APPLIED PHYSICS B.S.  
2012/13

Name: ___________________________  Date: ___________________________

(Quarter offered: F=Fall, W=Winter, S=Spring, *= Not offered this year)  
ID#: ___________________________

Note: All courses on check list must be taken for a letter grade

INTRODUCTORY REQUIREMENTS

Calculus:  
MATH 19A (FWS) ___ OR 20A (F) ___  
MATH 19B (FWS) ___ OR 20B (W) ___  
MATH 23A (FWS) ___

Advanced Calculus:  
MATH 23B (FWS) ___ OR PHYS 14 (*) ___

Chemistry:  

Physics:  
PHYS 5A/L (F) ___ + 5B/M (W) ___ + 5C/N (S) ___ + 5D (F) ___

Note: To declare Applied Physics as a major, PHYS 5ABC must be completed with a GPA of 2.7 or higher.

Computer Programming:  
CMPS 5C (*) ___ OR 5J (FW) ___ OR 5P (S) ___ OR EART 119 (W) ___ OR  
PHYS 115 (S) ___

*Students may also satisfy the computer programming requirement by demonstrating their knowledge of programming to a faculty member designated by the Physics department.

ADVANCED REQUIREMENTS 16 total

Modern Physics:  
PHYS 101A Introduction to Modern Physics I (F) ___

Mechanics:  
PHYS 105 Mechanics (F) ___

Electricity/Magnetism/Optics:  
PHYS 110A Electricity, Magnetism, and Optics (W) ___

Thermodynamics:  
PHYS 112 Thermodynamics and Statistical Mechanics (W) ___

Math Methods:  
PHYS 116A Mathematical Methods in Physics (W) ___

Electives:  
THREE from the following...

AMS 107/PHYS 107 Introduction to Fluid Dynamics (W) ___

PHYS 115 Computational Physics (S) ___

PHYS 120 Polymer Physics (*) ___

PHYS 129 Nuclear and Particle Physics (*) ___

PHYS 139A Quantum Mechanics (S) ___

PHYS 139B Quantum Mechanics (F) ___

PHYS 152 Optoelectronics (*) ___

PHYS 155 Solid State Physics (W) ___

PHYS 156 Applications of Solid State Physics (S) ___

PHYS 160 Practical Electronics (*) ___

PHYS 171 General Relativity, Black Holes and Cosmology (F) ___

PHYS 180 Biophysics (S) ___

EE 101/L Introduction to Electronic Circuits (FW) ___

EE 103 Signals and Systems (FS) ___

EE 115 Intro to Micro-Electro-Mechanical-Systems Desig ___

EE 130 Introduction to Optoelectronics and Photonics (F) ___

EE 145 Properties of Materials (F) ___

EE 154 Feedback Control Systems (F) ___

EE 171 Analog Electronics (S) ___

EE 172 Advanced Analog Circuits (S) ___

EE 178 Device Electronics (S) ___

Note: Other courses may be used to satisfy the elective requirement with approval from a faculty advisor.

Laboratories:  
PHYS 133 Intermediate Laboratory (FW) ___

PHYS 134 Physics Advanced Laboratory (WS) ___

COMPREHENSIVE REQUIREMENT

PHYS 182 Scientific Communication for Physicists (FW) ___

Senior Thesis on an applied physics topic ___

Note: Courses appearing more than one category may fulfill only one requirement.

Disciplinary Communication:  Students satisfy this requirement by successfully completing Physics 182 and the senior thesis.