**DNA Sequencing/Genomics Unit Plan (10% of final grade)**

**Rationale & Overview:**

The final product of the DNA Sequencing Revolution course taught for the Masters in Science for Teachers program will be a unit and/or module plan that spans at least 1 week of course content (no upper limit). The plan will provide overarching themes, assessment plans and sample rubrics, specific lesson plans (\*limited detail\*), direct links to state standards, lists of required materials/resources, and other instructional activities. The format of the plan is of the student’s choice, although a template has been provided if the students wish to take advantage of it. The goal of the unit should be to guide students through a grade-appropriate journey into and through the DNA sequencing revolution. Students will present their unit module to the class in a 10-15 minute presentation that should highlight key learning outcomes, student entry and exit levels, exciting interdisciplinary and/or cross-cutting activities, assessment methods, and potential pitfalls and alternative approaches. The product moving forward should be a working **(not final)** document that can facilitate the dissemination of genetics, genomics, and modern formulations of Biology into the classroom. Students will receive peer and instructor feedback following their presentation and specific feedback on the product from the instructor.

**Assessment & Feedback:**

Assessment will be holistic, and focused on five key areas of instruction:

1. Potential for student learning and developing a genomically literate citizenry
2. Modern and up-to-date genetics content
3. Connection to real-world (both current and potential) applications, career paths, and +/- consequences of DNA sequencing
4. Adaptability and practical applicability (can the unit be easily implemented in the setting identified)
5. Fun and creativity

Feedback will come from peers and the instructor following presentation, and then the instructor will follow-up with specific comments/edits/feedback on the submitted product.

**Submission:**

All materials from the unit plans should be combined into a single document (docx or PDF acceptable) and submitted to Canvas by 10am on the final day of class (July 29th, 2022).