



**St. Petersburg College
Seminole Campus – Advisory Dinner Meeting**

**Department of Engineering Technology and Building Arts
Advisory Committee Meeting**

Wednesday, November 2, 2011

Summary

Members Present: Tina Brudnicki, Ken Conforti, Clint Mells, Lou Grilli, Greg Seay, Matt Smith, John DeBella, Bill Venz, and Brad Jenkins.

Members Excused: Mark Snyder, Don Houdek, Marcus Heiler, Dan Bloom, David Reese, Roger Harvey, Joe DiPasqua, Steve Askew, Bill Erdmann, Randy Swanson, Ed Homan, Keith Matthews, Rodney Fischer, Deb Ashman-Jaramillo, Bob Hudson, Ned Stacy, Frank Cain, Bill Erdmann, and Lisa Maciolek.

Guests: Gary Graham, Project Manager, and Ryan Beckman, College Recruiter.

Course Enrollment:

Brad Jenkins provided the enrollment update from this Fall 2011 year, in which the enrollment is down 7.73% in Engineering Technology and 13.93% in Building Arts, as compared to the Fall session in 2010. This decrease is attributed to students taking less courses and the companies draw back on tuition reimbursement. Overall however enrollment remains steady. The Graduation data from the May and July 2011 graduation dates indicated for Engineering Technology, 15 A.S. degrees and 48 Certificates awarded, and for Building Arts, 11 A.S. degrees and 6 Certificate were awarded. (the complete listing of graduates for the session is included with this summary)

Update on Action Items:

The committee received an update on the action items from the April 13, 2011 meeting concerning the Collaborative Center of Emerging Technologies and the contacting of industry for donated industrial equipment. The ET and BA department web pages are still being updated.

Collaborative Center of Emerging Technologies:

The Collaborative Center of Emerging Technologies plans were finalized; however the building will not be ready to move into for January. The Facilities Planning Department will give an updated timetable later this fall for the completion date. Brad also mentioned that he will be looking to have some donated industrial equipment to the Center and will be contacting his industrial partners this fall.

Architectural and Building Arts updates:

The Architectural and Building Arts students are working with the construction company that is building a new three story classroom building here at Clearwater. The students will pick up some valuable practical experience as they follow the construction process. The Architectural students are also designing a new area in the Quad area as part of their experience and will present their design to SPC Board for consideration.

Nanotechnology Survey Activity:

Brad Jenkins led an activity concerning the importance of nanotechnology and the significance of this technology that are now in use in all types of manufacturing, research, and design. There has been much discussion as to how nanotechnology fits into a certificate or 2 year technology degree and what type of skills would be needed in this area.

The committee members formed five groups for this activity. A questionnaire on nanotechnology was provided to each group for their input to the questions. The groups were asked to brainstorm with ideas, comments, thoughts, and new approaches for each of the questions.

Upon completion of this activity the following statements and answers were compiled for each question.

Question 1 – List some industry sectors that utilize nanotechnology:

Materials, electronics (devices and semiconductors), textiles, medical, medical device manufactures, aviation, military, cosmetics ,building industry, agriculture, information technology, pharmaceutical, and communications.

Question 2 – What are some products that utilize nanotechnology and how are they used?

Drug development, biomedical sensors, medical probes, nano connectors, internal organ analysis, , body armor, athletic shoes, MEMS – robotic surgery, non-invasive sensors, water purification, and energy systems.

Question 3 – What are the commonalities of these nanotechnology-based products?

Small, lightweight, strong, nano-based products function in a variety of environments, they have common manufacturing processes, precision manufacturing and engineering, and are high technology products.

Question 4 – What would be the skill requirements for the workforce that makes these products or work in a facility that manufactures them?

Able to understand detailed instruction, follow detailed processes, strong math and science background, knowledge of physics, chemistry, mechanical and electrical, measuring techniques, clean room environment, safety, and regulations knowledge.

Question 5 – What job titles would these workers have?

Assembly technician, test technician, materials engineer, mechanical engineer, lab technician, process technician, engineering technician, manufacturing technician, and basically the same as today, but with micro technology.

There was quite a bit of discussion concerning the usage of nanotechnology, the type of education required, the industry using it, and the special skills required. Most agreed that nanotechnology is a very broad area. This survey data will be used to set up a larger discussion group to highlight particular skills and curriculum for courses in Nanotechnology. The ET department is also working with the University of South Florida (USF) in Tampa concerning any Nanotechnology opportunities.

NSF Grant updates:

The grant opportunities and updates, included the National Science Foundation (NSF) proposal for a National Center with the National Technical Institute for the Deaf (NTID) of the Rochester Institute of Technology (RIT) to offer the curriculum and special education for the deaf and hearing impaired students of Engineering Technology programs and industry through the proposal named DeafTEC. That grant proposal has been funded and the RIT grant team is meeting with SPC later in the month to start the preliminary work on this grant.

SPC submitted the proposal to NSF for the National Center Grant for Medical Devices in October. SPC is the lead college with 8 other partner colleges around the country participating in this \$4.9 million grant proposal. Gary Graham was the program manager for this proposal and provided the leadership for SPC. An NSF review committee will meet in December and based on their recommendation, a decision will be made on the awarding of this grant. The college should know the status sometime by March 2012.

The FLATE activities from this summer included the Engineering Technology Summer Institute on Rapid Prototyping and Design workshop that took place in June. 16 high school and community college instructors participated in this workshop that also included a tour of TSE, a rubber and plastics fabricating company in Pinellas Park.

Other Discussion topics:

Ryan Beckman, the College Representative for Recruitment, is available to talk with employees at companies during their educational days and can set up an information booth at their locations.

Action Items:

The action items of this meeting included:

1. Brad Jenkins will provide the summary of the Nanotechnology Survey to the committee members.
2. Brad Jenkins will send the list of the graduate data and enrollment to all advisory members, in order to provide that information to the members that did not attend this meeting.
3. Brad will be contacting industry this fall/spring to obtain donated industrial equipment.

The meeting was adjourned at 8:35 p.m.

The next meeting will be April 4, 2012, at the Clearwater Campus. The agenda will be sent out prior to the meeting.

Respectfully submitted,

Bradley E. Jenkins
Secretary