

Biology 112 Biology Lab; Dual Credit College Biology (Neosho County Community College)			
NCCC 1	Describe, identify and demonstrate an understanding of the scientific method	Lab 1 Scientific Method and Metric Measurements.	Scientific methodology using step by step processes.
NCCC 2	describe, identify and demonstrate an understanding of the metric system and microscopy	Lab 1 Scientific Method and Metric Measurements. Lab 2 The Microscope.	Metric Length, volume and mass. Microscope usage and anatomy.
NCCC 3	describe, identify and demonstrate an understanding of basic chemistry	Lab 3 Chemical aspects of Life	Organic/inorganic compounds. Carbon based molecules of life (Carbs/Protiens/Lipids/Nucleic acids)
NCCC 4	describe, identify and demonstrate an understanding of cellular structures and functions (plants versus animals)	Lab 4 Cell Structure	Prokaryote/Eukaryotes, Cell organelles, Cell differences and similarities.
NCCC 5	describe, identify and demonstrate an understanding of mitosis and meiosis	Lab 9 Mitosis and Meiosis	Mitosis processes, Meiosis processes, Gametogenesis (spermatogenesis/Oogenesis)
NCCC 6	describe, identify and demonstrate an understanding of human genetics	Lab 10 Mendelian Genetics	Sexual Reproduction, Patterns of inheritance, Monohybrid crosses, Dihybrid crosses.
NCCC 7	describe, identify and demonstrate an understanding of seedless plants (bryophytes and ferns)	Lab 16 Kingdom Plantae: Phylum Bryophyta	Characteristics of bryophytes.

NCCC 8	describe, identify and demonstrate an understanding of seed plants (gymnosperms and angiosperms)	Lab 18 Kingdom Plantae: The Gymnosperms, Lab 19 Kingdom Plantae: The Angiosperms.	Floral anatomy, fruits, seeds, monocots and dicots
NCCC 9	describe, identify and demonstrate an understanding of the Kingdoms Bacteria, Protista (algae, protozoans, and water/slim molds), and Fungi	Lab 13 Kingdoms Archaeobacteria (Archaea) and Eubacteria (Bacteria)	Characteristics and classifications of Archaeobacteria and Eubacteria
NCCC 10	describe, identify and demonstrate an understanding of the sponges, cnidaria (jellyfish), flatworms (Planaria), and roundworms (Ascaris)	Lab 22 Kingdom Animalia: Proifera, Cnidaria, And Ctenophora Phyla	Animal Kingdom, Phylum Cnidaria
NCCC 11	describe, identify and demonstrate an understanding of the mollusks (clams), annelids (earthworms), and arthropods (insects)	Lab 24 Kingdom Animalia: Arthropoda, Mollusca, Echinodermata Phyla	Phylum Arthropoda, Phylum Molluska
NCCC 12	describe, identify and demonstrate an understanding of the echinoderms (starfish) and chordates (fish, amphibians, reptiles, birds, and mammals)	Lab 24 (see above), Lab 25 Kingdom Animalia: Hemichordata and Chordata Phyla	Phylum Hemichordata, Phylum Chordata, Echinoderms

Biology 111 Biology Lecture; Dual Credit College Biology (Neosho County Community College)			
NCCC 1	Understand the nature of science	Chapter 1 Invitation to Biology	
NCCC 2	Understand the levels of organization and emergent properties of life	Chapter 2 Molecules of Life, Chapter 3 Cell structure	
NCCC 3	Understand bioenergetics	Chapter 4 Energy and Metabolism	
NCCC 4	Understand the importance of reproduction in maintaining the continuity of life	Chapter 8 How cells reproduce	
NCCC 5	Apply principles of genetics to unity and diversity of life	Chapter 9 Patterns of Inheritance	
NCCC 6	Discuss evolution as the mechanism of change in biology	Chapter 11 Evidence of Evolution, Chapter 12 Processes of Evolution	
NCCC 7	Understand principles of ecology	Chapter 16 Population Ecology, Chapter 17 Communities and Ecosystems, Chapter 18 The Biosphere and Human Effects	