

B.A. & B.S. PHYSICS



CHARLES E. SCHMIDT COLLEGE OF SCIENCES
DEPARTMENT OF PHYSICS

ACADEMIC LEARNING COMPACT

CONTENT KNOWLEDGE (Declarative Knowledge): Graduates in Physics will understand basic concepts, theories, and experimental findings in four core areas of physics: particle and wave mechanics, electricity and magnetism, thermodynamics and modern physics.

CONTENT KNOWLEDGE (Research Skills) and CRITICAL THINKING (Analytical Skills, Practical Skills): Graduates in Physics will demonstrate an understanding of scientific methodology and will apply their knowledge to laboratory assignments that demonstrate each student's understanding of (1) the nature of scientific explanations, (2) threats to the validity and reliability of observations, (3) the limitations of measurement scales, (4) the use of experimental and quasi-experimental designs to test hypotheses and (5) the proper interpretation of experimental data.

In each of the following courses, exams, term papers and laboratory reports will be used to assess each student's knowledge of the subfield of physics.

PHY 2048 and PHY 2048L: General Physics I and Lab PHY 3101: Modern Physics

PHY 2049 and PHY 2049L: General Physics II and Lab PHY 3221: Intermediate Mechanics

PHY 3323: Electromagnetism I

In these courses, students will also complete homework problems, tests and laboratory assignments that require abstract critical thinking and sound scientific methodology in applying the fundamental laws of physics to diverse and applied situations.

COMMUNICATION (Written Communication): Graduates in Physics will be able to produce writing that is grammatically correct, well-organized, and properly formatted and in accord with the guidelines and styles described in the Department's Physics Laboratory Manuals.

COMMUNICATION (Graphic Communication): Graduates in Physics will be able to produce and interpret charts, graphs and tables that effectively and accurately display data, relationships and principles.

Students will be required to complete laboratory courses (PHY 2048L, PHY 2049L and PHY 4811L) in which they will complete laboratory reports that require written and graphical components as appropriate to the assignment. In each of the following laboratory courses, students will write laboratory reports in accordance with the guidelines and styles described in the Department's Physics Laboratory Manuals:

PHY 2048L: General Physics Lab I PHY 2049L: General Physics Lab II

PHY 4811L: Experimental Modern Physics (required for BS in Physics majors only)

Approved 3-16-2006

COMPLETE DEGREE REQUIREMENTS APPEAR IN FAU'S UNIVERSITY CATALOG