

**SLO1 – Part 1: The student is able to overcome technical problems.**

1	2	3	4
Little or no effort to understand instrumentation	Tries solution, partially solves technical issues	Resolves technical issues through a variety of methods	Resolves technical issues and assists others

**SLO1 – Part 2: The student can correct flawed experimental designs.**

1	2	3	4
Little or no effort to correct flaws	Only partially successful	Seeks and implements feedback to improve design	Independently improves design-anticipates problems

**SLO1 – Part 3: The student can solve scientific problems.**

1	2	3	4
Not able to devise a functioning plan to solve problems	Can answer basic questions about the problem but no deep understanding	Understands problem, proposes one solution	Deep understanding of problem; proposes possible solutions

**SLO2: The student can recognize and analyze patterns among data.**

1	2	3	4
Little or no recognition of patterns in data	Recognizes that patterns exist but can not analyze them	Recognizes patterns and sees some relationships among data	Able to see multiple relationships among data; good at multivariate analysis

**SLO3 – Part 1 & 2: The student can critically evaluate experiments and recognize limitations in experimental designs and methods.**

1	2	3	4
Little or no recognition of flaws in experimental design; accepts all literature as truth	Sees minor flaws but generally does not recognize those that are critical from those that are not	Sees flaws and can sometimes discriminate between those that are critical and those that are not	Sees flaws, always discriminates between critical and non-critical flaws, and can propose alternate experiments

**SLO3 – Part 3: The student can draw reasoned conclusions.**

1	2	3	4
Few or no reasons presented for patterns in data	Reasons offered for patterns in data defensible but simplistic	Reasons offered for patterns in data are thorough and accurate	Reasons offered for patterns in data are thorough and accurate; proposes multiple or alternate reasons

**SLO4 – Part 1: The student has learned computerized data acquisition skills.**

1	2	3	4
Little or no understanding of equipment and/or neglects to follow instructions	Follows manual and collects data but unable to troubleshoot if something goes wrong	Creates custom settings, calibrations, interpretations	Manipulates hardware and software with facility; assists others

**SLO4 – Part 2: The student has learned web-based dissemination skills.**

1	2	3	4
Understands basic functions of internet but unable to generate functioning web page	Can generate simple web page	Can prepare a lab report in web format with data & images and load to web	Can create an interactive web site with active links, downloads, etc.

**SLO5 – Part 1: The student can interpret physiological studies.**

1	2	3	4
Little or no knowledge of basic concepts of physiology	Has basic knowledge of concepts of physiology	Demonstrates solid understanding of basic concepts and can analyze concepts accurately	Demonstrates mastery of concepts and can integrate individual concepts to make appropriate connections

**SLO5 – Part 2: The student can draw parallels between animal and plant physiology.**

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
Little or no recognition that connections exist	Recognizes only those commonalities that are explicitly pointed out	Is able to recognize obvious and simple commonalities but not others	Recognizes commonalities and is able to discriminate between adaptations that plants and animals hold in common and those that they do not