Scoring Rubric for Department of Biology Major
Graduate Comprehensive / Final Exam

Date:

Student Name:

Mentor Name: Committee Member Name:

Scoring: 1 (insufficient), 2 (meets expectations) and 3 (above expectations)

Component	Score	Comment
1. Knowledge of biology and basic scientific principles		
2. Knowledge within expertise and use of literature		
3. Deductive (top-down) and inductive (bottom-up) reasoning skills		
4. Knowledge of experimental approaches and application of design		
Total		
Average		

*** (see below for specific categories)**

Scoring Rubric for Department of Biology Majors
Graduate Comprehensive Exam

*** Categories for use in scoring**

	Level 1 (needs improvement)	Level 2 (Meets expectations)	Level 3 (Performance above expectations)
1. Knowledge of biology and basic scientific principles	Unable to recall or define basic scientific principles Unable to discuss major laws or theories. Student has little "working knowledge"	Is able to recall or define some basic scientific principles Demonstrates an ability to discuss fundamental laws and theories Displays some working knowledge	Demonstrates a clear understanding of basic scientific principles Understands the importance of fundamental laws and theories that govern science Appears to have a broad working knowledge across disciplines
2. Knowledge within expertise and use of literature	Unaware of landmark papers in the field Unaware of how to connect existing studies with their own work Unaware of journal titles relevant to their field of study	Familiar with important studies in the field Familiar with pertinent literature related to their field Familiar with important journal titles	Discusses various studies related to their work, putting them in context Has read important references cited in relevant studies Distinguishes quality papers from those that are not and demonstrates an historical perspective, citing landmark/significant works
3. Deductive (top-down) and inductive (bottom-up) reasoning skills	Unable to apply scientific knowledge and the scientific method to problem solve Unable to synthesize and relate information/data to broad-scale, interdisciplinary problems	Demonstrates some ability to apply the scientific method to problem solve Displays a limited ability to synthesize and relate information/data to broad-scale, interdisciplinary problems	Clearly displays the ability to logically apply the scientific method to problem solve, establishing possible cause-effect relationships Shows an ability to analyze, synthesize and relate information/data to broad-scale, interdisciplinary problems
4. Knowledge of experimental approaches and application of design	Unable to interpret data Little understanding of the underlying principles of design and application of methods Unable to explain methodological theory	Demonstrates a basic knowledge of the underlying principles of experimental design Demonstrates a basic understanding of methodological theory	Displays the ability to place technical details and relate results/data to experimental approach Shows an understanding of methodological theory and application