry II (4)	_____	_____	_____	_____	_____
*Social Science (9 cr)			_____	_____	_____
No two courses may have the same prefix			Controlled Electives: According to Track		
_____	_____	_____	<u>Nanomanufacturing Technology (18 cr)</u>		
_____	_____	_____	*Students in NMT will spend one summer semester, at Penn State for controlled electives. <u>GPA ≥ 3.0</u>		
_____	_____	_____	NMTT 311 Mat, Safe & Equip (3)	_____	_____
Health and Wellness (3-4 cr)			NMTT 312 Basic nanofabrication (3)	_____	_____
HPED 143 Health & Wellness (3) or	_____	_____	NMTT 313 Thin Films (3)	_____	_____
FDNT 143 Nutrition & Wellness (3) or	_____	_____	NMTT 314 Lithography & Pat Tech(3)	_____	_____
MLSC 101 World Military Hist (2) and	_____	_____	NMTT 315 Mat Modification(3)	_____	_____
MLSC 102 American Military Hist (2)	_____	_____	NMTT 316 Charc, Pack & Testing(3)	_____	_____
Liberal Studies Electives (3)			PHYS 475 Physics Semiconductor I(3)	_____	_____
MATH 126 Calculus II – Physics (3)	_____	_____	PHYS 476 Physics Semiconductor II(3)	_____	_____
Foreign Language (0-6 cr)			<u>Solid State Electronics (24 cr)</u>		
FRNC 201 & 202 (College French I&II) or	_____	_____	PHYS 342 Thermal & Stat Physics (3)	_____	_____
GRMN 251 & 252 (German III&IV) or	_____	_____	PHYS 353 Solid State Elect. Lab (3)	_____	_____
†SPAN 102 & 201 (Elm Sp & Int Sp 6 cr)	_____	_____	PHYS 432 Advanced Electronics (3)	_____	_____
Other levels should be listed as electives			PHYS 475Physics Semiconductor I (3)	_____	_____
_____	_____	_____	PHYS 476 Physics Semiconductor II(3)	_____	_____
_____	_____	_____	COSC 300 Comp Org & Asbly Lang(3)	_____	_____
Synthesis (3 cr)			MATH 342 Adv Math for Apps (3)	_____	_____
LBST 499 Senior Synthesis	_____	_____	<u>Computer Science (27 cr)</u>		
*If one of these courses does not meet the Non-western cultures requirement, then an elective must be used.			PHYS 353 Thermal & Stat Physics (3)	_____	_____
†Total credits from SPAN 102 (4) and SPAN 201 (4) is 8 cr. 2 cr must be included in electives.			PHYS 432 Advanced Electronics (3)	_____	_____
			PHYS 475 Physics Semiconductor I (3)	_____	_____
			PHYS 476 Physics Semiconductor II(3)	_____	_____
			COSC 300 Comp Org & Asbly Lang(3)	_____	_____
			COSC 310 Data Struct & Log (3)	_____	_____
			COSC 410 Comp Architecture (3)	_____	_____
			COSC 450 Appy Num Methods (3)	_____	_____

**Chemistry, Biology & Geology controlled electives –
continued on next page

APPY-Physics Controlled Electives: According to Track

	Date Taken	Grade Rec'd
Chemistry (24 cr)		
CHEM 231 Organic Chemistry I (4)	_____	_____
CHEM 232 Organic Chemistry II (4)	_____	_____
CHEM 323 Analytical Methods (4)	_____	_____
CHEM 341 Physical Chemistry I (4)	_____	_____
CHEM 342 Physical Chemistry II (4)	_____	_____
CHEM 343 Phys. Chem Lab I (1)	_____	_____
MATH 342 Adv Math for Apps (3)	_____	_____

	Date Taken	Grade Rec'd
Geology (23 cr)		
GEOS 201 Foundations of Geology (4)	_____	_____
GEOS 202 Quant. Methods of Geos (2)	_____	_____
GEOS 203 Surficial Processes (4)	_____	_____
<i>Choose (5) of the following:</i>		
GEOS 301 Min'ology&Pet'ology (4)	_____	_____
GEOS 302 Structural Geology (4)	_____	_____
GEOS 362 Plate Tectonics (3)	_____	_____
GEOS 352 Sed & Strat (4)	_____	_____
GEOS 440 Subsurface Geology (3)	_____	_____
GEOS 481 Special Topics (3)	_____	_____
GEOS 303 Field Geology (4)	_____	_____
GEOS 401-402 Northern Rockies (4)	_____	_____
GEOS 403-404 Newfoundland (4)	_____	_____
GEOS 405-306 America SW (4)	_____	_____
GEOS 407-408 Carbonate Geol (4)	_____	_____

	Date Taken	Grade Rec'd
Biology (27 cr)		
BIOL 111 Principles of Bio I (4)	_____	_____
BIOL 220 General Zoology (3)	_____	_____
CHEM 231 Organic Chemistry I (4)	_____	_____
CHEM 323 Analytical Methods (4)	_____	_____
CHEM 351 Biochemistry (4)	_____	_____
<i>Choose (2) of the following:</i>		
BIOL 250 Microbiology (3)	_____	_____
BIOL 263 Genetics (3)	_____	_____
BIOL 405 Bio of the Cell (3)	_____	_____
BIOL 401 Lab Meth Bio/BioTech(3)	_____	_____