APPLIED PHYSICS B.S.

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) ___
Vector Calculus: MATH 23A (FWS) ___ AND MATH 23B (FWS) ___
Chemistry: CHEM 1A (FWS) ___ OR 1B (FWS) ___
Physics: PHYS 5A/L (FW) ___ + 5B/M (WS) ___ + 5C/N (SF) ___ + 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 (FWS) ___ OR 5P (WS) ___ OR ASTR 119 (WS) ___ 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 14 courses and a senior thesis

Modern Physics: PHYS 102 Modern Physics (FW) ___
Mechanics: PHYS 105 Mechanics (F) ___
Electricity/Magnetism/Optics: PHYS 110A Electricity, Magnetism, and Optics (W) ___
          AND PHYS 110B Electricity, Magnetism, and Optics (S) ___
          OR EE 135/L ___
Thermodynamics: PHYS 112 Thermodynamics and Statistical Mechanics (W) ___
Math Methods: PHYS 116A Mathematical Methods in Physics (W) ___
          PHYS 116B Mathematical Methods in Physics (S) ___
          PHYS 116C Mathematical Methods in Physics (F) ___

Electives: THREE from the following...
AMS 107/PHYS 107 Introduction to Fluid Dynamics (F) ___
AMS 114 Introduction to Dynamical Systems___
ASTR 111 Order-of-Magnitude Astrophysics___
BME 150 Molecular Biomechanics___
CHEM 122 Principles of Instrumental Analysis___
CHEM 146C Advanced Laboratory in Physical Chemistry___
CHEM 163B Chemical Thermodynamics___
CHEM 164 Physical Chemistry Laboratory___
CMPE 115 Introduction to Solid Mechanics___
CMPE 118 Introduction to Mechatronics___
CMPE 122 Principles of Instrumental Analysis___
EART 121 The Atmosphere___
EART 145 Properties of Materials___
EART 160 Planetary Science___
EART 172 Geophysical Fluid Dynamics___
EE 101/L Introduction to Electronic Circuits (FW)___
EE 102 Signals and Systems (FS)___
EE 113 Intro to Micro-Electro-Mechanical-Systems Design___
EE 130 Introduction to Optoelectronics and Photonics (F)___
EE 131/L Introduction to Electronic Systems (FW)___
EE 133 Introduction to Circuit Design (F)___
EE 135B Optoelectronics (*)___
EE 135C Introduction to Optoelectronics (F)___
EE 145 Introduction to Mechanical Systems (F)___
EE 150 Introduction to MEMS and Microsystems (F)___
EE 170 Radar Systems (F)___
EE 171 Analog Electronics (W)___
EE 172 Advanced Analog Circuits (F)___
EE 173 Fundamental Electromagnetics (F)___
EE 174 Analog Circuit Design (F)___
EE 175 Advanced Linear Integrated Circuits (F)___
EE 176 Computer-Aided Design (F)___
EE 177 Linear Integrated Circuit Design (F)___
EE 178 Device Electronics (W)___
EE 179 Digital Systems (F)___
EE 180 Biophysics (S)___
EE 185 Introduction to Optics (F)___
EE 186 Introduction to Sensing and Measurement (F)___
EE 187 Introduction to Optoelectronics and Photonics (F)___

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

Intermediate Laboratory: PHYS 133 Intermediate Laboratory (FW) ___
Advanced Laboratory: PHYS 134 Physics Advanced Laboratory (WS) ___
          OR PHYS 160 ___

DISCIPLINARY COMMUNICATION REQUIREMENT

Satisfied by successful completion of PHYS 182 and the senior thesis.

NOTE: This requirement MUST be completed at UCSC.

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.