**Re-energize Workshop**

**Texas State University**

**May 16-20**

**Injecting Training Materials Into The Classroom**

Instructions: Using the suggested teaching activities presented at the end of each lecture, identify two activities that most interest you. Fill up the form below to show a plan that integrates these activities into your classroom. Submit the forms at the end of this session.

**Name :**Wenxian Tan

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**Institution:** Huston-Tillotson University

**Title of the Course:** Environmental Biology (BIOL 2406), non-majors introductory level class.

**Expected Number of Students:** 15

**Expected Number of Minority Students:** 12, predominantly African-American.

**Description of Course Activity (i.e. Homework, Example, Quiz, Project, etc.):**

Class Session 1 – Solar Energy Demonstration:

Introduce the concept of solar energy, including a demonstration and discuss how photovoltaic panels generate electricity. We will visit the HT campus systems – a portion of rooftop solar array and the RE-ENERGIZE linked system. We will view the real time output data and discuss the factors that impact production. (50 min)

Project: Students will be required to research and advocate for a particular use of solar energy that will be particularly relevant in the Austin community (e.g. local festival use, day-to-day utility, campus use, etc). Students will be required to mock up a prototype design and include cost of materials and time commitment. Results will be presented in an informal poster format in an open house format.

**Objectives of Activity:**

1. Creating awareness of the potential and availability of solar energy.
2. Encourage creativity/innovation in applications of solar energy.
3. Encourage interest in renewable energy in HTU community.

**Student Deliverables:**

Students will present their research/prototype to campus community.

**Implementation Plan:**

Demonstration and discussion will be conducted earlier in the semester than usual, after discussion of fossil fuels and their environmental and ecological impacts. Students will be given 4 weeks to conceptualize and research their application, with weekly check-ins for progress reports. A lab session will be utilized to allow students time to finalize their posters/presentations.