

SABBATICAL LEAVE AWARD

for
2016-2017

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The objectives of my sabbatical through the projects that I propose to complete are two:

1) Organic lab manual: Provide students with a simple and effective lab manual that provides step-by-step method and explanations of the organic lab experiments with tools and knowledge for their successful completion of courses at PBSC and in their careers. The current lab manual is not as studentfriendly or affordable as it could be. My objective will be to write clear experiments that are relevant to their learning; that relate to the theoretical material they are learning in the organic chemistry lecture; and that provides a low cost option for the students.

2) Flip classroom for CHM1045 and CHM2210: Provide students with an academic atmosphere outside the classroom which will allow a more student-centered and autonomous learning with the “Flipped” classroom concept. This is a totally different approach to learning, which has been shown to benefit students and has improved success rates for students particularly in science courses. (“Flip Your Classroom” by Johnathan Bergmann and Aaron Sams; Publisher ISTE and ASCD, 2012) The objective is to design the class in such a way that students listen to the lecture outside the classroom and learn how to do problem solving in class. The worksheets and quizzes that I will make will help to focus on the key concepts.

I had developed some resources for CHM1045 – general chemistry 1 during Spring 2014, but I found that the materials were not sufficient. The students needed some more focused assignments that will help them with learning the material. So I will need to target them more to reflect how the material is covered in class. This will require going through all the chapters for CHM1045 and design quizzes and worksheets that complement the content.

Taking my experience from CHM1045, I will also develop the resources needed for flipping the organic chemistry 1 lecture.