



The principal mission of the Department of Biological Sciences is to train students for careers in biological sciences or pursue advanced training in graduate and professional schools. Through both education and research, our department seeks an increased appreciation and respect for our environment and awareness of the impact of our decisions on local, regional and global issues concerning the economy, personal health and welfare, and the environment.

**CONTENT KNOWLEDGE (Declarative Knowledge):** Students will demonstrate an understanding of cell structure, cell physiology and the molecular processes of cells. Students will be able to describe features that distinguish the major groups of organisms and the developmental and physiological mechanisms fundamental to all living organisms. Students will demonstrate an understanding of the principles of organismal genetics, evolution and ecology. Students receiving the BA degree in biological sciences are required to successfully complete the following core courses:

BSC 1010: Biological Principles

BSC 1011: Biodiversity

PCB 4043: Principles of Ecology

PCB 3063: Genetics

Students' knowledge of the material will be assessed by examinations, typically using multiple-choice and short-answer questions. In upper division courses, examinations consist of advanced objective questions and high level problem solving.

**CONTENT KNOWLEDGE (Technical Skills):** Students will demonstrate proper laboratory practice, use of equipment, and ability to use basic and advanced techniques in several areas of biology.

**CHARLES E. SCHMIDT COLLEGE OF SCIENCE**

**DEPARTMENT OF BIOLOGICAL SCIENCES**

**B.A. BIOLOGICAL SCIENCES**

Students receiving a BA degree in biological sciences are required to successfully complete the following core laboratory courses:

**BSC 1010L: Biological Principles Laboratory**

**BSC 1011L: Biodiversity Laboratory**

In BSC 1010L, students are tested on concepts by short answer and essay questions; in BSC 1011L, students are tested on their technical skills by practical examinations.

**COMMUNICATION (Written Communication, Oral Communication):** Students will demonstrate the ability to speak and write effectively on biological topics. BSC 1010L and BSC 1011L students are assigned to discussion groups of eight to ten students where they discuss course concepts and are evaluated for group participation. Students are tested for written communication skills by essay and short answer examinations.

**CRITICAL THINKING (Analytical Skills):** Students will use critical thinking to evaluate data by applying basic principles of scientific methodology including (1) the nature of scientific explanations, (2) threats to the validity and reliability of observations, (3) the

limitations of measurement scales, (4) using experimental and quasi-experimental designs to test hypotheses and (5) appropriate interpretation and correlation of experimental data.

COMPLETE BA DEGREE REQUIREMENTS APPEAR IN FAU'S UNIVERSITY  
CATALOG