BASIC SCIENCE REQUIREMENT CHOICES (* indicates STS foundational core course)  Effective Fall 2014

Note: Students that started in Fall 2013 or later must satisfy the STS foundational core requirement by (1) a course below with a *, or (2) a course without a * plus a course from the approved STS foundational core list.

- **BIOL 11000 Fundamentals Of Biology I** (4 cr.) This course is designed primarily to provide an introduction to the principles of biology for students in agriculture and health sciences. Principles of biology, focusing on diversity, ecology, evolution, and the development, structure, and function of organisms.

- **BIOL 11100 Fundamentals Of Biology II** (4 cr.) This course is designed primarily to provide an introduction to the principles of biology for students in agriculture and health sciences. Continuation of BIOL 11000. Principles of biology, focusing on cell structure and function, molecular biology, and genetics.

- **BIOL 12100** and (BIOL 13500 or BIOL 28600)
  1. **BIOL 12100** * Biology I: Diversity, Ecology, And Behavior (2 cr.) Creates a framework for ordering biology by examining the unity and diversity of life on earth with an emphasis on ecology, genetics, population biology, evolution, and behavior.
  2. **BIOL 13500 First year Biology Laboratory** (2 cr.) Laboratory exercises emphasizing student mastery of basic laboratory skills needed to succeed in the biological sciences; intended for beginning (first-year) biology majors.
  3. **BIOL 28600 Introduction To Ecology And Evolution** (2 cr.) Evolutionary processes and ecological principles associated with individuals, populations, communities, and ecosystems. Topics include genetic drift, natural selection, adaptation, life tables, population dynamics, competition, predation, biodiversity, and ecological stability, with emphasis on natural systems.

- **BIOL 13100 Biology II: Development, Structure, And Function Of Organisms** (3 cr.) Principles of development of plants and animals and the relationship between the structure and function of selected systems of these organisms.

- **BIOL 14600 Introduction To Biology** (3 cr.) This course is designed to introduce non-majors to basic concepts in biology including hypothesis testing, biomolecules, cell structure and function, molecular biology and evolution. Emphasis will be placed on how these topics relate to human health and disease and to the health of the environment. Not available for credit toward graduation for majors in the Department of Biological Sciences.

- **BIOL 23000 Biology Of The Living Cell** (3 cr.) An introduction to modern cell biology for students who may not have taken a previous college course in biology. All students with the appropriate prerequisites are welcome, and this course will be of special interest to students from engineering, chemistry, physics and computer science. This course will provide a solid foundation in modern cell biology concepts for engineers and students from other disciplines.

- **EAPS 10000** * Planet Earth (3 cr.) An introduction to the Geosciences-Earth science, oceanography, atmospheric science and astronomy. The course emphasizes topics (earthquakes, volcanoes, ocean pollution, climate change, severe weather, etc.) that are of general interest and relevance, and the interconnections between various Earth processes.

- **EAPS 10400** * Oceanography (3 cr.) Origin of the oceans and marine life. Seafloor spreading and marine geology; currents, waves, and tides; marine organisms and ecology; beaches and nearshore life. Man's use and abuse of the sea, including contemporary problems and future opportunities. The role of oceans in climate and evolution of the biosphere. Recommended for both science and nonscience majors.

- **EAPS 11100 Physical Geology** (3 cr.) Geologic processes and the development of land forms. Laboratory covers the study of minerals and rocks, the interpretations of topographic and geologic maps, and field investigations.

- **EAPS 12000** * Introduction To Geography (3 cr.) An introduction to the systematic study of location and spatial variation of natural features. Elements of place, time, distance, and area are considered in relation to man's perception of environment, his organization of cultural activities, and his utilization of natural resources. A one-day field trip is required.

- **EAPS 22100 Survey Of Atmospheric Science** (3 cr.) An introductory course for both science and nonscience students. A general study of the atmosphere, basic meteorological principles, and weather systems. Relationships of the changing atmosphere to climate ozone depletion, and other contemporary issues.