B. S. Physics (PHY)
College: Arts & Sciences
Option 2: Physical Oceanography

Course requirements for all UNCW degrees include: (1) University Studies, (2) specific major requirements, and (3) sufficient elective hours for a combined total of a minimum of 124 hours.

MAJOR REQUIREMENTS – PHY – Physical Oceanography (Minimum 72 hours)

Core Courses: (Minimum 53 hours)

____+*CHM 101 General Chemistry I (4)
____*CHM 102 General Chemistry II (4) Prerequisite: CHM 101
____+*MAT 161 Calculus with Analytical Geometry I (4) Prerequisite: MAT 112 or 115 or equivalent preparation
____*MAT 162 Calculus with Analytical Geometry II (4) Prerequisite: MAT 161
____*MAT 261 Multivariate Calculus (4) Prerequisite: MAT 162
____MAT 361 Differential Equations (3) Prerequisite: MAT 261
____+*PHY 201 General Physics I (4) Corequisite: MAT 161
____+*PHY 202 General Physics II (4) Prerequisite: PHY 201, Corequisite MAT 162
____*PHY 311 Mathematical Physics (4) Prerequisite: PHY 202
____PHY 321 Classical Dynamics I (3) Prerequisite: PHY 202, Corequisite: PHY 311 or MAT 361
____*PHY 335 Modern Physics (4) Prerequisite: PHY 202
____PHY 411 Electricity and Magnetism I (3) Prerequisite: PHY 202, Corequisite: MAT 261
____PHY 444 Quantum Theory (4) Prerequisite: PHY 335, Corequisite: MAT 361
____PHY 455 Thermal Physics (3) Prerequisite: PHY 335 or consent of instructor
____PHY 495 Physics Seminar (1-3) Prerequisite: Consent of instructor
(Meets Oral Communication Requirement)

Physical Oceanography Option: (Minimum 16 hours)

____PHY 315 Computational Physics and Complexity (3) Corequisite: PHY 321 or MAT 361
____PHY 350 Fluid Mechanics (3) Prerequisite: PHY 321 or MAT 361
____PHY 475 Physical Oceanography (3) Prerequisites: MAT 152 and PHY 102
____PHY 477 Observational Methods and Data Analysis in Physical Oceanography (3) Prerequisites: PHY 315 and 475
____PHY 481 Research Cruise Experience (1) Prerequisite: Consent of instructor
____PHY Choose one course from the following: PHY 478, 479, 480.

NOTE: To satisfy the Applied Learning Requirement, a student must successfully complete one of the following: directed individual study in any scientific discipline, departmental honors in any science department, or PHY 493 and 495.

NOTE: Students interested in the B.S. degree in physics are advised to take the PHY 201-PHY 202 sequence in the freshman year.

A grade of “C-” or better is required in each physics course and a “C” (2.00) average on all courses taken in physics.

*These courses require a lab
+May also be used to satisfy University Studies Foundations & Approaches and Perspectives requirements

Requirements to declare PHY: Completion of 24 hours
For further information, see the PHY website: http://www.uncw.edu/phy and http://catalogue.uncw.edu.

This document is considered an unofficial guide. Please refer to your degree audit for the latest updates.

5/25/2015