**YOUR SYLLABUS** MUST include your **COURSE LEVEL SLOS** exactly as written below
some of the SLOs are pretty "lame" so stick them discreetly at the end in tiny font if you wish

**SLOS Biology Department Fall 2012**

**DEPARTMENT LEVEL SLOS**

**Critical Thinking**

Think critically, developing the skills to ask vital questions and solve biological problems by applying the Scientific Method.

**Communication**

Demonstrate the ability to report and/or explain scientific information appropriately.

**Technology**

Investigate biological questions using modern and appropriate tools.

**Environmental Responsibility**

Demonstrate environmental awareness by recognizing the importance of interconnections among living organisms, including people, and their environments.

**Personal Responsibility**

Come prepared for class and complete assigned work thoughtfully.

**COURSE LEVEL SLOS**

**BIOL 100 Natural History - Environmental Biology**

1. Structure of biotic communities and ecosystems: Be able to describe the major biological communities of San Diego County.
2. Biotic factors affecting communities: Relate evolution and the diversity of life to the theory of natural selection
3. Identification of individual organisms: Identify several common plants and animals of each biotic community.
4. Human Interactions with environment: Be able to communicate, using examples, the importance of interconnections among living organisms and their environments.
5. Environmental Awareness: Think critically about human impacts affecting biological systems.

**BIOL 107 General Biology-Lecture and Laboratory**

1. Think critically, developing the skills to ask vital questions and solve biological problems by applying the Scientific Method.
2. Communicate, using examples, the importance of interconnections among living organisms and their environments.
3. Transfer knowledge of biological concepts to achieve successful academic progress in 200 level biology courses and into applications for everyday life. These concepts could include cell theory, evolutionary mechanisms, and major life processes.
4. Investigate biological questions using modern and appropriate tools.

**BIOL 110 Introduction to Oceanography**

1. Adaptations within marine ecosystems: Compare and contrast different marine ecosystems and describe some of the ways that organisms are adapted to these ecosystems.
2. Ocean Currents, Waves, and Tides: Identify, describe, and analyze the features of ocean currents, waves, and tide. Describe the forces that create these oceanic features.

**BIOL 115 Marine Biology**

1. The ocean as habitat: Describe the physical and chemical nature of the ocean as a habitat for living organisms.
2. Identification of local marine organisms: The student will use and/or develop keys, or other identification aids, to identify local marine organisms.

**BIOL 120 The Environment of Man**

1. Biodiversity: Analyze the importance of biodiversity on the planet.

**BIOL 130 Human Heredity**

1. Gene Expression: Explain how gene expression relates to human heredity.

**BIOL 160 Elements of Human Anatomy and Physiology**

1. Human Structure and Function: Be able to communicate using appropriate terminology concepts relating to the structure and function of the human body.

**BIOL 180 Plants and People**

1. Food Plants: Be able to discuss the important food plants of the world and describe their basic characteristics, biology, history, cultivation, and nutritional value.
2. Agricultural impact: Be able to analyze the impact plant domestication has on the environment, and evaluate potential economic gains versus environmental deterioration.

**BIOL 200 Biological Statistics**

1. Biological Data: Read, interpret, and develop graphs of biological data.
2. Sampling Distributions: Demonstrate knowledge and understanding of sampling distributions.

**BIOL 205 General Microbiology**

1. Bacterial Classification: Apply microscopic and biochemical methods of analysis to the successful identification and classification of bacterial unknowns.
2. composition, structure, and functions in prokaryotes: Describe the composition, structure, and functions of the major cell structures found in prokaryotic cells.

**BIOL 210A Introduction to the Biological Sciences I**

1. Scientific Method: Be able to conduct and critically analyze biological experiments using the scientific method
2. Cellular Components: Differentiate cellular components of prokaryotic and eukaryotic cells by structure and function
3. Cell Function and Regulation: Be able to critically discuss cell function and regulation: cell division and growth, cell metabolism, cell signaling and gene expression
4. Inheritance Patterns: Be able to explain and interpret inheritance patterns
5. Scientific Literature: Be able to interpret and critically evaluate scientific literature as it relates to biotechnology

**BIOL 210B Introduction to the Biological Sciences II**

1. Classification of species: Identify and classify species into major phyla and classes.

**BIOL 215 Introduction to Zoology**

1. Animal Phyla: Compare and contrast animal phyla based on the following characteristics; anatomy, physiology, behavior and ecological placement.
2. Adaptations for Bird Flight: Students should be able to discuss the adaptations for bird flight, including origins of flight and feathers osteological study of avian skeletons.

**BIOL 230 Human Anatomy**

1. Human structure and function: Be able to communicate using appropriate terminology concepts relating to the structure and function of the human body.
2. Structure and function of the various organ/systems:  Be able to think critically about the relationships between structure and function of the various organ/systems in humans.

**BIOL 231 Media Experiences in Human Anatomy**

N/A

**BIOL 232 Experience in Human Dissection**

1. Dissection Technique: Students will be able to develop and refine appropriate dissection techniques on a human cadaver.

**BIOL 235 Human Physiology**

1. Homeostasis: Be able to describe the physiological mechanisms that regulate homeostasis and how the human body compensates for disruptions in homeostasis.

**BIOL 250 Introduction to Botany**

1. Plant Functional Morphology and Anatomy: Identify and describe or diagram plant cells, tissues and organs and explain their functional and adaptive significance.
2. Plant Metabolism and Physiology: Explain how substances move into and out of cells and throughout the plant body and basic physiological processes including photosynthesis, respiration, transpiration, growth, development, tropisms and the effects of hormones.
3. Plant Reproduction, Genetics, Breeding and Biotechnology: Demonstrate knowledge of plant reproductive biology including Mendelian genetics, molecular genetics, reproductive structures, pollination, dispersal, traditional breeding and biotechnology.
4. Evolution and Biodiversity: Relate evolution and the diversity of plant life to the modern evolutionary synthesis and classify major plant groups with respect to their phylogenetic relationships.
5. Human Impacts Affecting Biological Systems: 5. Think critically about human impacts affecting biological systems.