Title V/Gen Ed Committee Joint Meeting

February 3, 2012

9:30am-11:30am

Faculty Lounge

Learning Activity Exercise

Assignment:

Design a learning activity for a second-year course that uses the high-impact practices of Collaborative Assignments and Projects, Undergraduate Research, and/or AAS Capstones. Consider which first-year learning outcomes will prepare students for the second-year.

Sample group process:

Discuss Gen Ed Committee learning outcomes (5 minutes)

What do we want students to be able to accomplish in their second-year? How can the first-year prepare students for the second-year?

Discuss Title V pedagogical strategies (5 minutes)

How can the high impact practices of Collaborative Assignments and Projects, Undergraduate Research, and AAS Capstones be used to engage students? What skills do students need to be successful with these high-impact learning practices?

Brainstorm and decide on a learning activity for a second-year course (20 minutes)

Begin to fill out template, creating one row for each learning objective (20 minutes)

Discuss how to make this part of a larger conversation about Gen Ed at City Tech (10 minutes)

Sample Title V Pedagogical Strategies:

Brooklyn Waterfront as Living Lab, Collaborative Learning, Use of a Networked Digital Platform, Place-based education, Writing across the Curriculum, Active/Hands-On Learning, Using the Laboratory Model, Shared Readings, Field Trips, Collaborative Bibliographies, Inquiry-based learning, Information Literacy.

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Second-Year Learning Activity Template

Group Members:

Facilitator: Dean Botchway, Nadia Bernakli, Urmi, Ralph Alcendor, Olifemi Sodeinde, Marie Montes-Matías

Learning outcomes:

Understand of the ecosystems that surround us

Learn mathematical applications into the real world

Understand scientific method and critical analysis of data

Improve communication skills (oral and scientific writing)

Title of Activity: **Analysis of the Food Webs and Competition Among Various Hudson River Species**

Potential Second-Year Courses Involved: Linear Algebra and Biology II

Brief Overview:

The proposed project intends to analyze the species present and the Hudson River and the competition among species through mathematical applications.

Introduction of concepts: extinction, pest, competition, predator/prey, Linear regressions.

Analysis of Trophic stratas, Species Dominance

| **First Year  Preparation** | **Student Activity Steps** | **Learning Objectives** | **Gen Ed Learning Outcomes Addressed** | **Methods of Assessment** |
| --- | --- | --- | --- | --- |
| Math 1175, Biology 1101 | Attending Hudson River Fund Seminar and Interviews from Professionals in the area  Field trip to the Hudson River | Motivate students to understand the ecology of their environment and describe species interactions. | Writing | Lab report writing and fieldtrips. |
| Mathematical skills:  Basic math concepts | Understanding the real world applications of Math.  Collect data from scientific databases | Introduce students to critical analysis of data using mathematical tools | Communication Skills | Oral presentations |
| Biological concepts:  Knowledge and Understanding the scientific method.  Training of lab report writing. | Understanding the food web, competition and what leads into extinction | Understand the mathematical applications on the real world. | Data interpretation and quantitative analysis | Pre- and post- surveys to measure student’s knowledge before and after the experience |
|  |  | Improve communication skills | Information Literacy  Team Work |  |

Brainstorm:

**Urmi’s ideas**

Competition analysis

Antimicrobial resistance analysis and prevalence

**Marie’s ideas**

Brooklyn waterfront project: sampling on the waterfront (water, sediment) to identify communities and abundance of communities.

**Femi’s ideas**

Vertebrates, he prefers species competition.

Group members: Facilitator: Dean Botchway, Nadia Bernakli, Urmi, Ralph Alcendor, Olifemi Sodeinde, Marie Montes-Matías

**Analysis of the Food Webs and Competition Among Various Hudson River Species**

Potential second year courses: Linear Algebra and Biology II

The proposed project intends to analyze the species present and the Hudson River and the competition among species.

Mathematical importance: extinction : Linear regressions to determine what will happen in terms of the predator/prey interaction when availability is low.

Trophic stratus

Species Dominance

Learning outcomes:

1. Motivate students to understand the ecology of their environment
2. Introduce students to critical analysis of data using mathematical tools