Department of Biology
Western Kentucky University
2017 -2018 Mentoring Committee Meeting

April 26, 2018

Faculty Mentee: Natalie Mountjoy

Mentor: Dr. Nancy Rice

Coordinator: Dr. Scott Grubbs

Teaching

2017-18 Goals:

1. To gain **exposure** to, and familiarity with BIOL 121 and BIOL 123 lab procedures, **student and TA needs** and potential areas for improvement.
2. To implement **small-scale course development initiatives** based on the needs assessment. Throughout the Fall Semester, I realized the need for **standardization** across sections, to increase parity for students, and a need to increased **lab efficiency** to create additional time needed for eventual implementation of PBL activities.

Spring 2018 Activities

1. Exposure
    a. Taught BIOL 121 (2 sections) & BIOL 123 (2 sections).
    b. Observed various sections of BIOL 120
    c. Substitute lecturer for one 120 class session
2. Student Needs
    a. Implemented a new exit slip strategy across all sections of 121/123 to help students focus on the main points of each lab
    b. Implemented new lab setup guidelines for all BIOL 121 and 123 sections. All materials and equipment are now setup for individual groups. This has decreased student waiting time significantly, especially in BIOL 121
    c. Provided supplemental content (e.g., graphing, excel, statistics, scientific literature, poster creations, etc.) to all BIOL 121 and 123 students via Blackboard.
    d. Developed a Peer Evaluation tool for all sections of BIOL 121 and 123
3. TA Needs assessment
    a. Implemented a new exit slip strategy across all sections of BIOL 121/123 as a new formative assessment for TAs to evaluate student learning week to week
    b. Facilitated weekly TA meetings for BIOL 121 and 123.
    c. Maintained the BIOL 121 and BIOL 123 Organization on Blackboard.
    d. Pre-loaded all blackboard content before the semester across all sections of BIOL 121/123
    e. Currently developing a standard TA Assessment Tool
    f. Currently developing TA versions of lab manuals, starting with 121, to include tips, advice, formative assessment measures, etc.
4. Course Development

a. Plan to meet with *120 and 122 faculty to learn their perspectives on lab, lecture, and their interdependence (will provide results)*.
b. BIOL 123
    i. Started sowbug colony and plant collection.
    ii. Developed a new introductory lab.
    iii. Provided revisions to Dr. Huskey for the manual.
    iv. Re-engineered the primary assignment to include development of a scientific poster instead of a manuscript.
c. BIOL 121
    i. Initiated conversations with several publishers of online content to serve as a repository for pre- and post- lab material.
    ii. *Will develop a new 2-3 week PBL lab to pilot test in one section*
    iii. *Will order new equipment: chromosome kit, gel chambers, burets, digital balances, thermocycler, DNA models and additional Vernier probes.*

2018-2019 Goals

1. Revise the BIOL 121 and BIOL 123 manuals to increase clarity and efficiency. This will include shortening the 121 manual and providing additional context in the 123 manual.
2. Produce "Teaching Manuals" for 121 and 123 TAs to include notes on student learning and lab procedures. I will create and test three new problem-based-learning labs for BIOL 121 with goal of full integration in the spring of 2019.
3. Gain exposure to, and familiarity with BIOL 120 and potential areas for improvement.

Pedagogical Research

2017-18 Goals:

As pedagogical faculty, my research goals are driven by questions I can apply to my courses and the implementation of problem-and project-based learning techniques. As such, I will:

1. Collect baseline data on potential indicators of success (e.g., **retention, student learning**) and
2. Collect **student and TA perspectives**

Spring 2018 Activities

1. Retention
    a. Continued 5th-week intervention data collection *(will provide data-internal & publishable)*.
    b. Collaborating with Dr. McDaniel on 5th Week Survey *(will provide model-internal & publishable)*.
2. Student Learning
    a. Continued to collate all student grades in BIOL 121 and 123 across sections to establish a baseline for comparison.
    b. Pilot tested the pre-and-post Classroom Undergraduate Research Experience (CURE) survey *(will provide data-internal & publishable)*.
    c. Collaborating with Ms. Rowland on developing a survey that can be implemented in various labs across the biology major from year to year to track student opinion and development.

3. Student Perspectives
    a. Implemented a basic Student Opinion Survey (lab ranking system) at the end of the semester *(will provide data)*.
4. TA Perspectives
    a. Continued to collect and record perspectives in each lab during weekly TA meetings.
    b. Implemented an Allocated Time Survey with TAs.for comparison as changes are implemented *(will provide data)*.
    c. *Will conduct TA focus groups with former and current TAs to better assess needs and evaluate changes (will provide results*

2018-19 Goals

1. Continue to develop and refine potential indicators of success.
2. Continue my 5th-week intervention research and continue collaboration with Kerrie McDaniel on her survey, with the goal of implementing it across the 120 series.
3. Analyze the CURE survey data with the goal of creating my own instrument for implementation in BIOL 121 and 123 moving forward.
4. Continue collaborating with Naomi Rowland on the potential for creating a department-wide survey for all biology labs to assess student growth throughout the biology major.

Service, Advising and Professional Development

Spring 2018 Activities

1. **Service**
    a. Ogden Retention Taskforce (ongoing)
    b. Biology Department Ad Hoc Retention Taskforce
    c. Ogden Preview Day
    d. Gatton Academy Interview Day
    e. Science Olympiad
    f. Western Kentucky Botanical Garden, Board of Directors
    g. Life Science Academy, Advisor
    h. Reviewed articles for: Journal of Environmental Planning and Management, Ecological Economics, and Human Dimensions of Wildlife

2. Advising
    a. As a new Biology Department Graduate Faculty member, I began consultation with Dr. Smith and Dr. Emani regarding graduate student admittance and advising.
    b. Serving as the lead biology faculty for MAT/ Biology Department admittance/advising.
    c. Serving as the lead biology faculty for MAE/ Biology Department admittance/advising.
    d. Began advising 1 undergrad and 1 online graduate student.
3. Professional Development
    a. Service learning Professional Learning Community, throughout fall of 2017.
    b. Workshop: Using Micro Activates Workshop, 1/4/18.

c. Workshop: 5th Week Assessment, 2/16/18.
d. Workshop: Blackboard - 10 Things You Didn't Know Blackboard Can Do Right Now, 2/22/18.
e. *Kentucky Pedagogicon at Eastern Kentucky University, 5/18/18.*
f. *The Teaching Professor Conference, Atlanta, GA, June 1-3, 2018.*
g. *Project-Based Learning (PBL) Conference, CITL @ WKU, 8/13/18*

Post Meeting Comments added by Mentor:

Attendance: Drs Mountjoy, Rice, Grubbs, and Schulte

Teaching:

Dr. Mountjoy summarized her teaching responsibilities for 2017-2018, her first year in her tenure-track pedagogical line, and goals for the upcoming years through providing well thought-out mission and goals. Dr. Mountjoy has used her time effectively this past year and has begun important assessments of the 120 series of courses – all of which will provide important data for course improvement but publication. This Spring she implemented some small initiatives to increase efficiency and improve both TA development and teaching, as well as student success and retention. Dr. Mountjoy provided the committee a chart of realistic goals for the upcoming year as well as a longer time-line for the course revisions that will ultimately incorporate PBL and other hypothesis-driven pedagogies into the foundational curriculum.

Suggestions provided by the committee to Dr. Mountjoy included the placement of research activities in her continuance package under teaching (as research is not a requirement for her position), as well as how to summarize SITE data more effectively for continuance review. Dr. Mountjoy indicated that she has asked and will be receiving feedback from the TAs that she supervises.

Dr. Mountjoy and the committee discussed the current methods of budgeting for the 120 series of courses from lab fees, and the committee recommended Dr. Mountjoy begin to think about building long-term infrastructure with fiscal resources.

Service:

Dr. Mountjoy has service commitments at the departmental (e.g. advising, MAE/MAT lead faculty), college (e.g. Ogden Preview Day), and university level (e.g. Gatton interview day, WKU Botanical Gardens). This is a good mix of service commitments, and the workload seems appropriate for this stage of the tenure and promotion process. The committee was surprised that Dr. Mountjoy has been assigned advisees in her first year of teaching at WKU, in particular leading the MAE/MAT program. The committee encouraged Dr. Mountjoy to do her best to increase communication with Dr. Emani for assistance with these online graduate degrees. The committee urged Dr. Mountjoy to be focused and strategic in her service so that her service and teaching are complementary and cohesive. It was also suggested to request freshman/sophomore advisees be reassigned back to the central advising office in Ogden.

Research:

The committee has suggested that Dr. Mountjoy continue her pedagogical research efforts as a means of improving her teaching as well as a mechanism to strategically differentiate herself as an Asst. Professor versus an Instructor.

Other comments:

Dr. Mountjoy participated in several professional development activities, all appropriate to her position. The committee was very pleased with the enthusiasm and dedication that Dr. Mountjoy brings to her work, as well as her commitment to student success and learning. The committee recommends Dr. Mountjoy continue on the upward trajectory she has established in her first here at WKU.

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