

## University of Florida

### *Florida Advanced Technological Education Center (FLATE)*

**PI:** Marilyn Barger, Hillsborough Community College

**Description:** FLATE (Florida Advanced Technological Education Center) is FESC's partner to develop statewide curriculum frameworks for technical A.S./A.A.S. degree programs supporting existing and new energy business sectors. FLATE develops the frameworks and facilitates their progress through the multiple sequential industry-validation, student competencies based, FLDOE procedure. FLATE also develops new courses and provides faculty professional development as required for each new program of study. Additionally FLATE helps colleges in the State College System implement the new frameworks in their institutions. To support the new curriculum, FLATE will work closely with the FESC Public Outreach and Industry Partnership programs to provide additional professional development opportunities for teachers and faculty to upgrade and update their STEM knowledge base.

**Budget:** \$300,000

**Universities:** Hillsborough Community College

**External Collaborators:** Brevard Community College; Tallahassee Community College; Daytona State College; Central Florida Community College; Polk State College; Florida State College at Jacksonville; Valencia Community College; School District Hillsborough County; Florida Department of Education – Division of Adult and Career Education; West Side Technical School; WFI Banner Center for Energy; Advanced Technology for Energy and Environment Center (ATEEC); University of West Florida, Dept of Construction Technology; WFI Banner Center for Construction; WFI Banner Center for Alternative Energy; USF College of Engineering; Madison Area Technical College ATE project for Alternative Energy certifications; Milwaukee Area Technical College Energy Conservation and Advanced Manufacturing Center (ECAM); Florida Energy Workforce Consortium (FEWC); TECO; Progress Energy; ISTE (Ibero Science and Technology Education Consortium)

### Progress Summary

During the current reporting period, FLATE continued to work with several community colleges and their local industry to define curriculum standards for alternative energy to support industry needs, made several presentations both within and outside of Florida, and is continuing to work with Brevard Community College, Tallahassee Community College, and Florida State College at Jacksonville for implementation of an Alternative Energy Systems Specialization. FLATE also conducted a state-wide survey to assess Florida's current Alternative Energy course offerings at State and Community colleges for the FESC education portal.

Specific accomplishments during the period are:

#### A. October 2010 to December 2010

- Participated as Advisory Council Member for the Banner Center for Energy's Focus Group meeting to assess future educational needs from industry within the Indian River State College area. (Orlando, FL)
- Attended presentation from the Sustainability Education & Economic Development (SEED) on application of Nanotechnology to Solar Cells. (Brandon, FL)
- Reviewed proposed course curriculum and frameworks in the Florida Energy Workforce Consortium (FEWC) quarterly meeting. (Orlando, FL)

- Jointly with Brevard CC, Tallahassee CC, FSCJ and University of Florida’s Industrial Assessment Center discussed possibilities of establishing new educational programs at the three colleges that would prepare a new workforce in commercial building and residential energy efficiency. (Gainesville, FL)
- Focus group participant for the Second Annual Gathering of Tampa Bay Sustainability Educators for idea generation and implementation plans to improve sustainability efforts in the Tampa Bay area. (Tampa, FL)
- Initiated discussions with Hillsborough CC on partnership arrangements with other Florida colleges for participation in an exchange course with Denmark for Sustainability Studies where see towns that utilize distributed power generation facilities such as CHP plant with trash as fuel source. Obtained partnership with SCF in Sarasota. (Tampa, FL)
- Completed and distributed a survey to all State/Community colleges throughout Florida to assess the state’s current educational offerings in alternative/sustainable energy.

B. January 2011 to March 2011

- Worked with HCC’s Sustainability Council towards its goal of reducing greenhouse gas (GHG) emissions on a yearly basis. Energy audits are to be conducted by TRANE across all campus locations as well as implementation of GHG emission mitigation projects.
- Began planning phase on a professional development summer energy workshop for middle school/high school teachers.
- Discussed with a local development company, HCC leadership, and District’s House Representative, Rachel Burgin, future development of a CHP site in the Valrico, FL area and the possibility of using a portion of the site as a training facility for hands-on alternative energy education.
- Presented a poster entitled “Building the Technician Workforce for Florida’s Energy Future” at the Green Energy Summit in Milwaukee, WI.
- Presented “Developing an Alternative Energy Credit Certificate for Florida” at the IREC 2011 Clean Energy Workforce Education Conference in Saratoga Springs, NY.
- Compiled data from 14 State/Community colleges that replied to the survey of alternative/renewable energy courses offered in Florida. Following up with non-respondents.
- Completed upload onto FLATE’s Wiki of course curriculum EST1830 Introduction to Alternative and Renewable Energy made up of 16 individual instructional “modules”. Course content is made freely available to self-learners, students and educators. Material is available here: <http://flate.pbworks.com/w/page/35326400/EST1830-Introduction-to-Alternative-Energy-Course-Content>

**3. Funds leveraged/new partnerships created**

- a. Please document how you have leveraged your FESC funds by listing any grant proposals/funding received or new collaborations. For each project/collaboration, you should include the following information, if applicable: