SUNY Cortland Program Assessment Plan BMS major

Part 1: Student Learning Outcomes

I. Conceptual Knowledge/Content

Be able to demonstrate understanding of fundamental biological concepts. These key conceptual areas include: (A) cell biology, (B) genetics/molecular biology, (C) biological organization, form, and function of organisms, and (D) ecology and evolutionary biology.

II. Scientific Process

Apply the process of scientific inquiry, formulation and testing of scientific hypotheses, and development of experimental protocols to address biological problems.

Use quantitative reasoning (e.g., statistics) to analyze and interpret scientific data, and to formulate appropriate conclusions.

III. Communication

Accurately discuss and communicate biological concepts, research results, and their importance to a variety of audiences.

Demonstrate effective writing skills that can be applied to both technical and general purposes.

IV. Critical Thinking

Evaluate the validity of claims from an evidence based perspective by reviewing, synthesizing, and critiquing scientific literature.

V. Applied learning

Students will gain practical experience in biomedical sciences by completing a 160-hour internship in an approved professional setting.

Students will read and demonstrate their understanding of primary scientific literature by accurately communicating (written and oral) information on contemporary issues in biomedical sciences.

Part 2: Curriculum Map

See attached

Part 3: Key Assessments

Biology field test (seniors, covers outcomes 1 a, b, c and d)
See assessment cycle plan below for key assessments of each learning outcome

Part 4: Assessment Cycle

BIO plan but with outcome V assessments added in year 3 (evaluate with on-site supervisors via survey, and self-assessment rubrics for internships)