PROGRAM FOR THE DEGREE OF BACHELOR OF SCIENCE IN APPLIED PHYSICS

A. General Requirements

Core Areas A, B, C, D, and E ................................................................. 42 hours
Applied physics majors are required to take MATH 1113 in core area A and MATH 1161 in core area D

Area F ................................................................. 18 hours
PHYS 2211/2211L, 2212/2212L - Principles of Physics I, II (unless taken to satisfy core area D, in which case
replace with 8 hours of lower division electives)
MATH 2072 - Calculus II
MATH 2083 - Calculus III
One hour excess for MATH 1161 from Core Area D
One hour excess for CSCI 1301 or ENGR 1371 from Related Field Courses

Physical Education ................................................................. 3 hours

B. Major Field Courses ................................................................. 30 hours

PHYS 3100 - Electric Circuit Analysis
PHYS 3120 - Digital Electronics
PHYS 3210 - Intermediate Mechanics or PHYS 4170 - Advanced Mechanics
PHYS 3300 - Thermodynamics or PHYS 3400 - Chemical Thermodynamics
PHYS 3801/3801L - Optics and Modern Physics and Lab
PHYS 3802 - Intermediate Modern Physics
PHYS 4120 - Scientific Measurement with Digital Interfacing

Nine semester hours from:
PHYS 2900 – Introduction to Research in Physics
PHYS 3220 - Mechanics of Deformable Bodies
PHYS 3230 - Fluid Mechanics
PHYS 3312 - Electromagnetism
PHYS 3500 - Diffraction and Crystallography
PHYS 4900 - Independent Study in Physics
PHYS 4950 - Special Topics in Physics
PHYS 4960 - Physics Internship
PHYS 4991 – Advanced Research in Physics

C. Related Field Courses ................................................................. 23 hours

CHEM 1211 - Principles of Chemistry I (and lab)
CHEM 1212 - Principles of Chemistry II (and lab)
CSCI 1301- Introduction to Programming Principles or ENGR 1371 – Computing for Engineers (one hour applies
to area F)
ENGL 3720 - Business and Technical Communication
MATH 2160 - Linear Algebra
MATH 3411 - Differential Equations
A three semester-hour upper-division math course (3000 or 4000 level, excluding
MATH 3411), approved by the physics faculty.

D. Electives ................................................................. 7 hours

Upper-division courses (6 semester hours)
Free elective (1 semester hour)

Total Semester Hours ................................................................. 123 hours

E. Regents’ Test and Exit Exam