

**Los Angeles Valley College
Course Level Student Learning Outcomes (SLO)**

Course Name and Number: Introduction to Biotechnology : Biology 40

Course Objectives:

Recall critical processes of genetics, including replication, transcription and protein synthesis.

Restate the bacterial reproduction and genome.

Discuss the theory and application of various techniques and processes relating to DNA, RNA and proteins.

Assess current applications of DNA technology and relate to bioethical issues

Demonstrate the ability of use National Biotechnology Information Center web site to conduct searches by using Blast, Entrez and Pubmed.

Demonstrate the use of basic scientific equipment such as balance, pH meter, centrifuges, and micropipette.

Recognize importance of and practice accurate record keeping of protocols and data.

Use advanced analytic DNA techniques.

Demonstrate skills used in protein technology.

Establish 1–2 course level student learning outcomes and indicate how each SLO will be assessed.

Course Level Student Learning Outcome	Assessment Measure
Student will be able to demonstrate the ability to perform laboratory tasks utilizing current scientific techniques and methodologies.	Students will demonstrate knowledge of the purposes of scientific procedures and protocols. They will be able to design and propose experiments to investigate scientific questions. A rubric will be developed to assess experimental reports.
Student will be able to apply the scientific method: Organize and interpret data as it applies to the scientific investigation.	Students will conduct scientific experiments, organize, record and interpret data. Students will learn to discriminate between non-essential and essential information by self and peer evaluation of notebooks. A rubric will be developed to assess notebook evaluations.