**SABBATICAL LEAVE AWARDS**

for

2014-2015

**Dr. Laura Heath**

STEM education is an interdisciplinary and applied approach to problem-based learning that bridges the disciplines of science, technology, engineering, and mathematics. Evidence suggests that jobs in the STEM fields will be among the fastest-growing in future years (http://cslnet.org/). The Palm Beach State College Foundation has recognized the importance of preparing students for STEM careers and launched a STEAM (STEM plus the Arts) initiative.

This sabbatical will build on the STEAM initiative through a cross disciplinary approach. It will increase the professor’s knowledge of science, technology, and engineering and how they relate to the subject area of mathematics. Activities in the sabbatical will include taking courses, attending conferences, and developing resource materials.

By taking courses in science, engineering, and technology, the professor will expand her knowledge of STEM applications that can be incorporated into mathematics courses from Intermediate Algebra through Calculus III. Taking these courses will also provide an opportunity to collaborate with professors from other disciplines.

During the sabbatical, the professor will attend international STEM conferences to increase her awareness of STEM initiatives and develop a network of professionals. The information attained from the conferences will be brought back to be shared with the college community.

The professor will develop mathematics resources that emphasize the application of science, technology, and engineering. The resources will include learning objects that will become part of the POLO (Panther Online Learning Objects) inventory. POLO is a digital library of resources for faculty, staff, students, and community.

Further activities will include the dissemination of ideas, initiatives, and resources through presentations and collaboration with administration, faculty, staff, and students at Palm Beach State College.

**Dr. Ana Porro**

The National Center for Academic Transformation (NCAT) has defined course redesign as “the process of redesigning whole courses (rather than individual classes or sections) to achieve better learning outcomes at a lower cost by taking advantage of the capabilities of information technology. Course redesign is not just about putting courses online. It is about rethinking the way we deliver instruction in light of the possibilities that new technology offers.” NCAT’s redesign methodology produces consistent improvements in the quality of student learning (<http://www.thencat.org/Articles/An%20Overview%20of%20Course%20Redesign.pdf> ).

For my sabbatical, I am proposing to redesign college algebra using NCAT’s redesign methodology. The final product will include a guide to teaching college algebra. The guide can be used by faculty teaching in the classroom and/or online. The redesign of this course will aid in the quest to increase student success and retention.

**Dr. George Rogers**

I propose to use the sabbatical and possibly part of the following summer to combine, edit, revise, and update mostly-existing but diffuse curriculum materials into two in-house photocopiable (or inexpensively printed) "text books" for two classes I teach: Introduction to Botany (BOT1010) and Plant Physiology (BOT2000), also a "lab manual" for BOT1010L.

The need for these materals comes from three main considerations:

Consideration A. Botany is localized, and the classes need materials specific to our area based on local examples, on readily accessible plant materials, and on the facilities and gardens on the PB Gardens Campus.

Consideration B. Our students do not relate well to existing commercial textbooks in these two subjects. Exisiting commercial texts represent various combinatons of writing vastly over the heads of entry-level AS students, or insultingly dumbed down, or outdated, or poorly written, or too expensive, and in almost all cases not slanted to a Horticulture program in Florida. After 15 years at PBSC I understand and can work toward the capabilities and demographics of our students. I can make the materials relevant and clear, can use terminology and references that are understood, and can tie examples and acitivities to actual plants. With these two courses, text materials have been a perpetual problem. Included can be study questions, self-quizzes, assignments, and exercises stemming from my experience here.

Consideration C. The materials can be tailored to the course learning outcomes, and can explicitly incorporate critical thinking.

This project would be too ambitious for 4 months plus summer, except for the facts that:

1. I know the material already and do not need much new research,

2. and have extensive mateirals in hand, including materials I've authored for distance classes.

Thus the effort is more one of combining, editing, updating, augmenting, and linking materials already in hand. The work is 70% done already.

The proposed documents are not textbooks for commercial publication, nor for self-published commercial printing. The proposed materials can be distributed all at once or week-to-week in a 3-ring binder or similar inexpensive binding sysyem, and are to be printed at the PBSC North Support Center or the PBSC Printshop.

I'd like the binders to be "official" with attractive covers, and for all the materials to have the same format and overall look, so the materials stand as a coherent "whole" rather than as a tattered jumble of handouts.

Note 1: I have a vision impairment and struggle with proofreading. I'd like therefore to ask the College for clerical help at the end, for somebody (Admin. Asst.? Student Helper?) to help me with a final proofreading.

Note 2: I would not close the door to future use as a printed book, and I'm striving for that level of quality but do not have a commercial book as a goal whatsoever. Just the opposite, part of the incentive is to keep it afforable. The documents would be available outside of PBSC in the off-chance that any other FL school might want them, but outside use is not a goal.

**Dr. Barbara Scheffer**

During the one semester of sabbatical, I propose to write the framework for an Administrative Law course for our paralegal program with appropriate supporting materials which will memorialize the method I have been using to teach this subject for a number of years. I have never found an appropriate textbook that seems to both catch student's attention to assure they understand the most basic workings of government agencies and which also gives the students direct useable information about the paralegal's role in an administrative agency.

Having worked for a number of years in state government agencies in Pennsylvania including a short stint as the Assistant Secretary of Welfare for Social Programs as well as working as a consultant and training officer for what was then the Florida Department of Health and Rehabilitation Services, I believe I have a background to create and document this teaching model for this subject. In addition,I have been teaching Administrative Law for a number of years on both the Lake Worth and the Palm Beach Gardens campuses. Feedback I have received from former students who now work in governmental administrative agencies as paralegals also supports this conclusion that the method currently being used is effective.

In addition, I would like to have the time free to begin work on my dissertation for the doctoral degree I am pursuing at Florida Atlantic University in Adult Education Leadership.