

Laboratory: BIOL 1107K, Principles of Biology 1; Sections I & J;
Fall Semester, 2014

Lecture (BC 1011) - Cantonwine:

MWF 8:00 a.m. - 9:15 a.m.

Laboratory (BC 1083):

Section I (CRN 81735):

Tues.: 9:30 a.m. – 12:30 a.m.

Section J (CRN 81736):

Tues.: 2:00 a.m. - 5:00 p.m

Officially, this course is BIOL 1107K, a single 4 credit hour course with 3 h lecture and 3 h lab. However, students should understand that the Biology Department schedules teaching duties for faculty to include either lecture or laboratory for this course. This means that students registered for this course may have separate instructors for their lecture and laboratory. In the current case, students in the above sections

Schedule of LABORATORY EXERCISES:

Date:	Topic:
Aug. 19	Lab Safety and General Lab Introduction Laboratory Safety: Exercise 1: "The Black Box" - Scientific Method;
Aug. 26	Exercise 2: Basic Light Microscope Operation and Microscope checkout: Use of the Light Microscope
Sept. 2	Labor Day Week; no class
Sept. 9	Exercise 3: Observation of living cells with Light Microscopy; Basic cellular organization; Independent microscopy lab proposals discussed. Exercise 4: Independent Microscopy Projects; Project proposal lab; how to collect useful data
Sept. 16	Exercise 5: Cellular Water Relations
Sept. 23	Exercise 4: Independent Microscopy Projects: Distribution of microscopic flora and fauna; Data collection lab
Sept. 30	Exercise 6: Protein extraction from biological tissues and determination of total protein, Spectrophotometry and Standard Curves
Oct. 2	Midterm date: Last day to drop without academic penalty is Oct. 9.
Oct. 7	Exercise 7: Enzymology Lab: basics of α -amylase activity;
Oct. 14	Exercise 8: Enzyme Regulation: "Investigation of the effects of temperature and pH on enzyme activity"
Oct. 21	Exercise 9: Photosynthesis
Oct. 28	Exercise 10: Mitosis and Meiosis
Nov. 4	Exercise 11: Start: Isolation of plasmid DNA from <i>E.coli</i> and restriction with MspA1I:
Nov. 11	Exercise 12: PCR-based VNTR Human DNA typing OR GMOs in food.
Nov. 18	Exercise 14: Transformation of the pGLO plasmid into bacteria.
Nov. 25	Thanksgiving Holiday
Dec. 2.	Analyze transformation experiment. End of Course Assessment
Dec. 8	Last Class Day